CONSIDERATION OF INSEASON ADJUSTMENTS

Management measures for the 2008 groundfish season were set by the Council with the understanding these measures would likely need to be adjusted throughout the biennial period to attain, but not exceed, the optimum yields (OYs). Additionally, the Council set 2009 management measures last June with the intent of considering inseason adjustments to 2009 fisheries if they are needed to stay within specified OYs. The National Marine Fisheries Service (NMFS) has indicated that there will be a delay in implementing 2009 harvest specifications and management measures. Therefore, this agenda item will consider inseason adjustments to ongoing 2008 fisheries and initial 2009 fisheries.

There is a very limited ability to adjust 2008 management measures at this late date and any action to modify 2008 management measures that could be considered would likely fall into the category of emergency closures to keep from exceeding an OY or an acceptable biological catch.

The 2009 harvest specifications and management measures decided in June are anticipated to be implemented by March 1 (the start of period 2). The 2008 OYs and management measures in place at the end of 2008 are the default for 2009 until new regulations are implemented. While the Council cannot implement the new 2009 OYs through an inseason adjustment, initial 2009 management measures can be adjusted if there is adequate rationale to do so.

The Groundfish Management Team (GMT) and the Groundfish Advisory Subpanel (GAP) will meet prior to this agenda item to discuss and recommend inseason adjustments to ongoing 2008 and initial 2009 groundfish fisheries. After hearing this advisory body advice and public comment, the Council should consider preliminary or final inseason adjustments under this agenda item. Agenda Item F.4 is scheduled for Wednesday, November 5, should further analysis or clarification be needed.

Council Action:

Consider information on the status of ongoing 2008 or initial 2009 groundfish fisheries and adopt inseason adjustments as necessary.

Reference Materials:

None.

Agenda Order:

a. Agenda Item Overview — John DeVore
b. Reports and Comments of Agencies and Advisory Bodies
c. Public Comment
d. Council Action: Adopt Preliminary or Final Recommendations for Adjustments to 2008 and Initial 2009 Groundfish Fisheries

PFMC
10/16/08

Agenda Item F.1.b
Supplemental GMT Report
November 2008

THE GROUNDFISH MANAGEMENT TEAM (GMT) REPORT ON CONSIDERATION OF INSEASON ADJUSTMENTS

The Groundfish Management Team (GMT) considered potential adjustments to ongoing 2008 groundfish fisheries and initial 2009 fisheries. The following considerations and recommendations are offered.

Adjustments to 2008 Groundfish Fisheries

Limited entry non-whiting trawl

The GMT received a request to increase cumulative limits for petrale sole north of 40°10' N. lat. The latest quota species monitoring (QSM) report indicates that as of October 25, 2008, petrale sole is tracking behind projections; therefore, the GMT recommends an increase in the petrale sole cumulative limits (in bold font) as follows:

Table 1. 2008 Cumulative Limits under Proposed Option

Area	Period	Sablefish	Longspine	Shortspine	Dover	Otr Flatfish	Petrale	Arrowtooth	Slope rock
North	1	14,000	25,000	12,000	80,000	110,000	40,000	150,000	1,500
Large	2	14,000	25,000	12,000	80,000	110,000	30,000	150,000	1,500
Footrope	3	19,000	25,000	25,000	80,000	110,000	20,000	150,000	1,500
	4	24,000	25,000	25,000	80,000	110,000	20,000	150,000	1,500
	5	24,000	25,000	25,000	80,000	110,000	20,000	150,000	1,500
	6	19,000	25,000	25,000	90,000	110,000	**60,000**	150,000	1,500
North SFFT	1	5,000	3,000	3,000	40,000	70,000	10,000	10,000	1,500
	2	5,000	3,000	3,000	50,000	70,000	18,000	10,000	1,500
	3	5,000	3,000	3,000	40,000	50,000	18,000	10,000	1,500
	4	7,000	3,000	3,000	50,000	80,000	18,000	10,000	1,500
	5	7,000	3,000	3,000	50,000	80,000	16,000	10,000	1,500
	6	7,000	3,000	3,000	50,000	80,000	10,000	10,000	1,500
38 - 40 10	1	14,000	25,000	12,000	80,000	110,000	50,000	10,000	15,000
	2	14,000	25,000	12,000	80,000	110,000	30,000	10,000	15,000
	3	19,000	25,000	25,000	80,000	110,000	30,000	10,000	15,000
	4	24,000	25,000	25,000	80,000	110,000	30,000	10,000	15,000
	5	24,000	25,000	25,000	80,000	110,000	30,000	10,000	15,000
	6	19,000	25,000	25,000	90,000	110,000	**75,000**	10,000	15,000
S 38	1	14,000	25,000	12,000	80,000	110,000	50,000	10,000	55,000
	2	14,000	25,000	12,000	80,000	110,000	30,000	10,000	55,000
	3	19,000	25,000	25,000	80,000	110,000	30,000	10,000	55,000
	4	24,000	25,000	25,000	80,000	110,000	30,000	10,000	55,000
	5	24,000	25,000	25,000	80,000	110,000	30,000	10,000	55,000
	6	19,000	25,000	25,000	90,000	110,000	**75,000**	10,000	55,000

Table 2. Estimated Impacts Resulting from the Proposed 2008 Action

		North	South	Total
Rebuilding Species	Canary	6.0	2.3	8.2
	POP	101.8	0.0	101.8
	Darkblotch	219.1	31.3	250.3
	Widow	2.0	5.5	7.4
	Bocaccio	0.0	9.6	9.6
	Yelloweye	0.5	0.0	0.5
	Cowcod	0.0	0.6	0.6
Target Species	Sablefish	2,023	514	2,537
	Longspine	509	385	894
	Shortspine	849	418	1,268
	Dover	10,181	2,218	12,399
	Arrowt'th	3,487	64	3,551
	Petrale	1,906	250	2,157
	Otr Flat	1,154	537	1,691
	Slope rock	88	223	310

Open Access Sablefish DTL Fishery North of 36° N. latitude
The GMT received a request to increase the daily-trip-limit (DTL) limits in the OA sablefish fishery north of 36° N lat. from 300 lb per day or one landing of 800 lb per week not to exceed 2,400 lb per two months, to 300 lb per day or one landing of 1,000 lb per week, not to exceed 3,000 lb per two months beginning December 1, 2008. Unfortunately, QSM system catch reports by fleet have been delayed. Because of this delay, the GMT has little recent information to distinguish the amount of DTL sablefish catch that is attributed to open access versus limited entry DTL vessels. **Therefore, the GMT does not recommend an increase to DTL limits at this time.**

Sablefish Fisheries South of 36° N. latitude.
The latest QSM indicates that 198 mt of Conception Area sablefish have been caught out of the 211 mt OY. It is the GMT's understanding that the soonest any reductions could be implemented is December 1, 2008.

Option 1: Status Quo limits. The GMT notes that if the Council does not reduce limits the OY could be exceeded by as much as 20 mt based on average landings in November and December during 2003-2007.

Option 2: More restrictive sablefish management measures in the Conception Area beginning December 1, 2008. Discussions with industry indicate non-retention or more restrictive limits in these fisheries are likely to induce a race for fish in November from fishermen who want to take their limits before the fishery is restricted on December 1, 2008. The GMT notes that this will still result in the OY being exceeded and would likely exacerbate the overage relative to status quo.

Sablefish is managed under the 40-10 policy; therefore the OY has been reduced from the ABC. The GMT notes that any of the options will still result in exceeding the OY but there is little risk of exceeding the coastwide ABC.

The GMT recommends status quo limits for these fisheries in the Conception Area.

Adjustments to Initial 2009 Groundfish Fisheries

The GMT understands that there will be a delay in implementing 2009 harvest specifications and management measures until March 1, 2009. Until new specifications are implemented, the default harvest specifications are the 2008 ABCs and OYs. The default management measures for period 1 fisheries are those that were in place at the beginning of 2008, unless the Council adopts adjustments to management measures at this meeting. Any adjustments to 2009 management measures decided under this agenda item need to stay within the 2008 ABCs and OYs until new harvest specifications are implemented.

The GMT considered the most recently available catch information, and evaluated performance of the 2008 fisheries relative to specifications and management measures in place throughout the year. The GMT compared management measures in place during period 1 of 2008 to those recommended by the Council for period 1 of 2009. The GMT considered the following:

Adjustments to Limited Entry Trawl Fisheries
While the trawl RCA configurations for period 1 2008 and proposed for 2009 are identical, cumulative landing limits for some important target species recommended for period 1 in 2009 are different than those specified for period 1 in 2008 (Table 3).

Table 3. A comparison of limited entry trawl cumulative bimonthly landing limits recommended by the Council for period 1 in 2009 to those specified for period 1 in 2008.

Area	Sablefish		Longspine Thornyhead		Shortspine Thornyhead		Dover Sole		Other Flatfish		Petrale Sole		Arrowtooth Flounder	
	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
North of 40°10' N lat. Large Footrope Trawl	18,000	14,000	22,000	25,000	17,000	12,000	110,000	80,000	110,000	No change	25,000	40,000	150,000	No change
North of 40°10' N lat. Selective Flatfish Trawl	5,000	No change	3,000	No change	3,000	No change	40,000	No change	90,000	70,000	16,000	10,000	90,000	10,000
38° - 40°10' N lat.	20,000	14,000	22,000	25,000	17,000	12,000	110,000	80,000	110,000	No change	50,000	No change	10,000	No change
South of 38° N lat.	20,000	14,000	22,000	25,000	17,000	12,000	110,000	80,000	110,000	No change	50,000	No change	10,000	No change

Significant increases in landing limits for other flatfish, petrale sole, and arrowtooth limits using selective flatfish trawl gear were recommended for 2009; however increases cannot be accommodated under the lower 2008 canary OY. The negative impacts to the fleet by leaving in status quo management measures will be mitigated by the fact that trawling on the shelf is rare during the winter months. Therefore, the GMT does not recommend any period 1 adjustments to limits for the northern selective flatfish trawl strategy.

The GMT also does not recommend any changes to the sablefish cumulative landing limits for trawl fisheries south of 38° N. latitude since an increased sablefish harvest in the Conception Area cannot be accommodated under the 2008 OY. The GMT recommends dividing the cumulative limits north and south of 38° N latitude because available analyses were stratified at this latitude.

The GMT recommends an increase in the 2009 period 1 limited entry trawl cumulative landing limits of sablefish north of 38° N. latitude for all trawl strategies (except the northern selective flatfish trawl gear). The GMT-recommended sablefish limit increases are from 14,000 lbs/2 months to 18,000 lbs/2 months north of 40°10' N. latitude using large footrope trawls and from 14,000 lbs/2 months to 20,000 lbs/2 months between 40°10' N. latitude and 38° N latitude. Likewise, the GMT recommends an increase in the 2009 period 1 coastwide shortspine thornyhead limits from 12,000 lbs/2 months to 17,000 lbs/2 months for all trawl strategies (except the northern selective flatfish trawl gear), since 2008 limits are projected to result in catches below the specified shortspine thornyhead OYs. The GMT also recommends an increase in the Dover sole limits from 80,000 lbs/2 months to 110,000 lbs/2 months for all coastwide trawl strategies except the northern selective flatfish trawl strategy, since 2008 limits are projected to result in catches below the specified Dover sole OY. The GMT recommends reducing the 2009 period 1 cumulative landing limit of petrale sole north of 40°10' N. lat. using large and small footrope gear from 40,000 lbs/2 months to 25,000 lbs/2 months. This reduction is needed to avoid the market glut observed in period 1 of 2008 and to minimize the risk of more severe reductions of the petrale sole limits later in the year.

Adjustments to LE and OA Fixed Gear Fisheries

The only difference in period 1 management measures for the limited entry and open access fixed gear sectors in 2008 and 2009 are the non-trawl RCA configuration and Conception Area limits in the DTL fisheries.

Although the 2008 yelloweye rockfish OY is 20 mt, the status quo rebuilding plan adopted under FMP Amendment 16-4 specifies a harvest rate ramp-down strategy that would decrease the OY to 17 mt in 2009. Limited entry and open access fixed gear fisheries have the biggest commercial yelloweye impacts. Adjusting the configuration of the non-trawl RCA represents the most effective way to reduce those impacts and to minimize the risk of more severe restrictions later in 2009. Observer data from the West Coast Groundfish Observer Program analyzed during the 2009-10 specifications process indicated higher bycatch rates of yelloweye rockfish in limited entry and open access fixed gear fisheries in some offshore and nearshore areas north of 40°10' N. latitude. The Council recommended extending the non-trawl RCA in some of these areas to reduce yelloweye rockfish impacts. **The GMT recommends extending the seaward boundary of the non-trawl RCA between Cape Blanco and Cascade Head to 125 fm and the shoreward boundary of the non-trawl RCA between 40°10' N. latitude and Cape Blanco to 20 fm in period 1 of 2009.**

The higher Conception Area DTL limits recommended through the 2009-10 specifications process for period 1 next year were in response to the higher sablefish OY recommended for 2009. **The GMT does not recommend a period 1 DTL increase given that the 2008 Conception Area sablefish OY cannot support higher limits.**

The GMT received a request from the GAP to increase limits in the OA sablefish DTL fishery N of 36˚ N latitude from 300 lb per day or one landing of 800 lb per week, not to exceed 2,400 lb per two months, to 300 lb per day or one landing of 1,000 lb per week, not to exceed 3,000 lb per two months. **The GMT does not recommend an increase in period 1 DTL limits because QSM tracking by fleet has not been updated since June 2008.**

Adjustments to Recreational Fisheries

All of the recommended recreational seasons for 2009 are the same as the status quo January and February seasons; therefore, no adjustments to January and February recreational seasons are recommended. The only recreational management measure recommended for 2009 implementation in January and February different than status quo is a 3-lingcod daily bag limit in Oregon. Since there is very little observed effort in the January and February Oregon recreational fishery, **the GMT does not recommend an adjustment to the status quo 2-lingcod daily bag limit for January and February next year.**

GMT Recommendations:

2008 Recommendations

1. Increase petrale sole limits north of 40°10’ N lat. as outlined in Table 1 beginning December 1, 2008.
2. Maintain status quo limits for the sablefish fisheries in the Conception Area.

2009 Recommendations

1. Increase the 2009 period 1 limited entry trawl cumulative landing limits of sablefish from 14,000 lbs/2 months to 18,000 lbs/2 months north of 40°10' N latitude using large footrope trawls and from 14,000 lbs/2 months to 20,000 lbs/2 months between 40°10' N latitude and 38° N latitude south for all trawl gears;
2. Increase the 2009 period 1 coastwide shortspine thornyhead limits from 12,000 lbs/2 months to 17,000 lbs/2 months for all strategies except the northern selective flatfish trawl strategy;
3. Increase the 2009 period 1 limited entry trawl cumulative landing limit of Dover sole in the south and in the north using large footrope trawls from 80,000 lbs/2 months to 110,000 lbs/2 months;
4. Reduce the 2009 period 1 limited entry trawl cumulative landing limit north of 40°10’ N lat. of petrale sole using large and small footrope trawls from 40,000 lbs/2 months to 25,000 lbs/2 months.
5. Extend the seaward boundary of the non-trawl RCA between Cape Blanco and Cascade Head to 125 fm in period 1 next year;
6. Extend the shoreward boundary of the non-trawl RCA between 40°10' N latitude and Cape Blanco to 20 fm in period 1 next year.

2008 Projected mortality impacts (mt) of overfished groundfish species under proposed inseason adjustments.

11/02/08

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	**9.6**	**8.2**	0.6	**250.3**	**101.8**	**7.4**	0.5
Limited Entry Trawl- Whiting							
At-sea whiting motherships a/					22.1		0.0
At-sea whiting cat-proc a/		6.7		25.0		287.0	0.0
Shoreside whiting a/					0.3		0.0
Tribal whiting		1.3		0.0	0.6	6.1	0.0
Tribal							
Midwater Trawl		1.8		0.0	0.0	40.0	0.0
Bottom Trawl		0.8		0.0	3.7	0.0	0.0
Troll		0.5		0.0	0.0		0.0
Fixed gear		0.3		0.0	0.0	0.0	2.3
Limited Entry Fixed Gear		0.8					1.8
Sablefish	13.4		0.0	0.6	0.3	0.9	
Non-Sablefish			0.1	0.4		0.5	
Open Access: Directed Groundfish							
Sablefish DTL	0.0	0.2		0.2	0.1	0.0	0.3
Nearshore (North of 40°10' N. lat.)	0.0	2.5	0.1	0.0	0.0	0.5	2.2
Nearshore (South of 40°10' N. lat.)	0.1			0.0	0.0		
Other	10.6	1.0		0.0	0.0	0.0	0.1
Open Access: Incidental Groundfish							
CA Halibut	0.1	0.0		0.0	0.0		
CA Gillnet c/	0.5			0.0	0.0	0.0	
CA Sheephead c/				0.0	0.0	0.0	0.0
CPS- wetfish c/	0.3						
CPS- squid d/							
Dungeness crab c/	0.0		0.0	0.0	0.0		
HMS b/		0.0	0.0	0.0			
Pacific Halibut c/	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pink shrimp	0.1	0.1	0.0	0.0	0.0	0.1	0.1
Ridgeback prawn	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Salmon troll	0.2	0.8	0.0	0.0	0.0	0.3	0.2
Sea Cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot Prawn (trap)							
Recreational Groundfish e/							
WA		1.2					2.8
OR		4.3				1.4	3.3
CA	**43.0**	**7.0**	0.2			**7.2**	2.1
EFPs	7.7	0.1	0.2	0.6		2.7	0.1
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/							
	2.0	2.9	0.2	2.0	2.0	1.1	3.0
TOTAL	87.7	40.5	1.4	279.2	130.9	355.2	18.9
2008 OY	218	44.0	4.0	330	150	368	20
Difference	130.3	3.5	2.7	50.9	19.1	12.8	1.1
Percent of OY	40.2%	92.0%	33.8%	84.6%	87.3%	96.5%	94.3%
Key		= either not applicable; trace amount (<0.01 mt); or not reported in available data					

a/ Non-tribal whiting numbers reflect bycatch limits for the non-tribal whiting sectors.

b/ South of 40°10' N. lat.

c/ Mortality estimates are not hard numbers; based on the GMT's best professional judgment.

d/ Bycatch amounts by species unavailable, but bocaccio occurred in 0.1% of all port samples and other rockfish in another 0.1% of all port samples (and squid fisheries usually land their whole catch).

e/ Values in scorecard represent projected impacts for WA and OR. However, harvest guidelines for 2008 are as follows: canary in WA and OR combined = 8.2 mt; yelloweye in WA and OR combined = 6.8 mt.

f/ Research projections updated November 2008.

DRAFT Table 3 (North) to Part 660, Subpart G -- 2009 Trip Limits for Limited Entry Trawl Gear North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
	Rockfish Conservation Area (RCA)[6/]:	
1	North of 48°10.00' N. lat.	shore - modified 200 fm [7/]
2	48°10.00' N. lat. - 46°38.17' N. lat.	75 fm - modified 200 fm [7/]
3	46°38.17' N. lat. - 46°16.00 N. lat.	
4	46°16.00 N. lat. - 45°46.00' N. lat.	
5	45°46.00' N. lat. - 43°20.83' N. lat.	
6	43°20.83' N. lat. - 42°40.50' N. lat.	shore - modified 200 fm [7/]
7	42°40.50' N. lat. -40°10.00' N. lat.	75 fm - modified 200 fm [7/]
8	**Minor slope rockfish[2/] & Darkblotched rockfish**	1,500 lb/ 2 months
9	**Pacific ocean perch**	1,500 lb/ 2 months
10	**DTS complex**	
11	Sablefish	
12	large & small footrope gear	**18,000 lb/ 2 months**
13	selective flatfish trawl gear	5,000 lb/ 2 months
14	multiple bottom trawl gear [8/]	5,000 lb/ 2 months
15	Longspine thornyhead	
16	large & small footrope gear	25,000 lb/ 2 months
17	selective flatfish trawl gear	3,000 lb/ 2 months
18	multiple bottom trawl gear [8/]	3,000 lb/ 2 months
19	Shortspine thornyhead	
20	large & small footrope gear	**17,000 lb/ 2 months**
21	selective flatfish trawl gear	3,000 lb/ 2 months
22	multiple bottom trawl gear [8/]	3,000 lb/ 2 months
23	Dover sole	
24	large & small footrope gear	**110,000 lb/ 2 months**
25	selective flatfish trawl gear	40,000 lb/ 2 months
26	multiple bottom trawl gear [8/]	40,000 lb/ 2 months

TABLE 3 (North)

Table 3 (North). Continued

27	**Whiting**	
28	midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.373 for season and trip limit details. -- After the primary whiting season: CLOSED.
29	large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.
30	**Flatfish** (except Dover sole)	
31	Arrowtooth flounder	
32	large & small footrope gear	150,000 lb/ 2 months
33	selective flatfish trawl gear	10,000 lb/ 2 months
34	multiple bottom trawl gear [8/]	10,000 lb/ 2 months
35	Other flatfish [3/], English sole, starry flounder, & Petrale sole	
36	large & small footrope gear for Other flatfish[3/], English sole, & starry flounder	110,000 lb/ 2 months
37	large & small footrope gear for Petrale sole	**25,000 lb/ 2 months**
38	selective flatfish trawl gear for Other flatfish[3/], English sole, & starry flounder	70,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole.
39	selective flatfish trawl gear for Petrale sole	
40	multiple bottom trawl gear [8/]	70,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole.
41	**Minor shelf rockfish[1/], Shortbelly, Widow & Yelloweye rockfish**	
42	midwater trawl for Widow rockfish	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting, combined widow and yellowtail limit of 500 lb/ trip, cumulative widow limit of 1,500 lb/ month. Mid-water trawl permitted in the RCA. See §660.373 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.
43	large & small footrope gear	300 lb/ 2 months
44	selective flatfish trawl gear	300 lb/ month
45	multiple bottom trawl gear [8/]	300 lb/ month

TABLE 3 (North) con't

Table 3 (North). Continued

46	**Canary rockfish**		TABLE 3 (North) con't
47	large & small footrope gear	CLOSED	
48	selective flatfish trawl gear	100 lb/ month	
49	multiple bottom trawl gear [8/]	CLOSED	
50	**Yellowtail**		
51	midwater trawl	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting: combined widow and yellowtail limit of 500 lb/ trip, cumulative yellowtail limit of 2,000 lb/ month. Mid-water trawl permitted in the RCA. See §660.373 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.	
52	large & small footrope gear	300 lb/ 2 months	
53	selective flatfish trawl gear	2,000 lb/ 2 months	
54	multiple bottom trawl gear [8/]	300 lb/ 2 months	
55	**Minor nearshore rockfish & Black rockfish**		
56	large & small footrope gear	CLOSED	
57	selective flatfish trawl gear	300 lb/ month	
58	multiple bottom trawl gear [8/]	CLOSED	
59	**Lingcod[4/]**		
60	large & small footrope gear	1,200 lb/ 2 months	
61	selective flatfish trawl gear		
62	multiple bottom trawl gear [8/]		
63	**Pacific cod**	30,000 lb/ 2 months	
64	**Spiny dogfish**	200,000 lb/ 2 months	
65	**Other Fish [5/]**	Not limited	

1/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish.
2/ Splitnose rockfish is included in the trip limits for minor slope rockfish.
3/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex
4/ The minimum size limit for lingcod is 24 inches (61 cm) total length.
5/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."
6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth but specifically defined by lat/long coordinates set out at §§ 660.391-660.394.
7/ The "modified 200 fm" line is modified to exclude certain petrale sole areas from the RCA.
8/ If a vessel has both selective flatfish gear and large or small footrope gear on board during a cumulative limit perio simultaneously or successively), the most restrictive cumulative limit for any gear on board during the cumulative for the entire cumulative limit period.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

DRAFT Table 3 (South) to Part 660, Subpart G -- 2009 Trip Limits for Limited Entry Trawl Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
	Rockfish Conservation Area (RCA)[6/]:	
1	South of 40°10' N. lat.	100 fm - 150 fm [7/]
2	**Minor slope rockfish[2/] & Darkblotched rockfish**	
3	40°10' - 38° N. lat.	15,000 lb/ 2 months
4	South of 38° N. lat.	55,000 lb/ 2 months
5	**Splitnose**	
6	40°10' - 38° N. lat.	15,000 lb/ 2 months
7	South of 38° N. lat.	40,000 lb/ 2 months
8	**DTS complex**	
9	Sablefish	
	40°10' - 38° N. lat.	**20,000 lb/ 2 months**
	South of 38° N. lat.	14,000 lb/ 2 months
10	Longspine thornyhead	25,000 lb/ 2 months
11	Shortspine thornyhead	**17,000 lb/ 2 months**
12	Dover sole	**110,000 lb/ 2 months**
13	**Flatfish** (except Dover sole)	
14	Other flatfish[3/], English sole, & starry flounder	110,000 lb/ 2 months
15	Petrale sole	50,000 lb/ 2 months
16	Arrowtooth flounder	10,000 lb/ 2 months
17	**Whiting**	
18	midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.373 for season and trip limit details. -- After
19	large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip

TABLE 3 (South)

Table 3 (South). Continued

20	**Minor shelf rockfish[1/], Chilipepper, Shortbelly, Widow, & Yelloweye rockfish**		TABLE 3 (South) con't
21	large footrope or midwater trawl for Minor shelf rockfish & Shortbelly	300 lb/ month	
22	large footrope or midwater trawl for Chilipepper	2,000 lb/ 2 months	
23	large footrope or midwater trawl for Widow & Yelloweye	CLOSED	
24	small footrope trawl for Minor Shelf, Shortbelly, Widow & Yelloweye	300 lb/ month	
25	small footrope trawl for Chilipepper	2,000 lb/ 2 months	
26	**Bocaccio**		
27	large footrope or midwater trawl	300 lb/ 2 months	
28	small footrope trawl	CLOSED	
29	**Canary rockfish**		
30	large footrope or midwater trawl	CLOSED	
31	small footrope trawl	100 lb/ month	
32	**Cowcod**	CLOSED	
33	**Minor nearshore rockfish & Black rockfish**		
34	large footrope or midwater trawl	CLOSED	
35	small footrope trawl	300 lb/ month	
36	**Lingcod[4/]**		
37	large footrope or midwater trawl	1,200 lb/ 2 months	
38	small footrope trawl		
39	**Pacific cod**	30,000 lb/ 2 months	
40	**Spiny dogfish**	200,000 lb/ 2 months	
41	**Other Fish[5/] & Cabezon**	Not limited	

1/ Yellowtail is included in the trip limits for minor shelf rockfish.
2/ POP is included in the trip limits for minor slope rockfish
3/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sol
4/ The minimum size limit for lingcod is 24 inches (61 cm) total length.
5/ Other fish are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling.
6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394.
7/ South of 34°27' N. lat., the RCA is 100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands.
To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram

DRAFT Table 4 (North) to Part 660, Subpart G -- 2009 Trip Limits for Limited Entry Fixed Gear North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
Rockfish Conservation Area (RCA)[6/]:		
1	North of 46°16' N. lat.	shoreline - 100 fm
	45°03.83' N. lat. - 42°50' N. lat.	30 fm - **125 fm**
2	**42°50' N. lat.** - 40°10' N. lat.	**20 fm** - 100 fm
3	**Minor slope rockfish [2/] & Darkblotched rockfish**	4,000 lb/ 2 months
4	**Pacific ocean perch**	1,800 lb/ 2 months
5	**Sablefish**	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months
6	**Longspine thornyhead**	10,000 lb/ 2 months
7	**Shortspine thornyhead**	2,000 lb/ 2 months
8	**Dover sole**	5,000 lb/ month South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.
9	**Arrowtooth flounder**	
10	**Petrale sole**	
11	**English sole**	
12	**Starry flounder**	
13	**Other flatfish[1/]**	
14	**Whiting**	10,000 lb/ trip
15	**Minor shelf rockfish[2/], Shortbelly, Widow, & Yellowtail rockfish**	200 lb/ month
16	**Canary rockfish**	CLOSED
17	**Yelloweye rockfish**	CLOSED
18	**Minor nearshore rockfish & Black rockfish**	
19	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish [3/]
20	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish [3/]
21	**Lingcod[4/]**	CLOSED
22	**Pacific cod**	1,000 lb/ 2 months
23	**Spiny dogfish**	200,000 lb/ 2 months
24	**Other fish[5/]**	Not limited

TABLE 4 (North)

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole,
2/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish and splitnose rockfish is inclu trip limits for minor slope rockfish.
3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbette there is an additional limit of 100 lb or 30 percent by weight of all fish on board, whichever is greater, per vessel, p
4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total le
5/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."
6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

DRAFT Table 4 (South) to Part 660, Subpart G -- 2009 Trip Limits for Limited Entry Fixed Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
	Rockfish Conservation Area (RCA)[5/]:	
1	40°10' - 34°27' N. lat.	30 fm - 150 fm
2	South of 34°27' N. lat.	60 fm - 150 fm (also applies around islands)
3	**Minor slope rockfish[2/] & Darkblotched rockfish**	40,000 lb/ 2 months
4	**Splitnose**	40,000 lb/ 2 months
5	**Sablefish**	
6	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months
7	South of 36° N. lat.	350 lb/ day, or 1 landing per week of up to 1,050 lb
8	**Longspine thornyhead**	10,000 lb / 2 months
9	**Shortspine thornyhead**	
10	40°10' - 34°27' N. lat.	2,000 lb/ 2 months
11	South of 34°27' N. lat.	3,000 lb/ 2 months
12	**Dover sole**	5,000 lb/ month South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.
13	**Arrowtooth flounder**	
14	**Petrale sole**	
15	**English sole**	
16	**Starry flounder**	
17	**Other flatfish[1/]**	
18	**Whiting**	10,000 lb/ trip
19	**Minor shelf rockfish[2/], Shortbelly, Widow rockfish, and Bocaccio (including Chilipepper between**	
20	40°10' - 34°27' N. lat.	Minor shelf rockfish, shortbelly, widow rockfish, bocaccio & chilipepper: 2,500 lb/ 2 months, of which no more than 500 lb/ 2 months may be any species other than chilipepper.
21	South of 34°27' N. lat.	3,000 lb/ 2 months
22	**Chilipepper rockfish**	
23	40°10' - 34°27' N. lat.	Chilipepper included under minor shelf rockfish, shortbelly, widow and bocaccio limits - - See above
24	South of 34°27' N. lat.	2,000 lb/ 2 months, this opportunity only available seaward of the nontrawl RCA
25	**Canary rockfish**	CLOSED
26	**Yelloweye rockfish**	CLOSED
27	**Cowcod**	CLOSED
28	**Bocaccio**	
29	40°10' - 34°27' N. lat.	Bocaccio included under Minor shelf rockfish, shortbelly, widow & chilipepper limits -- See above
30	South of 34°27' N. lat.	300 lb/ 2 months

TABLE 4 (South)

Table 4 (South). Continued

31	**Minor nearshore rockfish & Black rockfish**		TABLE 4 (South)
32	Shallow nearshore	600 lb/ 2 months	
33	Deeper nearshore		
34	40°10' - 34°27' N. lat.	700 lb/ 2 months	
35	South of 34°27' N. lat.	500 lb/ 2 months	
36	California scorpionfish	600 lb/ 2 months	
37	**Lingcod[3/]**	CLOSED	
38	**Pacific cod**	1,000 lb/ 2 months	
39	**Spiny dogfish**	200,000 lb/ 2 months	
40	**Other fish[4/] & Cabezon**	Not limited	

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole,
2/ POP is included in the trip limits for minor slope rockfish. Yellowtail is included in the trip limits for minor shelf rockfi
3/ The minimum size limit for lingcod is 24 inches (61 cm) total length.
4/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling.
5/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours lat/long coordinates set out at §§ 660.391-660.394, except that the 20-fm depth contour off California is defined b and not coordinates.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

DRAFT Table 5 (North) to Part 660, Subpart G -- 2009 Trip Limits for Open Access Gears North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
	Rockfish Conservation Area (RCA):	
1	North of 46°16' N. lat.	shoreline - 100 fm
2	**45°03.83' N. lat. - 42°50' N. lat.**	30 fm - **125 fm**
3	**42°50' N. lat.** - 40°10' N. lat.	**20 fm** - 100 fm
3	**Minor slope rockfish[1/] & Darkblotched rockfish**	Per trip, no more than 25% of weight of the sablefish landed
4	**Pacific ocean perch**	100 lb/ month
5	**Sablefish**	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months
6	**Thornyheads**	CLOSED
7	**Dover sole**	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.
8	**Arrowtooth flounder**	
9	**Petrale sole**	
10	**English sole**	
11	**Starry flounder**	
12	**Other flatfish[2/]**	
13	**Whiting**	300 lb/ month
14	**Minor shelf rockfish[1/], Shortbelly, Widow, & Yellowtail rockfish**	200 lb/ month
15	**Canary rockfish**	CLOSED
16	**Yelloweye rockfish**	CLOSED
17	**Minor nearshore rockfish & Black rockfish**	
18	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish [3/]
19	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish [3/]
20	**Lingcod[4/]**	CLOSED
21	**Pacific cod**	1,000 lb/ 2 months
22	**Spiny dogfish**	200,000 lb/ 2 months
23	**Other Fish[5/]**	Not limited

TABLE 5 (North)

Table 5 (North). Continued

TABLE 5 (North) con't

24	**PINK SHRIMP NON-GROUNDFISH TRAWL** *(not subject to RCAs)*	
25	North	**Effective April 1 - October 31:** Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/month (minimum 24 inch size limit); sablefish 2,000 lb/month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of these species count toward the per day and per trip groundfish limits and do not have
26	**SALMON TROLL**	
27	North	Salmon trollers may retain and land up to 1 lb of yellowtail rockfish for every 2 lbs of salmon landed, with a cumulative limit of 200 lb/month, both within and outside of the RCA. This limit is within the 200 lb per month combined limit for minor shelf rockfish, widow rockfish and yellowtail rockfish, and not in addition to that limit. All groundfish species are subject to the open access limits, seasons and RCA

1/ Bocaccio, chilipepper and cowcod rockfishes are included in the trip limits for minor shelf rockfish. Splitnose rockfish is included in the trip limits for minor slope rockfish.

2/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole,

3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°: there is an additional limit of 100 lbs or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing

4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length south

5/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."

6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram

DRAFT Table 5 (South) to Part 660, Subpart G -- 2009 Trip Limits for Open Access Gears South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

		JAN-FEB
	Rockfish Conservation Area (RCA)[5/]:	
1	40°10' - 34°27' N. lat.	30 fm - 150 fm
2	South of 34°27' N. lat.	60 fm - 150 fm (also applies around islands)
3	**Minor slope rockfish[1/] & Darkblotched rockfish**	
4	40°10' - 38° N. lat.	Per trip, no more than 25% of weight of the sablefish landed
5	South of 38° N. lat.	10,000 lb/ 2 months
6	**Splitnose**	200 lb/ month
7	**Sablefish**	
8	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months
9	South of 36° N. lat.	300 lb/ day, or 1 landing per week of up to 700 lb
10	**Thornyheads**	
11	40°10' - 34°27' N. lat.	CLOSED
12	South of 34°27' N. lat.	50 lb/ day, no more than 1,000 lb/ 2 months
13	**Dover sole**	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.
14	**Arrowtooth flounder**	
15	**Petrale sole**	
16	**English sole**	
17	**Starry flounder**	
18	**Other flatfish[2/]**	
19	**Whiting**	300 lb/ month
20	**Minor shelf rockfish[1/], Shortbelly, Widow & Chilipepper rockfish**	
21	40°10' - 34°27' N. lat.	300 lb/ 2 months
22	South of 34°27' N. lat.	750 lb/ 2 months
23	**Canary rockfish**	CLOSED
24	**Yelloweye rockfish**	CLOSED
25	**Cowcod**	CLOSED
26	**Bocaccio**	
27	40°10' - 34°27' N. lat.	200 lb/ 2 months
28	South of 34°27' N. lat.	100 lb/ 2 months

TABLE 5 (South)

Table 5 (South). Continued

29	**Minor nearshore rockfish & Black rockfish**	
30	Shallow nearshore	600 lb/ 2 months
31	Deeper nearshore	
32	40°10' - 34°27' N. lat.	700 lb/ 2 months
33	South of 34°27' N. lat.	500 lb/ 2 months
34	California scorpionfish	600 lb/ 2 months
35	**Lingcod[3/]**	CLOSED
36	**Pacific cod**	1,000 lb/ 2 months
37	**Spiny dogfish**	200,000 lb/ 2 months
38	**Other Fish[4/] & Cabezon**	Not limited
39	**RIDGEBACK PRAWN AND, SOUTH OF 38°57.50' N. LAT., CA HALIBUT AND SEA CUCUMBER NON-GROUNDFISH TRAWL**	
40	**NON-GROUNDFISH TRAWL Rockfish Conservation Area (RCA) for CA Halibut, Sea Cucumber & Ridgeba**	
41	40°10' - 38° N. lat.	100 fm - modified 200 fm [6/]
42	38° - 34°27' N. lat.	100 fm - 150 fm
43	South of 34°27' N. lat.	100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands
44		Groundfish: 300 lb/trip. Trip limits in this table also apply and are counted toward the 300 lb groundfish per trip limit. The amount of groundfish landed may not exceed the amount of the target species landed, except that the amount of spiny dogfish landed may exceed the amount of target species landed. Spiny dogfish are limited by the 300 lb/trip overall groundfish limit. The daily trip limits for sablefish coastwide and thornyheads south of Pt. Conception and the overall groundfish "per trip" limit may not be multiplied by the number of days of the trip. Vessels participating in the California halibut fishery south of 38°57.50' N. lat. are allowed to (1) land up to 100 lb/day of groundfish without the ratio requirement, provided that at least one California halibut is landed and (2) land up to 3,000 lb/month of flatfish, no more than 300 lb of which may be species other than Pacific
45	**PINK SHRIMP NON-GROUNDFISH TRAWL GEAR** *(not subject to RCAs)*	
46	South	**Effective April 1 - October 31:** Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/ month (minimum 24 inch size limit); sablefish 2,000 lb/ month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of these species count toward the per day and per trip groundfish limits and do not have

TABLE 5 (South) con't

1/ Yellowtail rockfish is included in the trip limits for minor shelf rockfish and POP is included in the trip limits for minor slope rockf
2/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole,
3/ The size limit for lingcod is 24 inches (61 cm) total length.
4/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling.
5/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specific lat/long coordinates set out at §§ 660.391-660.394, except that the 20-fm depth contour off California is defined by the depth and not coordinates.
6/ The "modified 200 fm" line is modified to exclude certain petrale sole areas from the RCA.
To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram

Agenda Item F.2
Situation Summary
November 2008

NATIONAL MARINE FISHERIES SERVICE REPORT

National Marine Fisheries Service (NMFS) Northwest Region will briefly report on recent regulatory developments relevant to groundfish fisheries and issues of interest to the Pacific Fishery Management Council (Council).

NMFS Northwest Fisheries Science Center (NWFSC) will also briefly report on groundfish-related science and research activities.

Council Task:

Discussion.

Reference Materials:

1. Agenda Item F.2.a, Attachment 1: *Federal Register* Notices Published Since the Last Council Meeting.

Agenda Order:

a. Regulatory Activities	Frank Lockhart
b. Science Center Activities	Elizabeth Clarke
c. Reports and Comments of Advisory Bodies	
d. Public Comment	
e. Council Discussion	

PFMC
10/16/08

Agenda Item F.2.a
Attachment 1
November 2008

***FEDERAL REGISTER* NOTICES**

Groundfish and Halibut Notices
8/22/2008 through October 15, 2008

Documents available at NMFS Sustainable Fisheries Groundfish Web Site
http://www.nwr.noaa.gov/1sustfsh/gdfsh01.htm

73 FR 53763. Pacific Coast Groundfish Fishery; End of the 2008 Pacific Whiting Primary Season for the Catcher-processor, Mothership, and Shore-based Sectors - 9/17/08

73 FR 58499. Pacific Coast Groundfish Fishery; Biennial Specifications and Management Measures; Inseason Adjustments; Correction. NMFS announces correction to Federal regulations for the West Coast Groundfish Fishery. The action corrects trip limits for vessels using multiple bottom trawl gears – 10/7/08

73 FR 60642. Pacific Coast Groundfish Fishery; Biennial Specifications and Management Measures; Inseason Adjustments. This final rule announces inseason changes to management measures in the Pacific Coast Groundfish fisheries including trip limit adjustments; the reopening of the Pacific Whiting primary seasons for the Catcher-processor, Mothership, and Shore-based Sectors – 10/14/08

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Fisheries Science Center
2725 Montlake Boulevard East
Seattle, WA 98112-2097
Southwest Fisheries Science Center
8604 La Jolla Shores Drive
La Jolla, CA 92037-1508

October 28, 2008

Donald O. McIsaac, Ph.D.
Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Dr. McIsaac,

At its September meeting, under agenda item I.5, the Pacific Council adopted a list of groundfish stock assessments for the coming year, and in so doing dropped a proposed STAR Panel that would have assessed spiny dogfish and either bronzespotted or greenspotted rockfish. At the time the decision was made, a lack of data and workload issues were cited as the reasons for dropping these assessments. Although we agree that it is the Council's prerogative to establish a calendar for groundfish stock assessments, we are concerned by how this decision was reached. For example, if workload was an issue, it was surprising that no discussion about workload was entertained during meeting on assessment priorities. What concerns us the most is that a deliberate lengthy process to establish assessment priorities through consultation with various Council advisory bodies and the NMFS Science Centers was set aside by the Council in reaching this decision.

We are committed to the Council action that established a STAR panel schedule for groundfish assessments in 2009. However, the science priorities of the Northwest and Southwest Fisheries Science Centers can extend beyond the Council's top priorities. Therefore, at times we may find it necessary to bring forward some unscheduled but important science that would be of significant interest to the Council. In this specific instance, NMFS may find it necessary to bring forward new science about dogfish, bronzespotted, or greenspotted rockfish that may be of use to the Council. In such an instance, we will be sure to work with the Council so it is informed of our findings.

Looking to the future, we anticipate an ongoing cooperative and collaborative approach to establishing research priorities with the Council. We are very supportive of the

assessment prioritization process used in 2009 and hope that this process will be the approach that we all can rely on for setting priorities.

Sincerely,

Usha Varanasi

Usha Varanasi, Ph.D.
Science and Research Director
Northwest Fisheries Science Center

Norm Bartoo

Norm Bartoo, Ph.D.
Acting Science and Research Director
Southwest Fisheries Science Center

cc: John Stein
Steve Ralston
Churchill Grimes
Elizabeth Clarke

ENFORCEMENT CONSULTANT REPORT ON NATIONAL MARINE FISHERIES SERVICE REPORT

2008 Shoreside Pacific Whiting Primary Season Catch Monitoring Program.

Upon review of in-season incident reports, daily logs and interviews with the catch monitors, approximately 40 potential incidents were identified during the 19 day season.
Of these incidents,

- 3 were reported in-season via Incident Reports
- 6 were reported in-season via verbal notification
- 1 was reported to a local government by the first receiver
- 30 were identified by the interviewing agent during the debriefing process

Summary of Incidents

# Incidents	Corrected In-season	Reported In-season	Incident Type
2	1	1	Inadequate accommodations
8	N/A	4	Fail to notify of delivery
5	1		Prohibited species mishandling
4	2		Failure to sort catch
16	9	2	Fail to accurately weigh catch
1	0		Transport before weighing
2	1	1	Intimidation
1	1	1	Unlawful Discharge into bay
1	1	1	Fail to provide access to facsimile
40	16	10	Totals

The above summary includes all situations that are violations of Federal or state fishery regulations or may have resulted in violations if the catch monitor was not present and had not intervened. The incidents corrected in-season are situations that may have resulted in violations of the Exempted Fishing Permit but due to a catch monitor's actions were corrected by the first receiver.

A total of nine investigations will be generated as a result of the catch monitors' findings (one on each plant that was identified as having issues). We anticipate one investigation will be forwarded to General Counsel for Enforcement Litigation for consideration. Another being investigated will most likely result in a Written Warning. The remaining investigations are currently being followed up by Office of Law Enforcement agents. If law enforcement officers or agents find that the plants corrected the incidents during the re-opener, we anticipate the incidents will be settled through outreach, education, and verbal warnings.

Several steps have been taken to ensure that all enforcement entities are engaged in training of observers and monitoring of the fishery. The EC anticipates that the program will improve, to

include the amount of total incidents discovered by observers matching more closely with those reported to law enforcement in-season, and timely reporting. In conclusion, our initial assessment of the shoreside observer program is that it has merit and should be continued and expanded.

PFMC
11/03/08

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON THE NATIONAL MARINE FISHERIES SERVICE GROUNDFISH REPORT

At its September meeting, the Pacific Fishery Management Council (Council) dropped one of the Stock Assessment Review (STAR) Panels that had been planned for 2009. The April STAR Panel that had been scheduled to review stock assessments of spiny dogfish and either bronzespotted rockfish or greenspotted rockfish was cancelled due to concerns about data availability and Council workload. The Scientific and Statistical Committee's (SSC's) statement on this agenda item recommended that greenspotted rockfish was more likely to produce results useful to Council decision-making than bronzespotted rockfish.

At the start of its November meeting, the SSC was briefed by Dr. Donald McIsaac about these events and a discussion ensued among members of the SSC, who felt it important to comment on the situation. The SSC learned that the National Marine Fisheries Service is likely to pursue work on some or all of these stocks, even if they are not reviewed by one of the STAR Panels sponsored by the Council next year (Agenda Item F.2.b, Supplemental NMFS Report). Notably, greenspotted rockfish seems to be a good candidate for developing an analytical approach for data-poor species and significant time has already been devoted to that effort. Members of the SSC also noted that a considerable amount of data is available for a spiny dogfish assessment.

The accumulation of more and better information about groundfish stock status is desirable and would be beneficial to Council management. In particular, the SSC supports assessing new species, especially data-poor stocks, as a priority activity and encourages efforts to assess the stocks that were dropped. Moreover, the SSC is capable and prepared to assist in reviewing any results that may develop. Such a review could potentially occur in at least two different ways: by assignment to an SSC groundfish subcommittee meeting (e.g., the update or mop-up panels) or by a process akin to that which transpired for shortbelly rockfish, whereby a review that strictly adhered to the groundfish terms of reference was conducted by a panel external to the Council.

PFMC
11/03/08

State of Washington
Department of Fish and Wildlife

Mailing Address: 600 Capitol Way N, Olympia WA 98501-1091, (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia WA

October 24, 2008

Dr. Donald McIssac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Dr. McIssac:

It was recently brought to the Washington Department of Fish and Wildlife's attention that the fecundity parameters in the 2007 black rockfish stock assessment that we authored were incorrectly specified.

We have since corrected the values and reran the model approved by the Council and the Scientific and Statistical Committee (SSC). The revised biomass estimates and ABCs, in general, are about 15% higher than those in the approved assessment, and the depletion level changed from 55% to 62% of B_0.

At present, there are no management or conservation concerns for the northern black rockfish stock, as harvest levels have been and continue to be significantly lower than OY specifications. Therefore, we would recommend this correction be incorporated into the next northern black rockfish assessment.

Sincerely,

Philip Anderson
Deputy Director – Resource Policy

cc: Michele Culver
Corey Niles
Theresa Tsou

Quileute Natural Resources
QUILEUTE INDIAN TRIBE

401 Main Street • Post Office Box 187
LaPush, Washington 98350
Phone: (360) 374-5695 • Fax: (360) 374-9250

November 3, 2008

BY MAIL AND HAND DELIVERY

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Re: 2009 Tribal Allocation for Whiting

Dear Council Members:

On behalf of the Quileute Tribe, I request that the PFMC recommend to NMFS that it make clear that any tribal whiting allocation is a **total tribal allocation** which the tribes are responsible for managing, without any language regarding separate "set asides" or "management shares."

Background

As the PFMC is aware, the Quileute Indian Tribe intends to participate in the Whiting fishery starting in 2009. Nearly one year ago, the Tribe announced its intent to participate in the fishery, and asked NMFS to take action necessary to implement the Tribe's treaty right. NMFS Regional Administrator D. Robert Lohn not only acknowledged the Tribe's proper request, but expressly represented in writing to the Tribe that: "***Any whiting allocation will be an overall tribal allocation, and the intertribal distribution of the overall tribal allocation is an intertribal issue***." I have attached a copy of Mr. Lohn's April 2, 2008 letter for your reference.

In the spring of 2009, NMFS requested information about the anticipated size of the Quileute whiting fleet and harvest levels. Quileute responded with some preliminary numbers. At the time, however, the Quileute understood, based on NMFS's own written statement, that the only issue was what would be an appropriate total tribal allocation. The Quileute made clear that it did not object to setting the 2009 tribal allocation at 20.5% of the OY, or approximately 50,000 metric tons.

Unfortunately, however, during the PFMC's June meeting, a motion was made to not only set the 2009 whiting allocation at 50,000 metric tons but to divide that quota into two shares, giving the Makah 42,000 metric tons and 8,000 metric tons for the Quileute. Again, the Quileute did not object to the

50,000 metric ton tribal whiting allocation, but objected to any intertribal allocation or individual management shares. Despite the Tribe's objections, the motion (number 49) passed. Subsequent to the June meeting, the Quileute continued to object to the intertribal allocation language and advised NMFS that it anticipated that it would have three to four vessels participating in its 2009 whiting fishery, with the capacity to catch up to 24,000 metric tons. The Tribe requested that NMFS set a total tribal whiting allocation which took into account the Quileute Tribe's anticipated harvest.

We have recently learned that NMFS plans to adopt the recommendation contained in motion 49 and divide the total tribal whiting allocation of 50,000 metric tons into two "individual Tribal set asides" for the Makah and Quileute at 42,000 and 8,000 metric tons, respectively. We ask PFMC to recommend to NMFS that it change course. NMFS has no authority or need to set separate tribal shares. Intertribal allocation is a matter for the tribes to resolve amongst themselves on a government to government basis. NMFS has consistently recognized this and has never set intertribal allocations in any fishery. We, therefore, ask that PFMC recommend to NMFS that it delete any reference to "set asides" or "tribal management shares" from the regulation and simply follow its prior practice of setting a single tribal allocation of 50,000 metric tons.

Furthermore, while the Quileute do not object to the 50,000 metric ton share as long it is an undivided total treaty allocation, if NMFS insists on setting separate tribal allocations, the allocation must be sufficient to allow the Quileute to take its anticipated harvest of 24,000 metric tons, an amount well within its treaty share. Although the Quileute informed NMFS of its expected harvest capacity on several occasions, NMFS has indicated it intends to provide only 8,000 metric ton for the Quileute. NMFS's only justification for disregarding the Tribe's anticipated harvest levels is its claim that the Tribe did not submit that information in a timely manner. NMFS's position is unfair for two reasons.

First, there is no written or binding deadline for the submission of anticipated harvest information; there is merely a deadline for indicating intent to participate in the fishery. Indeed, NMFS has not yet issued proposed whiting regulations for 2009. In fact, it is expected that final management measures will not be implemented until March 2009. Second, at the time NMFS sought input from the Quileute in the spring of 2008, the Quileute understood, based on NMFS's own written statement, that the only issue was the amount of the total treaty allocation. The Quileute agreed that the total treaty allocation of 50,000 metric tons was acceptable. It agreed on the assumption that NMFS would be true to its word and continue its practice of not setting separate tribal allocations and that the Quileute would work with the Makah to determine appropriate management measures for the treaty fishery. Thus, the Quileute's input on the treaty quota was timely. It was only after the June 2008 PFMC meeting that it became clear that NMFS was intending to alter course and establish separate tribal allocations. At that time, the Quileute reiterated its objection to separate shares. It also informed NMFS that an 8,000 metric ton set aside was insufficient since it expected to harvest 24,000 metric tons, an amount that is well within its treaty rights.

Request

The Tribe believes PFMC can rectify this situation by taking the following action. Given that implementation of the 2009 harvest specifications and management measures has been delayed until March 2009, PFMC should recommend to NMFS that it make clear that the 50,000 metric tons is a **total tribal allocation** which the tribes are responsible for managing jointly, just like in every other fishery. However, if, despite the Quileute's objection, NMFS insists on setting separate tribal amounts, it must not unfairly limit the Quileute to 8,000 metric tons when the Tribe has indicated that it expects to harvest 24,000 metric tons, and should increase the treaty allocation if necessary.

Sincerely,

Mel Moon, Jr.
Director, Quileute Natural Resources

cc: D. Robert Lohn, NMFS Northwest Regional Administrator
Frank Lockhart, NMFS Assistant Northwest Regional Administrator for Sustainable Fisheries

Agenda Item H.5.b
Supplemental NMFS Report
April 2008

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

APR 02 2008

Russell Woodruff
Chair, Quileute Tribal Council
Quileute Natural Resources
P.O. Box 187
La Push, WA 98350

Dear Mr. Woodruff,

Thank you for providing written notification of the Quileute Tribe's interest in harvesting Pacific whiting starting in 2009. Consistent with the process described at 50 CFR § 660.324 (d), I am forwarding your letter to the Pacific Fishery Management Council (Council) for inclusion in the April 2008 briefing book and for Council consideration under the 2009-2010 fishery specifications and management measures. As stated in section 660.324(d), the National Marine Fisheries Service (NOAA Fisheries) will develop tribal allocations and regulations in consultation with the affected tribes and, insofar as possible, with tribal consensus. NOAA Fisheries will make the allocation after consideration of the tribal allocation request, recommendations of the Council, and comments from the public.

At the Council's November 2007 meeting, the Makah tribal fishery representatives indicated that a new tribal allocation framework would be submitted to NOAA Fisheries for 2009-2010. We have not yet, however, received a new a new tribal allocation framework proposal. As Frank Lockhart, my Assistant Regional Administrator for Sustainable Fisheries, discussed with Mel Moon at the March Council meeting, we strongly urge you to coordinate with the Makah tribe to present a unified tribal proposal. Any whiting allocation will be an overall tribal allocation, and the intertribal distribution of the overall tribal allocation is an intertribal issue. NOAA Fisheries is available to work with the tribes on this issue, but both interested tribes must be involved. We also urge that the State of Washington, and possibly Oregon, be involved in discussions on the matter.

NOAA Fisheries recognizes the co-managers role of the Coastal Treaty Tribes over the shared federal and tribal resources. For NOAA Fisheries to meet its obligation for total catch accounting under the Magnuson-Stevens Fishery Conservation and Management Act, we will need to collect routine catch information on both Pacific whiting and incidentally caught species. We, therefore, think that a discussion of data gathering and reporting and potential bycatch issues should be included in the discussions. NOAA Fisheries generally collects catch information weekly during the fishing season.

Please contact Frank Lockhart at 206-526-6142 in order to coordinate further discussions on this matter.

Sincerely,

D. Robert Lohn

D. Robert Lohn
Regional Administrator

Cc: Mel Moon

Quileute Natur
QUILEUTE IND
401 Main Street • Pos
LaPush, Washing
Phone: (360) 374-5695 • F

D. Ael JS.
File. Action SFD
Pls prepare response
To. SFD CC:

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APR 0 3 2008
PFMC

January 10, 2008

Robert Lohn
Regional Administrator
NMFS, Northwest Region
7600 Sand Point Way NE
Seattle, WA 98115-0070

RE: Quileute Tribal Request for Whiting Allocation or Regulation

Dear Mr. Lohn:

As you know, Washington coastal Indian Tribes, including the Quileute Tribe, have treaty rights to harvest groundfish, including Pacific whiting (or hake, *Merluccius productus*), within their respective usual and accustomed fishing grounds and stations ("U&A"). The Secretary of Commerce, through NMFS, has issued regulations allocating whiting to the coastal tribes since approximately 1996. The Quileute Tribe has not previously participated in this fishery. However, the Tribe anticipates that one or more of its members will do so commencing with the 2009 fishery. The Tribe communicated its intent to enter this fishery to Frank Lockhart of your office during a recent PFMC meeting in San Diego, California. The Tribe is not presently requesting an increase in the whiting allocation to all coastal tribes. However, pursuant to 50 C.F.R. § 660.324(d), the Tribe is hereby advising NMFS of its intent to participate in this fishery and requesting that NMFS take any action that may be necessary to implement the Tribe's right. If you would like to discuss this matter or believe that additional action by the Tribe is necessary, please contact Mel Moon, Director of Quileute Natural Resources, at (360) 374-3133.

Sincerely,

QUILEUTE INDIAN TRIBE

Russell Woodruff, Jr.
Chair, Quileute Tribal Council

ZIONTZ, CHESTNUT, VARNELL, BERLEY & SLONIM
ATTORNEYS AT LAW

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Via Telefax and First Class Mail

April 2, 2008

D. Robert Lohn
Regional Administrator
National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, WA 98115-0070

Re: Treaty Indian Groundfish Fisheries in 2009 and 2010

Dear Mr. Lohn:

We have been asked to write to you on behalf of the Makah Indian Tribe. Pursuant to 50 C.F.R. § 660.324(d), the Tribe requests that provision be made for harvest of groundfish by Pacific coast treaty Indian tribes in 2009 and 2010 by continuing, with the exceptions noted below, the treaty regulations and allocations in effect in 2007 and 2008.

The exceptions are as follows. First, as in 2007 and 2008, the Tribe proposes that Tribal fisheries be subject to the Limited Entry trip limits in place at the beginning of each year for both shortspine and longspine thornyheads. However, the Tribe proposes that it be able to combine those trip limits for all periods and all midwater trawl vessels in the Makah fleet, and utilize the total amount in a way that minimizes bycatch of other species.

Second, the Tribe requests that its allocation in the Pacific whiting fishery be equal to 17.5 percent of the Optimum Yield for whiting, instead of using the sliding scale allocation table that has been in use since 1999. Moreover, if the Quileute Tribe intends to participate in the Pacific whiting fishery, an additional allocation should be provided for the Quileute Tribe and appropriate measures should be developed to address observer coverage for and bycatch in the Quileute fishery.

The Tribe's proposals for the Pacific whiting fishery are based on the following considerations. The sliding scale allocation table was first presented to the Pacific Fishery

Management Council in September 1998 as a three-year proposal. At that time, Quileute had expressed interest in participating in the fishery. Accordingly, the sliding scale allocation table explicitly provided for separate Makah and Quileute allocations, as follows:

U.S. Harvest Guideline	Makah Allocation	Quileute Allocation
Up to 145,000 mt	17.5% of U.S. Harv. Guide.	2,500 mt
145,001 to 175,000 mt	25,000 mt	2,500 mt
175,001 to 200,000 mt	27,500 mt	2,500 mt
200,001 to 225,000 mt	30,000 mt	2,500 mt
225,002 to 250,000 mt	32,500 mt	2,500 mt
Over 250,000 mt	35,000 mt	2,500 mt

At the March 1999 Council meeting, Quileute announced that it would not be participating in the whiting fishery in 1999. Accordingly, NMFS used the sliding scale allocation table to make an allocation of 32,500 mt to Makah, based on an OY of 232,000 mt. *See* 64 Fed. Reg. 27,928, 27,929 (May 24, 1999).

Although the allocation was a "tribal" allocation, all parties understood that it had been requested by and was designed to meet the needs of the Makah Tribe alone. This was confirmed by the Ninth Circuit Court of Appeals when Midwater Trawlers Cooperative challenged the 1999 allocation. Among other things, Midwater argued that the allocation was based on an overly expansive definition of the coastal tribes' usual and accustomed grounds. The Court held Midwater lacked standing to challenge the usual and accustomed grounds of Hoh, Quileute or Quinault because "*NMFS has not allocated any Pacific whiting to them.*" *Midwater Trawlers Co-op v. Department of Commerce*, 282 F.3d 710, 716 (9th Cir. 2002) (emphasis added) Rather, "the only tribal allocation properly at issue is that to the Makah Tribe." *Id.*

Quileute has not requested an allocation in any other year, until now. In each year, Makah was the only Tribe requesting an allocation in the whiting fishery and the "tribal" allocation was based on the sliding scale allocation table to meet the needs of the Makah fishery.

Since the Makah Tribe proposed the sliding scale allocation table ten years ago, its fishery has developed and matured. Today, the Makah whiting fleet comprises five vessels that consistently participate in the fishery and fully harvest the Makah allocation. The Tribe has contractual arrangements with both an at-sea and a shore-based processor to harvest the catch. It has observer coverage on-board the at-sea processor and at the shore-based facility. It has a full retention policy for all bycatch and intensively manages the fishery to minimize bycatch of depleted groundfish species and chinook salmon.

Given the development of its fishery, the Tribe believes an allocation of 17.5 percent of

the OY would better meet its needs while still remaining well within the scope of its treaty right. A straight 17.5 percent allocation would avoid sudden changes in the Tribe's allocation as a result of small changes in the OY. Also, the Tribe's understanding of the fishery, as a result of twelve years of experience, means that it can fully harvest a 17.5 percent allocation at higher OY levels with its existing fleet, while still minimizing bycatch.

In upholding the sliding scale allocation table, the Ninth Circuit began with the proposition that the Tribe "is entitled to one half of the Pacific whiting passing through its usual and accustomed fishing grounds." *Midwater Trawlers v. Department of Commerce*, 393 F.3d 994, 1003 (9th Cir. 2004). It then noted that NMFS' data suggest that Pacific whiting's migration pattern takes the bulk of the stock through the Makah Tribe's usual and accustomed fishing grounds. *Id.* This is significant because it means that all migrating coastal Pacific whiting are potentially exploitable by Makah. *Id.* at 1004. Accordingly, basing the Makah allocation on a percentage of the OY was consistent with the best available science and treaty allocation principles. *Id.* at 1004-05.

Under the sliding scale allocation table, "the Makah Tribe would be allocated a percentage ranging from 14 [to] 17.5 percent" of the OY. *Id.* at 1004 Midwater argued that NMFS failed to explain the scientific basis for this range. *Id.* at 1004 n.11. In rejecting this argument, the Ninth Circuit made it clear that a 17.5 percent allocation is well within the scope of the Makah's treaty right:

> Contrary to Midwater's argument, [the] Fisheries Service is not required to establish that these percentages are supported by the best scientific information available. We have previously concluded that Makah's treaty rights entitle it to *50 percent* "of the harvestable surplus of Pacific whiting that passes through its usual and accustomed fishing grounds, or that much of the harvestable surplus as is necessary for tribal subsistence." *Midwater II*, 282 F.3d at 719. Nothing, however, supports the notion that a tribe is obligated to take its full 50 percent entitlement. That the tribe opts to not take its full treaty share does not put [the] Fisheries Service in the position of justifying a tribe's lower allocation request. Rather, [the] Fisheries Service is required only to support its decision to use the U.S. Optimum Yield as the basis from which to measure the tribe's allocation. And, we conclude that [the] Fisheries Service has met this obligation.

Id. (italics in original; underlining added).

Accordingly, Makah's current proposal for an allocation of 17.5 percent of the OY will remain well within the scope of its treaty right and, indeed, will remain less than "its full treaty share."

In order to avoid potentially significant disruption to the Makah fishery, Quileute's participation should be based on a separate allocation as contemplated when the sliding scale allocation table was first proposed in 1998. Quileute has not contacted the Makah Tribe to notify it of Quileute's plans to participate in the fishery, and has not provided any information to Makah regarding the number of Quileute vessels that will participate, the anticipated harvest of whiting, or the projected bycatch of other species. The Makah Tribe, its fishermen, their crews, and the processors have all made significant investments to establish and develop the Makah whiting fishery, and have foregone opportunities to participate in other fisheries. Makah's allocation requests have been designed to meet the needs of its fishery and to remain well within the scope of its treaty right. If Quileute wants to participate in the fishery, an additional allocation should be made to accommodate its fishermen, rather than simply diverting an unknown portion of the Makah allocation to them.

The need for a separate, additional allocation to Quileute is particularly acute given bycatch concerns, especially for widow and canary rockfish. The Makah Tribe intensively manages its fishery to reduce impacts on these species and to accommodate the needs of non-treaty fisheries within the constraints of current rebuilding plans. Quileute has provided no information concerning projected impacts on these or other species in its fisheries, its plans for observer coverage, or on management efforts it intends to implement to reduce bycatch.

Under these circumstances, if Quileute intends to participate in the whiting fishery in 2009 or 2010, the "tribal" allocation should include an additional allocation, over and above the 17.5 percent allocation to Makah, to accommodate the Quileute fishery, and appropriate measures should be developed to address observer coverage for and bycatch in the Quileute fishery. The Makah Tribe intends to contact the Quileute Tribe to discuss these matters and to attempt to coordinate the Tribes' respective fisheries.

Makah representatives will be available to discuss any questions you or your staff may have regarding these matters at the upcoming Council meeting.

Very truly yours,

ZIONTZ, CHESTNUT, VARNELL,
BERLEY & SLONIM

Marc D. Slonim

cc (via fax):

Frank Lockhart
Eileen Cooney
Russ Svec
Steve Joner

Quileute Natural Resources
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Testimony of Mel Moon in Support of Tribal Request for Whiting Allocation

As the National Marine Fisheries Service ("NMFS") and the Pacific Fishery Management Council ("PFMC") are well aware, the Quileute Indian Tribe intends to participate in the Pacific whiting fishery commencing in 2009. Since late 2007, the Tribe has made its intentions clear, both in writing and orally, to NMFS and the PFMC. The Tribe is here today to again reiterate its intention to participate in the 2009 Pacific whiting fishery and, more specifically, to support the Makah Tribe's request for an increase in the tribal whiting allocation to 20.5% of the United States Optimum Yield ("OY").

As you know, the Secretary of Commerce, through NMFS, has issued regulations allocating whiting to the coastal tribes since approximately 1996. The Quileute Tribe has not previously participated in this fishery. In 2009, however, one or more Quileute members intend to participate in this fishery. The Tribe informally advised NMFS of its intent to enter this fishery at the last PFMC meeting in November, 2007. By letter dated January 10, 2008 and pursuant to 50 C.F.R. § 660.324(d), the Quileute Tribe formally provided NMFS with written notification of its intent to participate in the Pacific whiting fishery commencing in 2009. By reply letter dated April 2, 2008, NMFS advised the Tribe that its request had been forwarded to the PFMC for consideration at its April meeting. At that time, NMFS advised that "any whiting allocation will be an overall tribal allocation, and the intertribal distribution of the overall tribal allocation is an intertribal issue." At the April 2008, PFMC meeting, the Tribe again reiterated its intent to participate in the 2009 Pacific whiting fishery.

Subsequently, the Quileute Tribe has met in good faith with other coastal tribes and NMFS to further discuss the specifics of the coastal whiting fishery. Specifically, on May 2, 2008, representatives of the Quileute, Makah, and Quinault tribes met with representatives of NMFS to discuss the tribal whiting fishery. At that time, and pursuant to NMFS's request, the Quileute Tribe provided additional information about the nature and scope of its anticipated 2009 whiting fishery. Specifically, Quileute:

(1) Anticipated one vessel between 95 – 125 feet to participate in the 2009 whiting fishery,

(2) Estimated a whiting harvest of approximately 4,000 to 8,000 metric tons based on historical catches of similarly sized vessels,

(3) Indicated that its whiting fishery would take place between May 15-December 15, 2009 for catcher/processor or "mothership", and June 15-December 15, 2009 for shore-based delivery.

(4) Provided estimates of its bycatch based upon the groundfish management team's weighted average approach;

(5) Stated that it would be working with the NOAA staff and regional science center for time and area management measures to minimize bycatch in the Quileute whiting fishery.

Subsequent to this meeting, the Quileute, Quinault, and Makah tribes engaged in further discussions about the 2009 whiting fishery. At that point, the Quinault tribe made clear that it would not be participating in the whiting fishery until at least 2010. Thereafter, the Quileute and Makah tribes agreed that the total tribal allocation for 2009 should be 20.5% of the OY, which represents a 3% increase on the maximum amount of the prior tribal allocation under the "sliding scale" approach. Accordingly, the Quileute Tribe hereby supports the Makah's request for a total tribal allocation of 20.5% to meet the needs of the Quileute and Makah Tribes who will be participating in this fishery in 2009. Considering that the best available science shows that all harvestable whiting pass through the Quileute and Makah U&As, this amount is clearly well-within their treaty right to harvest up to 50% of the OY.

Although the Quileute and Makah tribes agree upon the total tribal whiting allocation for 2009, they are continuing to negotiate over the proper intertribal distribution of that allocation. To be clear, however, any tribal whiting allocation must be made to the coastal tribes as a whole, and must not be split-up by tribe or made to any specific tribes. In all of its discussions with NMFS, PFMC, and other tribes, the Quileute Tribe has been very clear that NMFS must, as it has in every prior year and in every other federally managed fishery, make a ***total tribal whiting allocation*** and must not take the unprecedented step of allocating groundfish on a tribe-by-tribe basis. Tribal allocations of all federally-managed fisheries, including Pacific whiting, have always been made to ***all coastal tribes***, leaving it up the tribes to decide the appropriate intertribal distribution. The federal regulations make clear that once NMFS receives a tribal request to participate in a groundfish fishery, as it has here, it must implement that right "through an allocation of fish **that will be managed by *the tribes*** . . ." 50 C.F.R. § 660.324(d) (emphasis added). In other words, it is up to the tribes to decide how to manage a total tribal groundfish allocation. NMFS could not have been more clear on this point in 1999 when it stated in federal regulations that: **"NMFS believes that the intertribal distribution of the overall tribal allocation is an internal tribal issue, and herein issues only a total allocation for the affected tribes."** 64 Federal Register 27,929 (May 24, 1999) (emphasis added). The Quileute Tribe would strenuously object to issuance of any "separate allocation" to the Quileute or any other action which purports to restrict Quileute's right to harvest from the overall "tribal allocation."

Last, the Quileute Tribe's participation in the whiting fishery will not result in the excessive harvest of overfished species. First, the Quileute Tribe intends to model its observer and bycatch-avoidance programs after those successfully implemented by the

Makah Tribe. The Quileute Tribe continues to research and study those programs and looks forward to working with the Makah tribe to better understand its processes. The Quileute Tribe is confident that by the time it commences this fishery nearly one year from now that it will have an adequate observer program and other steps to minimize bycatch, such as time and area restrictions. Second, although new to this fishery, Quileute fishermen are responsible and very experienced in other fisheries. They have a proven track record of successfully minimizing bycatch in other fisheries, such as halibut and blackcod. Third, there is no evidence suggesting that the Quileutes's U&A is home to higher concentrations of sensitive or protected species of groundfish. To the contrary, analysis of variance (or ANOVA) studies of the bycatch rates for overfished species for the years 2003 to 2007 for the non-tribal at-sea fleets showed no significant differences in the concentration of overfished species between the various tribal U&As.

In short, the Quileute Tribe hereby joins and supports the Makah Tribe's request for a total tribal whiting allocation in 2009 of 20.5% of the OY. This represents a relatively minor increase to the total tribal allocation and remains well-within the treaty right.

AMENDMENT 20: TRAWL RATIONALIZATION ALTERNATIVES

The Council has considered groundfish trawl fishery rationalization at sixteen Council meetings over the last five years. At its June 2008 meeting, the Council selected a preliminary preferred alternative. A draft decision document was finalized over the summer and released for public review October 3. This document includes a preliminary draft environmental impact statement (DEIS). Hearings were held at the end of October (Attachment F.3.g, Hearing Schedule). The Council is scheduled to take final action at this meeting. In January 2009, the Council is required to provide to Congress "a proposal for the appropriate rationalization program for the Pacific trawl groundfish and whiting fisheries," including "fully analyze[d] alternative program designs." (Section 302(f), Magnuson-Stevens Act [MSA]). Following Council final action NMFS will begin drafting proposed regulations. During the development of those regulations in the first half of 2009, it is expected that the Council will schedule floor time to clarify intent, further identify mechanism details, and confirm that the draft proposed regulations properly reflect the final Council action (Agenda Item F.3.a, 2009 Schedule). The draft proposed regulations will then accompany the finalized DEIS when it is submitted to NMFS in 2009 for final approval under the MSA.

In preparation for this Council meeting, the Groundfish Allocation Committee (GAC) met to develop recommendations on choices that were left unresolved in the preliminary preferred alternative. The GAC recommendations are contained in Agenda Item F.3.e, GAC Report. During that meeting, California Department of Fish and Game (CDFG) presented an elaboration on the adaptive management program (Agenda Item F.3.f, CDFG Report) and after the meeting Washington Department of Fish and Wildlife (WDFW) submitted comments (Agenda Item F.3.f, WDFW Report).

This agenda item will begin with a general overview of the alternatives, identification of preliminary decisions made in June and those choices for which no preliminary decision was made. Key decisions are highlighted in Agenda Item F.3.b, Key Decisions. Following that, highlights from the analysis will be reviewed (Agenda Item F.3.c, Attachments 1, 2, and 3) and there will be a presentation of analysis developed in response to GAC meeting discussions (Agenda Item F.3.c, Additional Analysis). Portions of the decision document which are **not** included in Agenda Item F.3.c, Attachments 1, 2, and 3 can be found on the briefing book CD.

As part of its final action, the Council should adopt both policy recommendations on the trawl rationalization alternatives and specific changes to the fishery management plan (FMP) language. With respect to the FMP, some suggested language for Council consideration is provided on page 97 of Chapter 2.

Council Action:

Adopt Final Preferred Alternative for Draft Environmental Impact Statement Including:

a. **The trawl rationalization provisions for groundfish and Pacific halibut bycatch.**
b. **Language for amending the plan.**

Reference Materials:

1. Agenda Item F.3.a, 2009 Schedule: Generalized Schedule of Trawl Rationalization Activities for 2009.
2. Agenda Item F.3.b, Key Decisions.
3. Agenda Item F.3.c, Additional Analysis: Additional Analysis on Trawl Rationalization.
4. Agenda Item F.3.c, Attachment 1: Executive Summary and Chapters 1 and 2, Excerpted from "Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery, Decision Document for the November 2008 Pacific Fishery Management Council Meeting."
5. Agenda Item F.3.c, Attachment 2: Appendix A Analysis of Components, Elements and Options for the IFQ Alternative.
6. Agenda Item F.3.c, Attachment 3: Appendix B Analysis of Components, Elements and Options for the Harvest Cooperative Alternative.
7. Agenda Item F.3.e, GAC Report: Groundfish Allocation Committee Report on Trawl Rationalization.
8. Agenda Item F.3.f, CDFG Report: California Department of Fish and Game Report on Adaptive Management.
9. Agenda Item F.3.f, WDFW Report: Washington Department of Fish and Wildlife Comments on the Groundfish Allocation Committee Report and on the California Department of Fish and Game Adaptive Management Proposal Clarification.
10. Agenda Item F.3.g, Hearing Schedule: Schedule of Trawl Rationalization Amendment Hearings, Pacific Fishery Management Council, October 27-29, 2008.
11. Agenda Item, F.3.h, Public Comment.

Agenda Order:

a. Agenda Item Overview — Jim Seger
b. Review of Alternatives and Options — Jim Seger
c. Review of Analysis — Merrick Burden, Heather Brandon, Steve Freese, Jim Seger
d. NOAA General Counsel Comments — Eileen Cooney
e. Recommendations of the Groundfish Allocation Committee — Don Hansen
f. Reports and Comments of Agencies and Advisory Bodies
g. Hearings Summaries — Hearings Officers
h. Public Comment
i. **Council Action:** Adopt Final Preferred Alternative for Draft Environmental Impact Statement – *To be continued on Wednesday and completed on Friday*

PFMC
10/20/08

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Agenda Item F.3.a
2009 Schedule
November 2008

GENERALIZED SCHEDULE OF TRAWL RATIONALIZATION ACTIVITIES FOR 2009

General schedule of activities to follow Council final action on trawl rationalization.

	NMFS	Council
Winter-09		Submit Report to Congress (Council Action and November Briefing Documents)
	NOAA GC Review	
	Drafting of Regulations	Finalization of Draft EIS
Spring-09	NOAA GC Questions for Council	Council Response to NOAA GC
Summer-09	Finalize Regulations	Finalize Draft EIS for submission to NMFS

Updated Listing of Reference Materials for Agenda Item F.3 (through mid-day 11/04/08):

1. Agenda Item F.3.a, 2009 Schedule: Generalized Schedule of Trawl Rationalization Activities for 2009.
2. Agenda Item F.3.b, Key Decisions.
3. Agenda Item F.3.c, Additional Analysis: Additional Analysis on Trawl Rationalization.
4. **Agenda Item F.3.c, Supplemental Analysis 2.**
5. **Agenda Item F.3.c, Supplemental Analysis 3.**
6. Agenda Item F.3.c, Attachment 1: Executive Summary and Chapters 1 and 2, Excerpted from "Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery, Decision Document for the November 2008 Pacific Fishery Management Council Meeting."
7. Agenda Item F.3.c, Attachment 2: Appendix A Analysis of Components, Elements and Options for the IFQ Alternative.
8. Agenda Item F.3.c, Attachment 3: Appendix B Analysis of Components, Elements and Options for the Harvest Cooperative Alternative.
9. **Agenda Item F.3.d, Supplemental NOAA General Counsel Comments.**
10. Agenda Item F.3.e, GAC Report: Groundfish Allocation Committee Report on Trawl Rationalization.
11. Agenda Item F.3.f, CDFG Report: California Department of Fish and Game Report on Adaptive Management.
12. Agenda Item F.3.f, WDFW Report: Washington Department of Fish and Wildlife Comments on the Groundfish Allocation Committee Report and on the California Department of Fish and Game Adaptive Management Proposal Clarification.
13. **Agenda Item F.3.f, Supplemental Agency Comment.**
14. **Agenda Item F.3.f, Supplemental SSC Report.**
15. **Agenda Item F.3.f, Supplemental GMT Report.**
16. **Agenda Item F.3.f, Supplemental GAP Report.**
17. **Agenda Item F.3.f, Supplemental SAS Report**
18. **Agenda Item F.3.f, Supplemental EC Report.**
19. Agenda Item F.3.g, Hearing Schedule: Schedule of Trawl Rationalization Amendment Hearings, Pacific Fishery Management Council, October 27-29, 2008.

20. Agenda Item F.3.g, Supplemental Public Hearing Report 1.

21. Agenda Item F.3.g, Supplemental Public Hearing Report 2.

22. Agenda Item F.3.g, Supplemental Public Hearing Report 3.

23. Agenda Item F.3.g, Supplemental Public Hearing Report 4.

24. Agenda Item F.3.g, Supplemental Public Hearing Report 5.

25. Agenda Item, F.3.h, Public Comment.

26. Agenda Item, F.3.h, Supplemental Public Comment 2.

27. Agenda Item, F.3.h, Supplemental Public Comment 3.

28. Agenda Item, F.3.h, Supplemental Public Comment 4.

29. Agenda Item, F.3.h, Supplemental Public Comment 5.

30. Agenda Item F.3.h, Supplemental Public Comment 6.

PFMC
11/04/08

OUTLINE OF KEY DECISIONS IN THE ALTERNATIVES AND SUMMARY OF GAC RECOMMENDATIONS

This document provides the following.

Table 1. Key decisions made by Council in June 2008 to craft a preliminary preferred alternative (PPA) (shown by sector) and GAC recommendations from its October 2008 meeting.

Issue	Sector				GAC Recommendation from October 2008
	Catcher Processor	Mothership	Shoreside Whiting	Shoreside Nonwhiting	
IFQs (A) or Co-ops (B-2, B-3, B-4)?	Voluntary Co-ops (IFQs if Co-op system breaks down)	Co-ops	IFQs or Co-ops (if linkage authorized by Congress)	IFQs	Set deadline on shoreside whiting co-op alternative. If needed authorization not provided, commit to IFQs.
Should the primary tool (Co-ops or IFQs) be used for all species? (A-1.1, A-5, and B-1.3)	No, certain spp. excluded				Adopt a consistent list for all trawl sectors
Should the shoreside sector be managed as a single sector or separately? (A-1.3)			Single Sector		No Change to PPA
If Co-ops: Should there be processor linkages. (B-2.4)		Yes	N/A, or yes, if authorized	N/A	Yes new options provided
If IFQs:					
Initial Allocation Formula Should an initial allocation of QS be given to processors? (A-2.1.1.a)	N/A	N/A	20% of whiting, 0% or 20% of bycatch species	20%	No Allocation to Processors
Should the initial allocation formula for permits include an equal sharing element? (A-2.1.3.a)	N/A	N/A	Yes		No Change to PPA
Should allocation of incidentally caught overfished species be based on history or bycatch rates applied to QS allocations using permit specific logbook information? (A-2.1.3.a and d)	N/A	N/A	Use Bycatch Rates (For Whiting, Allocate All Bycatch Species in Proportion to Whiting Landings)		No Change to PPA
Accumulation Limits (A-2.2.3.e, B-2.1.c, and B-2.2.d)	N/A	Yes, for catcher vessels and motherships	Yes (no grandfather clause)		Percentages need to be decided. No recommendation.
Area Management or Regional Landing Zones (A-1.2 & A-8)	N/A	N/A	40° 10' split or Regional Zones		Track catch by area for future consideration. Consider some geographic distribution elements for adaptive management (A-3 & B-1.6).
Adaptive Management (A-3 and B-1.6)	Yes	Yes	Yes	Yes	Yes, new options suggested.
Pacific Halibut Individual Bycatch Quota (A-4)	N/A	N/A	Yes	Yes	No Change to PPA

Gray indicates the issue does not apply to the sector. N/A indicates that based on decisions made further up in the table, no decision on the topic was needed on that issue.

Table 2. Other issues for which choices remained after the June Council meeting or on which additional GAC recommendations were made.

Topic	Section	Decision Points	Page #	GAC Recommendation from October 2008
IFQ Program				
Gears and Fisheries Covered	A-1.1	The gears and fisheries that will be considered within the scope of the IFQ program.	A-21	Specific gears recommended for inclusion and exclusion.
Gear Switching/ Gear Conversion	A-1.1 & A-7	A provision for permanent transition from trawl gear to non-trawl gear.	A-350	Recommend minimum constraint on gear switching, consider conversion provisions in future.
Attributing and Accruing Processor History	A-2.1.1.d	Attribution of catch history to shoreside processors **Option 1:** first receiver, or **Option 3:** first receiver with opportunity to reassign if the first receiver did not process	A-117	Recommend Option 3
Permit Holding Requirement	A-2.2.1	**Element 4.** Exceptions to prohibitions on landing while in a QP deficit. List needs to be refined based on scope of fisheries covered. **Element 6.** There may be legal concerns about the alternative compliance options.	A-184	Not Addressed
Accumulation Limits	A-2.2.3.e	Decide on percentages to use (Table 2-5)	A-227	Additional data requested
Adaptive Management	A-3	Tracking and monitoring implications if adaptive management QP are issued and transfer to processors receiving an initial allocation of QS is prohibited. Review intent and language. Decide how accumulation limits would apply for those receiving adaptive management QP.	A-341 & B-38	Add regional distribution and potential distribution to regional fisheries associations.
Mothership (MS) Sector Co-op Program				
Groundfish LE Permit Length Endorsement	B-1.	Whether or not to drop the length endorsement for permits with co-op endorsements.	B-40	Not Addressed
Accumulation Limits (catcher vessel)	B-2.2	A grandfather clause is provided which is "the amount of the largest current owner." For what point in time should this be determined?	B-52	Not Addressed
Accumulation Limits (mothership)	B-2.2.2	Maximum share of total deliveries that may be received by any one MS processor company.	B-59	Adjust maximum mothership share of processing to 45%
MS Processor Withdrawal	B-2.4.2	If a MS withdraws without reaching an agreement with its catcher vessels (CVs), how would CVs move between vessels?	B-72	Allow catcher vessel to go to MS of its choosing and form a new tie with new MS.
Shoreside Sector Co-op Program				
In General	B-3	Identify specific elements of shoreside whiting co-ops	B-86	Do not address until needed Congressional action is taken.
Catcher Processor Sector Co-op Program				No issues to address.

Table 3. General description of other decision points in the IFQ program for which the Council has already made a preliminary choice and positions taken in the Council preliminary preferred alternative (refer to referenced sections for complete details).

Topic	Section	Decision Points	Council Preliminary Preferred Alternative
Groundfish Limited Entry Permit Length Endorsement	A-1.6.	Whether or not to drop the length endorsement?	Drop the length endorsement.
Recent Participation Requirements	A-2.1.2.	Whether or not to require recent participation to qualify for an initial allocation and the amount to required?	Require recent participation for shoreside processors but not for others (certain levels of deliveries required from 1998-2003).
Allocation formula for catcher vessel permits	A-2.1.3.a	For Target Species 1. Allocation years? 2. Drop worst years? 3. Measure of History (pounds or annual percent of landings)? See Table 1 for decision points on other species	1. 1994-2003 2. Drop 3 year for non-whiting, 2 for whiting. 3. Measure landing history as annual percent of landings.
Allocation formula for Shoreside processors	A-2.1.3.d	For Target Species 1. Allocation years? 2. Drop worst years? 3. Measure of History (pounds or annual percent of landings)? See Table 1 for decision points on other species	1. 1994-2003 2. Drop 2 years 3. Measure landing history as annual percent of landings.
Carryover	A-2.2.2.b	Should there be a carry-over provision?	Yes, 10% of QP overages and underages can be carried over from one year to the next.
Eligibility to own or hold	A-2.2.3.a	After initial implementation who should be eligible to acquire QS?	Anyone eligible to own a US documented fishing vessels plus some excepted under the American Fisheries Act.
Temporary Transfer Rules	A-2.2.3.c	Should there be a prohibition on the transfer of QS in the first year(s) of the program?	Yes, QS transfers should be prohibited in the first two years of the program (transfer of QP will be allowed).
Tracking and Monitoring	A-2.3.1	1. Should discarding be allowed? 2. What level of at-sea monitoring should be required? 3. What level of shoreside monitoring should be required? 4. Should enhanced tracking mechanisms be required (e.g. electronic landing reports)? 5. Should there be other cost control mechanisms?	1. Yes, except for maximized retention vessels in the shoreside whiting fishery and at-sea deliveries can be discarded only by at-sea processors. 2. 100% observer coverage (including maximized retention vessels in the whiting fishery). 3. 100% shoreside monitoring 4. Yes. 5. Yes, including limited landing hours and mandatory licensing for shoreside delivery locations
Data Collection	A-2.3.2	Should mandatory submission of socio-economic data be required of harvesters and processors?	Yes
Program Costs	A-2.3.3	Should there be cost recovery and fees?	Yes
Program Duration and Modification	A-2.3.4 and A-6	Should there be an explicit limit on the duration of the program or the QS issued?	No, except as required by the Magnuson-Stevens Act. The program will be modified through plan and regulatory amendments.

Table 4 General description of other decision points in the co-op alternative for which the Council has already made a preliminary choice and positions taken in the Council preliminary preferred alternative (refer to referenced sections for complete details).

Topic	Section	Decision Points	Council Preliminary Preferred Alternative
General Provisions			
Whiting rollovers	B-1.2	Will there be a roll-over of unneeded whiting from one sector to another?	No
Bycatch management	B-1.3	1. Will bycatch be allocated down to the co-op level? 2. Will there be seasonal releases of bycatch? 3. Will rollover of bycatch be allowed? 4. Will bycatch in the non-co-op fishery be managed with buffers?	1. Yes 2. No 3. Yes 4. No
Mandatory data collection	B-1.5	Should mandatory submission of socio-economic data be required of harvesters and processors?	Yes
Mothership (MS) Co-ops			
Processor participation	B-2.1a & c B-2.2.c	Should catcher vessels and catcher processors also be allowed to participate as motherships?	Not in the same year.
Catcher vessel allocations	B-2.2.a	For catcher vessel permits what should the qualifying and allocation periods be?	Qualification: more than 500 mt in 1994-2003 Allocation: Best 8 of 10 years from 1994-2003
Whiting endorsement transferability	B-2.2.b	Should the whiting endorsement be transferable separate from the permit?	Yes
MS Processor Permit Qualification	B-2.2.a	Who qualifies for the mothership processor permit?	The owner, unless it is under a bareboat charter, in which case the charterer qualifies.
MS Processor Permit Transferability	B-2.2.c	Should there be a limit on the frequency of mothership processor permit transfers?	Yes, not more than twice a year.
Co-op Formation	B-2.3.1	Should catcher vessels be allowed to form themselves into a single co-op?	Yes
Initial Ties to the Motherships	B-2.4.1	What year should be used to form the ties between catcher vessels and processors?	2009
Shoreside Sector Co-ops	B-3	Numerous topics	To be addressed if Congressional action is taken to allow processor ties and/or processor limited entry.
Catcher Processor Sector Co-ops	B-4	Maintain the voluntary co-op system.	A catcher processor endorsement is created. If the existing voluntary co-op system breaks down, it will be replaced by an IFQ program and QS will be allocated equally among all the catcher-processor permits.

Agenda Item F.3.c
Additional Analysis
November, 2008

ADDITIONAL ANALYSIS ON TRAWL RATIONALIZATION

This document includes

Accumulation Limits

Setting Control Limits Lower Than Vessel Limits

The accumulation limit options include separate accumulation limits for control and vessels, and it has been proposed that the control limits be set lower than the vessel limits. The decision to set the control limits less than vessel limits, when combined with certain rules intended to assist in the effective implementation of the control limits, creates certain practical problems. In this section we identify

- the rules intended to assist in implementation and note that those rules, while helpful, are not necessary to sustain the underlying intent to limit control,
- the practical problem created by the rules when control limits are set below vessel limits, and
- ways to accommodate control limits less than vessel limits by modifying those rules without changing the underlying control limit.

Implementing the Control Limits

Control is very broadly defined for the purpose of the control accumulation limits. Some specific rules have been developed to assist in effective application of the control limit.

1. The limits apply both to the control of QS and QP. This approach was proposed as a means of reducing the opportunity for a person to attempt to circumvent detection of control limit violations by indirectly controlling a number of different QS accounts but having the QP issued to that account directed to that person's business.
2. QP in a vessel account is under the harvester's control and will count toward the harvester's control limit.

3. One type of control, “ownership” will be measured by the “individual and collective rule.” Under this rule, the QS a person owns counts against that person’s accumulation limit as well as the QS owned by any entity in which the person has an ownership interest in proportion to that ownership interest.

These three general rules are intended to make it easier to effectively monitor control and detect violations. However, any one or all of these rules could be eliminated without changing an underlying intent and rule, i.e. that control of QS, however it is exerted, not exceed a certain percent.

The Practical Problem

The practical problem created by these rules occurs when they are combined with the rule that specifies that each vessel will have a vessel account to which QP must be transferred in order to be used. The intent has been that QP in a vessel account would not be distinguished based on its source. This approach is intended to reduce costs of tracking the QP as they transfer between accounts and costs that would otherwise be entailed in dividing a landing up and counting it against QP from different sources. This means that all QP transferred to the vessel account comes under the control of the harvester. Therefore, since QP counts toward control accumulation limits, it would be impossible to have vessel limits above control accumulation limits since accumulating QP up to the vessel limit would, by definition, exceed the control limit.

Approaches to a Solution

There are a number of solutions to this problem, including the possibility of setting the control limits equal to the vessel limits. However, setting a vessel limit above the control limit promotes efficiency gains from trawl rationalization by allowing consolidation of harvest on fewer vessels, while at the same time ensuring that the benefits of QS ownership are distributed among more entities. Absent this differential, more compromise would be needed either on the efficiency objective or the social objective related to distribution.

Other solutions involve modifying the rules intended to assist in implementation. The most straight forward modification would be to not count QP ownership against the control accumulation limits, or to not count QP ownership in a vessel account against control accumulation limits. This would not exempt harvesters from the control accumulation limits but might make it somewhat easier for them to hide control. While easier to hide, if a level of control that exceeds limits were detected it would still be a violation of the control accumulation limit. The narrower approach in this regard would be to continue to count both QP and QS ownership against the control limits but to exempt the vessel account from the control limit.

Setting Accumulation Limit Percentages

Appendix A provides two basic kinds of quantitative information that are relevant to the selection of percentages for the accumulation limits.

1. Initial allocations of QS in comparison to accumulation limit percentages
2. Permit and entity recent and historic shares of fleet landings relative to accumulation limit percentages

Permit/vessel level information is provided for evaluating the vessel limits, and
Entity level aggregations are provided for evaluating the control limits.

The information on the initial allocation of QS in comparison to accumulation limits is provided to assist in understanding how the percentages selected for the accumulation limits interact with the decision on whether or not to have a grandfather clause. The degree of efficiency advantages or redistribution and equity issues related to the decision on the grandfather clause depend on the level at which the accumulation limits are set relative to the initial allocations. However, basing the accumulation limits on the initial QS allocations presents certain challenges to the development of a clear rationale. For example, if the control accumulation limits are set to the maximum amount that any one permit would be allocated, then the level of rationalization in the fleet would be driven by decisions that were not made with the intent of constraining rationalization. The decision to allocate nearly half the QS equally, the decision to allocate 20% to processors, the decision to allow harvesters to drop their two or three worst years all had the effect of reducing the maximum allocations going to any one permit. The equal allocation component of the formula is driven by the buyback permit share of history, thus even the level at which Congress chose to fund the buyback program and the history of the permits that decided to sell-out in the program would be playing roles in determining the minimum size of the fleet that would be allowed to operate.

While comparing the accumulation limits to the QS allocation is important for understanding the impacts of the accumulation limits, it might be easier to construct a rationale for the decision on the accumulation limits by relating the limits to recent or historic shares of harvest in the fishery. To that end, Appendix A provides tables which compare the accumulation limits to recent annual shares (2004-2006, for vessels and entities) and historic shares (1994-2003, for vessels) (Tables A-82 through A-83 and A-105 through A-109 in Appendix A). For vessels, the absolute maximum pounds from 1994-2003 are translated to shares of the 2004-2006 annual harvest to determine the limits that would be required to allow vessels to harvest at levels that were experienced in the 1990s (Table A-83). While for most species such harvest levels of the 1990s would not be achievable, for a few important target species reasonable limits might be set on this basis. For example, for sablefish and Dover sole limits, about 3% would allow vessels to achieve the maximum individual vessel harvest poundages seen in the 1990s. However, thornyhead limits would have to be substantially greater. An aggregate nonwhiting vessel limit of 5.9% would allow a vessel to take the maximum nonwhiting poundage seen in the 1990s. The maximum vessel limit being considered by the Council is 6%.

Figure 2 through Figure 37 show each permit's maximum share of harvest in any one year from 2004 through 2006. The permits were put into three groups and within each group were sorted from the lowest to highest maximum. The order of the permits is not changed from one graph to the next. The first group, displayed on the left side of each graph, are the permits that only participated in the shoreside whiting fishery during the most recent period; the second group are those that participated in both the shoreside whiting and nonwhiting fisheries; and the last group are those permits that participated only in the nonwhiting fishery.

For each figure, the relevant vessel and control limits are provided. If control limits are below the vessel limits and the maximum points are above the control limits, then this illustrates the amount of co-operation among QS owners that would be required for those permits to achieve their historic share of harvest. For an entity to operate more than one vessel at close to the maximum vessel accumulation limits without violating control limits it would need to acquire a substantial amount of QP from other sources every year. Figure 1 shows that in the current fishery most entities own only 1 permit. Table A-75 in Appendix A indicates that since the fall of 2006 two entities have each acquired one additional permit and one entity divested itself of a permit.

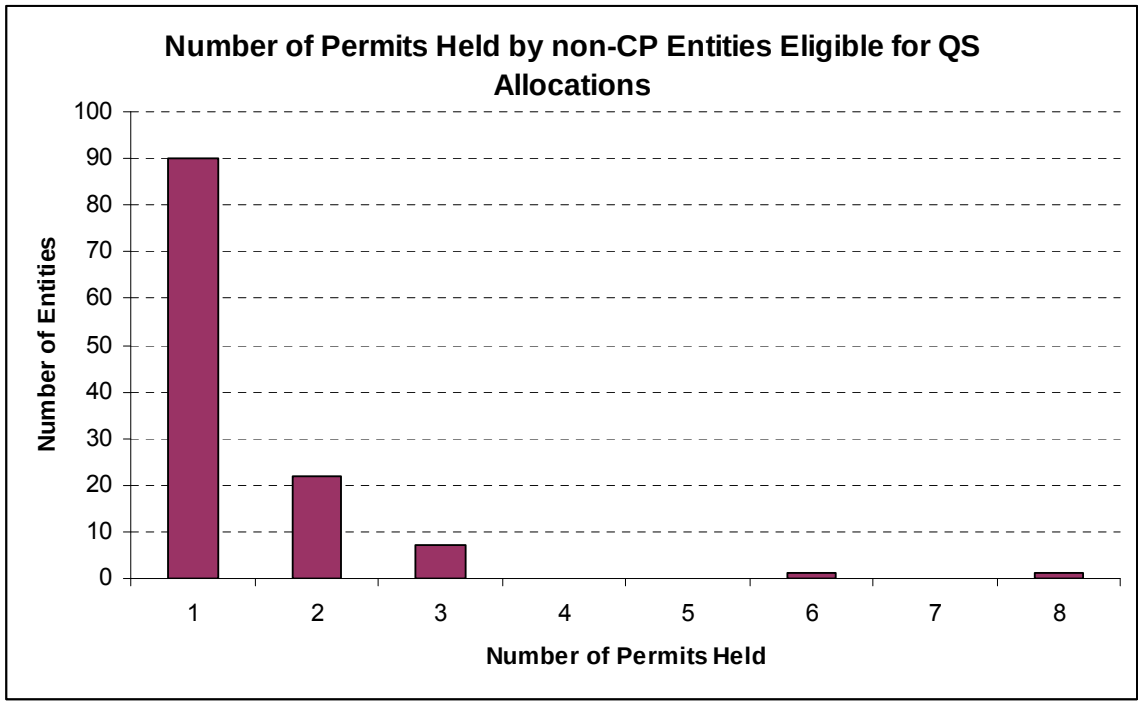

Figure 1. Number of entities holding the number of permits indicated on the horizontal axis as of the fall of 2006, catcher-processors excluded.

The GAC requested a table displaying the number of entities at the accumulation limits when there is no grandfather clause and 100% is allocated to permits (Table 0-1). Appendix A, Table A-95 (page A-296) provides the corresponding results for the same allocation formula with a grandfather clause. Table A-95 shows 14 entities above the limit and Table 0-1 shows 17 entities pushed up to the limit as a result of the grandfather clause. For individual species the number of entities at the limit with no grandfather clause (Table 0-1) is higher or lower than the number above the limit with a grandfather clause (Table A-95) depending on the strength of the

effect of the aggregate limit applied in the absence of a grandfather clause in pushing individual entities below the limit for a particular species and the amount of reallocation which occurred for that species (with no grandfather clause). For example, several entities that are over the limit on sablefish (6 in Table A-95) were pushed below the limits as a result of the aggregate constraint; and those receiving the reallocated pounds did not receive enough to push many back up to the sablefish limit (only 2 are at the limit in Table 0-1). These tables provide information on the control limit Options 1 and 2. Option 3 varies from Option 2 only in that it has higher aggregate nonwhiting groundfish control limits (3%) and higher whiting control limits. Under Option 3 there are 148 entities receiving allocations. With no grandfather clause 5 would be capped at the aggregate nonwhiting control limit. The Option 3 whiting limits were not constraining.

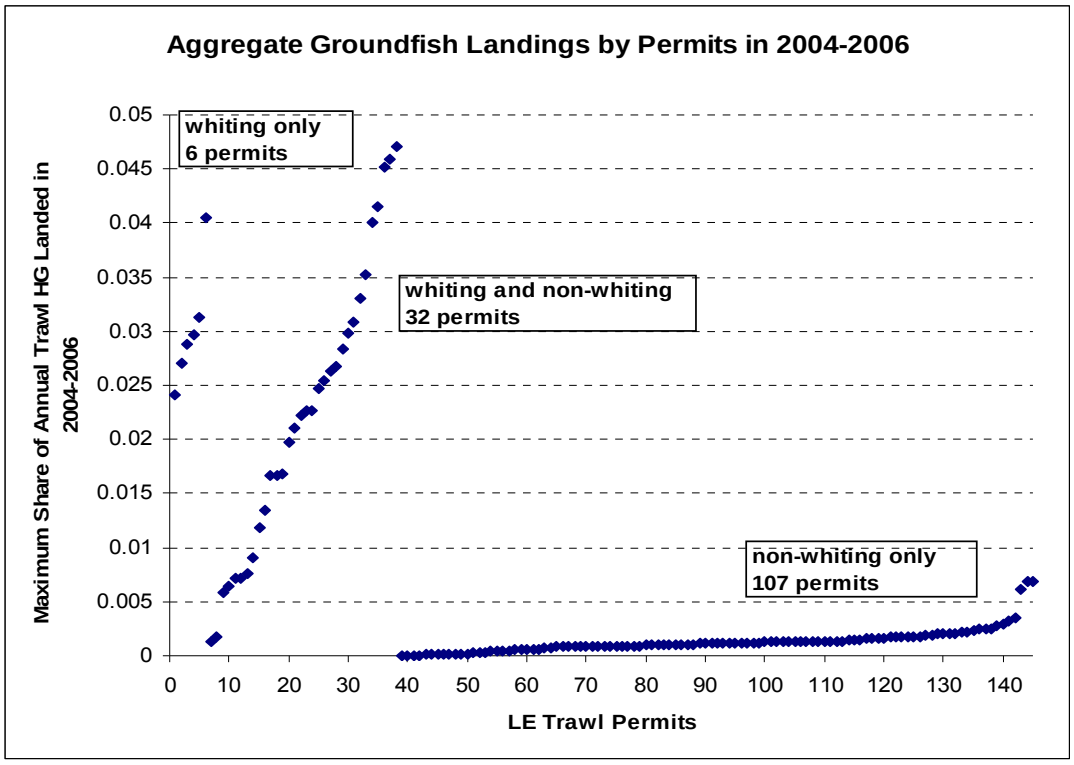

Figure 2. Maximum annual share of groundfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

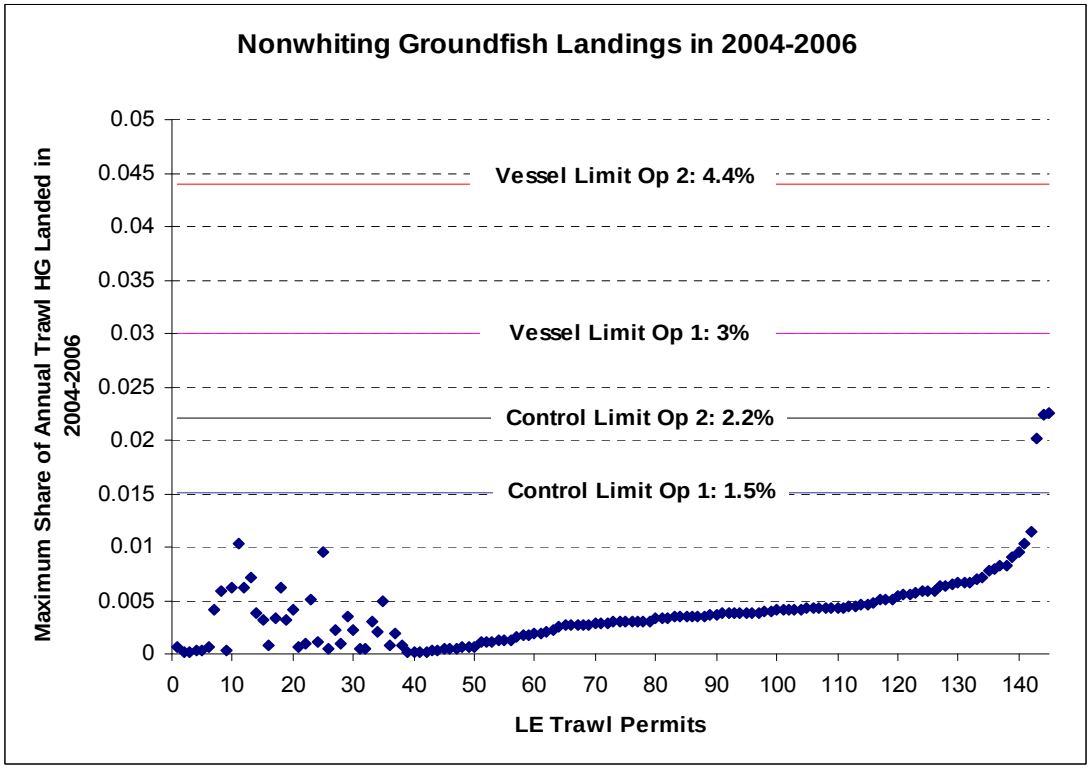

Figure 3. Maximum annual share of nonwhiting groundfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

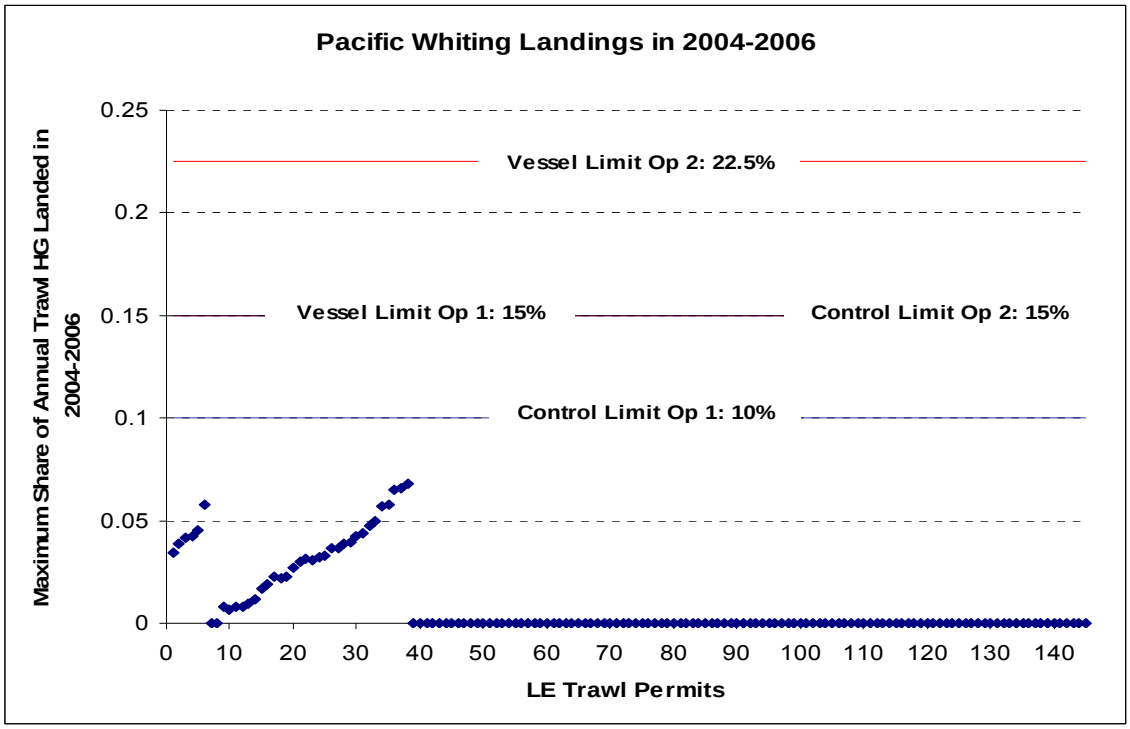

Figure 4. Maximum annual share of Pacific whiting landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

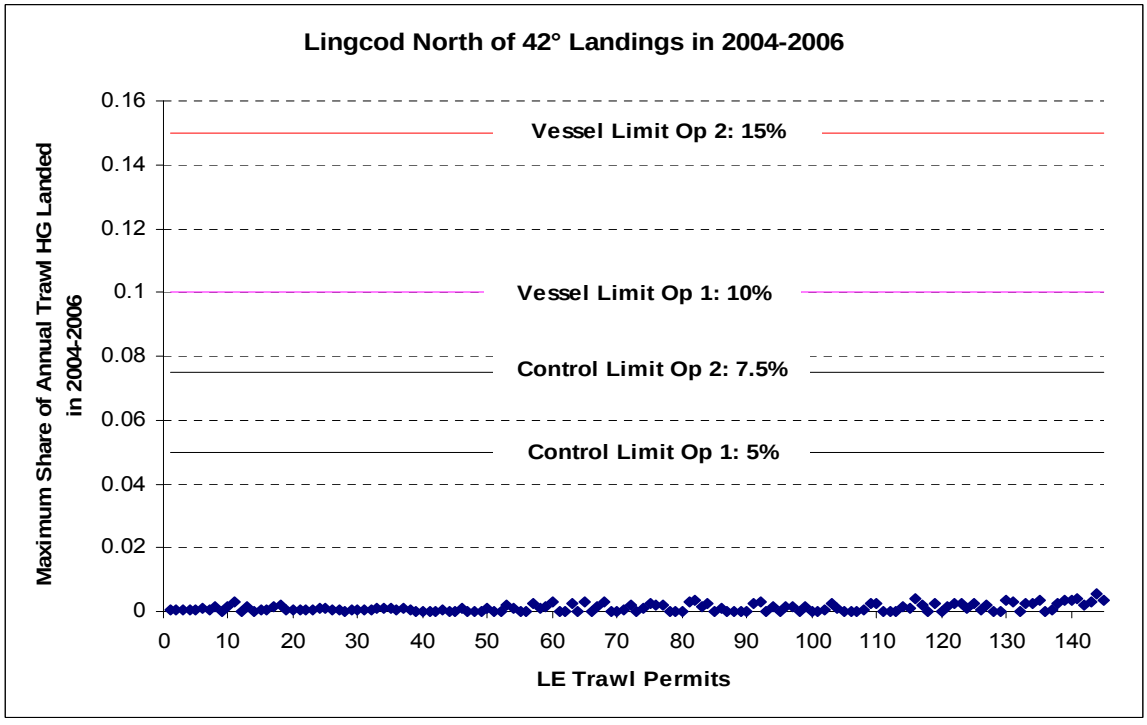

Figure 5. Maximum annual share of lingcod north landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

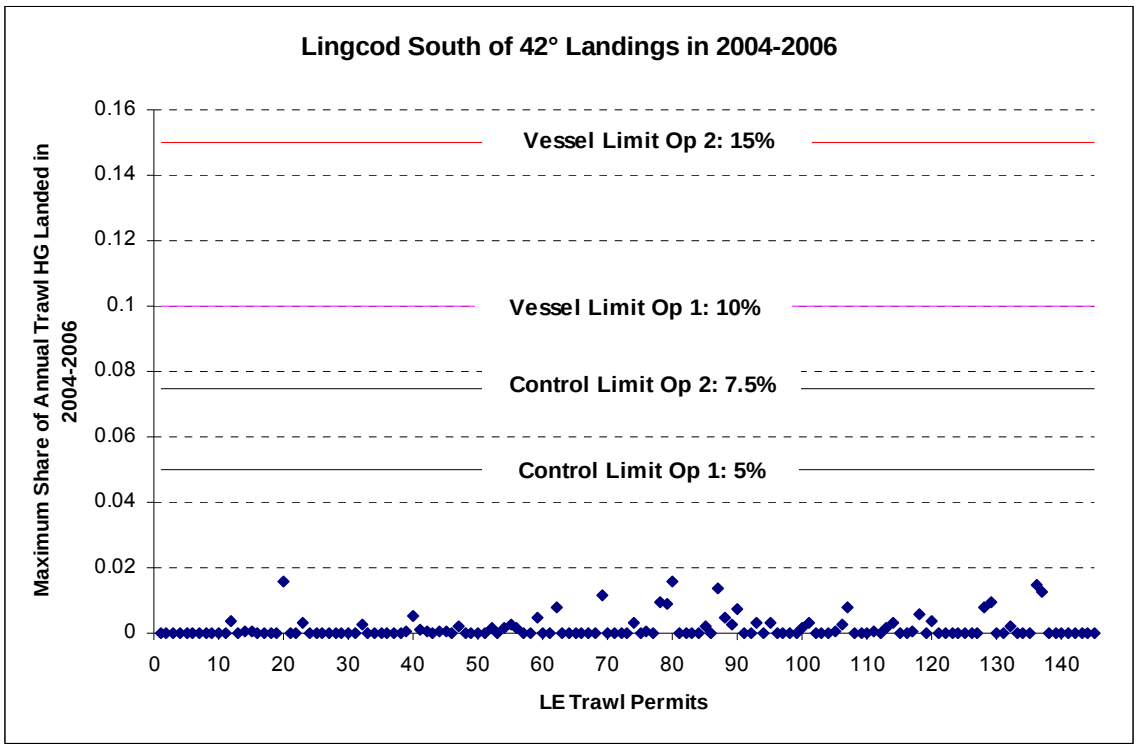

Figure 6. Maximum annual share of lingcod south landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

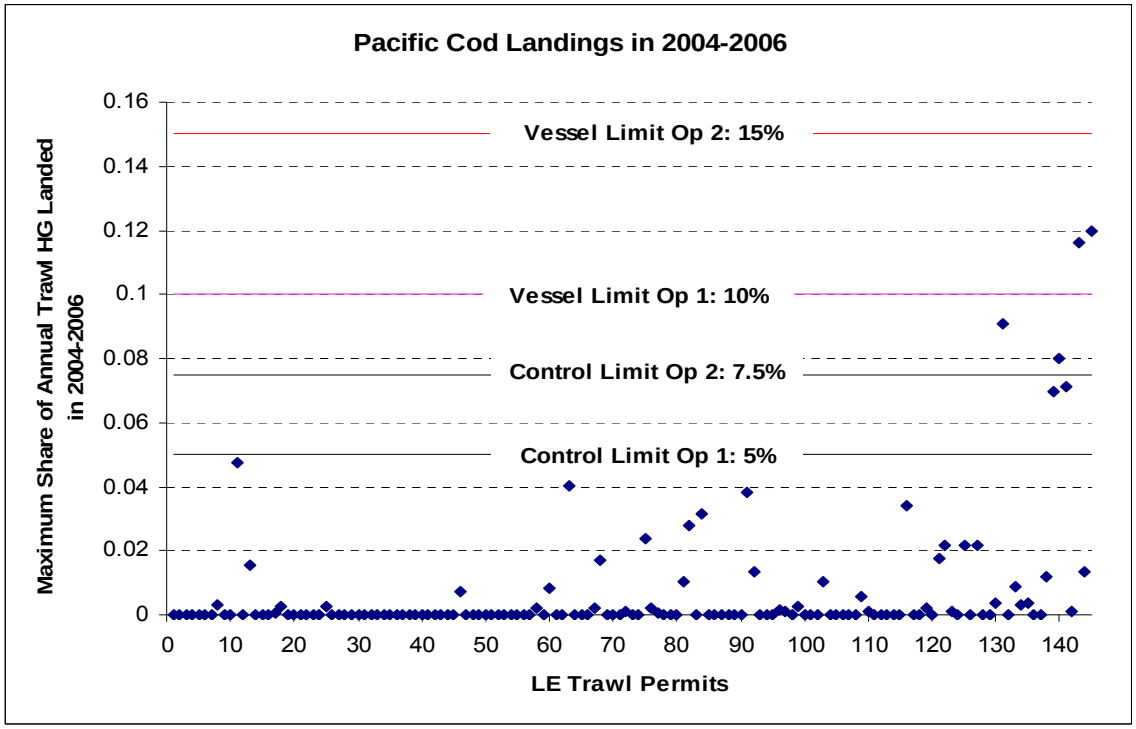

Figure 7. Maximum annual share of Pacific cod landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

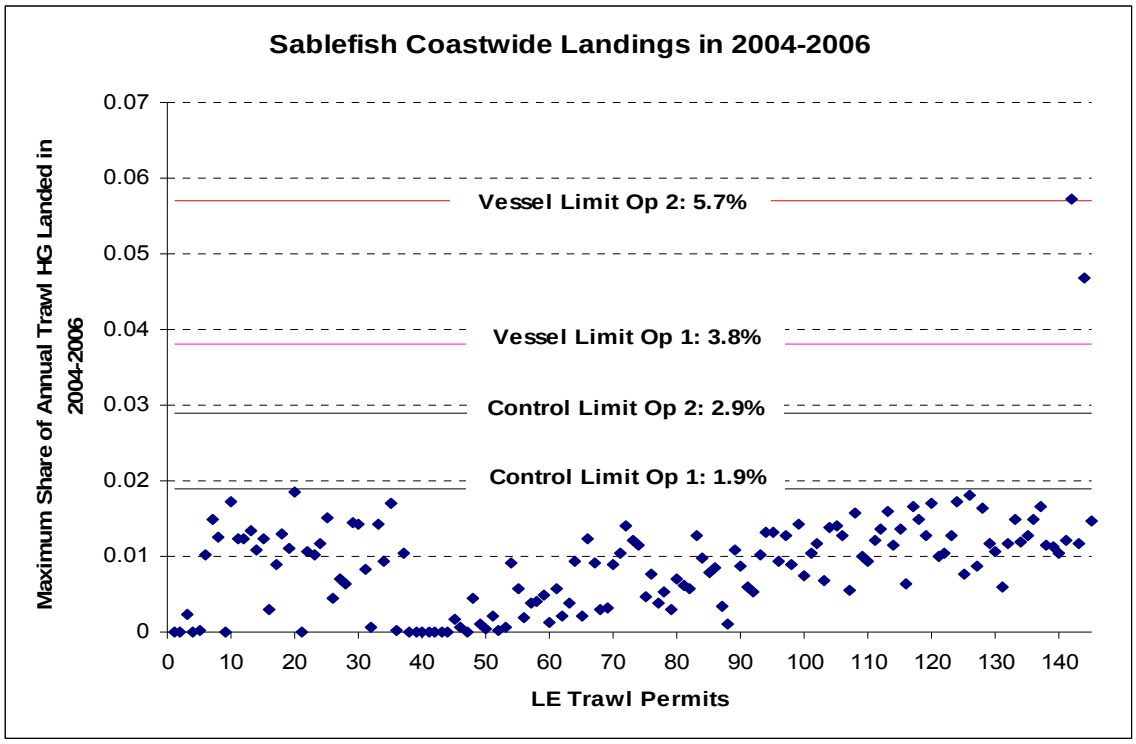

Figure 8. Maximum annual share of coastwide sablefish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

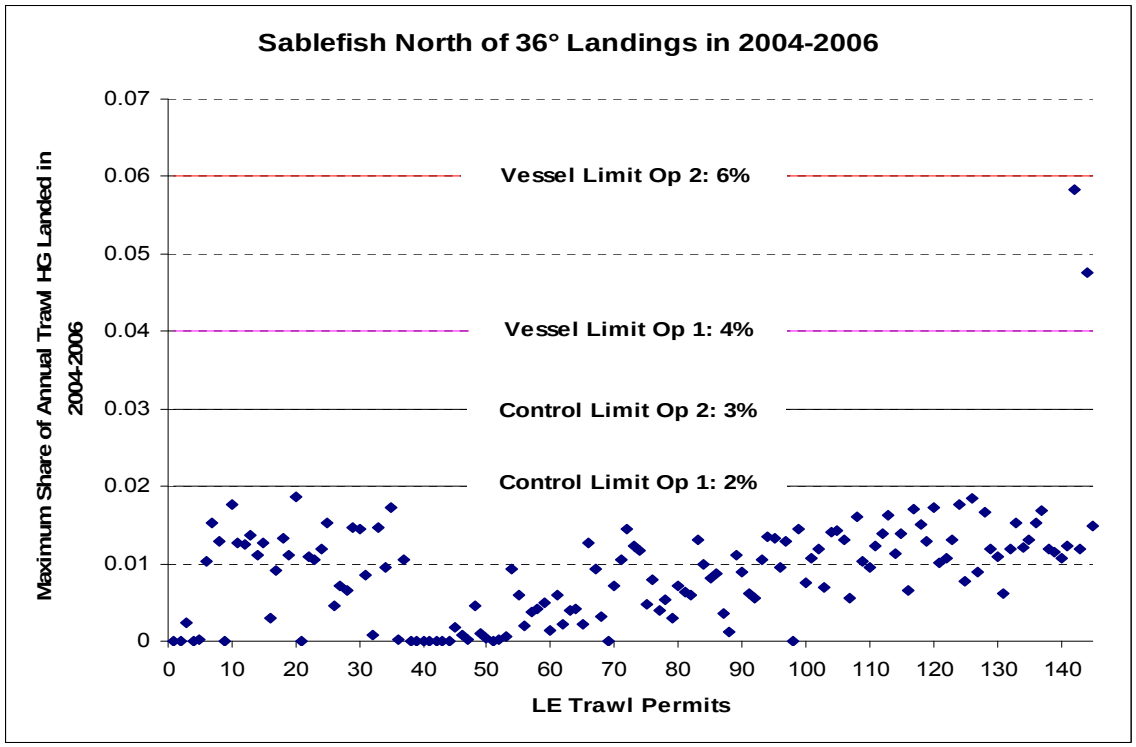

Figure 9. Maximum annual share of sablefish north landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

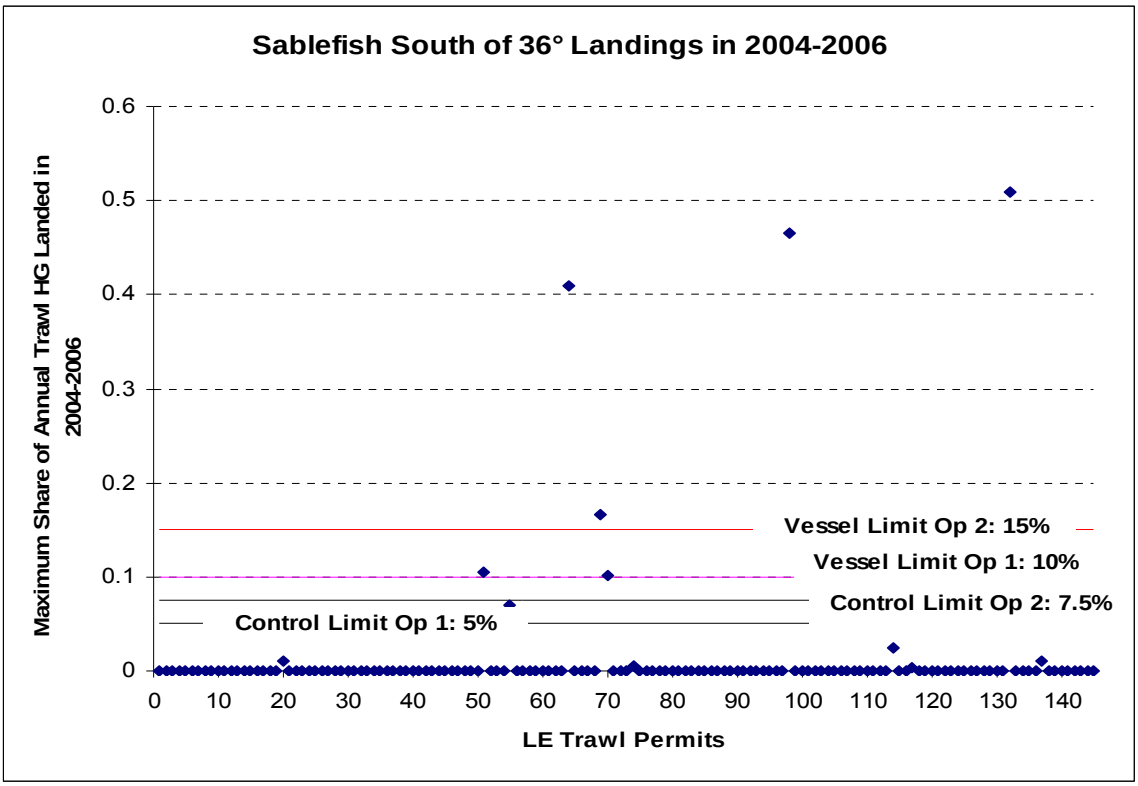

Figure 10. Maximum annual share of sablefish south landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

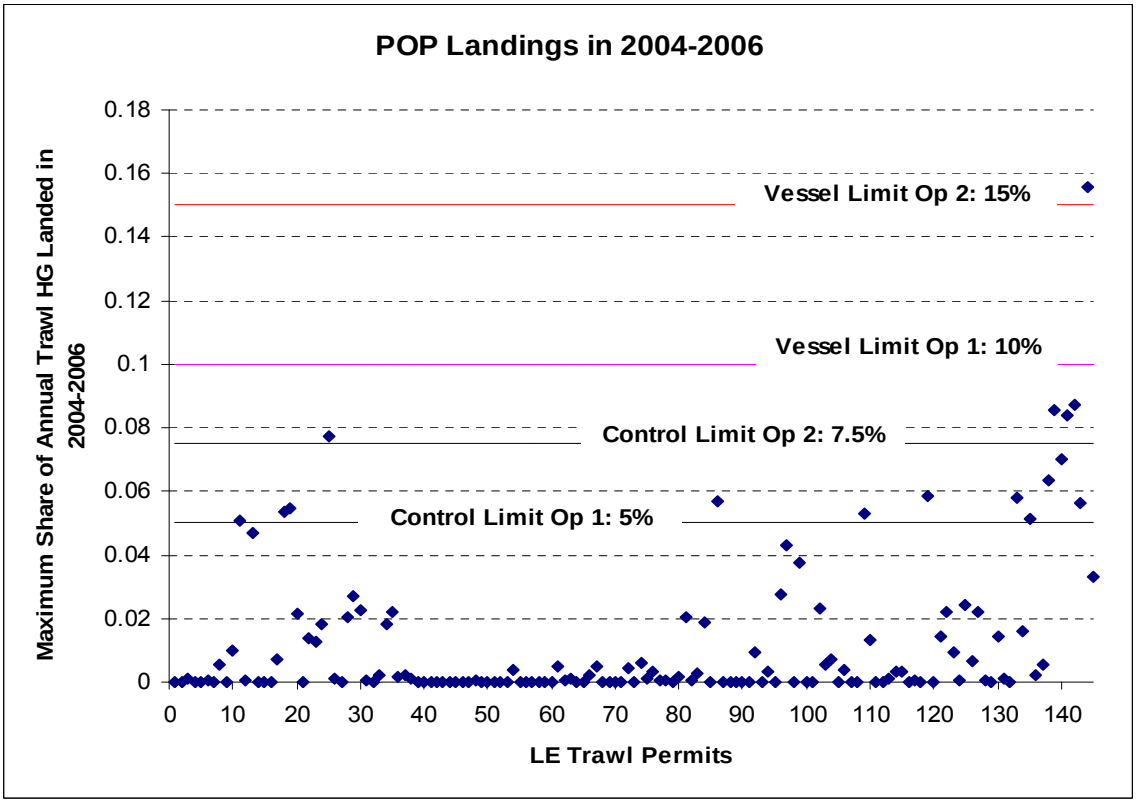

Figure 11. Maximum annual share of Pacific Ocean perch landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

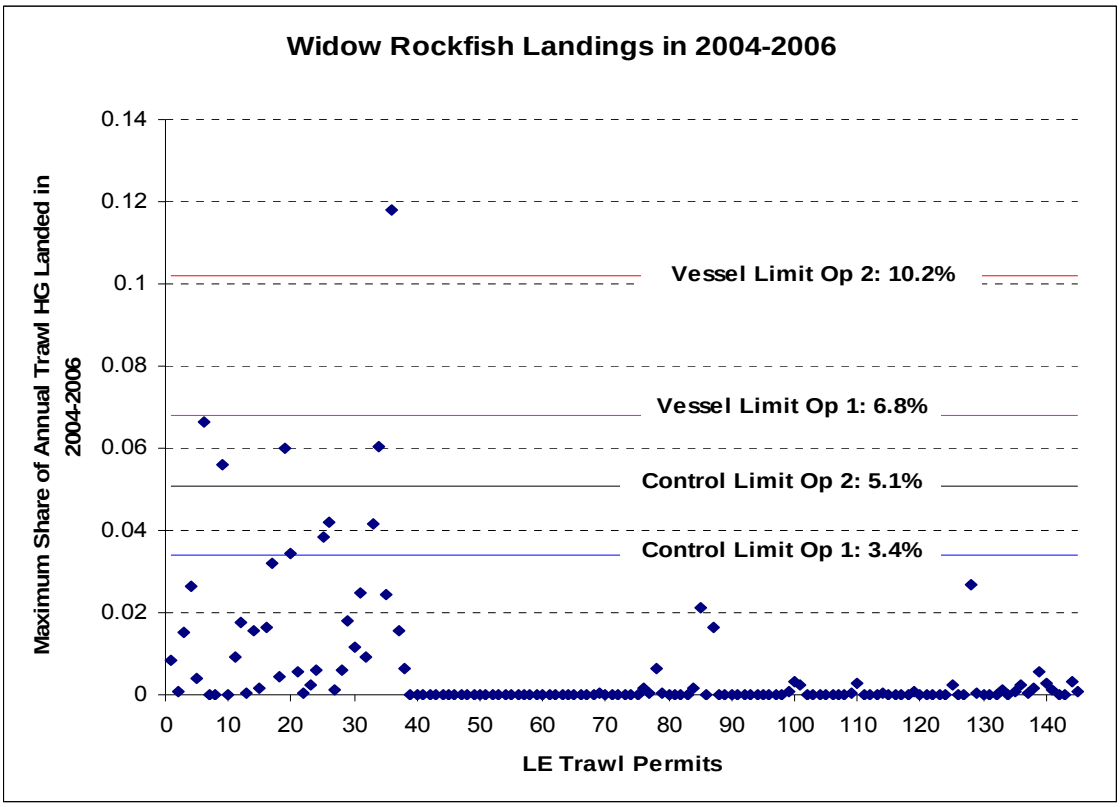

Figure 12. Maximum annual share of widow rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

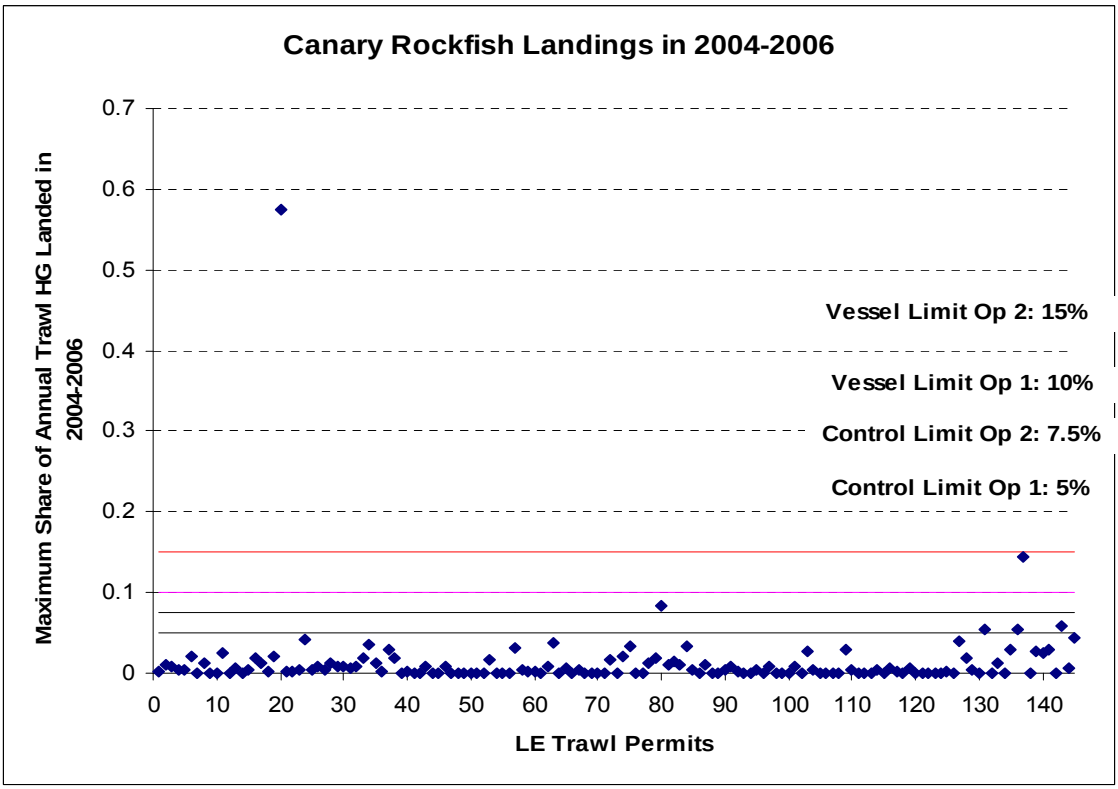

Figure 13. Maximum annual share of canary rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

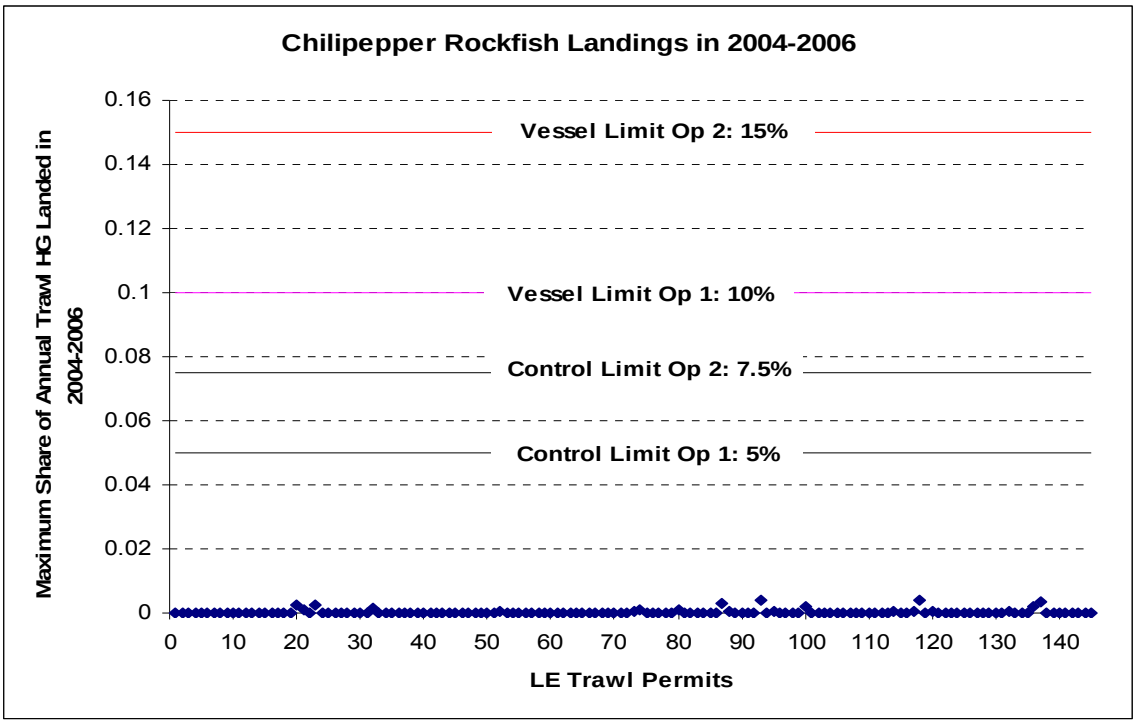

Figure 14. Maximum annual share of chilipepper rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

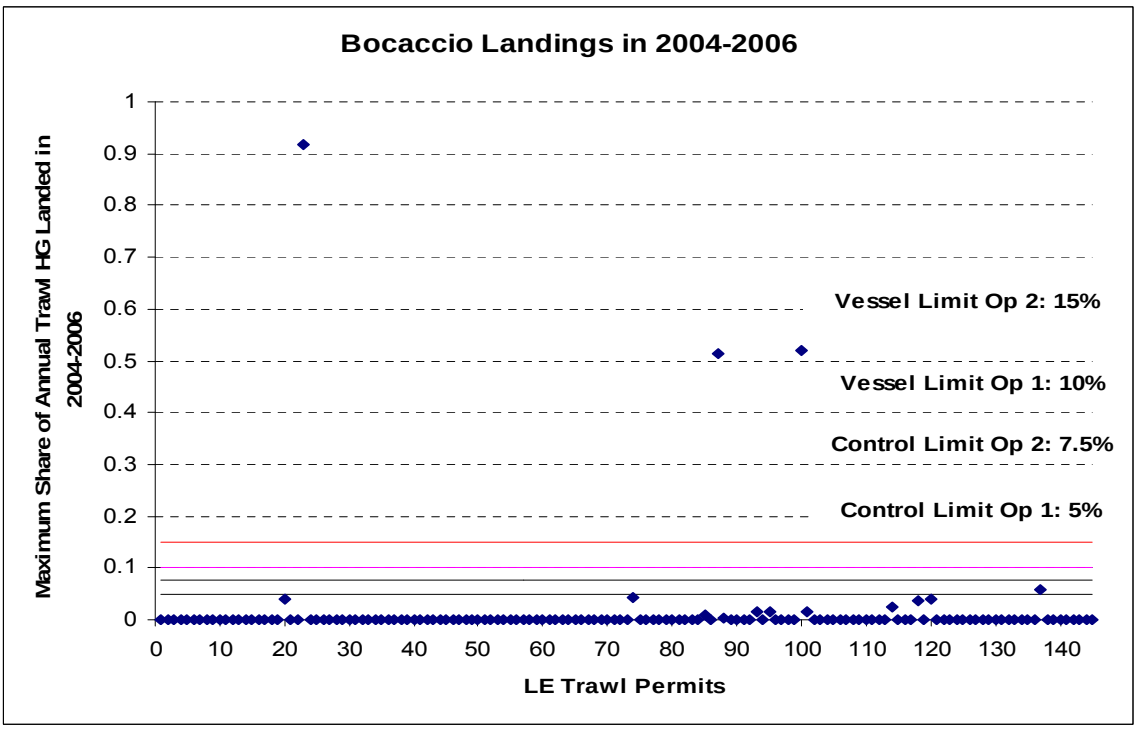

Figure 15. Maximum annual share of Bocaccio rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

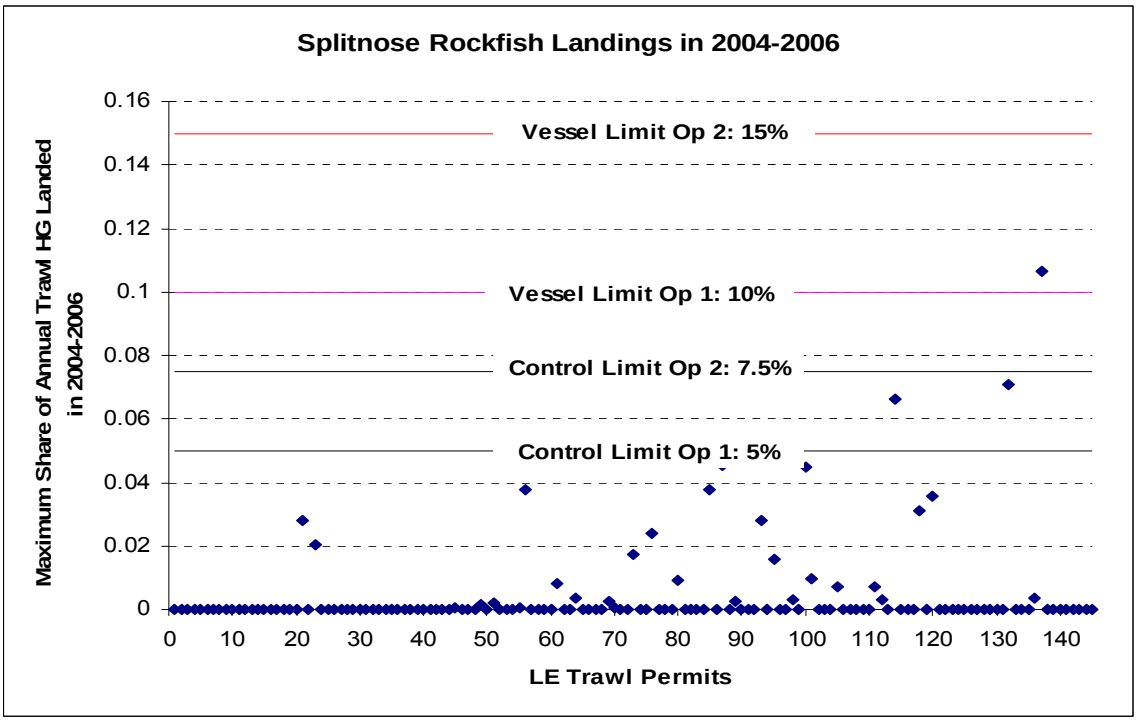

Figure 16. Maximum annual share of splitnose rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

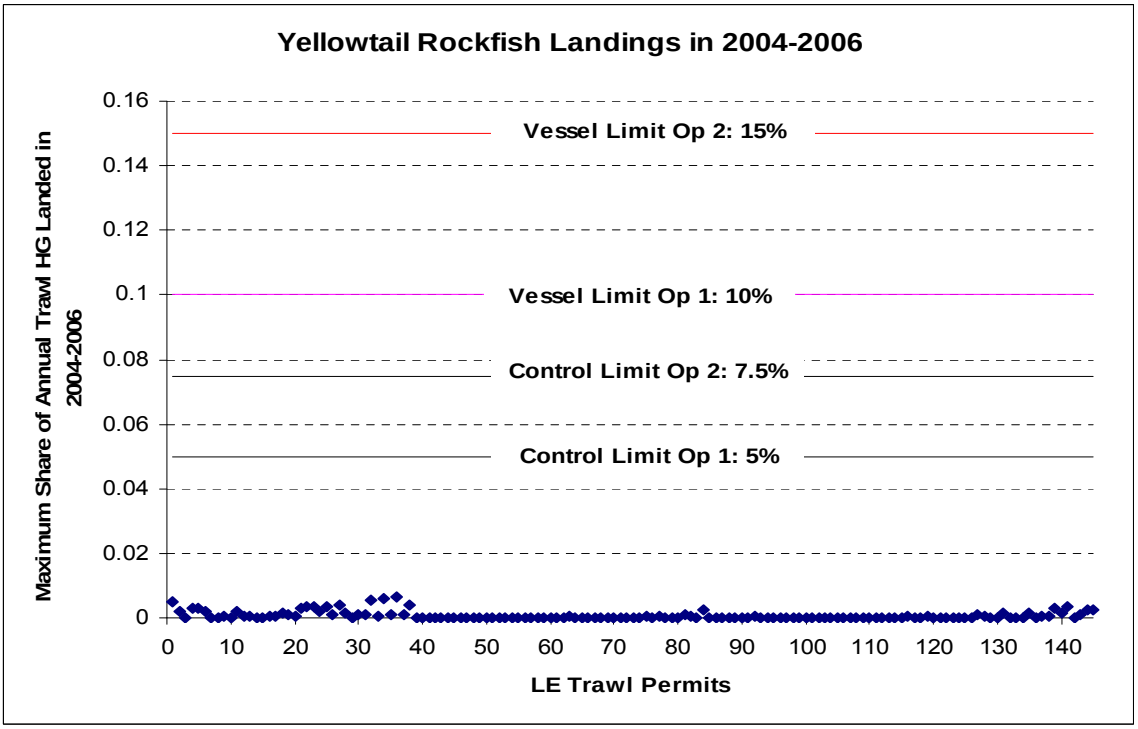

Figure 17. Maximum annual share of yellowtail rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

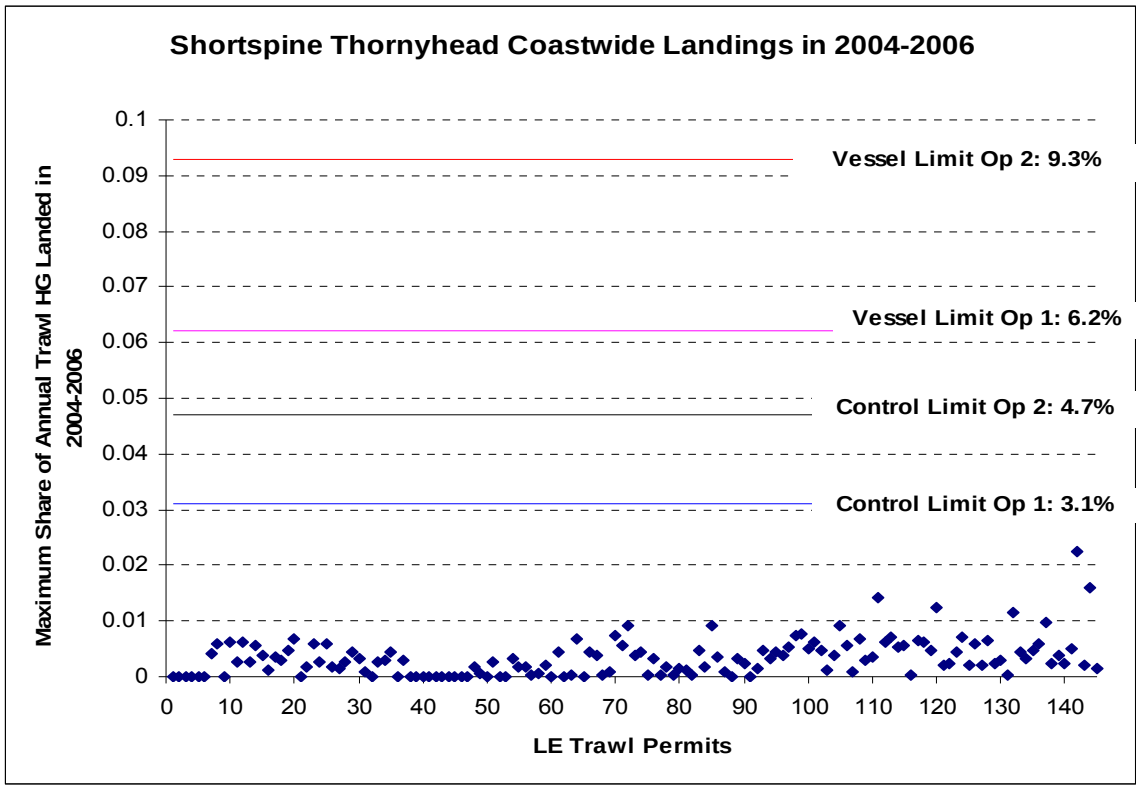

Figure 18. Maximum annual share of shortspine thornyhead rockfish coastwide landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

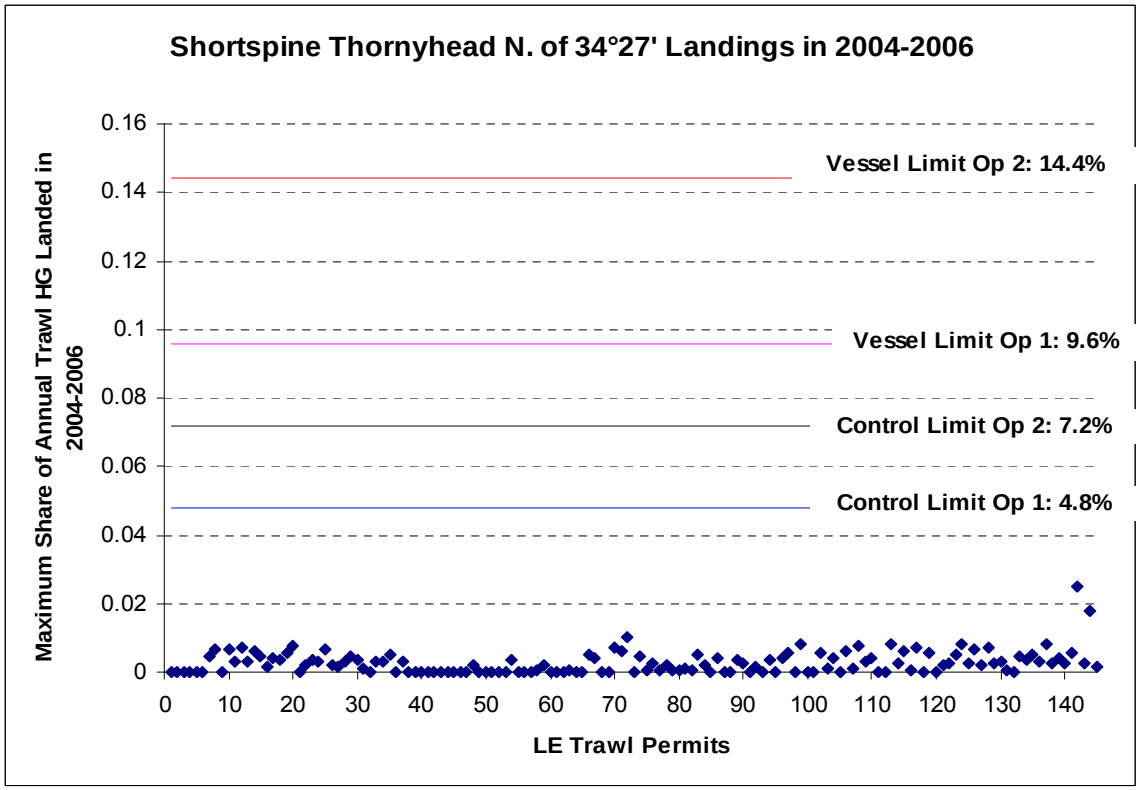

Figure 19. Maximum annual share of shortspine thornyhead rockfish north landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

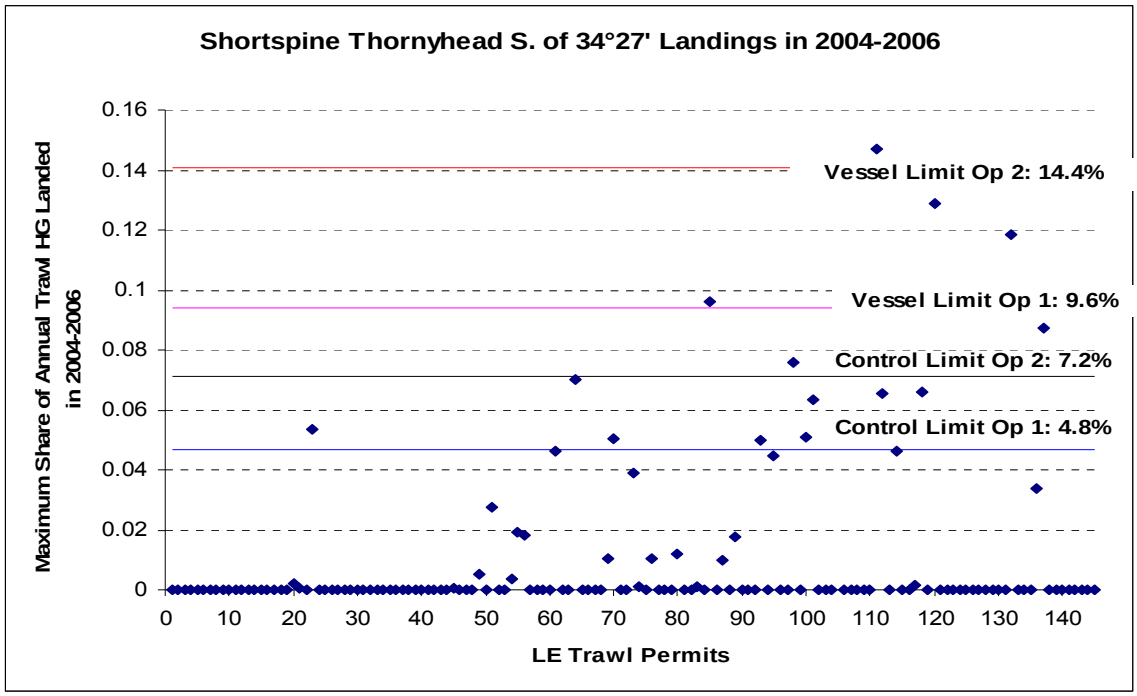

Figure 20. Maximum annual share of shortspine thornyhead rockfish south landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

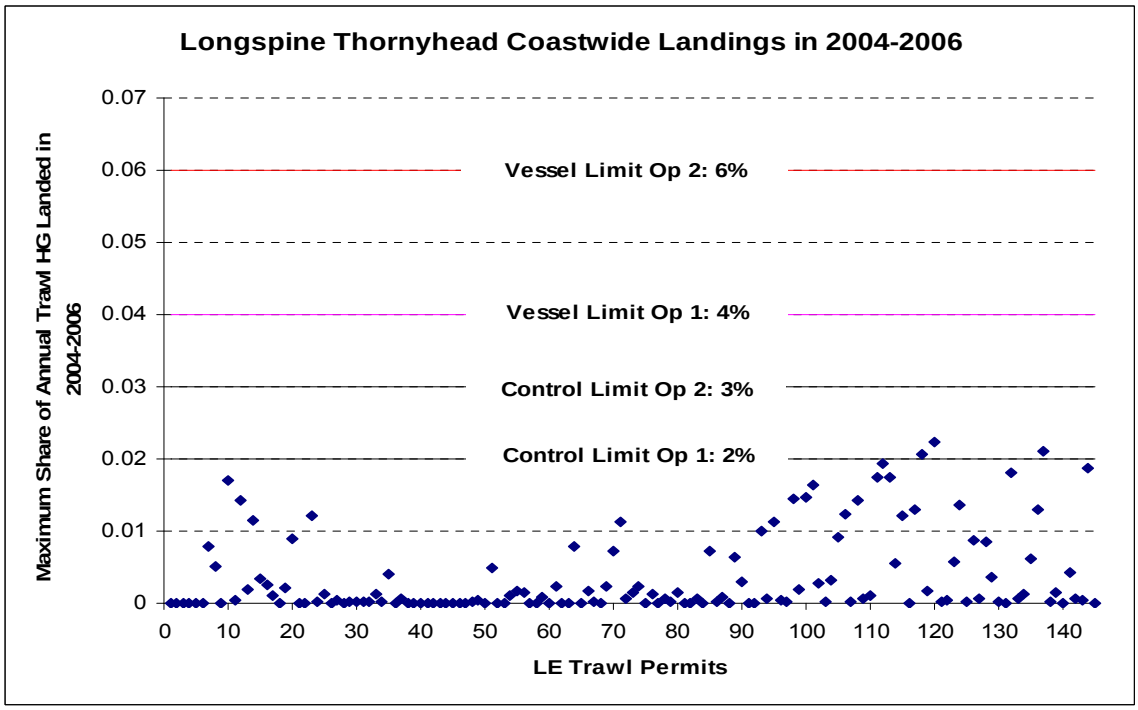

Figure 21. Maximum annual share of longspine thornyhead rockfish coastwide landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

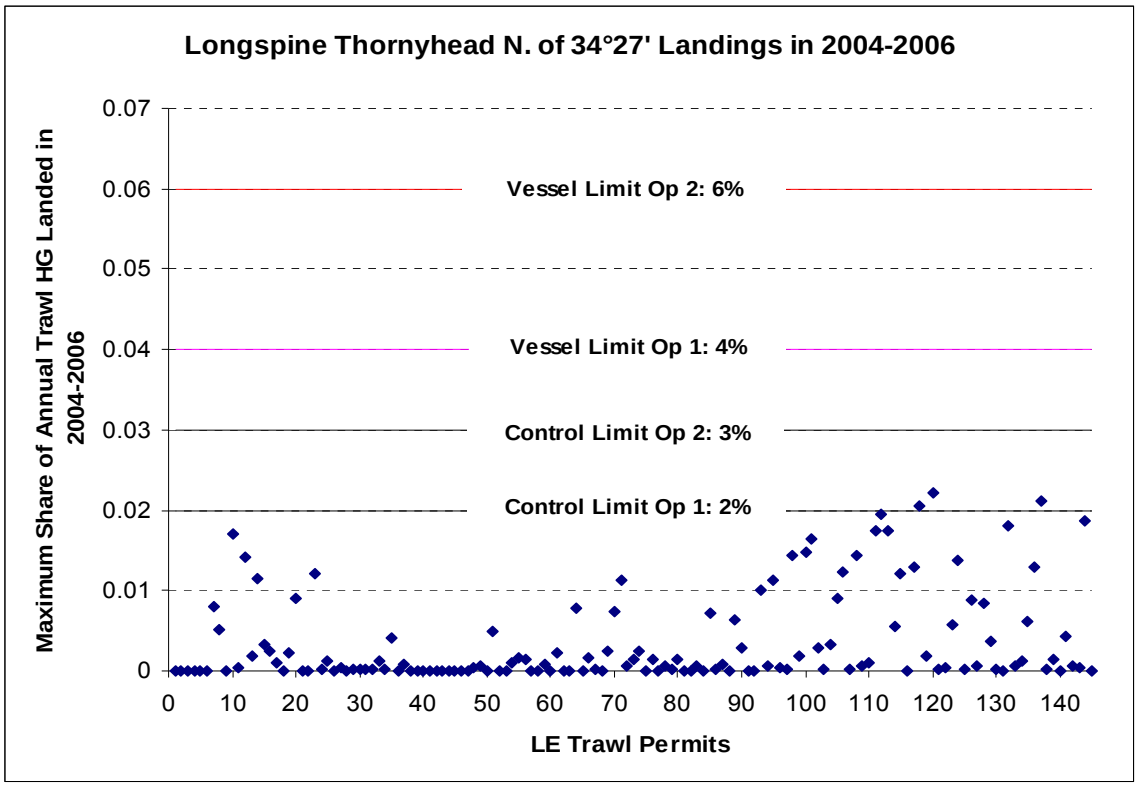

Figure 22. Maximum annual share of longspine thornyhead rockfish south landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

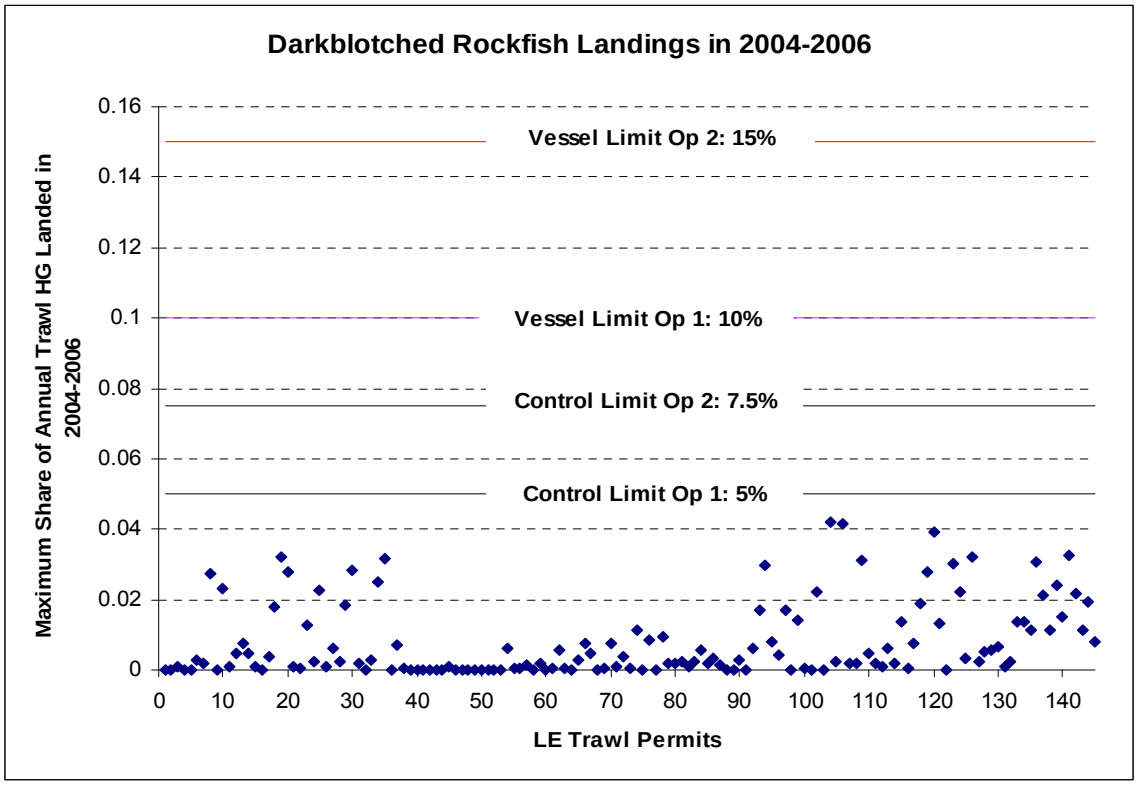

Figure 23. Maximum annual share of darkblotched rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

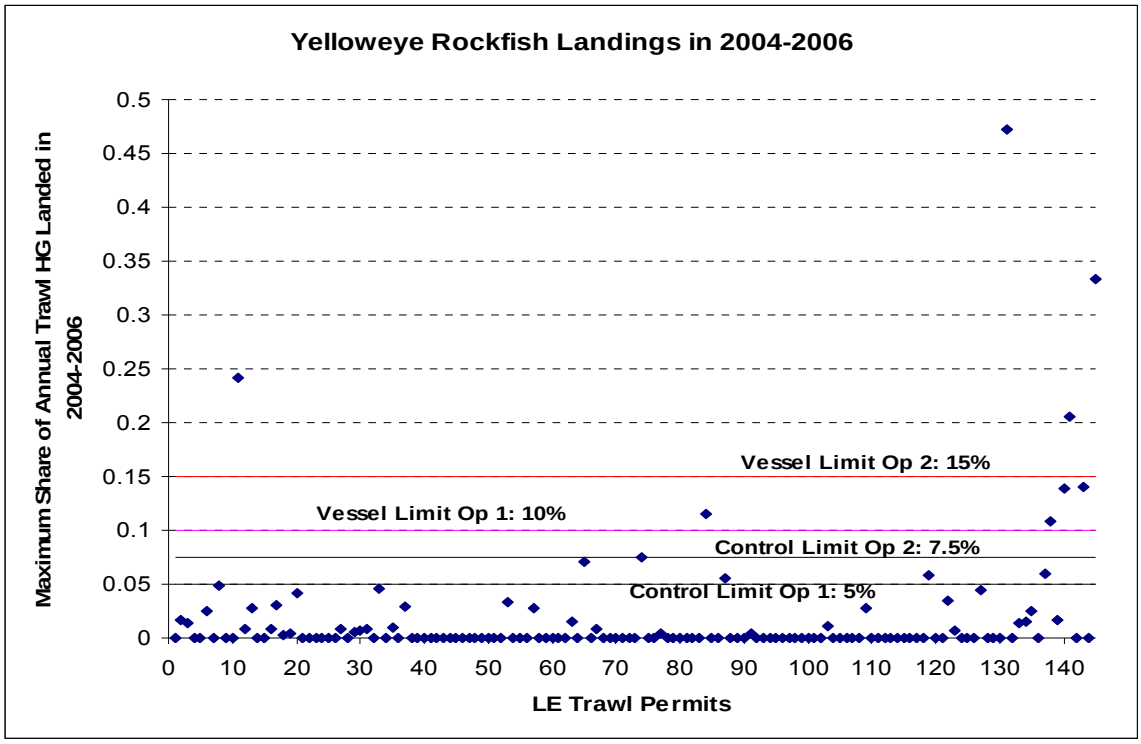

Figure 24. Maximum annual share of yelloweye rockfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

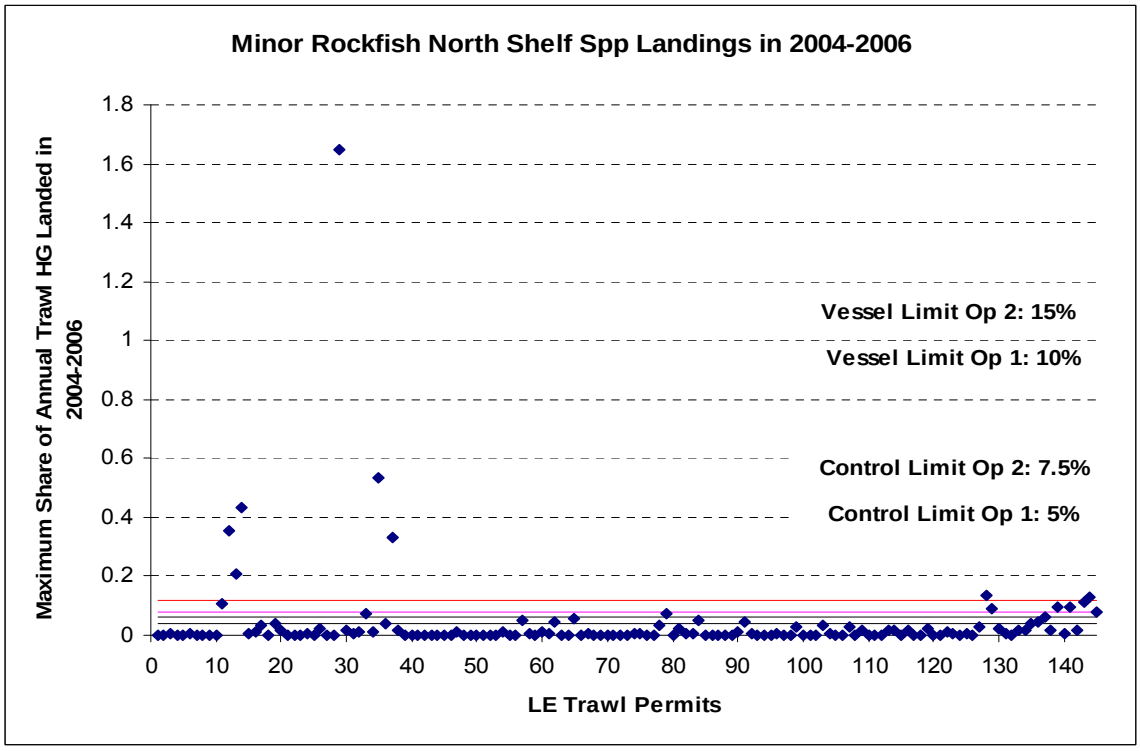

Figure 25. Maximum annual share of minor rockfish north shelf species landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

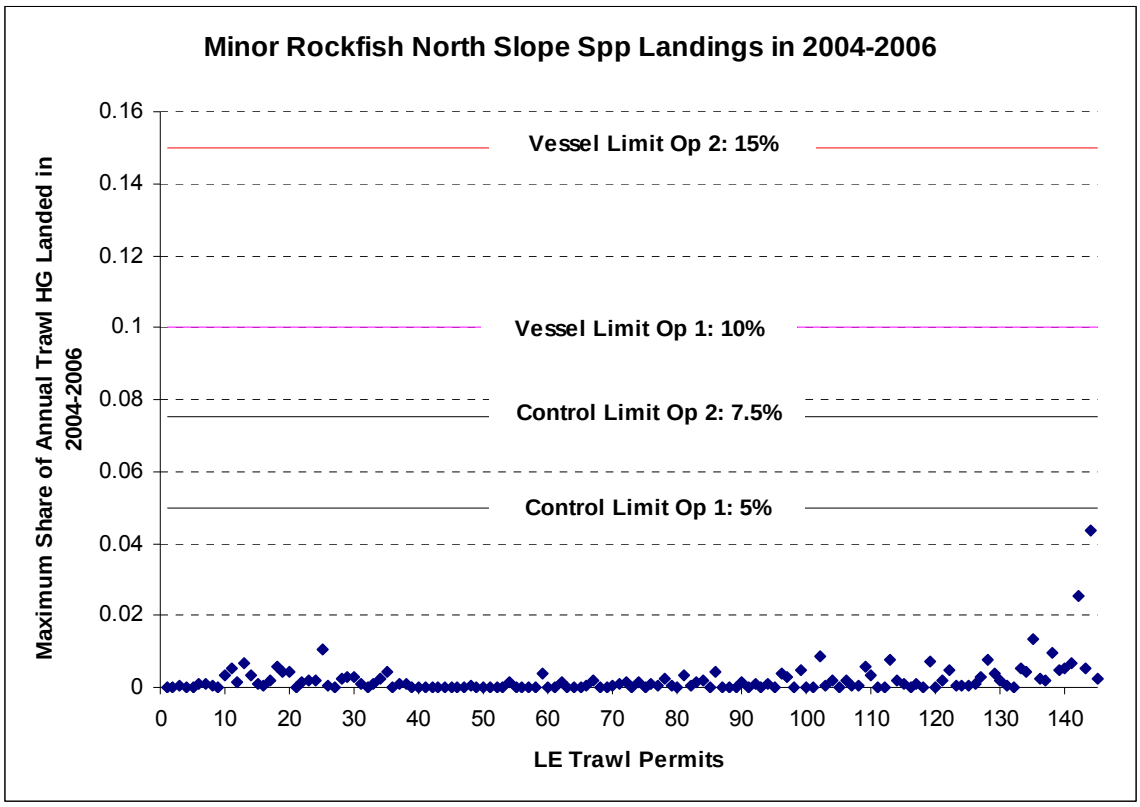

Figure 26. Maximum annual share of minor rockfish north slope species landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

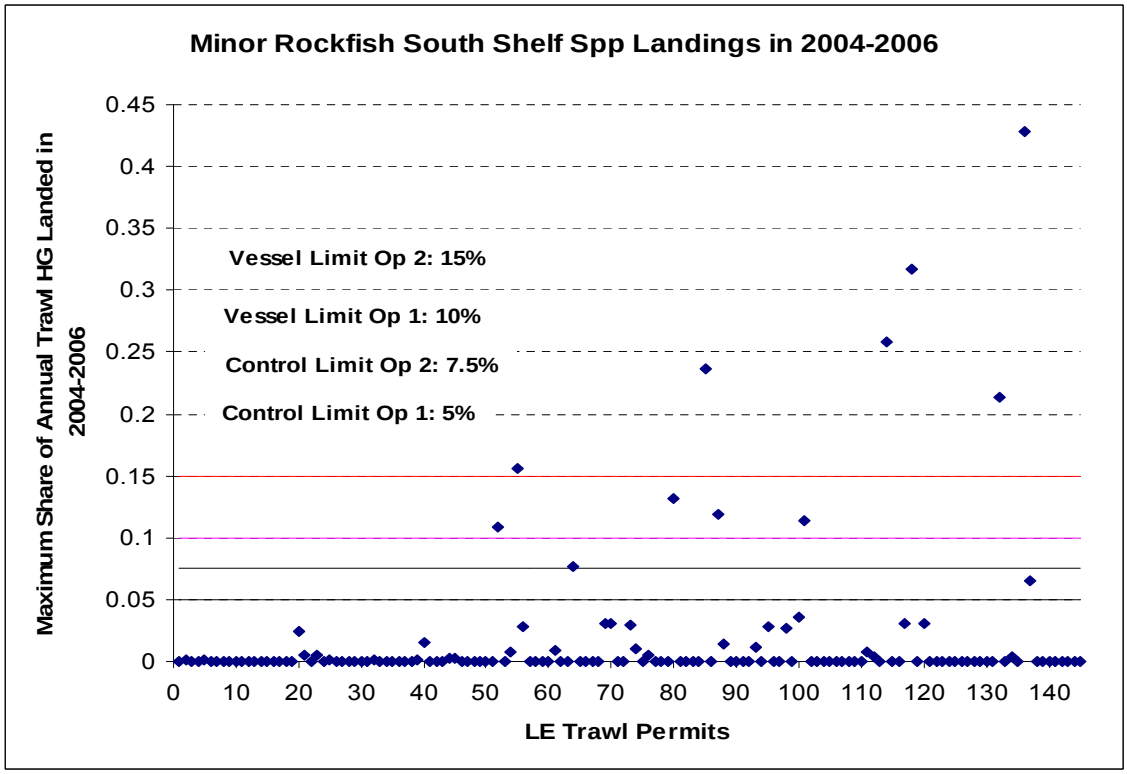

Figure 27. Maximum annual share of minor rockfish south shelf species landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

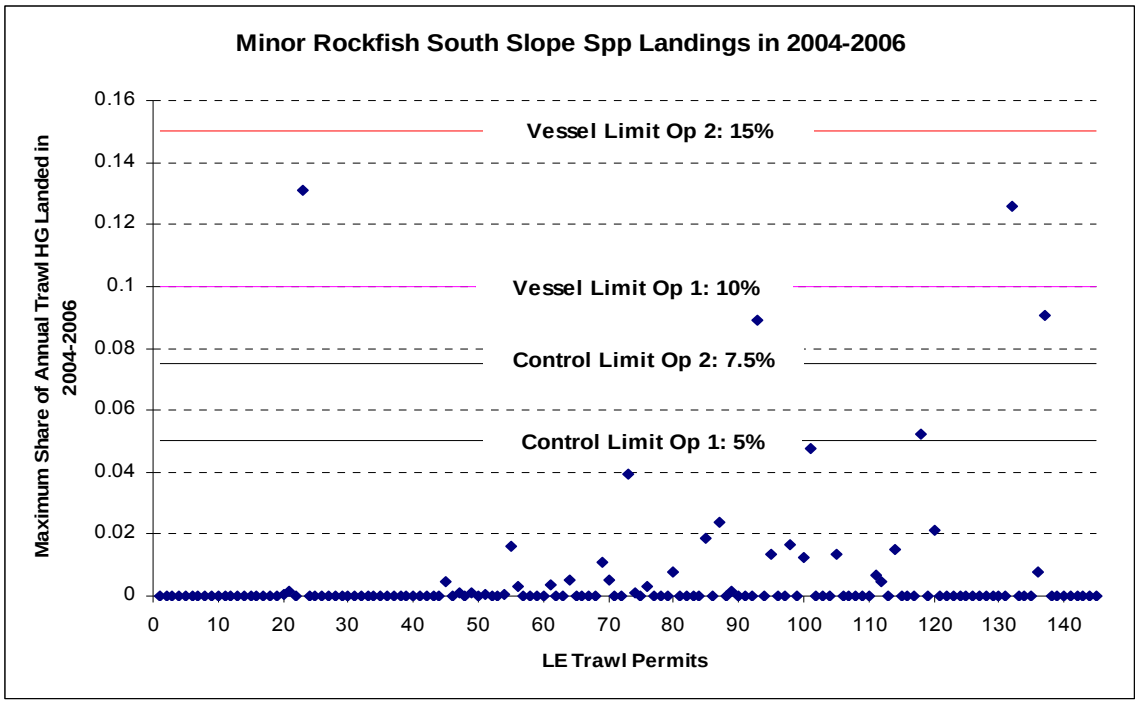

Figure 28. Maximum annual share of minor rockfish south slope species landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

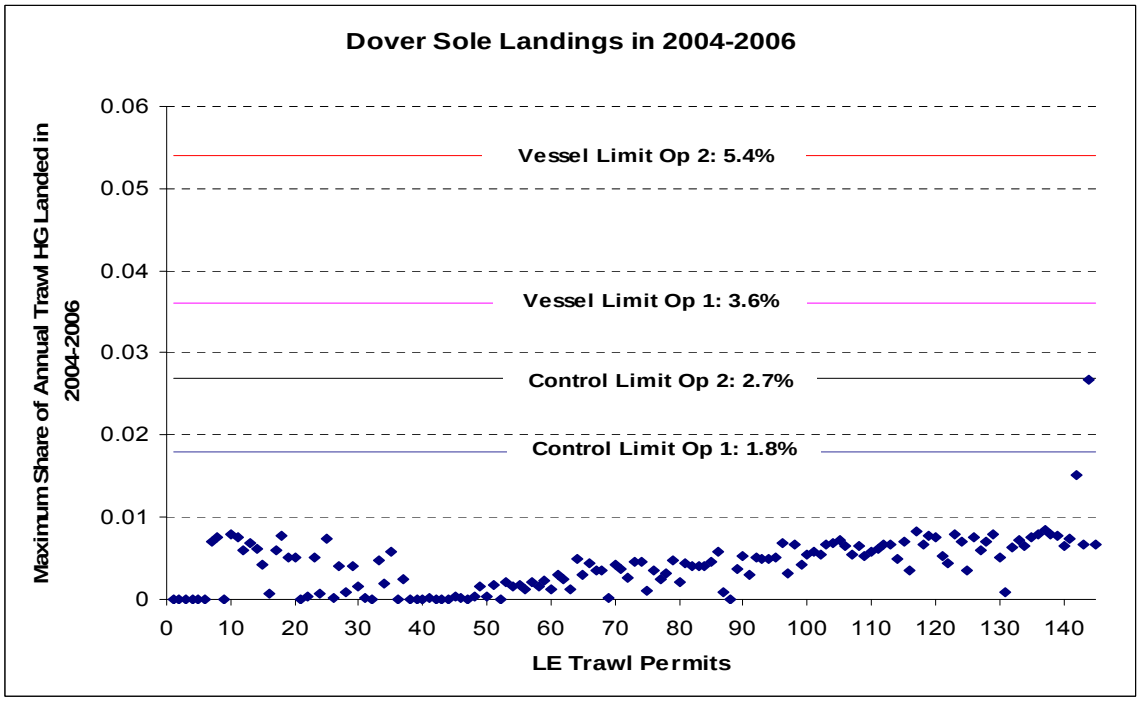

Figure 29. Maximum annual share of Dover sole landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

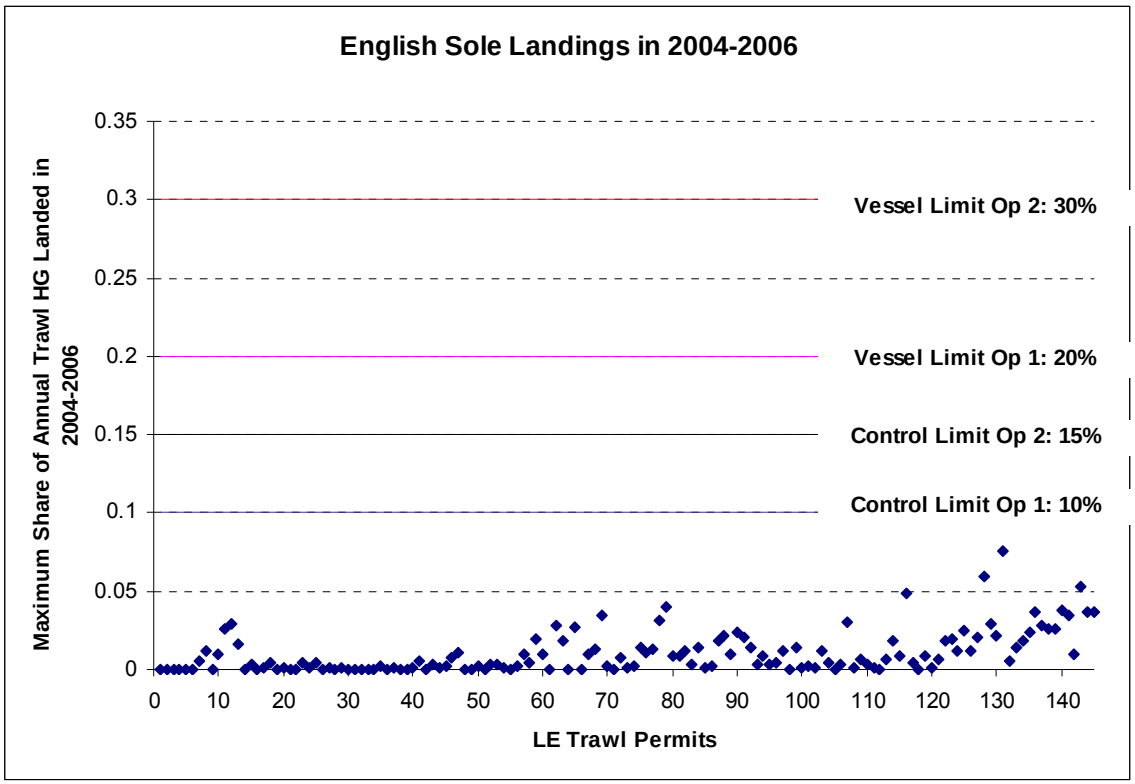

Figure 30. Maximum annual share of English sole landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

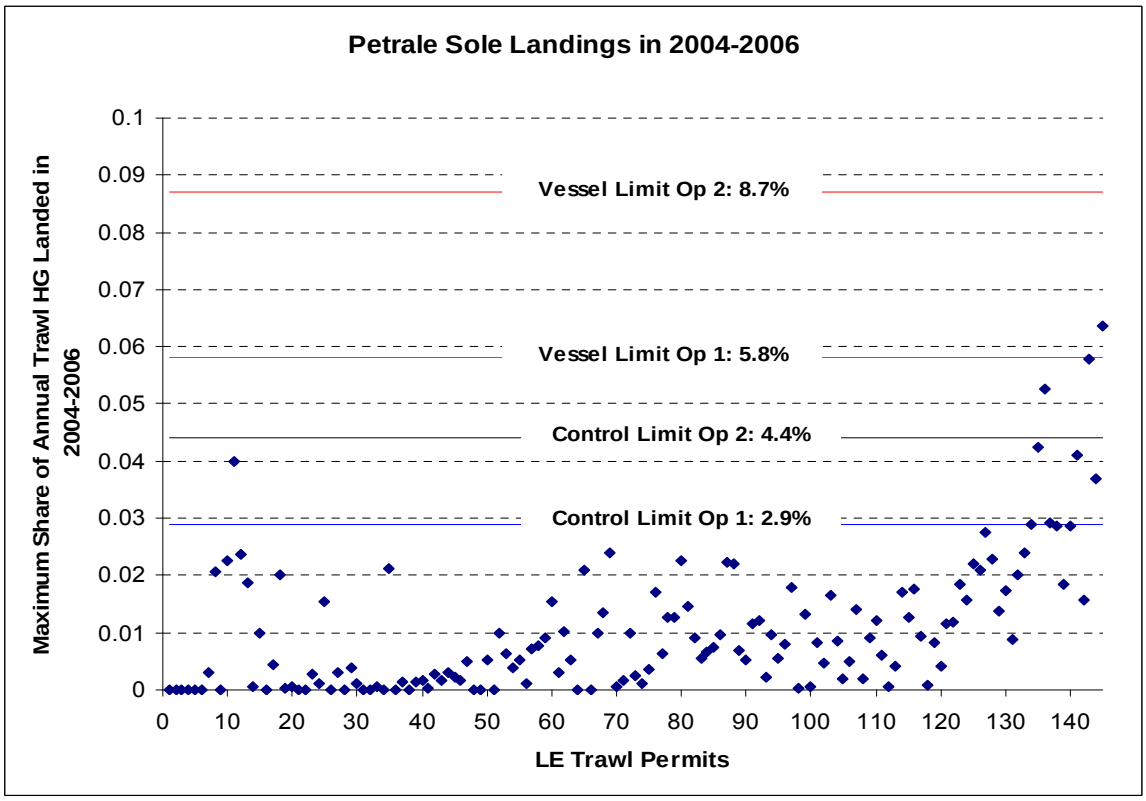

Figure 31. Maximum annual share of Petrale sole landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

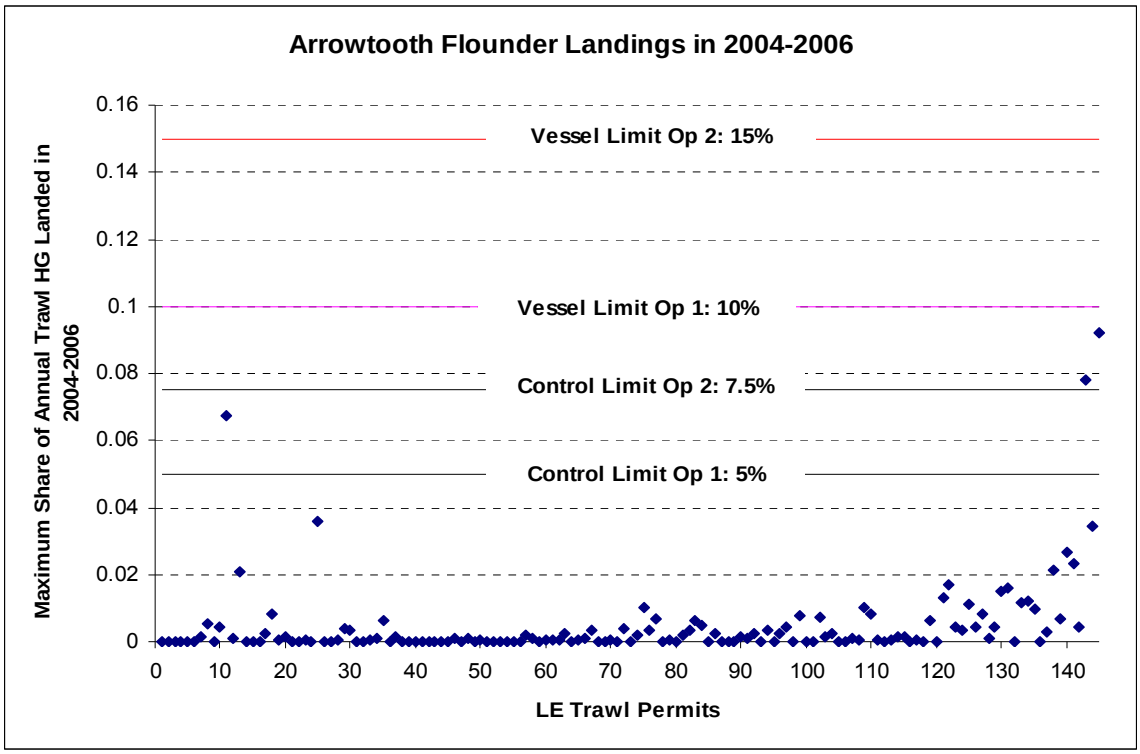

Figure 32. Maximum annual share of arrowtooth flounder landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

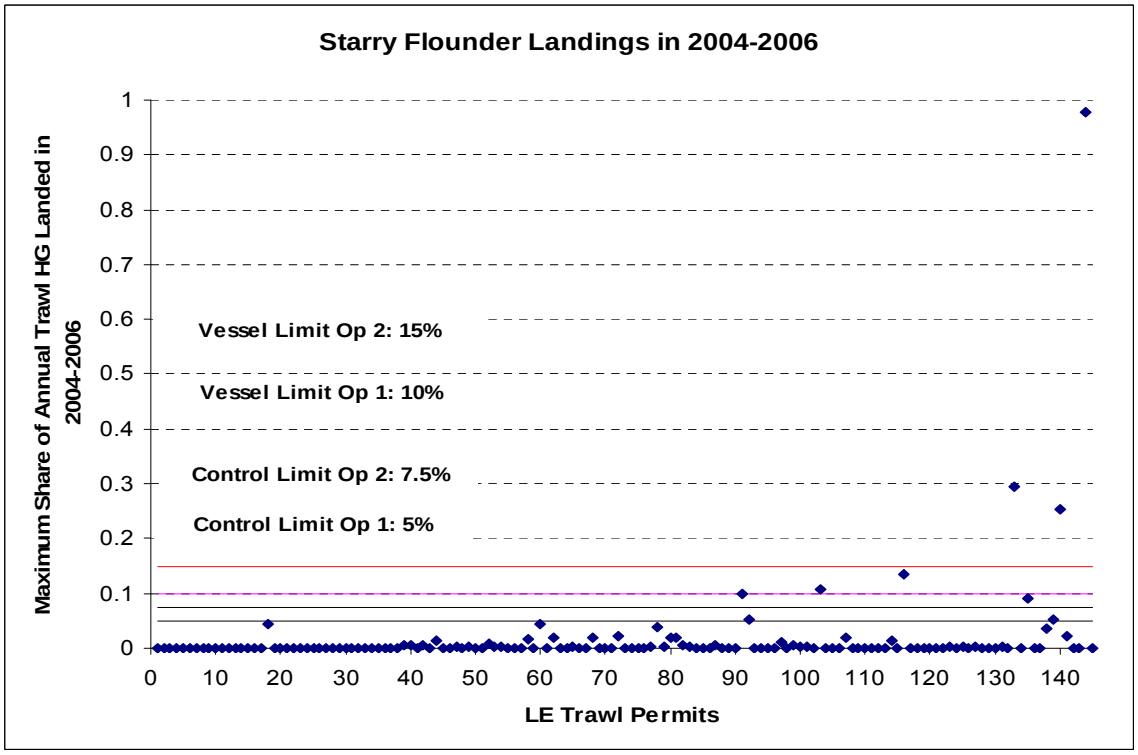

Figure 33. Maximum annual share of starry flounder landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

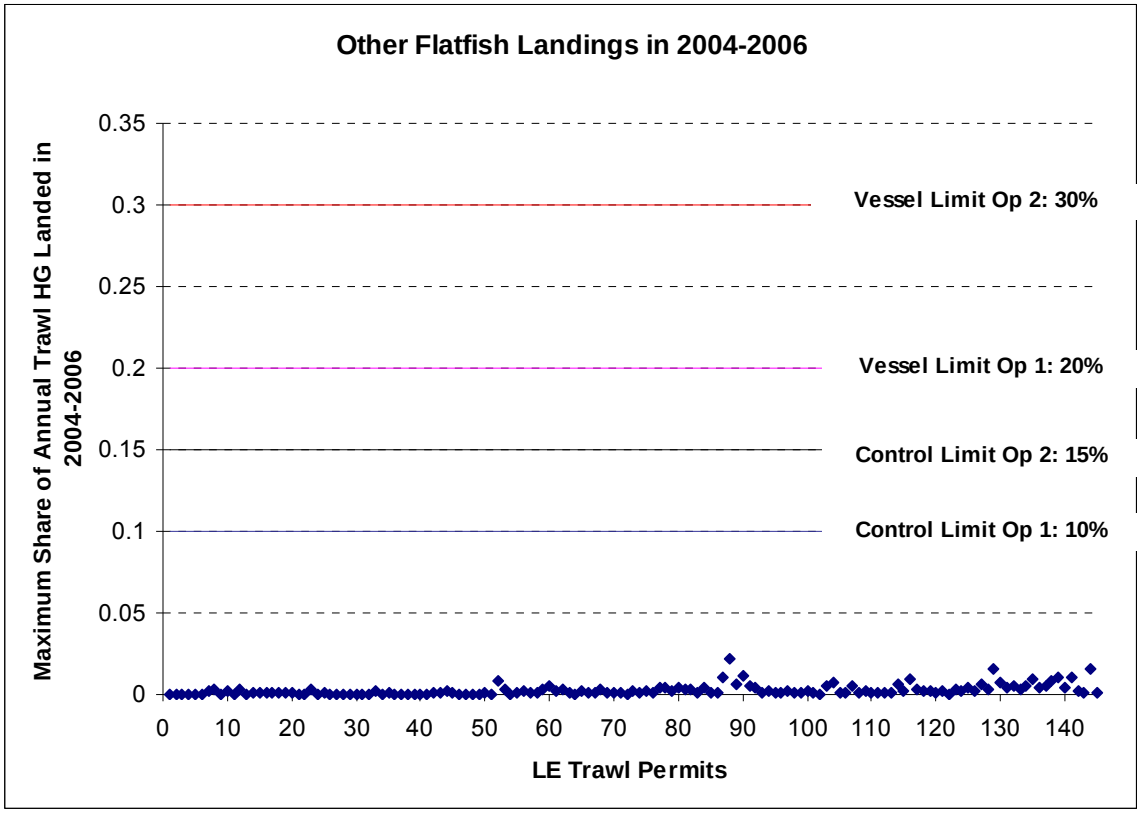

Figure 34. Maximum annual share of other flatfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

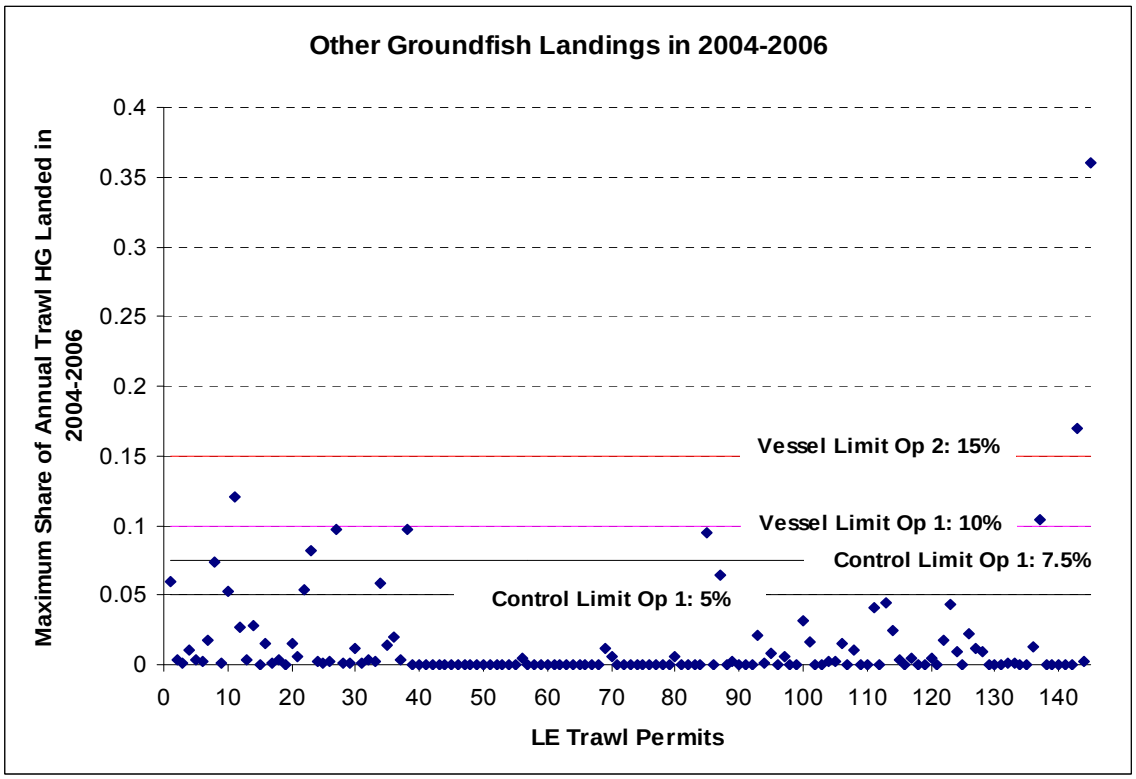

Figure 35. Maximum annual share of other groundfish landings for each permit active in the shoreside whiting or nonwhiting fisheries from 2004-2006.

Table 0-1. Comparison of control limits to allocations: QS allocated 100% based on harvest history with equal sharing; bycatch rate-based allocation of OF spp and no grandfather clause.

Stock	Entities with Allocation		Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities At Limit	Total QS for Those at Limit (%)		Maximum Allocation (%)	Control Limit Option 2 (%)	Number of Entities at Limit	Total QS for Those at Limit (%)
All nonwhiting groundfish (in aggregate)	121		1.50	1.5	17	25.50		2.20	2.2	6	13.20
Lingcod - coastwide c/	121		2.40	5	0	0.00		2.90	7.5	0	0.00
N. of 42° N (OR & WA)	121		2.90	5	0	0.00		3.50	7.5	0	0.00
S. of 42° N (CA)	121		5.00	5	1	5.00		4.80	7.5	0	0.00
Pacific Cod	121		5.00	5	4	20.00		7.50	7.5	1	7.50
Pacific Whiting											
Shoreside Sector	121		10.70	10	0	0.00		10.70	15	0	0.00
Mothership Sector	121		9.50	10	0	0.00		9.50	15	0	0.00
Catcher Processors				50					55		
All Whiting Sectors Combined				15					22.5		
Sablefish (Coastwide)	121		2.00	1.9	2	3.80		2.50	2.9	0	0.00
N. of 36° N (Monterey north)	121		2.00	2	2	4.00		2.60	3	0	0.00
S. of 36° N (Conception area)	121		5.00	5	6	30.00		7.50	7.5	3	22.50
PACIFIC OCEAN PERCH	121		3.20	5	0	0.00		4.20	7.5	0	0.00
Shortbelly Rockfish	121		5.00	5	2	10.00		7.50	7.5	1	7.50
WIDOW ROCKFISH	121		2.20	3.4	0	0.00		2.80	5.1	0	0.00
CANARY ROCKFISH	121		3.80	5	0	0.00		3.60	7.5	0	0.00
Chilipepper Rockfish	121		5.00	5	5	25.00		7.50	7.5	3	22.50
BOCACCIO	121		5.00	5	9	45.00		7.60	7.5	5	37.50
Splitnose Rockfish	121		5.00	5	7	35.00		7.50	7.5	4	30.00
Yellowtail Rockfish	121		4.20	5	0	0.00		4.00	7.5	0	0.00
Shortspine Thornyhead - coastwide	121		2.40	3.1	0	0.00		2.90	4.7	0	0.00
Shortspine Thornyhead - N. of 34°27' N	121		2.60	4.8	0	0.00		3.10	7.2	0	0.00
Shortspine Thornyhead - S. of 34°27' N	121		4.70	4.7	1	4.70		7.10	7.1	1	7.10
Longspine Thornyhead - coastwide	121		2.00	2	6	12.00		2.90	3	0	0.00
Longspine Thornyhead - N. of 34°27' N	121		2.00	2	6	12.00		2.90	3	0	0.00
Longspine Thornyhead - S. of 34°27' N	121		5.00	5	1	5.00		7.50	7.5	1	7.50
COWCOD - Conception and Monterey	121		5.00	5	9	45.00		7.50	7.5	8	60.00
DARKBLOTCHED	121		2.80	5	0	0.00		4.20	7.5	0	0.00
YELLOWEYE g/	121		3.30	5	0	0.00		3.20	7.5	0	0.00
Black Rockfish	121		4.90	5	0	0.00		7.40	7.5	0	0.00
Black Rockfish (WA)	121		5.00	5	3	15.00		7.50	7.5	2	15.00
Black Rockfish (OR-CA)	121		5.00	5	4	20.00		7.50	7.5	3	22.50
Minor Rockfish North	121		3.70	5	0	0.00		3.70	7.5	0	0.00
Nearshore Species	121		5.00	5	3	15.00		7.50	7.5	1	7.50
Shelf Species	121		3.50	4	0	0.00		3.80	6	0	0.00
Slope Species	121		3.70	5	0	0.00		3.70	7.5	0	0.00
Minor Rockfish South	121		5.00	5	2	10.00		7.50	7.5	1	7.50
Nearshore Species	121		5.00	5	6	30.00		7.50	7.5	3	22.50
Shelf Species	121		5.00	5	5	25.00		7.50	7.5	3	22.50
Slope Species	121		5.00	5	2	10.00		7.50	7.5	1	7.50
California scorpionfish	121		5.00	5	2	10.00		7.50	7.5	2	15.00
Cabezon (off CA only)	121		5.00	5	2	10.00		7.50	7.5	2	15.00
Dover Sole	121		1.80	1.8	6	10.80		2.60	2.7	0	0.00
English Sole	121		4.00	10	0	0.00		3.80	15	0	0.00
Petrale Sole (coastwide) c/	121		2.20	2.9	0	0.00		3.20	4.4	0	0.00
Arrowtooth Flounder	121		5.00	5	2	10.00		6.60	7.5	0	0.00
Starry Flounder	121		5.00	5	8	40.00		7.50	7.5	4	30.00
Other Flatfish	121		9.20	10	0	0.00		9.80	15	0	0.00
Other Fish	121		4.20	5	0	0.00		5.90	7.5	0	0.00

Summary Results from Chapter 4

1. Fleet Consolidation
   - Non-whiting: from 100-120 to 40-60 vessels
   - Shoreside whiting: from 37 to approximately 23 vessels
   - Mothership whiting: from 20 to approximately 14 vessels

2. Processor Consolidation
   - Shoreside whiting: need for processing capital may decline by 30 – 50%
   - Mothership whiting: need for processing capital may decline by 40%
   - Non-whiting: need for processing capital may increase by 12 – 35%

3. Vertical Integration
   - Shoreside Whiting
     - 3 permits owned by processing companies
       - Less than 10% of active vessels in any year
       - These 3 permits comprise approximately 5.7% of shoreside whiting harvest in recent years
     - May receive 3.7% of initial allocation
   - Non-Whiting
     - 17 permits owned by processing companies
       - Represents 14 – 17% of active vessels in any year
     - Recent landings represent approximately 9% of sector landings
     - These permits may receive up to 11.6% of initial allocation
   - Mothership
     - 5 permits owned by processing companies
       - Approximately 25% of vessels in any year
       - Anecdotal information also suggests partial ownership of vessels by processing companies exists
     - Recent catch of 5 permits represents approximately 27% of sector catch in recent years
     - These permits could receive up to 22% of initial allocation

4. Geographic Distribution of Quota – Whiting Ports and Nonwhiting Groundfish Ports

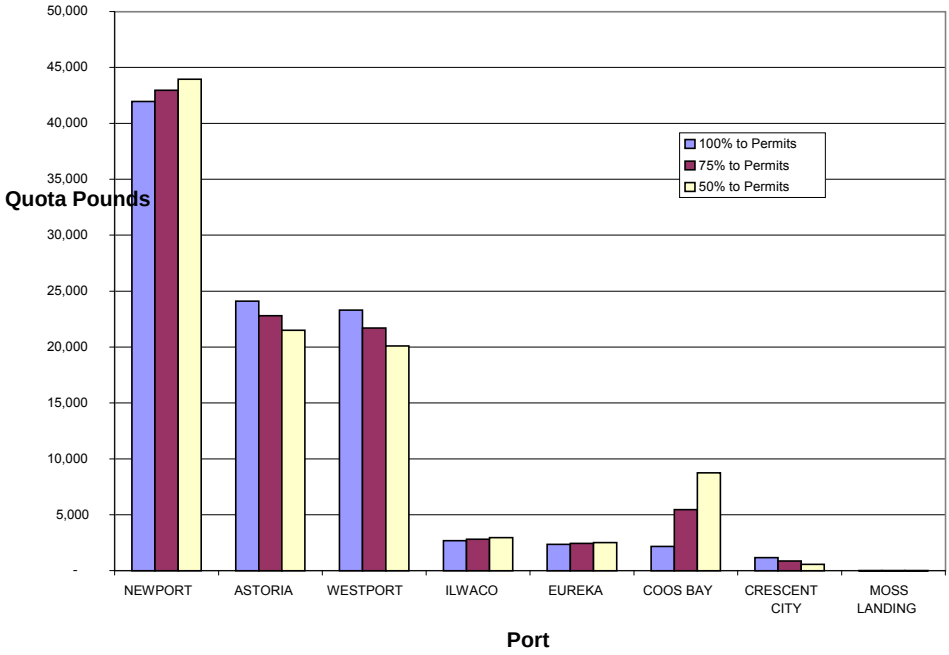

Figure 36 Shoreside Whiting Allocation by Port and Allocation Formula

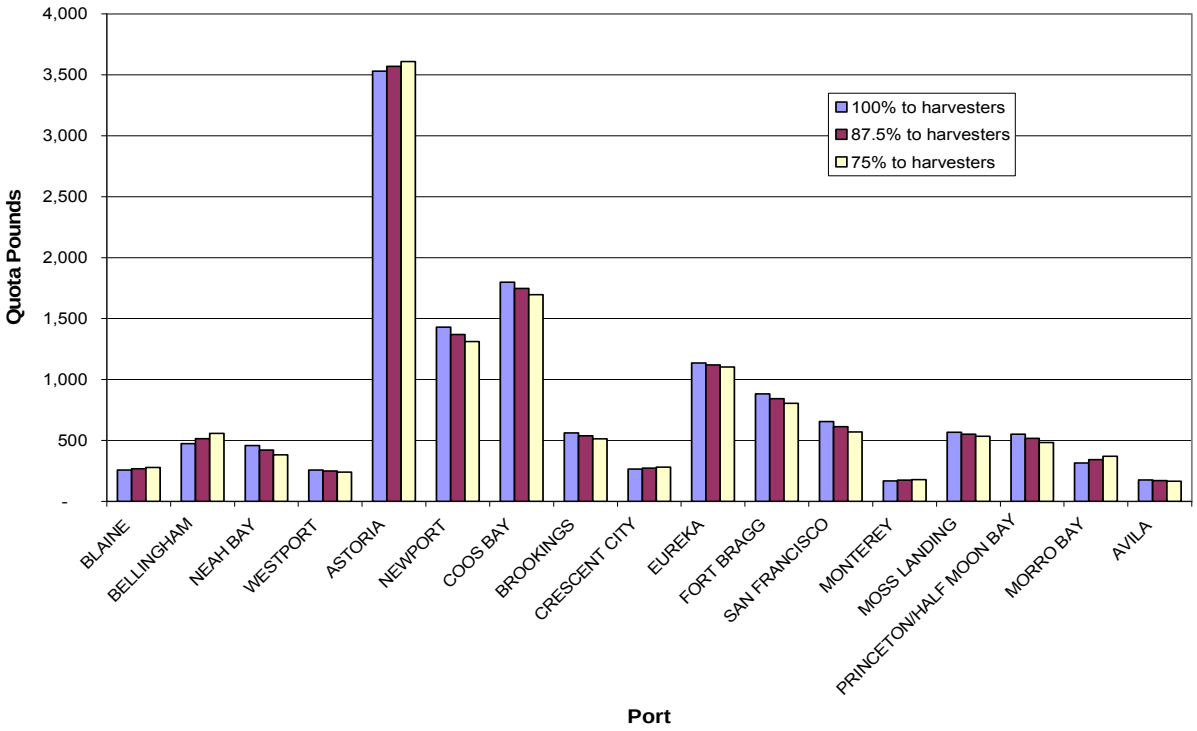

Figure 37 Non-Whiting Allocation by Port and Allocation Formula

Executive Summary from Appendix F:

Economic and Policy Analysis of a Fixed Term Auction-Based

This report analyzes the Pacific Fishery Management Council's preferred option for the West Coast Limited Entry Groundfish Trawl Fishery rationalization plan against a non-preferred alternative that combines a fixed term privilege (15/16 years) with post-term biennial auctions for up to 20% of quota shares. Our analysis looks at 5% or 20% auctions of quota shares for comparative purposes. The report includes 1) a description of the fishery, processors, and communities; 2) a review of literature on fixed term systems and auctions for fisheries and other natural resources; 3) an analysis of the preferred option relative to the fixed term/auction options on fishery rents, resource stewardship, and communities; 4) an analysis of the preferred option relative to the fixed term/auction options on key groundfish management objectives; and, 5) a summary of the impacts of the alternative options on 37 related groundfish management goals, objectives, and standards.

The literature review demonstrates that fixed term tenure systems and auctions can be successfully used in allocating and managing natural resources depending on management objectives, resource characteristics, and design of the tenure and auction systems. Fixed term privileges can provide management flexibility and perception of public ownership but can reduce incentives for long term investment and resource stewardship. Auctions can be an efficient mechanism for allocating homogeneous resources and collection of royalties, but may be more difficult to employ when equity and social objectives are important objectives. Fixed term privileges combined with auctions, however, are not commonly used in fisheries management. Auctions are rarely used in allocating fishery assets due ostensibly to the heterogeneity and complexity of fishery resources, uncertain status of fishery stocks, number of management goals, and unpopularity of auctions by resource users. The review suggests that combining fixed privileges with post tenure auctions may reinforce the weaknesses of each approach, particularly for multispecies fisheries.

Analysis of the Council's preferred option relative to the combined fixed term/auction options reveals that the preferred option generates greater benefits across almost the entire range of management objectives. These results are influenced by key characteristics of the West Coast Limited Entry Groundfish Trawl Fishery including: 1) the large number and complexity of assemblages and species; 2) stock rebuilding and bycatch constraints; 3) management focus on protecting small firms; 4) effects of the self-financed buyout program; and, 5) number and diversity of dependent/engaged communities. The Council's preferred option results in higher rents and economic efficiency through incentives for entrepreneurial innovation and reduction in risk. In contrast, the fixed term/auction alternatives generate less profit and rent and lead to greater risk due to "wasting effects" and disincentives for rent creation. These effects are magnified over time due to the inherent challenges in managing asset portfolios in a complex multispecies fishery. In addition, the reduction in asset values undermines the ability of family-owned firms to finance operations and manage risk. The fixed term/auction alternatives reduce incentives for stewardship, and negatively impacts communities by increasing risk and inhibiting long term contracting. The auction system may provide for moderate gains in new entrants and price discovery but this is a benefit only if secondary quota markets are failing to function efficiently. The review of the summary results for 37 groundfish management goals, objectives, and standards reveals that the fixed term/auction alternatives have a moderate to significant negative effect on 22 objectives, a slight negative or zero effect on 14 objectives, and a positive effect on only one potential objective (royalty payments).

Executive Summary and Chapters 1 and 2 Excerpted From:

RATIONALIZATION OF THE PACIFIC COAST GROUNDFISH LIMITED ENTRY TRAWL FISHERY

DECISION DOCUMENT FOR THE NOVEMBER 2008 PACIFIC FISHERY MANAGEMENT COUNCIL MEETING

ORGANIZED AS A PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

PREPARED BY
THE PACIFIC FISHERY MANAGEMENT COUNCIL
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EXECUTIVE SUMMARY

The Pacific Fishery Management Council (the Council) proposes changes to its *Pacific Coast Groundfish Fishery Management Plan* (groundfish FMP) to rationalize Federal management of the Pacific Coast groundfish trawl fishery. This would be accomplished by implementing a limited access privilege (LAP) program and modifying the approach to controlling bycatch of Pacific halibut in the groundfish trawl fishery. The Council is one of eight regional fishery management councils established by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the principal legal basis for fishery management within the Exclusive Economic Zone (EEZ), which extends from the outer boundary of the territorial sea to a distance of 200 nautical miles from shore. The Council is responsible for Federal fisheries off of Washington, Oregon, and California.

This action (termed "trawl rationalization") is intended, among other things, to increase economic efficiency within the Pacific coast groundfish trawl fishery and reduce the incidental catch of overfished groundfish and possibly Pacific halibut (often referred to as bycatch and defined as fish that are not kept or sold and are discarded, usually at-sea). Implementing the action will involve both changes to the management framework in the FMP and promulgation of implementing regulations.

The Proposed Action and Why it is Needed

The proposed action is to replace the current, primary management tool used to control the west coast groundfish trawl catch—a system of 2-month cumulative landing limits for most species and season closures for whiting—with a system requiring more individual accountability by the assignment of LAPs. (LAPs are a form of output control whereby an individual fisherman, community, or other entity is granted the privilege to catch a specified portion of the total allowable catch.) The alternatives include (1) a catch-based individual fishing quota (IFQ) system where all groundfish catch (landings plus bycatch) by limited entry trawl vessels would count against a vessel's IFQ holdings, which could be applied to the whole groundfish trawl fishery or selected trawl sectors, and (2) a system of cooperatives (co-ops) that would be applied to one or more of the fishery sectors that target Pacific whiting. The status quo alternative (no action) could also be considered for application to one or more trawl fishery sectors even if one or both action alternatives (IFQs or co-ops) are chosen for the other trawl sectors.

Despite a program completed in 2003 to buy back groundfish limited entry permits and associated vessels, management of the west coast limited entry groundfish trawl fishery (West coast groundfish trawl fishery) is still marked by serious biological, social, and economic concerns, similar to those cited

in the U.S. Commission on Ocean Policy's 2004 report (2004). The trawl fishery is currently viewed as economically unsustainable due to the number of participating vessels (excess capacity), a regulatory approach that constrains efficiency, and the status of certain groundfish stocks along with the measures in place to protect those stocks.

One major source of concern stems from the management of bycatch, particularly of overfished species. Over the past several years the Council's groundfish management efforts have been preoccupied with drafting rebuilding plans for overfished species, minimizing bycatch and specific management of overfished species. The trawl rationalization program will give individual fishery participants more flexibility and more individual accountability for their impact on overfished species, other groundfish species, and possibly Pacific halibut.

The two approaches considered for rationalizing the fishery—harvest cooperatives or IFQs—although structurally different, are intended to fulfill the following goal:

Goal

> *Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch*

Objectives

The above goal is supported by the following objectives:

1. Provide a mechanism for total catch accounting.
2. Provide for a viable, profitable, and efficient groundfish fishery.
3. Promote practices that reduce bycatch and discard mortality and minimize ecological impacts.
4. Increase operational flexibility.
5. Minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical.
6. Promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.
7. Provide quality product for the consumer.
8. Increase safety in the fishery.

The Groundfish Fishery

The groundfish fishery as a whole comprises several different sectors, defined by fishing gear, species targeted, and regulatory context. The list of current trawl target species includes flatfish, roundfish, thornyheads, and a few species of rockfish. Primary flatfish target species include petrale sole and Dover sole. Roundfish target species include Pacific whiting, Pacific cod, and sablefish. Some rockfish species, especially Pacific Ocean perch and widow rockfish, were important trawl targets until the mid 1990s. However, seven rockfish species are currently declared overfished pursuant to the MSA. The need to rebuild these stocks to a healthy size has lead to a variety of harvest constraints on groundfish fisheries, and rockfish are generally no longer a target of these fisheries.

The groundfish trawl fishery is subject to a license limitation program (referred to as limited entry), implemented in 1992; currently there are 178 extant groundfish limited entry (LE) trawl permits. (Groundfish fixed-gear fisheries—using longline and pot gear—are managed under a complimentary

limited entry program. Some targeting of groundish is allowed without an LE permit; these vessels comprise the "open access" sector.) The LE trawl fishery is divided into two broad sectors: a multi-species trawl fishery, which most often uses bottom trawl gear (hereafter called the non-whiting sector), and the Pacific whiting fishery, which uses midwater trawl gear. The non-whiting trawl fishery is principally managed through 2-month cumulative landing limits along with closed areas to limit overfished species bycatch.[1] Non-whiting trawlers target the range of species described above with the exception of Pacific whiting.

The Pacific whiting fishery almost exclusively catches that species, although overfished species bycatch is an important constraint because the catch limits have been set at low values relative to the target species limit. This is a high volume, low value per pound fishery that occurs seasonally, mainly based on the occurrence of whiting off the west coast. However, the start of the season is regulated to reduce the catch of salmon because a variety of salmon stocks on the west coast are listed as threatened or endangered under the Endangered Species Act. The whiting fishery is further subdivided into three components. The shorebased fishery delivers their catch to processing facilities on land and the vessels are similar in size and configuration (with the exception of the type of net used) to the nonwhiting fishery. In the mothership sector, catcher vessels deliver to floating processors called motherships. The catcher-processor fleet consists of vessels that both catch the fish and process it aboard, at-sea. In terms of the types of trawl rationalization measures that would be applied, these four sectors—nonwhiting trawl, shoreside whiting, motherships, and catcher processors—are considered separately.

Alternatives Considered by the Council

The Council considered three basic alternatives when developing their preferred alternative:

Status Quo Management Regime: If this alternative is chosen, changing conditions in the fishery will continue to be managed with status quo regulations, including vessel cumulative landing limits for nonwhiting and season management for whiting.

Individual Fishing Quota (IFQ) Alternative: Under this alternative, IFQs will be used to manage the catch of groundfish caught by all trawl vessels operating under a LE trawl permit, with a few exceptions.

Whiting Sector Cooperative Alternative: Under this alternative, co-ops will be established for one or more of the three whiting sectors. The co-op structure differs according to each of the three whiting sectors.

Implementing trawl rationalization—whether through IFQ or cooperatives—requires the specification of numerous program elements. In many cases there are alternative ways of specifying these elements, which are structured as options (choices to be made in structuring the program) where applicable. These program elements are described in detail in Chapter 2.

Status Quo Management

Most of the elements of the current management regime for the groundfish LE trawl fishery will remain in place.

[1] The non-whiting fishery currently uses bottom trawl gear exclusively. However, in the past there have been fisheries targeting widow rockfish and other rockfish species with midwater gear. Due to the need to limit catches of overfished species, these fisheries have been closed. But once overfished species stocks are rebuilt these fisheries could reopen.

Every 2 years the Council establishes harvest limits, called OYs (for optimum yield), for various species or groups of species. OYs represent an annual quantity of fish that the groundfish fishery as a whole may catch. A few species, such as Pacific whiting and sablefish, have fixed trawl sector allocations. There are a variety of other allocations between different sectors, which in addition to the whiting and nonwhiting trawl sectors includes LE fixed-gear, the open access sector, and recreational fisheries in each state. Some of these are established in the groundfish FMP while others are determined through the biennial process to specify harvest limits (OYs) and management measures. The need to rebuild the seven currently overfished rockfish species means that the OYs for these species are relatively low compared to target species OYs, and due to the multi-species nature of the fishery, these low OYs affect all aspects of groundfish management. Principal management measures for nonwhiting trawl fisheries are described below:

- Two-month cumulative landing limits are the principal catch control tool. These 2-month limits apply to each vessel and are specified for various species or species categories. Once a vessel reaches a limit, that type of fish can no longer be landed. This approach worked adequately when there were few management constraints on the fishery. However, in recent years the need to constrain overfished species catches to low landing limits has led to increased bycatch (discarding), and until an at-sea observer program was established there was relatively little information on which to base discard estimates (since the main fishery data system is based on recording landings). Target species landing limits have also been lowered to reduce bycatch of incidentally-caught overfished species.

- NMFS implemented an at-sea observer program in 2002 in response to the need to accurately account for bycatch mortality. Currently approximately 20 percent of nonwhiting trawl fishing is covered by observers. This level of coverage is thought large enough to be able to make accurate statistical estimates of total catch (landed catch plus bycatch).

- Gear restrictions have been a basic feature of the management regime since the implementation of the groundfish FMP. In recent years restrictions focused on discouraging or prohibiting gear that may be used in rocky habitat, where some overfished species lived. These restrictions have also helped to prevent fishing-related damage to these habitats. The use of bycatch-reducing trawl nets has also been required in some areas.

- Closed areas were first implemented in 2003 to keep vessels away from depth ranges where overfished species are more abundant. These closed areas, called Rockfish Conservation Areas (RCAs) are a coastwide feature of management. Subsequently, the Council and NMFS implemented another set of closed areas to protect bottom habitat from the adverse effects of trawl gear.

The Pacific whiting fishery is managed by an annual quota. A season start date is set by regulation, usually in mid-May, and the fishery proceeds until the quota is expended or fishing operations stop for economic reasons (vessels moving to other fisheries, whiting moving offshore).

Because of the low OYs for overfished species in recent years, overall catch caps, applicable to all whiting sectors collectively, have been imposed for widow, canary, and darkblotched rockfish (the main overfished species caught in the fishery). If whiting sector catches reach any one of the caps, the fishery closes for the remainder of the season. This overall sector cap has raised concerns about competition among the three whiting sectors to catch their allocation before a bycatch cap is reached. This can speed up the pace of the fishery and cause problems because the sectors begin their seasons at different

times. In response to this problem, the 2009 catch caps will be subdivided and applied to each of the three whiting sectors individually. The whiting fishery is not subject to the RCAs, but starting in 2009 inshore closures can be implemented inseason to reduce bycatch (which includes both overfished species and salmon).

Incidental take of endangered or threatened salmon runs is another concern for the Pacific whiting fishery. The regulated season start date is meant to prohibit fishing when salmon are passing through the fishing area. NMFS also has the option of closing inshore areas to fishing if too many salmon are caught.

Total catch in the whiting sectors is fully monitored. Catcher vessels in the shoreside and mothership sectors must retain all their catch for delivery to the processor. Catch is then monitored at the dock or on the mothership. Likewise, vessels in the catcher-processor sector carry at-sea observers to monitor the catch when brought aboard.

Key issues are highlighted. Cross references refer to the outline of the detailed program description found in Chapter 2.

The Preliminary Preferred Alternative for Trawl Rationalization

The Council chose a preliminary preferred alternative at their June 6–13, 2008, meeting in Foster City, California. They adopted IFQs for the nonwhiting shoreside sector, either IFQs or co-ops for the shoreside whiting sector, and cooperatives for the at-sea whiting sectors. The main elements of the preliminary preferred alternative are described below. The IFQ and co-op programs include many features which are not detailed in this summary; readers are referred to Chapter 2 for more information.

Shoreside Trawl Sector Management under IFQs

Key issue: Number of sectors – A-1.3

When choosing the preliminary preferred alternative, the Council indicated that they might favor implementation of the shoreside cooperative proposal if Congress passes the requisite legislation. (Under the MSA, NMFS does not currently have the regulatory authority to implement certain provisions of the program.) Otherwise, the Council favors managing the current shoreside whiting and nonwhiting fisheries as a single sector under IFQs.

Quota Shares and Quota Pounds

Under the IFQ program, quota shares (QS) are initially distributed to fishery participants. The initial allocation of QS will go to LE permit holders and, under the preliminary preferred alternative, to processors. QS represent a proportion, or percent, of the total allowable catch (which in groundfish management is called the optimum yield or OY) of different groundfish stocks. Each year these shares are converted from a percent to a quantity by issuing quota pounds (QP) based on the OYs established for the year. The amount of groundfish caught by an LE trawl vessel, even if it is subsequently discarded, must be matched by an equivalent quantity of QP.[2] The QP is expended in this way, with the matched amount deducted from the vessel's account. Both QS and QP are perfectly divisible and tradable.

[2] QS/QP would not be required to cover catch by LE permit holders in a few special circumstances: if they are fishing under an LE fixed-gear permit and using that gear type on their vessel, or they are using trawl gear in a nongroundfish fishery, such as a shrimp trawl fishery (these nongroundfish trawl fisheries incidentally catch some groundfish).

Key issue: Fixed term duration of IFQ Program — A-6

The Council considered issuing QS for a fixed time period, after which all or a portion of the QS would be periodically reallocated. The reallocation could be in the form of an auction. This would underscore that IFQs are a revocable grant of privilege to a public resource and gives government greater control over the distribution of long-term benefits from the program. This feature is not part of the preliminary preferred alternative, but the Council may consider it when taking final action. Furthermore, the MSA restricts the duration of a fishing privilege to 10 years, and specifies conditions for automatic renewal.

The program defines who may own QS/QP very broadly; the main requirements are a U.S. citizen must be the owner and a U.S. documented fishing vessel registered to a groundfish LE trawl permit must be used to harvest groundfish using QP.[3] QS are of long duration so a transfer represents a long-term or permanent divestment. In contrast, QP must be used within the year for which they are issued (although there is a provision for limited carryover of unused QP from one year to the next or QP issued in the following year to be used in the current year), so QP transfer does not represent a permanent divestment of the harvest privilege, so long as one continues to control the underlying QS. QS transfers will be prohibited in the first 2 years of the program so that divestment would only occur once participants fully understand how the program operates and stable prices have been reached. QP would still be fully transferable during the first 2 years.

Key issue: Pacific halibut individual bycatch quota (IBQ) — A-4

The program includes an individual bycatch quota (IBQ) for Pacific halibut. Although functionally equivalent to the IFQ system applied to other species, Pacific halibut are a prohibited species in the groundfish trawl fishery and cannot be retained. Therefore, although accounted for through the IBQ, all halibut must be discarded.

IFQ Management Units

QS/QP would be issued for most of the current groundfish management units. Management units are fish stocks, or complexes comprising co-occurring or related stocks, for which an OY is established. Certain management units would not need to be covered by QS/QP. These include species that are rarely caught in the trawl fishery.

Table ES-1 shows stocks for which OYs were specified for 2009 and 2010. This gives a general indication of the management units for which separate QS/QP would be established. In some cases these units may be further subdivided for the purposes of issuing QS/QP. For example, the minor rockfish complexes would be further subdivided according to the depth distribution of constituent species, creating QS/QP for continental slope, continental shelf, and nearshore species groups. Part of the trawl allocation for management unit species taken in the at-sea whiting fishery would be set aside to accommodate catches in that fishery; the remainder would be available for harvest in the shoreside sector.

Because the Council is still considering excluding some stocks from the IFQ program, the precise number of management units for which QP/QS will be issued cannot be specified right now, but in general it is likely to be between 30 and 40, depending on possible subdivisions and exclusions of current management units.

[3] Currently, LE permits include a length endorsement that defines the maximum size of vessel that may be registered to the permit. Permits may be combined to achieve a length endorsement for a larger vessel. The length endorsement would be suspended under the IFQ program.

Key issue: Area management by geographic subdivision of QS/QP – A-1.2

The Council is considering a further geographic subdivision of management units for the purpose of QS/QP for those management units that are not already geographic subdivided. If during final action the Council chooses this option, then separate QS/QP would be used for catches north and south of 40° 10' N latitude (near Cape Mendocino, California). The intent of this subdivision is to preserve the current geographic distribution of fishing opportunity. This option would increase the number of management units from about 35 to 58. Alternatively, the Council may impose requirements on where landings may be made; zones would be established up and down the coast with part of the QS/QP for each species assigned for landing at ports within a zone.

Table ES-1. Management units with numerical OYs in 2009–10. Overfished species shown in bold.

Roundfish
Lingcod north of 42° N latitude
Lingcod south of 42° N latitude
Pacific cod
Pacific whiting
Sablefish north of 36° N latitude
Sablefish south of 36° N latitude
Rockfish
Pacific ocean perch
Shortbelly rockfish
Widow rockfish
Canary rockfish
Chilipepper rockfish
Bocaccio
Splitnose rockfish
Yellowtail rockfish
Shortspine thornyhead north of 34° 27' N latitude
Shortspine thornyhead south of 34° 27' N latitude
Longspine thornyhead north of 34° 27' N latitude
Longspine thornyhead south of 34° 27' N latitude
Rockfish (continued)
Cowcod
Darkblotched
Yelloweye
Black rockfish (WA)
Black rockfish (OR-CA)
Minor Rockfish North stock complex*
Minor Rockfish South stock complex*
Flatfish
Dover sole
English sole
Petrale sole
Arrowtooth flounder
Starry flounder
Other Flatfish stock complex
Other
Other Fish stock complex
Cabezon
California scorpionfish
Longnose skate

*Management unit with subcomponents that have separate OYs or harvest guidelines.

Initial Distribution of QS

Key issue: Share of allocation to harvesters and processors – A-

At the start of the program the QS must be initially allocated. As noted above, thereafter shareholders are free to buy and sell the QS thus distributed. The Council's preliminary preferred alternative would allocate 80 percent of the QS to harvesters—the current holders of trawl LE permits—and the remaining 20 percent to processors.

Key issue: Recent participation– A-2.1.2

Rules are also established to determine eligibility and the specific allocation of QS each eligible recipient will receive. Different formulas are used for non-overfished species versus overfished species and for harvesters (LE permit holders) and processors. Non-overfished species QS will be allocated based on an entity's history of landing or processing that species during a certain time period. However, a certain portion of the 80 percent distributed to harvesters, representing the landings history of limited entry permits that were retired through a Federal buyback program, will be distributed equally among permit holders.

Key Issue: Allocation of overfished species – A-2.1.3

A different formula is used for overfished species. These species will still be under rebuilding

programs after implementation of the trawl rationalization program, requiring relatively small OYs. Thus QS/QP for these species could act as a primary constraint on target fisheries, to the degree that incidental catch is unavoidable. Furthermore, since regulations prompted a large proportion of overfished species catch to be discarded, landings toward the end of the allocation period (1994-2003) do not accurately reflect the actual distribution of historical catch among fishery participants. Therefore, overfished species QS will be distributed in proportion to the amount of target species QS received. This approach is intended to better balance individual holdings of target and overfished species QS. Provisions may allow QS to be reallocated once a species is rebuilt, recognizing that the annual OY could be increased substantially once the rebuilding restrictions are lifted.

Accumulation Limits

Key issue: Accumulation limits and grandfather clause — A-2.2.3.e

The maximum amount of QS and QP an entity may control will be limited, with these limits varying according to the management unit. At the start of the program shares in excess of this accumulation limit will be reallocated to eligible recipients whose share amounts fall below the limit. There is also a limit on how much QP any one vessel could use. The vessel limits are twice the control limits to allow several QS holders to work together on a single vessel. These limits are intended to limit the consolidation of quota holdings by just a few entities. Specific limits have yet to be decided.

Tracking and Monitoring

Key issue: 100% mandatory monitoring — A-2.3.1

All vessels will be required to carry at-sea observers at their own expense to monitor sorting and discarding of the catch and shoreside landings. There will also need to be an electronic system to report bycatch and landings, which may be integrated with the current state fish ticket system. NMFS will also administer a system to track QS/QP holdings. Fees will be charged to cover the cost of the tracking system. A comprehensive mandatory monitoring program is expected to require minimal increases in enforcement effort.

Adaptive Management

Key issue: Inclusion of an adaptive management set aside — A-3

Each year up to 10 percent of the quota pounds that would otherwise be distributed to QS holders may be set aside for an adaptive management program. This program is meant to address a variety of objectives, ranging from socioeconomic dislocation resulting from implementation of the trawl rationalization program to encouraging innovative fishing methods, for example to reduce bycatch. The Council will decide how much QP will be set aside every 2 years as part of the biennial harvest specifications process. This process establishes OYs for a 2-year period and adjusts management measures so that catches will not exceed these limits.

Gear Conversion

Once QS have been distributed, recipients are free to use them with any legal groundfish gear, which aside from trawl principally means bottom longline and fish pots. There is a separate allocation of catch opportunity to nontrawl sectors, which would be unaffected by any catches resulting from gear conversion under the IFQ program.

Key issue: Permanent gear conversion — A-7

The Council is considering a requirement that after an initial 2-year period, anyone using non-trawl gear under

the gear conversion allowance must decide whether to permanently switch to the use of that gear. Inclusion of this requirement will be decided at the time of final action.

Regional Landing Zones

In order to limit the geographic redistribution of fishing activity in response to the use of IFQs, the Council is considering regional landing zones. A portion of each management unit's QS would be designated for use within one of several landing zones, and any associated catch would have to be landed at a port within that zone. The Council will decide whether or not to include this provision when taking final action.

Cooperatives for the Pacific Whiting Sectors

Under the preliminary preferred alternative, the at-sea mothership and catcher-processor sectors would be managed using cooperatives. As discussed above, the shoreside whiting sector would be managed by converting their allocation to IFQs, creating a single shoreside sector. However, the Council left open the possibility of managing the shoreside whiting sector with cooperatives if a viable program can be implemented (see further discussion below). The catcher-processor sector would be managed under the current voluntary cooperative system.

The existing allocation of whiting between the shoreside whiting, mothership, and catcher-processor sectors will not change (42, 24, and 34 percent, respectively). No portion of one sector's whiting allocation could be transferred to another sector, except possibly through a rollover of excess whiting allocation from a sector that does not have the intent or ability to use it.

Although Pacific whiting comprises the dominant portion of the catch in this sector, some overfished rockfish do get caught. As discussed above, bycatch caps have been imposed on the whiting fishery. These sector caps will continue to be used under trawl rationalization, but in a different form.

Motherships and catcher-processors are already subject to full observer coverage, so few changes in the current monitoring program are needed to implement the rationalization program.

The same type of adaptive management provision described above for the shoreside sector would apply to the at-sea whiting sectors managed under co-ops. Up to 10 percent of each sector's allocation will be set aside to achieve various objectives, as described previously.

Mothership Sector Cooperatives

Key issue: Mothership processor permit – B.2.2.2

Historically any vessel with the proper groundfish LE permit could enter this sector as a processor. The Council adopted a stopgap measure to limit participation, which will be replaced by a new mothership permit under the trawl rationalization program. A mothership would have had to processed at least 1,000 mt of whiting from 1997 to 2003 to qualify.

Mothership Co-op Formation and Allocation

Key issue: Qualifying requirements – B-2.2

A new mothership LE permit endorsement would be created to limit participation in the sector, based on historical participation by vessels associated with a particular permit.

Key issue: Processor ties (90% delivery obligation) – B.-2.4

Catcher vessels may, each year, choose to join a co-op or fish in a "non-co-op" fishery. If a vessel chooses to fish in a co-op it must deliver at least 90 percent of its catch to the mothership to which it is obligated. (The remaining 10 percent can be delivered to any other mothership willing to accept it.) Each co-op that is formed will receive an allocation of the sector's overall whiting allocation, based on the combined catch history associated with each member's LE permit. Although the co-op allocation is based on particular LE permits' catch history, vessels in the co-op may arrange to have another vessel harvest all or a portion of their catch if they don't want to participate in the fishery.

The non-co-op fishery will receive an allocation based on the collective catch history of vessels that choose not to join a co-op, in a fashion similar to the co-op allocations. However harvest will be further controlled in the non-co-op fishery through season restrictions. A vessel fishing in the non-co-op fishery is not obligated to deliver to any one processor.

Mothership Sector Bycatch Management

Bycatch limits will be allocated to each of the mothership co-ops proportional to their whiting allocation. Likewise, the non-co-op fishery will be subject to its own cap. Since the catcher-processor sector comprises one voluntary co-op, the sector cap is effectively a cap for the co-op. The whiting shoreside sector, assuming it is managed under IFQs as part of a single shoreside sector, would receive the allocation of these species through the initial distribution of QS.

Operation of Mothership Co-ops

Co-ops are expected to facilitate coordination and cooperation among members with respect to harvest strategy. Although co-op members are guaranteed catch opportunity equal to the portion of the allocation they brought into the co-op through their catch history, in general the co-op allocation is pooled. Members may jointly agree on the specifics of harvesting.

Two or more co-ops may reach an "inter-co-op" agreement to coordinate harvest strategy and pool whiting and bycatch cap allocations. Various standards for both co-op and inter-co-op contractual agreements would be established, both to aid NMFS in its fishery management role and to prevent any member from being unduly disadvantaged by co-op participation.

Management of the Non-co-op Fishery

Key issue: Non-co-op fishery management – B-2.4.1

If a member wants to switch to a different mothership, the vessel must first fish for a season in the non co-op fishery. This is intended to serve as a disincentive to leaving a mothership because non-co-op fishery participants do not have the surety of a buyer that a processor tie represents and cannot easily coordinate fishing strategy in the way they are expected to in co-ops. In essence, it is expected to function as an "Olympic-style" fishery with individual vessels competing among one another to catch the largest portion of the allocation. The motivation to leave a mothership and enter the non-co-op fishery may be further dampened because mothership co-op participants can still deliver 10 percent of their catch to a mothership other than one to which they are tied.

Morthership Usage Limits and Catcher Vessel Accumulation Limits

As in the IFQ alternative, ownership limits will be imposed so that no single entity can accumulate too large a share of the overall sector allocation, based on the catcher vessel permits they own. Motherships will be limited in terms of the share of the mothership sector's allocation they can process.

Shoreside Sector Cooperatives

As described above, the Council left open the possibility of managing the shoreside whiting sector with co-ops instead of IFQs, if the requisite legal authorities can be enacted. Shoreside sector co-ops would be similar to mothership co-ops except that the processor linkage would be with shorebased operations. During the first 2 years of the shoreside cooperative program, only selected processors based on a history of processing whiting could participate. NMFS currently does not have the legal authority to mandate this type of linkage between catcher vessels and shorebased processors or the limitation on shorebased processor participation. An alternative configuration of the shoreside co-op program considered by the Council—which could be implemented under current NMFS authority—would not involve the limits on processor participation or mandatory ties between catcher vessels and processors. Because the shoreside co-op program is similar to the mothership program in many respects, it is not described further here.

Catcher-processor Sector Cooperatives

The catcher-processor sector currently operates under a single, voluntary co-op. A permit endorsement would be created to limit participation in the sector. Historically any vessel with the proper groundfish trawl LE permit could participate. The Council adopted a stopgap measure to limit participation, which will be replaced by the catcher-processor cooperative provisions of the trawl rationalization program. There is concern that new entrants could disrupt the current voluntary co-op. Provisions allow for implementing an IFQ program if the current voluntary co-op system were to fail. Few other changes are proposed for this sector under the trawl rationalization program.

Impacts of Trawl Rationalization under the Preliminary Preferred Alternative

Chapter 4 analyzes the effects of the alternatives. The analysis is organized around the stakeholder groups and environmental components that are likely to be affected by the proposed action. These are catcher vessels in the groundfish LE trawl fishery, captain and crew on groundfish LE trawl vessels, commercial harvesters in fisheries other than the LE trawl fishery, shoreside and at-sea processors of groundfish, processing labor, suppliers, fishing communities, tribal harvesters, management agencies, groundfish resources, protected resources, and the California current ecosystem. Major impacts are briefly summarized below.

Limited Entry Trawl Groundfish Harvesters (see Section 4.6)

- Consolidation will shrink fleet size with only the most efficient vessels remaining, leading to a decrease in the cost of harvesting.
- Harvest of under-utilized target species will increase, leading to higher gross revenue per vessel and per-vessel profits.
- Due to co-op harvest privileges in the Pacific whiting sectors there will be less motivation to "race for fish," allowing harvesters to time fishing operations in a manner that optimizes revenue and improves product quality.
- A variety of factors, including bycatch avoidance, ease in transferring harvest privileges, and the use of non-trawl gear, will likely lead to changes in the geographic distribution and timing of harvest.
- Increased profits and greater flexibility will improve safety conditions on board trawl vessels.
- Harvesters not receiving an initial allocation (or one of sufficient size) will have to buy the quota necessary to participate in the fishery, increasing costs.

Captain and Crew (see Section 4.7)

- Rationalization is expected to result in a decrease in the number of captain and crew jobs while those who remain in these jobs are expected to receive higher wages.

Non-trawl Commercial Harvesters (see Section 4.8)

- Fleet consolidation may lead to the spillover of excess vessels into the pink shrimp, Dungeness crab, or other fisheries that are operationally similar.
- Bycatch of non-target species, such as Pacific halibut, in the trawl could change. Bycatch most likely will decrease due to IBQs, providing a benefit, but could increase as currently under-utilized target species catch increases.
- Resource, grounds, and market competition could increase due to greater operational flexibility and gear switching opportunities in the trawl sector.

Shoreside Processors of Trawl Groundfish (see Section 4.9)

Trawl rationalization may result in a wide range of impacts to shoreside processors, distributed according to the geographic shift of fishing effort and subsequent consolidation of fishing and processing enterprises. Impacts may also occur based on the extent to which processing companies gain and control QS. The effects can be summarized as follows:

- Increased cost for raw fish when harvesters hold the QS.
- Potential regional shifts in landings may or may not be under the control of processors.
- Increase in the processing of under-utilized target species
- Lower cost of production in non-whiting sector due to increased harvest and more utilization of processing capital
- Lower cost of production in whiting sector because of increased season length
- Consolidation among shoreside whiting processors reducing total capital costs while changing asset values.

Mothersip Processors of Trawl Groundfish (see Section 4.10)

- Processor linkages are expected to give mothership entities leverage in negotiations with catcher vessels over exvessel prices and other matters
- Linkages are expected to give processing entities more certainty over deliveries from catcher vessels
- Amount of mothership processing capacity in the fishery may decline due to an increase in season length and a decline in peak harvest volumes
- Cost of processing whiting may decline because of increased season length and less processing capital necessary to handle the same harvest volume
- Product recovery and quality may improve along with the opportunity to develop new products and markets.

Trawl Catcher-processors (see Section 4.11)

- Minor impacts expected relative to status quo; measures to protect the current voluntary co-op would be implemented.

Fishing Communities (see Section 4.14)

- Fishing communities will be differentially affected due to fleet and processor consolidation. Some communities will likely benefit and others be harmed.
- Fleet and processor consolidation could result in the concentration of vessels and commercial infrastructure in fewer ports, disadvantaging communities that lose vessels and infrastructure.
- Limits on the amount of QS an entity can control will reduce ownership consolidation and increase the number and types of businesses involved in the fishery, contributing to diversity and stability.
- Isolated communities, where there are few alternative employment opportunities, could be adversely affected by the loss of fishing-related jobs.
- Processors are expected to consolidate and possibly move, affecting processor labor and municipal revenue.
- Fishing, in all its diversity, is culturally important to coastal communities. As a consequence, communities seeing a decline in fishing activity due to trawl rationalization will be adversely affected.
- Family fishing businesses will have to deal with the implications of the asset value associated with IFQs (or co-op shares). This can complicate fishery entry and exit, and lead to intra-family strife.
- Tourism could be adversely affected in communities that loose a "working waterfront," to the degree it is important to the tourist identity of the community.
- Non-trawl communities could be affected by rationalization through increased competition, gear conflicts, impacts on the support sector, infrastructure impacts, and competition in the marketplace.

Treaty Tribe Harvesters (see Section 4.15)

- Groundfish trawl fleet consolidation could make vessels available for use in other fisheries, lowering capital costs but potentially increasing resource competition in non-groundfish fisheries
- Loss of port infrastructure due to harvester and processor consolidation could affect tribal harvesters disproportionately
- Changes in the Pacific halibut bycatch rate in the rationalized trawl fishery could have adverse or beneficial effects for treaty tribe halibut harvesters
- Increased flexibility due to rationalization could increase market competition.

Management Agencies (see Section 4.16)

- Additional staff resources at the Federal level will be needed for program startup and management
- Additional enforcement personnel will be needed at the state and Federal level, estimated to be one new hire for each agency
- Changes in data collection and data sharing arrangements between state and Federal agencies
- Management of the groundfish trawl fishery in-season will likely be reduced

Groundfish and Other Fish Stocks (see Section 4.17)

- Changes in location of catch could lead to localized depletion if fishing is concentrated in certain areas
- Target species catch will increase but harvest levels intended to maintain or rebuild stocks to MSY are specified separately and not affected by the proposed action
- Fishery-dependent data, including catch accounting, will improve due to the increased observer coverage, decreasing one source of uncertainty in some stock assessments

Protected Species including ESA-listed Salmon (see Sections 4.18 & 4.19)

- Trawl rationalization is unlikely to change the level and type of interactions between trawl vessels and marine mammals and seabirds
- Take of ESA-listed salmon in trawl fisheries may change, but the changes cannot be predicted

Habitat and Ecosystem (see Section 4.20)

- Changes in catch may result in changes to the California current ecosystem food web
- A reduction in the biomass of large demersal predators (lingcod) and an increase in their prey (miscellaneous nearshore fish and shallow small rockfish) would occur at high catch levels, according to ecosystem modeling
- Fishing in different areas and using different gear (e.g., switching to fixed-gear or modifying trawl gear) would change how much and what kind of essential fish habitat will be affected by fishing.

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CHAPTER 1 INTRODUCTION

1.1 How This Document is Organized

This document provides information and an evaluation of a proposed action to change Federal management of the Pacific Coast groundfish trawl fishery, which is managed under the *Pacific Coast Groundfish Fishery Management Plan* (groundfish FMP), developed by the Pacific Fishery Management Council (Council). This action is intended, among other things, to increase economic efficiency within the fishery (termed "rationalization") and reduce bycatch (fish that are not kept or sold and are discarded, usually at-sea). Implementing the action will involve both changes to the management framework in the FMP and promulgation of implementing regulations. The National Marine Fisheries Service (NMFS) reviews management proposals developed by the Council; if a proposal is approved, the FMP is amended to reflect the changes and NMFS implements any necessary regulations. These actions must conform to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the principal legal basis for fishery management within the Exclusive Economic Zone (EEZ), which extends from the outer boundary of the territorial sea to a distance of 200 nautical miles from shore.

In addition to addressing MSA mandates, this document is an environmental impact statement (EIS), pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. According to NEPA (Section 102(2)(C)), any "major Federal action significantly affecting the quality of the human environment" must be evaluated in an EIS. Based on a preliminary determination by Council and NMFS staff, implementing the proposed action referenced above could possibly have significant impacts. Therefore, rather than preparing an environmental assessment (EA), which provides "sufficient evidence and analysis for determining whether to prepare an environmental impact statement," NMFS and the Council have decided to proceed directly to preparation of an EIS. This document is organized so that it contains the analyses required under NEPA, MSA, the Regulatory Flexibility Act (RFA), and Executive Order (EO) 12866. For brevity, this document is referred to as an EIS, although it contains required elements of an Initial Regulatory Flexibility Analysis (IRFA) pursuant to the RFA and a Regulatory Impact Review (RIR) pursuant to EO 12866.

Federal regulations (40 CFR 1502.9) require agencies to prepare and circulate a draft EIS (DEIS), which "must fulfill and satisfy to the fullest extent possible the requirements established for final statements in Section 102(2)(C) of the Act" (i.e., NEPA). Federal regulations (40 CFR 1506.10(c)) and agency guidelines (National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6,

Section 5.01.b.1(i)) stipulate a minimum 45-day public comment period on the DEIS.[4] At the end of this period, a final EIS (FEIS) is prepared, responding to comments and revising the document accordingly. After the EIS is completed, a 30-day waiting period ensues before the responsible official may sign a record of decision (ROD) and implement the proposed action.

Environmental impact analyses have four essential components: a description of the purpose and need for the proposed action; a range of alternatives, including the proposed action, that represent different ways of accomplishing the purpose and need; a description of the human environment affected by the proposed action; and an evaluation of the predicted direct, indirect, and cumulative impacts of the alternatives.[5] The human environment is interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment (40 CFR 1508.14). These elements allow the decision maker to look at different approaches to accomplishing a stated goal and understand the likely consequences of each choice or alternative. In this EIS, Chapters 1 and 2 cover the purpose and need for the action and describe the alternatives. Chapter 3 describes the components of the biological, physical, and human environments potentially affected by the proposed action. Chapter 4 evaluates the direct, indirect and cumulative effects of the alternatives on the resources and stakeholder groups of concern. Chapter 4 is organized around "environmental components" whereby sections examine and describe the direct, indirect and cumulative effects of each alternative on a particular resource or stakeholder group. The alternatives include the no action (status quo) alternative and the preferred alternative (when identified by the Council). These chapters describe both the status quo environment potentially affected by the proposed action and the predicted impacts of each of the alternatives. Subsequent chapters (and appendices) cover the following topics:

- Chapter 5 contains a review of other issues typically found in NEPA documents including short-term uses versus long-term productivity, irreversible resource commitments, and energy requirements and conservation potential of the alternatives.
- Chapter 6 examines the consistency of the proposed action with the trawl rationalization program goals, objectives, constraints and guiding principles (listed in Section 1.2.3); the Groundfish FMP goals and objectives; and the national standards and other provisions of the MSA.
- Chapter 7 examines consistency with other Federal laws and EOs.
- Chapter 8 lists the individual preparers of this document.
- Chapter 9 presents a glossary of technical terms and a list of acronyms used in this document.
- Chapter 10 provides a list of the literature cited in this document.
- Chapter 11 provides a general keyword index to the document.
- Appendix A contains a detailed analysis of the components, elements, and options that are part of the individual fishing quota (IFQ) alternative, one of the action alternatives described in Chapter 2.
- Appendix B contains a detailed analysis of the components, elements, and options that are part of the co-op alternative, one of the action alternatives described in Chapter 2.

[4] This required public comment period will occur after the Council has taken final action, as part of NMFS's review process. Preliminary drafts of the document are also made available for public review as part of the Council process: a partial draft document in advance of the June 2008 Council meeting and a substantially complete draft in advance of the November 2008 Council meeting.

[5] Federal regulations at 40 CFR 1502 detail the requirements for an EIS. Although there are several additional components, this list is of the core elements.

- Appendix C contains descriptions of the models used in the impact analysis.
- Appendix D is the RIR and IRFA [To be completed].
- Appendix E contains supplemental analysis of impact of QS allocation on long-term distribution

1.2 Proposed Action and Purpose and Need

1.2.1 The Proposed Action

The proposed action is to replace the current, primary management tool used to control the west coast groundfish trawl catch—a system of two-month cumulative landing limits for most species and season closures for whiting—with a system requiring more individual accountability by the assignment of limited access privileges. (Limited access privileges are a form of output control whereby an individual fisherman, community, or other entity is granted the privilege to catch a specified portion of the total allowable catch.) The alternatives include (1) a catch-based IFQ system under which each IFQ pound could be caught at any time during an open season, which could be applied to the whole groundfish fishery or selected sectors of the fishery; and (2) an enforced system of cooperatives (co-ops) that would be applied to one or more of the fishery sectors that target Pacific whiting. The status quo alternative (no action) could also be considered for application to one or more fishery sectors even if one or both action alternatives (IFQs or co-ops) are chosen for the other sectors.

Federally-managed Pacific groundfish fisheries occurring off the coasts of Washington, Oregon, and California establish the geographic context for the proposed action (see Figure 1–1).

1.2.2 Need for Action (Problems for Resolution)

Despite a program to buy back groundfish limited entry permits and associated vessels, completed in 2003, management of the west coast limited entry groundfish trawl fishery (west coast groundfish trawl fishery) is still marked by serious biological, social, and economic concerns, similar to those cited in the US Commission on Ocean Policy's 2004 report (2004). The trawl fishery is currently viewed as economically unsustainable given the number of participating vessels, the status of certain groundfish stocks, and the measures in place to protect those stocks.

One major source of concern stems from the management of bycatch (discarded incidental catch), particularly of overfished species. Over the past several years the Council's groundfish management efforts have been preoccupied with drafting rebuilding plans for overfished species, minimizing bycatch and specific management of overfished species. Through the groundfish Strategic Plan and Amendment 18 to the groundfish FMP, the Council has indicated its support for the use of IFQ programs to manage commercial groundfish fisheries.[6] These programs will give individual fishery participants more flexibility and more individual accountability for the impact of overfished species catch on the groundfish fishery as a whole.

[6] Section 6.3.3 of the FMP, as amended, authorizes the Council to establish IFQ programs for any groundfish commercial fishery sector for the purposes of reducing fishing capacity, minimizing bycatch, and to meet other goals of the FMP.

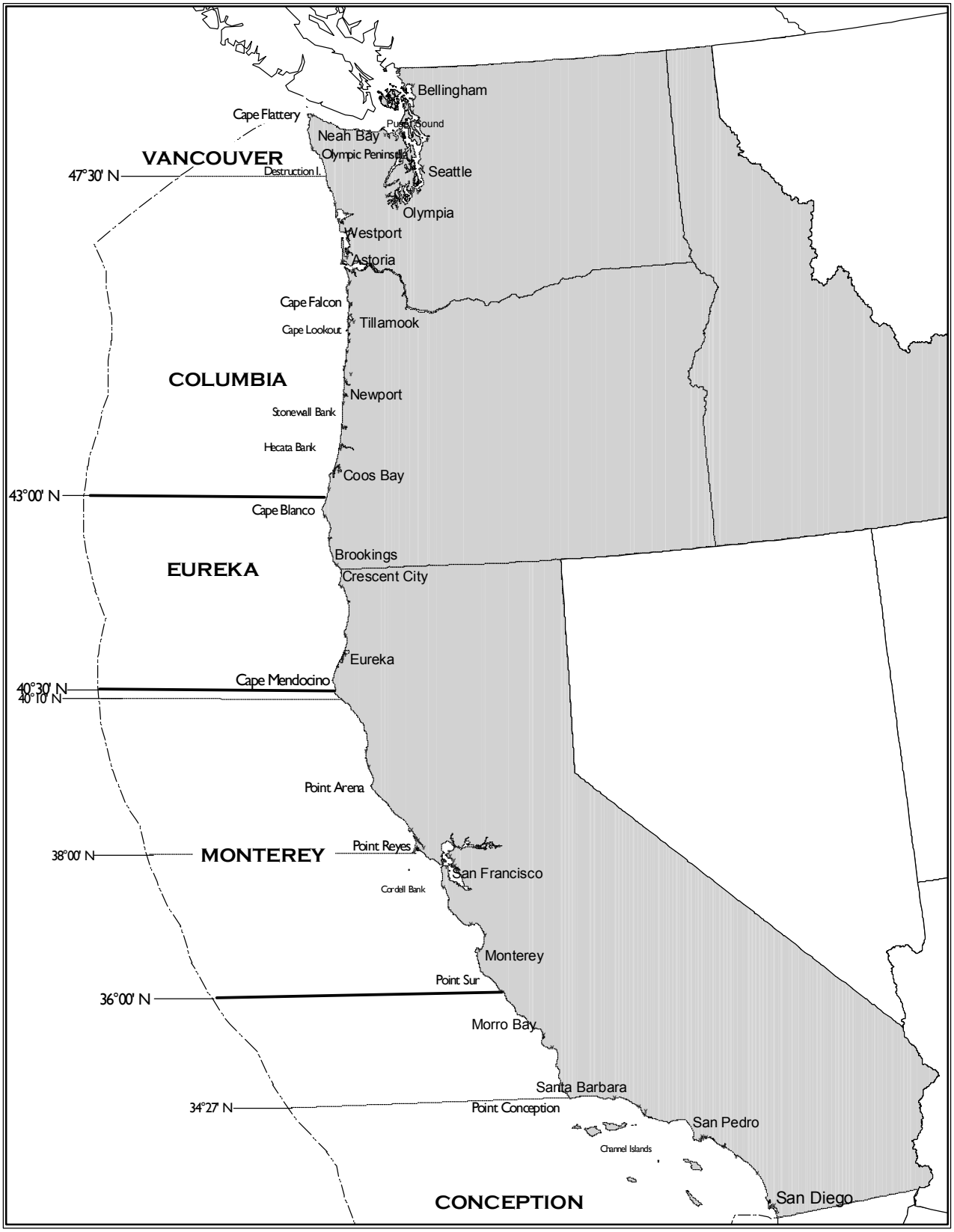

Figure 1–1. The action area, west coast groundfish management areas, and other key management lines.

The Council sent the following problem statement out for public review during the public scoping period:

> As a result of the legal requirement to minimize bycatch of overfished species, considerable harvest opportunity is being forgone in an economically stressed fishery. The west coast groundfish trawl fishery is a multi-species fishery in which fishermen exert varying and limited control of the mix of species in their catch. The optimum yields (OYs) for many overfished species have been set at low levels, placing a major constraint on the industry's ability to fully harvest the available OYs of the more abundant target species that co-occur with the overfished species, wasting economic opportunity. Average discard rates for the fleet are applied to project bycatch of overfished species. These discard rates determine the degree to which managers must constrain the harvest of target species that co-occur with overfished species. These discard rates are developed over a long period of time and do not rapidly respond to changes in fishing behavior by individual vessels or for the fleet as a whole. Under this system, there is little direct incentive for individual vessels to do everything possible to avoid take of species for which there are conservation concerns, such as overfished species. In an economically stressed environment, uncertainties about average bycatch rates become highly controversial. As a consequence, members of fishing fleets tend to place pressure on managers to be less conservative in their estimates of bycatch. Given all of these factors, in the current system there are uncertainties about the accuracy of bycatch estimation, few incentives for the individual to reduce personal bycatch rates, and an associated loss of economic opportunity related to the harvest of target species.
>
> The current management regime is not responsive to the wide variety of fishing business strategies and operational concerns. For example, historically the Pacific Council has tried to maintain a year-round groundfish fishery. Such a pattern works well for some business strategies in the industry, but there has been substantial comment from fishermen who would prefer to be able to pursue a more seasonal groundfish fishing strategy. The current management system does not have the flexibility to accommodate these disparate interests. Nor does it have the sophistication, information, and ability to make timely responses necessary to react to changes in market, weather, and harvest conditions that occur during the fishing year. The ability to react to changing conditions is a key factor in conducting an efficient fishery in a manner that is safe for the participants.
>
> Fishery stock depletion and economic deterioration of the fishery are concerns for fishing communities. Communities have a vital interest in the short-term and long-term economic viability of the industry, the income and employment opportunities it provides, and the safety of participants in the fishery.
>
> In summary, management of the fishery is challenged with the competing goals of: minimizing bycatch, taking advantage of the available allowable harvests of more abundant stocks, increasing management efficiency, and responding to community interest. "Taking advantage of the available allowable harvests" includes conducting safe and efficient harvest activities in a manner that optimizes net benefits over both the short and long term.

1.2.3 Purpose of the Proposed Action

In 2003 the Council established a Trawl Individual Quota Committee (TIQC), which was charged with assisting the Council in identifying the elements of a trawl individual quota program and scoping alternatives and potential impacts of those alternatives in support of the requirements of the MSA and

NEPA.[7] At its first meeting in October 2003, the TIQC drafted a set of goals and objectives. Another Council-established committee, the Independent Experts Panel (IEP), subsequently recommended modifying. The Council adopted this list in June 2005, but at their March 2007 meeting the Council adopted a further revision of the goals and objectives. (The participation of the TIQC, the IEP, and other entities in the scoping process is described below in Section 1.7.) To pursue the goal thus developed, and shown below, the Council is considering alternatives that would rationalize the west coast trawl fishery and provide incentives to reduce bycatch, either through an IFQ program for all groundfish limited entry trawl sectors and/or through cooperatives for the fishery sectors targeting Pacific whiting. Under either alternative, allocations would be made to eligible fishery participants as a privilege to harvest a portion of fish, and not as a property right. Though structurally different, the Council's intention is that both the IFQ and co-op alternatives fulfill the goal of the program.

The following goal and lists of objectives and constraints and guiding principles outline the purpose of the proposed action.

Goal

> *Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch.*[8]

Objectives

The above goal is supported by the following objectives:

9. Provide a mechanism for total catch accounting.
10. Provide for a viable, profitable, and efficient groundfish fishery.
11. Promote practices that reduce bycatch and discard mortality and minimize ecological impacts.
12. Increase operational flexibility.
13. Minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical.
14. Promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.
15. Provide quality product for the consumer.
16. Increase safety in the fishery.

Constraints and Guiding Principles

The above goals and objectives should be achieved while:

1. Taking into account the biological structure of the stocks including, but not limited to, populations and genetics.

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[7] The term "individual quota program" was defined broadly to include any dedicated access privilege program, as described in the Notice of Intent to Prepare an EIS published in the Federal Register (69 FR 29482, May 24, 2004), which described the scoping process. Thus the TIQC's charge also included considering community development quota and individual processing quotas.

[8] "Bycatch" is defined in the Magnuson-Stevens Act as: "species of fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch-and-release fishery management program."

2. Taking into account the need to ensure that the total OYs and allowable biological catch (ABC) are not exceeded.
3. Minimizing negative impacts resulting from localized concentrations of fishing effort.
4. Accounting for total groundfish mortality.
5. Avoiding provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors.
6. Avoiding excessive quota concentration.
7. Providing efficient and effective monitoring and enforcement.
8. Designing a responsive mechanism for program review, evaluation, and modification.
9. Taking into account the management and administrative costs of implementing and overseeing the IFQ or co-op program and complementary catch monitoring programs, and the limited state and Federal resources available.

As originally framed, this action focused on the more general concept of dedicated access privileges, now more commonly referred to as limited access privileges (described in Section 1.3). However, as the Council developed the range of alternatives, other methods to achieve the goals and objectives listed above were considered. The current range of alternatives includes establishing a framework for mandatory fishing vessel cooperatives, which would not operate as an IFQ system. Because of these changes, beginning in 2006, the developing program has been referred to with the more general term "trawl rationalization" in order to capture the social and economic objectives that are expected to also have substantial conservation benefits, for example by reducing bycatch.

The relative performance of each of the alternatives with respect to these "goals, objectives, and constraints and guiding principles" is summarized in Section 6.1. Many of these elements are also addressed elsewhere in the analysis; for example other sections in Chapter 6 discuss of consistency with the groundfish FMP and MSA national standards; and in Appendix D where impacts on net national benefits, small entities and communities are addressed.

1.3 Background on Limited Access Privileges

1.3.1 The Theory behind Tradable Permits

Tradable permit arrangements have found wide application in dealing with common pool resources. Unlike private property, rights of access to and use of common pool resources are not unitary—controlled by a single person or entity. They are a kind of public good with particular characteristics; aside from the lack of unitary authority to control access and use they are subtractable—that is, the use of the resource by one person affects the ability of others to use it. Examples of common pool resources include the atmosphere (as a place to dispose of airborne pollutants traded off against its life-sustaining properties), water resources (again, both as a sink for pollutants and a resource for human use) and—relevant to the case at hand—fish. Common pool resources may be "open access" with no institutional arrangements to constrain access or use, government owned, or "common property" under which access is limited and some type of institution facilitates decision making about resource use by the group that has exclusive access.

U.S. fisheries have traditionally fallen under the government ownership, or more accurately trusteeship, institutional model. Under the trust doctrine the government sets rules about resource use for the benefit of its citizens who are the "owners" of the resource. Access may be unlimited (or practically so, if only limited to any citizen or resident) and government may establish rules over use in an effort to prevent over-exploitation. A variety of rules may be established to limit fishing activity, or effort—and thus indirectly, catch, such as time and area closures and limits on gear effectiveness. Alternatively, catch can be limited directly through quotas, bag limits, landing limits (trip limits), and the like.

Limiting catch directly or indirectly may address stock conservation concerns if catches can be constrained to or below maximum sustainable yield (MSY); even so, economic efficiency objectives are unlikely to be met. Furthermore, effectively matching catch with MSY can be very expensive in terms of government monitoring and enforcement costs. If participation cannot be limited, according to early fisheries economics theory (Gordon 1954; Shaefer 1957), people will enter the fishery until an equilibrium is reached where costs (including the opportunity cost of capital and labor[9]) match revenue. Even in a fishery with a few vessels this phenomenon is expected: new vessels will continue to enter the fishery, even though average cost for each vessel increases, to the point where revenues no longer exceed costs. In an unconstrained fishery, and depending on costs, this usually occurs at a level of catch above MSY. Maximum economic yield, according to this model, occurs below MSY when revenue is highest in relation to costs. Fishery participants probably would like to maximize profit (the difference between costs and revenue), but they cannot do so if there is no means to exclude entry. Thus, while the individual may be satisfied with wages received, for the fishery as whole there is a cost in terms of lost profits.

Even if participation can be limited, profits may be dissipated as costs escalate, because of over-investment in vessels and equipment to beat out other fishers in catching the available fish. (This type of competition should not be confused with market competition, which serves to lower prices. In an unconstrained fishery fewer fish will be caught at higher costs, resulting in higher prices in the raw fish market. And even in a constrained fishery over-capitalization results in higher costs than would otherwise be necessary, potentially increasing prices.)

Tradable permits ration access to a resource—the permit represents an exclusive right to use some increment of the resource (a ton of sulfur dioxide emitted into the air or a pound of fish brought aboard, for example) (Tietenberg 2002). In such a scheme the first step is to set a limit on total resource use, total allowable catch, which in the west coast groundfish context is the optimum yield (OY). This aggregate amount can then be subdivided and allocated in some fashion. In an IFQ scheme this allocation typically represents a percentage share of the total allowable catch, which can vary over time (OYs, for example, are set every two years based on an assessment of stock status and can go up or down). This share can then be converted into a quantity (pounds of fish) when applied against the externally-determined total allowable catch limit (or OY).

Tradability is an important feature in terms of economic efficiency and bycatch reduction objectives. It requires each fisher to match the amount of fish caught to the permit amount. In a competitive market, shares will tend to accrue to the highest valued use. Someone with higher operational costs, for example, may be better off selling their shares to a person who can use them at lower overall cost (operational cost plus the cost of share purchase). The seller benefits more from selling the shares than from using them and the buyer can still earn profit after absorbing the purchase cost.[10] In this construct, the shares have been put to the most efficient use, because both the buyer and seller are. (However, some social costs may be external to the tradable quota system. For example, consolidation of shares in fewer hands, resulting in a smaller fishing fleet, can affect fishing-dependent communities where the lost vessels were important income generators, contributed to community identity, supported

[9] In this context opportunity cost represents the individual's assessment that no other activity that he or she can pursue will pay a comparable wage. Opportunity cost can include non-monetary benefits. For example, someone may choose to continue fishing at a lower wage because the work is more enjoyable than other kinds of work that might pay better.

[10] Because of the distinction between QS and the quota pounds that represent a realized amount, a variety of other arrangements can be used, such as leasing or selling quota pounds (while retaining the asset value of the QS). But the general principal still applies.

infrastructure used by other fleets, or provided other benefits.) For a tradable permit system to be effective several preconditions must be met (Tietenberg 2002). A competitive market may be distorted if any one participant exercises too much market power. Transactions costs—the costs involved in exchanging permits (above the actual sales price) and in obtaining information about prices—cannot be too high. The system as a whole relies on effective monitoring and enforcement; "free riding" or "quota busting" occurs if a participant catches fish without possessing the corresponding quota pounds. Resource conservation objectives are not met (affecting resource value, reflected in share prices) and over time confidence in the system may break down.

The initial allocation of QS is often controversial. According to economic theory the value of the resource will be maximized no matter how the shares are initially allocated (Montgomery 1972), whether freely distributed (based on past participation or by lottery) or auctioned off. The implication, according to Tietenberg (2002, p. 200) is that "the resource manager can use initial allocation to solve other goals (such as political feasibility or ethical concerns) without sacrificing cost-effectiveness."

By itself an IFQ program may have few direct conservation benefits, but substantial indirect benefits. In the groundfish fishery regulatory bycatch (discarding of fish because of regulations discouraging targeting requires one to do so) has been a big problem in terms of lost value. If not adequately accounted for, it contributes to excess mortality and mis-specification of future OYs. The IFQ program will require 100 percent observer coverage; the program may also increase efficiency and profits enough for industry to be able to bear these monitoring costs. Additionally, a program requiring IFQs to cover catch rather than landings is expected to motivate fishers to avoid stocks with low OYs (such as overfished species), because scarcity value would drive up share prices for these stocks. At the same time, direct conservation benefits are probably limited. For example, optimum yield (MSY as reduced by other biological and social factors) is set externally. If it is mis-specified, the IFQ program does nothing to correct the problem. Certain external costs—habitat impacts, for example—may be addressed through the use of IFQ allocations to provide incentive for use of low impact gears (as an example, see the adaptive management provisions described in Chapter 2). It could also be argued that an IFQ program, because of share value to yield, would stimulate a conservation ethic among fishers, prompting them to minimize such external effects. For this to work, fishers would have to see a clear correlation between their behavior and the effect on yield and be confident that all, or most, of the other fishers behave in the same fashion. This potential benefit is discussed in the analysis.

An IFQ program may also reduce some government costs—there may be less need to constantly adjust regulations constraining the pace of fishing, for example—while increasing other administrative and monitoring costs (e.g., tracking the exchange of quota, observing total catch, requiring onboard observers).

1.3.2 Cooperatives

Cooperatives differ from IFQs in that catch privileges are held jointly by members of the co-op. They can be classed as a kind of common property regime where government plays an instrumental role. Instead of QS held by individuals, each co-op member receives an allocation that can only be accessed exclusively when it is pooled within the co-op. How fishing occurs within the cooperative (how much of the co-op's pooled allocation any one member may catch) is a matter of joint decision making by co-op members (through side deals, contracts, and the like). In effect, tradability can occur within a co-op; such arrangements are not brokered by government.

In theory cooperatives are less economically efficient than IFQs because the barriers imposed on tradability prevent the assignment of catch privileges to the highest valued use. On the other hand, cooperatives may facilitate fishers' ability to pool both opportunity and risk. This is an important

benefit in west coast groundfish fisheries where low OYs for some overfished species are likely to impose constraints on target species fishing opportunity. Government-facilitated cooperatives are probably more attractive in the Pacific whiting fishery because the catch and operational characteristics are more uniform in comparison to the non-whiting sector. In addition, the whiting fishery does not operate under cumulative landings limits so more efficiency may be lost in a race for fish. This means that cooperatives offer efficiency gains from status quo in comparison to—other things being equal—adoption of cooperatives in the non-whiting trawl fishery.

1.3.3 Dedicated Access Privileges and Concerns about Conferring a Property Right

The U.S. Commission on Ocean Policy (US Commission on Ocean Policy 2004) popularized the term "dedicated access privilege" without defining it except by example. The term is meant, first, to underscore the diversity of arrangements that can be established to regulate access to fishery resources including IFQs, cooperatives, or community control. As important, the Commission emphasized that these arrangements do not confer any real interest in property, as represented by ownership of a QS, for example:

> U.S. fishermen do not now and will never have inalienable rights to fish because the fisheries resources of the United States belong to all people of the United States. Under current law, fishermen are granted a privilege to fish, subject to certain conditions. Because this privilege can be taken away, it is not a right. (p. 289)

Section 303A of the reauthorized MSA, entitled "Limited Access Privilege Programs," elaborates this point by stating that such programs do not create a right, title, or interest in allocated fishing opportunity (e.g., QS). Any such privilege may be revoked without compensation at any time.

1.4 Biological Context of West Coast Groundfish

The groundfish covered by the Groundfish FMP include species that live on or near the bottom of the eastern Pacific Ocean within 200 miles of the U.S. west coast. These include the following species groups:

- **Rockfish**. The FMP covers at least[11] 64 different species of rockfish, including widow, yellowtail, canary, shortbelly, chilipepper, yelloweye, darkblotched, and vermilion rockfish; bocaccio; cowcod; thornyhead; and Pacific Ocean perch.
- **Flatfish**. The FMP covers 12 species of flatfish, including various soles, starry flounder, turbot, and sanddab.
- **Roundfish**. The six species of roundfish included in the FMP are lingcod, cabezon, kelp greenling, Pacific cod, Pacific whiting (hake), and sablefish.
- **Sharks and skates**. The six species of sharks and skates in the FMP are leopard shark, soupfin shark, spiny dogfish, big skate, California skate, and longnose skate.
- **Other species**. These include ratfish, finescale codling, and Pacific rattail grenadier.

The list of current trawl target species includes flatfish, roundfish, thornyheads and a few species of rockfish. Primary flatfish target species include petrale sole and Dover sole. Roundfish target species include Pacific whiting, Pacific cod, and sablefish. Some rockfish species, especially Pacific Ocean perch and widow rockfish, were important trawl targets until the mid 1990s. Rockfish include three

[11] Because the management unit includes all species in the family Scorpaenidae, and their systematics is still being resolved, there is a potential for new species to be added to the management unit.

genera under the family Scorpaenidae. One genus, *Scorpaena*, forms only a small fishery off southern California. The thornyheads, genus *Sebastolobus*, are occasionally referred to as rockfish; however biologically they are quite different. The genus most commonly referred to as rockfish, *Sebastes*, is a very diverse group. Figure 1–2 shows the distribution of members of the genus *Sebastes* and other groundfish species by latitude and depth association.

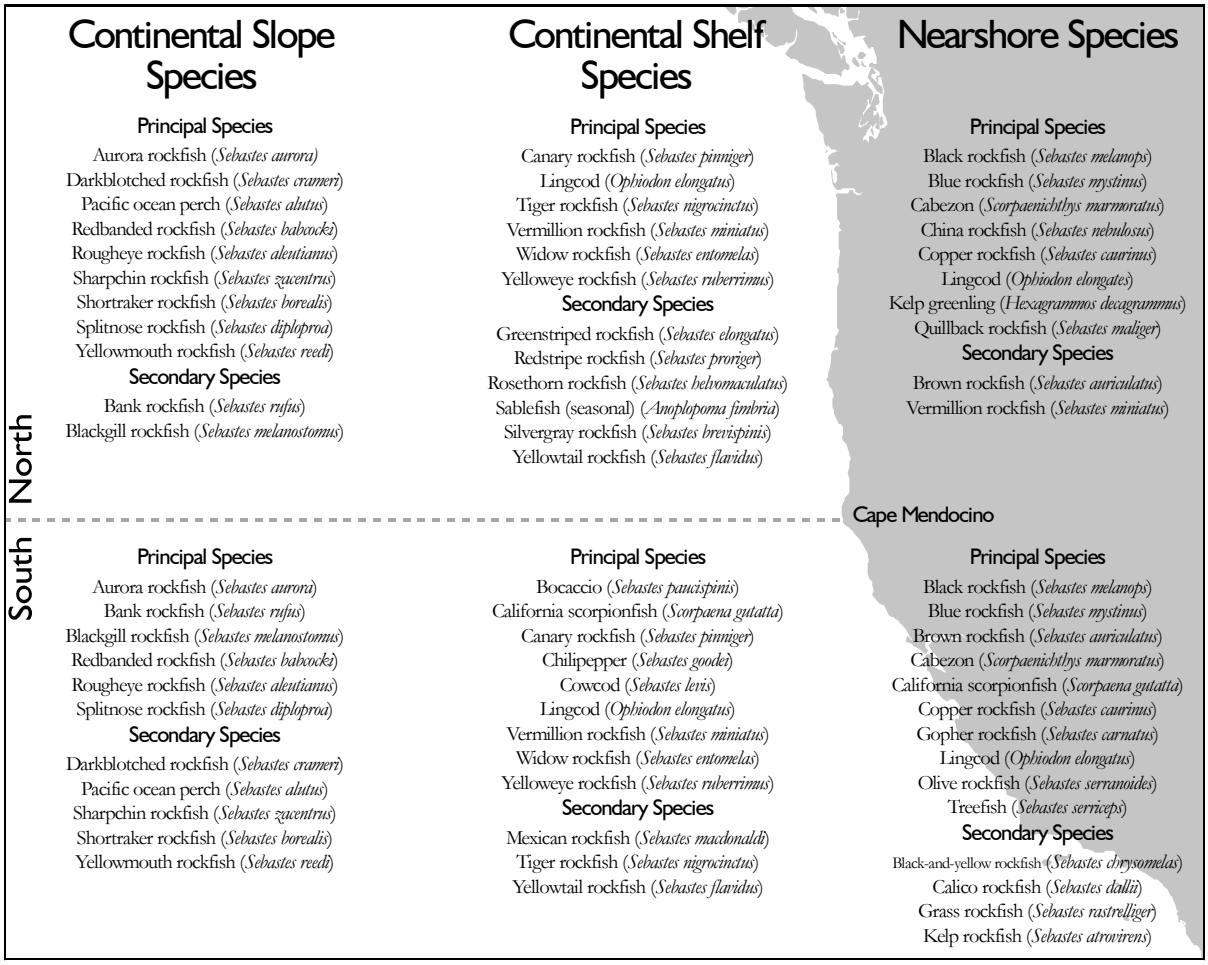

Figure 1–2. Latitude and depth association of selected groundfish species.

West coast flatfish and roundfish stocks are relatively abundant, short-lived, and productive. Large initial catches of rockfish gave the impression that these stocks were also highly productive. However, increased scientific knowledge of the natural history and stock status of several rockfish species made it clear that most members of the genus *Sebastes* are not able to withstand the level of removals made possible by high intensity fishing methods. There are several reasons for this:

1. Most rockfish are viviparous. Fertilization is internal and the female retains the eggs until they hatch, giving "birth" to live young. This limits the number of eggs that are produced annually.
2. Extreme longevity. Specimens of several rockfish species have been estimated at over 60 years of age, and some over 100 years.
3. Long generation times. Many rockfish species require 10 or more years to reach sexual maturity.

4. Low natural mortality. Rockfish are adapted to relatively slow natural population turnover, unlike species such as Pacific whiting, sablefish, and most flatfish.
5. Fecundity increases with age. Evidence shows that older female rockfish produce more young than younger ones.
6. Infrequent recruitment success. Ocean conditions or other factors seem to create large variability in recruitment success.
7. Specific habitat requirements vary with life stage. Eggs, larvae, juvenile, and adult forms of many rockfish use different types of habitat over their lifecycle.
8. Relatively low mobility of adults. Many rockfish tend to inhabit a particular site for much of their adult life, making them particularly susceptible to capture.

The traits of long life, slow growth, viviparity, and increasing fecundity with age may have evolved to deal with environmental variability. The ability of rockfish to live a long time and produce more young with age increases the odds that they will be able to "wait out" poor environmental conditions and produce enough young that a few offspring will likely survive. However, these characteristics also lead to a relatively low productivity for a given biomass and mean that most rockfish are unable to support large, sustained removals. Low productivity coupled with a tendency to associate with other target species increases management difficulty. This is especially problematic when the associated species differ markedly in life history traits such as generation time, fecundity, and natural mortality rate.

1.5 Groundfish Fisheries Context

The west coast groundfish trawl fishery uses trawl, trap, and hook-and-line gears, including recreational gear. The commercial fishery is prosecuted over a wide range of depths, from 20 fathoms for English sole and sanddabs to as deep as 700 fathoms for Dover sole, thornyheads, and sablefish. Fishing may occur on smooth mud/sand substrates, rocky reefs, pinnacles, and canyons. Recreational groundfish fisheries typically occur closer inshore than most commercial fisheries.

West coast groundfish range from semi-pelagic species like Pacific whiting, shortbelly rockfish, and widow rockfish to demersal species such as Dover sole, lingcod, and thornyheads. Most species primarily inhabit the continental shelf, but Dover sole, thornyheads, rex sole, petrale sole, and some others occur in greatest abundance on the continental slope. The close spatial relationship of certain species often results in large catches of a mix of species. This is particularly true in the case of bottom trawl catches. For example, vessels catching Dover sole also catch large amounts of other valuable species such as thornyheads, sablefish, and darkblotched rockfish. Several species of rockfish may be caught in a single trawl tow, and the species mix changes from north to south. Historically, widow rockfish, yellowtail rockfish, and canary rockfish were caught in the Vancouver and Columbia management areas, while bocaccio and chilipepper rockfish have been significant catch components in the Monterey and Conception areas (see Figure 1–1). Currently, only a few rockfish species are trawl targets, including yellowtail rockfish in northern midwater fisheries and splitnose rockfish and associated species in the southern slope fishery.

In order to exercise some control over the mix of various species in their catches, fishermen can modify the depth and area of their fishing effort as well as the manner in which gear is fished. However, it is often impossible to avoid catch of some non-target species. The fishery's multi-species nature is further complicated by seasonal changes in fish availability, weather, and by market conditions (prices and poundage limits)—factors which may cause a trawler to fish on several species' assemblages in a single fishing trip. Many gear types are used in the commercial groundfish fishery, including trawl nets, traps,

and longlines. However, trawl nets (both bottom and midwater types) account for the major portion of the groundfish catch.

In the trawl fishery, some incidental catch of non-targeted groundfish is unavoidable, and for economic or regulatory reasons, some of the catch is discarded.

1.6 Groundfish Management Context

The west coast groundfish trawl fishery is jointly managed by state and Federal authorities under the Magnuson-Stevens Act (MSA), which was passed in 1976 to "Americanize" US fisheries. In addition to establishing eight regional fishery management councils, the MSA extended U.S. fishery management authority in territorial waters from 12 miles out to 200 miles from the shore. This created an exclusive economic zone, which including U.S. Federal territorial waters, extends from 3 to 200 miles off shore. For the west coast (California, Oregon, and Washington), the Council coordinates Federal management of fisheries in the Federal EEZ with state management of fisheries occurring in state waters (i.e., between the shoreline and 3 miles offshore).

The Secretary of Commerce approved the Groundfish FMP in 1982. The Groundfish FMP initially focused on species targeted by the midwater trawl fishery (widow rockfish and Pacific whiting). Over the following decade, several additional species were added to the list of actively managed species, with established OY catch amounts and, in some cases, sector quotas. Under the MSA, catch by foreign fleets in the EEZ was eliminated by 1992. However, this decline was more than offset by expansion of the U.S. domestic fleet, which was encouraged by government subsidies.

In 1996, the Sustainable Fisheries Act amended and reauthorized the MSA. National standards adopted under the reauthorization include a requirement to prevent overfishing while maintaining OY. Optimum yield is the harvest amount that will achieve MSY, as reduced by relevant economic, social, or ecological factors. Under National Standard 1(d), a stock is considered overfished if current stock biomass is less than 25 percent of the virgin biomass.

The Council manages the commercial fishery primarily with bimonthly cumulative landing limits set to prevent fishing mortality from exceeding OYs. (Under the cumulative limit system during a 2-month period each vessel may land fish up to weight limits established for each species, stock, stock complex, or other management unit for which an OY has been set. The 2-month limits can change from one period to the next and may be adjusted in response to new information.) The primary exceptions to the use of cumulative limits are the trawl whiting fishery, which is managed using quotas and season closures, and the fixed-gear sablefish fishery, which is managed using a restrictive individual quota program tied to the "stacking" of multiple permits and associated quota, on a single vessel (see Section **Error! Reference source not found.**). Both the cumulative landings limits and the sablefish quotas are functionally limited access privilege programs because individual vessels are provided an opportunity to catch specified amounts of fish. However, the cumulative limits only cover landings; the system does not provide individual accountability for bycatch, which can be a problem for constraining species, where the limit is set very low or retention is prohibited. In effect, bycatch is estimated (based on observer data) and limited indirectly through season and area closures, or gear restrictions. Fixed-gear sablefish quotas only apply to the one target species; incidental catch may be subject to cumulative limits and the same issue as described above applies to bycatch.

In multi-species fisheries such as this, it is practically impossible to optimize harvests—achieve MSY—for all stocks simultaneously. Optimally harvesting any one stock may result in either under-harvest or over-harvest of co-occurring stocks. While under-harvest is not a concern from a biological standpoint, it may have social and economic impacts in terms of forgone protein supply, revenues, and incomes.

Current under-harvest of target species is the indirect result of over-harvest, which led to the designation of seven groundfish species as overfished (bocaccio, canary rockfish, cowcod, darkblotched rockfish, Pacific Ocean perch, widow rockfish and yelloweye rockfish). Bocaccio, lingcod, and Pacific Ocean perch were declared overfished in 1999. Under the Groundfish FMP, when a species is declared overfished, mortality levels for that species must be reduced in order to allow the species to recover to a biomass capable of supporting MSY. In response, the Council began implementing depth-based area closures in the summer of 2002. These measures were designed to exclude fishing effort from depth zones particularly inhabited by overfished species. In addition, to keep the groundfish fishery within the species-specific catch limits for overfished species (landings plus discard mortality), limits were imposed on the landings of healthy stocks in order to reduce the take of incidentally-caught overfished species. The entire fishery is thus managed based on constraints imposed by a few species, even if those species are not targeted by any particular fishery. Constraints of this type led the Secretary of Commerce declared the west coast groundfish fishery a Federal disaster in January 2000.

The current number of overfished species and their occurrence in different areas and habitats affect virtually all fisheries for healthy stocks. For this reason, overfished species are sometimes referred to as "constraining stocks." Managing fisheries to prevent overfishing of these stocks requires forgoing substantial potential harvests.

The Council has been developing programs to reduce capacity in the groundfish fisheries since the mid-1980s, culminating with this proposal to consider IFQs and/or co-ops. Groundfish FMP Amendments 6, 8, 9, and 14 were drafted specifically to reduce capacity in groundfish fisheries. A vessel buyback program implemented in 2003 reduced the number of groundfish trawl vessels by one-third. The adoption of rebuilding overfished species (Amendment 16) has led to the development of a vessel monitoring system (VMS), implemented in 2007, to insure that proscribed fishing does not occur in closed areas—termed Rockfish Conservation Areas (RCAs).

1.7 Council and Agency NEPA Scoping

Scoping is "an early and open process for determining the scope of issues to be addressed and for identifying significant issues related to a proposed action" (40 CFR 1501.7). The scoping process described in NEPA regulations emphasizes public involvement, prioritization of issues so that the impact analysis may focus on potentially significant impacts, and planning the impact analysis. The Council, as much as it is an organization, is a process for coordinating involvement of the public and interested state and Federal agencies in decision-making related to Federal fishery management. As such, it serves as an effective scoping mechanism. All Council meetings, and meetings of its various committees, are open to the public and opportunity for oral and written comment on issues brought before these bodies is provided.

Development and refinement of the alternatives leading to the choice of a preferred alternative has taken more than 5 years, with numerous Council and committee meetings during the process. In practice, this entire period can be considered scoping. The Council initiated development of an IFQ program for groundfish trawl fisheries at their September 2003 meeting.[12] The Council Chair then appointed members to the Ad Hoc TIQC from a broad range of constituencies. The TIQC has been an important part of the scoping process, making recommendations on the development of the trawl rationalization program. Several other ad hoc committees have been formed to support the process of considering individual quotas; an existing standing committee, the Groundfish Allocation Committee (GAC), has

[12] Note that IFQs were an alternative under the 1991 Amendment 6 groundfish license limitation program, and have been raised in Council discussions about management alternatives before and since that time.

also become involved in developing and refining the alternatives and options considered by the Council. Table 1–1 lists these committees with a brief description of their function. (Rosters for standing and ad hoc committees may be accessed on the Council's website at http://www.pcouncil.org/operations/rosters.html.) Table 1-2 lists the meetings that have been held by the committees and Council meetings at which trawl rationalization or intersector allocation (which, as described above, is a separate but closely related action) has been discussed, with a brief description of the topics covered in each meeting.

Two standing committees, the Groundfish Management Team (GMT) and the Groundfish Advisory Subpanel (GAP), play an ongoing role in all aspects of groundfish management. The GMT is composed of representatives from NMFS and state fishery management agencies while the GAP draws its representation from groundfish fishery sectors and gear groups, and other stakeholders. These two committees meet at every Council meeting where groundfish issues are on the agenda and the GMT also holds three or four additional week-long meetings every year. Although initially not directly involved in development of the trawl rationalization program, these two committees' role has grown by commenting and providing recommendations as program alternatives were developed. Because their activities are not confined to the trawl rationalization program and the frequency of their meetings, these two committees' activities are not listed in Table 1-2.

Examination of Table 1-2 shows that the process of program development (formulating and evaluating alternatives, culminating in Council action to choose a preferred alternative) has moved forward in several stages. In late 2003, once the Council had committed to program development, and through 2004, various committees began initial work on program development. Publication of a notice of intent to prepare an EIS on May 24, 2004, (69 FR 29482) initiated an extensive public scoping effort including a deadline for submitting comments by August 2, 2004. Input on the range of alternatives and potential impacts of the proposed action were solicited during this scoping period. Comments received during this NEPA public scoping period are summarized in a separate document (PFMC 2004b). Although the notice established a public comment deadline, scoping has effectively continued through the Council process because, as noted above, all meetings of the Council and its committees are open to the public and opportunities for the broader public to comment are provided at each meeting.

A funding shortfall at the end of 2004 prevented much work being done until funding was secured in the summer of 2005. At that time a consulting firm (Northern Economics Inc.) was hired to begin EIS development. This process was broken up into two stages. During the first stage a detailed outline and analytical framework was to be developed; subsequent production of the EIS is a second stage. The consultants organized a workshop in April 2006 to bring together the various Council committees and members of the public to seek further input on program development and the structure of the alternatives. The completed "Stage 1" document (NEI 2006) was presented to the Council in September 2006 (this EIS document is considered the Stage 2 document). In the latter part of 2006 the TIQC and GAC developed recommendations for a major restructuring of the alternatives in order to simplify them, including dropping some elements (such as an alternative involving permit stacking) in order to narrow the scope of the action. But it was during this period that the Council added the whiting sector cooperatives alternative.[13] Because of this broadening of the range of alternatives, what had been referred to as the trawl individual quota program was henceforth called the trawl rationalization program. These restructured alternatives were adopted by the Council in March 2007, further refined by the committees, and adopted in detailed form for analysis by the Council in November 2007. These are the alternatives evaluated in this EIS. Council and NMFS staff used the Stage 1 document as the basis

[13] The alternative principally deals with the at-sea and shorebased whiting fishery subsectors. The third whiting subsector, catcher-processors, operates under an independently formed co-op.

for developing the EIS, with some modifications to the proposed structure of the document and analytical approach and incorporating the major modifications to the alternatives subsequently made.

The Council chose a preliminary preferred alternative for trawl sector rationalization in June 2008. Council decision-making on the trawl rationalization program culminates in November 2008 when they take final action on a preferred alternative. After Council final action NMFS will publish a DEIS in 2009, which will be available for additional public comment as required by Council on Environmental Quality (CEQ) regulations, followed by publication of a FEIS responding to comments received.[14] The responsible official within NMFS (the Assistant Administrator) may sign a ROD no less than 30 days after publication of the FEIS, which clears the way for program implementation (recognizing that various other statutory requirements must be simultaneously met). Although this NEPA process is expected to be completed in 2009, the earliest projected date for program implementation—in terms of when fishing would begin under a rationalization program involving IFQs and/or cooperatives—is January 1, 2011. (Management measures for the whiting fishery could be implemented earlier.) Program infrastructure (e.g., IFQ monitoring systems) is slated for development during 2010.

1.8 Relationship to Other NEPA Documents

The EIS is a stand-alone NEPA document that does not tier off any previous EISs. A NEPA environmental review was prepared for the Groundfish FMP, which was implemented in 1982. NEPA environmental reviews have been prepared for each of the subsequent amendments to the FMP. These documents will be incorporated into the EIS as necessary to fully explain the status quo and to analyze the cumulative effects of the alternatives on the human environment.

This EIS incorporates reference information from other EISs produced by NMFS and the Council, where applicable. EISs prepared to evaluate harvest limits and management measures for the last two biennial management cycles (2005–06 and 2007–08) (PFMC 2004a; PFMC 2006) provide detailed discussion of the Federal, state, and tribal roles and responsibilities in groundfish management; fishery ecosystem and marine biodiversity in relation to groundfish management; groundfish essential fish habitat, including adverse impacts of fishing and non-fishing related activities; life history characteristics, distribution, and stock status of groundfish species and non-groundfish species; life history, population biology, and foraging ecology of protected species, including ESA-listed salmon, marine mammals, seabirds and sea turtles; and the socioeconomic environment, which includes commercial, tribal and recreational fisheries, coastal communities, and non-consumptive and non-market benefits. The *Pacific Coast Groundfish Fishery Management Plan Essential Fish Habitat Designation and Minimization of Adverse Impacts Final Environmental Impact Statement* (EFH EIS) prepared by NMFS (NMFS 2005) provides habitat information and analysis of the effects of the groundfish fishery on habitat. Additionally, *The Pacific Coast Groundfish Fishery Management Plan Bycatch Mitigation Program Final Environmental Impact Statement* (Bycatch EIS) prepared by NMFS (NMFS 2004c) provides a guide for developing issues for a "rights-based" program of individual fishing quotas.

[14] Section 302(f) of the MSA Reauthorization Act of 2006 (P.L. 109-479) requires the Council to submit a proposal for the rationalization program to Congress within 24 months of the Act's passage, or January 12, 2007. Although a DEIS may not be released for public comment by that date, a substantially completed version of the DEIS will be used to satisfy this requirement.

Table 1-1. Description of committees involved in trawl rationalization program development.

Committee Name	Composition & Function
Groundfish Allocation Committee (GAC)	Six voting members are drawn from the Council; seven nonvoting members drawn from stakeholders. Provides high level policy guidance and refinement of alternatives for consideration by the full Council.
Ad Hoc Groundfish TIQ Committee (TIQC)	Seventeen members drawn from stakeholders; principally fishing and processing interests. Involved in the initial development of program features, provides stakeholder perspective on program development.
Ad Hoc TIQ Analytical Team	Council and agency staff and consultants conducting NEPA analysis. This group held several public meetings early in the process to discuss how the impact analysis would be done. Composition subsequently changed to include mainly agency and Council staff with most work occurring internally.
Ad Hoc TIQ Enforcement Group	Drawn from the standing Enforcement Consultants committee to review and advise on the practicality of program features in terms of enforceability.
Ad Hoc Trawl Rationalization Tracking and Monitoring Committee	Management and enforcement agency staff at the state and Federal level; charged with developing program options for monitoring and enforcement.
Ad Hoc TIQ Independent Experts Panel	Five academic experts with expertise in fishery science, economics. Provides external review of program features.

Table 1-2. Committee and Council meetings related to trawl rationalization program development.

Date	Committee	Subject
September 11, 2003	Council meeting, Agenda Item C.10[a]	Initiated development of a TIQ program, which later became the trawl rationalization program.
October 28-29, 2003	Ad Hoc TIQC	Began development of alternatives for an individual quota program to cover limited entry trawl landings in the west coast groundfish fishery. Committee charge, decision rules, and the purpose, need and objectives for an individual quota program established.
November 6, 2003	Council meeting, Agenda Item D.12	Provided guidance based on Ad Hoc TIQC report and considered establishing a new control date.
March 18-19, 2004	Ad Hoc TIQC	Continued development of alternatives.
March 24-25, 2004	Groundfish Allocation Committee[b]	Discussed allocations necessary to support trawl sector IFQs.
April 9, 2004	Council meeting, Agenda Item C.16	Provided further guidance on program development and discussed issue of latent permits.
May 25-26, 2004	Ad Hoc Groundfish TIQ Enforcement Group	Conducted preliminary scoping on the types of enforcement programs that would be necessary for a groundfish trawl IFQ program, and information needs and landings tracking and monitoring systems.
June 8-9, 2004	Ad Hoc TIQ Analytical Team Ad Hoc Groundfish TIQ Independent Experts Panel	Conducted preliminary scoping on the types of impacts to be considered and analytical methods used in a groundfish trawl dedicated access privilege EIS. Related data collection issues also discussed.
June 17, 2004	Council meeting, Agenda Item C.9	Heard committee reports, discussed need for programmatic EIS, approved scoping information document for public distribution.
July 1-2, 2004	Ad Hoc TIQ Analytical Team	Continued work from previous meeting.
September 7-8, 2004	Ad Hoc TIQ Analytical Team	Reviewed the results from the public scoping plan and progress on analytical tasks, and discussed the organization and assignments for EIS.
September 17, 2004	Council meeting, Agenda Item C.11	Heard progress report and results of public scoping period, provided guidance on committee work and composition, intersector allocation.
September 22-23, 2004	Ad Hoc Groundfish TIQ Independent Experts Panel	Reviewed the scoping information document and comments received during the recently completed NEPA public scoping period, in order to determine whether there are significant options and impacts that had not yet been identified which, in the Experts Panel's view, should be considered by the Council.

Date	Committee	Subject
September 28, 2004	Ad Hoc Groundfish TIQ Enforcement Group	Reviewed enforcement program alternatives developed at its previous meeting in the light of comments received during the recently completed NEPA scoping period and worked on developing a general assessment of the costs for status quo enforcement and levels of enforcement that might be required for different individual quota enforcement programs.
October 25-26, 2004	Ad Hoc TIQC	Reviewed results from public scoping and some preliminary analysis and refined recommendations to the Council.
November 3-4, 2004	Council meeting, Agenda Item E.6	Provided guidance for the evaluation of a preliminary range of alternatives.
November 17-18, 2004	Ad Hoc TIQ Analytical Team	Reviewed the Council action from the November 2004 Council meeting and planned the next analytical tasks.
January 27, 2005	Groundfish Allocation Committee*	Discussed allocations necessary to support rationalization.
February 23-24, 2005	Ad Hoc TIQC	Continued the review of results from public scoping and some preliminary analysis and refined recommendations to the Council.
May 2-3, 2005	Groundfish Allocation Committee	Discussed rationalization alternatives with attention to intersector allocation.
May 10-11, 2005	Ad Hoc TIQC	Developed recommendations on program design.
June 16, 2005	Council meeting, Agenda Item C.5	Approved a range of alternatives for analysis.
October 30, 2005	Ad Hoc TIQC	Provided guidance on measures to mitigate impacts to communities.
November 3, 2005	Council meeting, Agenda Item H.11	Received update on progress of program development, provided guidance on measures to mitigate impacts to communities.
November 14-15, 2005	Groundfish Allocation Committee	Discussed allocations necessary to support rationalization
March 16, 2006	Ad Hoc Groundfish TIQ Independent Experts Panel	Reviewed and commented on a preliminary internal draft document that consultants developed for a public workshop (see below) on the approach for analysis of the TIQ alternatives.
April 18-20, 2006	Public Workshop on Trawl Individual Quota Analysis	Workshop to review and receive comments from the public and Council advisory bodies on the first stage of the draft analytical package developed by consultants.
June 11, 2006	Ad Hoc TIQC	Developed recommendations on structure of alternatives and program design.

Date	Committee	Subject
June 15, 2006	Council meeting, Agenda Item F.3	Reviewed a draft of the preliminary (Stage 1) analysis and provided recommendations on refinements to analytical approach. (Drafting of the EIS was divided into two stages due to budget constraints. Stage 1 was an analytical framework for the EIS.)
September 10, 2006	Ad Hoc TIQC	Reviewed stage 1 document (analytical framework). Provided guidance.
September 14, 2006	Council meeting, Agenda Item C.7	Reviewed Stage 1 document (analytical framework). Provided guidance on a process to revise and simplify the alternatives for Stage 2 analysis. Added alternative for cooperatives in the Pacific whiting fishery.
October 18-19, 2006	Groundfish Allocation Committee	Provided guidance on the development of alternatives for allocation between trawl and nontrawl sectors necessary to support rationalization.
November 6-8, 2006	Ad Hoc TIQC	Reviewed and further developed alternatives under analysis, with particular emphasis on co-op alternatives for whiting sectors, and reviewed GMT comments from the September 2006 Council meeting.
November 16, 2006	Council meeting, Agenda Item D.7	Adopted preliminary alternatives for intersector allocation, which supports trawl rationalization (to be analyzed in a separate NEPA document).
December 12-14, 2006	Groundfish Allocation Committee	Recommended restructuring and narrowing the range of alternatives to be considered for rationalization.
February 20-22, 2007	Ad Hoc TIQC	Reviewed and further developed alternatives under analysis, with particular emphasis on the GAC report from the GAC's December meeting and GMT comments from the GMT's January 2007 meeting.
March 8, 2007	Council meeting, Agenda Item E.4	Modified and simplified the alternatives based on GAC and other committees' recommendations. Adopted revised goals and objectives for the program. Added a feature to the Pacific whiting cooperative alternative to cover the shore-based sector.
May 2-4, 2007	Ad Hoc TIQC	Reviewed and further developed alternatives under analysis, particularly with respect to the alternatives for whiting sector vessel co-ops.
May 15-17, 2007	Groundfish Allocation Committee	Developed recommendations for further refinement of trawl rationalization alternatives.
June 13, 2007	Ad Hoc TIQC	Further refined the trawl rationalization alternatives.
September 25-27, 2007	Groundfish Allocation Committee	Developed recommendations for further refinement of trawl rationalization alternatives and intersector allocation alternatives.
October 11-12, 2007	Ad Hoc TIQC	Reviewed and further developed trawl rationalization alternatives under analysis.

Date	Committee	Subject
November 7-9, 2007	Council meeting, Agenda Items D.5 and D.7	Adopted range of intersector allocation alternatives for analysis. Refined and finalized the trawl rationalization alternatives for analysis.
November 30, 2007	Ad Hoc Trawl Rationalization Tracking and Monitoring Committee	Provided agency guidance and perspectives on design constraints and scoped likely impacts of alternative configurations of tracking and monitoring systems for trawl rationalization.
February 13, 2008	Ad Hoc Trawl Rationalization Tracking and Monitoring Committee	Provided agency guidance and perspectives on design constraints and scoped likely impacts of alternative configurations of tracking and monitoring systems for trawl rationalization.
February 20-22, 2008	Groundfish Allocation Committee	Considered draft alternatives (and other material for trawl rationalization) and intersector allocation alternatives.
April 7-12, 2008	Council meeting, Agenda Item H.3	Deferred selection of a preferred alternative for intersector allocation to support trawl rationalization until March 2009.
May 13-15, 2008	Groundfish Allocation Committee	Developed advice on a preferred alternative for the Council's June 2008 decision
May 15-16, 2008	Ad Hoc TIQC	As above for the Groundfish Allocation Committee.
June 8-13, 2008	Council meeting, Agenda Item F.6	Selected preliminary preferred alternative for trawl rationalization program.

[a]Briefing materials provided at each Council meeting are available at http://www.pcouncil.org/bb/bbarchives.html. The materials constitute a substantial part of the record of the development of the program. Council meeting minutes, summarizing Council discussion and decisions, are available at http://www.pcouncil.org/minutes/cminutes.html.

[b]The Groundfish Allocation Committee was originality constituted as the Ad Hoc Allocation Committee. It was converted to a standing committee in March 2005.

CHAPTER 2 DESCRIPTION OF THE ALTERNATIVES, INCLUDING THE PRELIMINARY PREFERRED ALTERNATIVE

2.1 Introduction

This chapter describes the alternatives for implementing a trawl rationalization program. There are three basic alternatives, which the Council considered in developing their preferred alternative:

Status Quo Management Regime: If this alternative is chosen, changing conditions in the fishery will will continue to be managed with status quo regulations, including vessel cumulative landing limits for nonwhiting and season management for whiting.

IFQ Alternative: Under this alternative, IFQs will be used to manage the catch of groundfish caught by trawl vessels operating under a limited entry (LE) trawl permit with the following exceptions. IFQs will not be required for catch by an LE trawl vessel operating in fisheries in which groundfish is harvested incidentally, nor for catch by an LE trawl vessel when operating as part of LE fixed-gear fishery (for vessels with LE permit(s) endorsed for both trawl and fixed-gears).

Whiting Sector Cooperative Alternative: Under this alternative, co-ops will be established for one or more of the three whiting sectors. Options are provided for the possible rollover of excess whiting from one sector to another and the possible allocation and rollover of bycatch species among sectors. The co-op structure for each of the whiting sectors is as follows:

- Mothership sector co-ops: Catcher vessel permit co-ops and LE for motherships and processor linkages.
- Shoreside sector co-ops: Catcher vessel permit co-ops and options for a two year constraint on processor participation and processor linkages.
- Catcher-processor sector co-ops: Continued voluntary co-ops for the catcher-processor sector and endorsement to close the class of catcher-processor permits combined with a back-up individual quota program incase the voluntary co-op system fails.

Implementing trawl rationalization—whether through IFQ or cooperatives—requires the specification of numerous program elements. In many cases there are alternative ways of specifying these elements, which are structured as options (choices to be made in structuring the program) where applicable. The next section describes the action alternatives in summary form. Then Sections 2.3 through 2.5 describe the status quo, IFQ, and whiting sector cooperative alternatives in greater detail. For the two action alternatives, each program element and any options for how they may be implemented are specified. Appendices A and B provide still more detailed descriptions and evaluations of the elements of an IFQ and whiting cooperative program, respectively. Table 2-3, which starts on page 45, presents the IFQ program elements and options at the greatest level of detail.

The Council chose a **preliminary preferred alternative** at their June 6–13, 2008, meeting in Foster City, California. They adopted IFQs for the nonwhiting shoreside sector, either IFQs or co-ops for the shoreside whiting sectors, and cooperatives for the at-sea whiting sectors. When choosing the preliminary preferred alternative, the Council indicated that they might favor implementation of the shoreside cooperative proposal if Congress passes the requisite legislation. The version of the shoreside whiting cooperative program that includes a limitation on processor participation and processor linkage provision cannot be implemented as currently defined because under the MSA NMFS does not have the regulatory authority to implement those provisions of the program.

Section 2.6 briefly describes the preliminary preferred alternative. Where program design options are offered, the detailed descriptions in Sections 2.4 and 2.5 indicate which options were chosen as part of the preliminary preferred alternative.

2.2 Overview of the Alternatives

Two key characteristics of the rationalization program, individual catch accountability and flexible vessel limits, are expected to achieve most elements of the program goal (see Chapter 1). In comparison, under status quo management, vessels are individually accountable only for landings (not discards), and harvesting is restricted by cumulative trip limits or season closures that are the same for all vessels.

The IFQ alternative includes a single IFQ program covering each individual trawl sector. The co-op alternative includes a separate co-op program for each whiting sector. There is not a co-op alternative for the nonwhiting trawl sector. Table 2-1 provides an overview of major elements differentiating the IFQ alternative from the co-op alternative and, within the co-op alternative, differentiating the sector-specific co-op programs from one another.

Neither the IFQ alternative nor the co-op alternative will change the allocation between trawl and other sectors, nor the allocation among trawl sectors. Allocation among sectors is needed to implement the IFQ program but is being handled in a separate process outside of this EIS (see Section 1.6.5).[15]

The IFQ alternative provides an amount of catch (IFQ) that would be available for use on each trawl LE vessel. The IFQ would be freely transferable and highly divisible. The timing of harvest and amounts taken would be restricted primarily by each vessel's individual quota. Thus each vessel would have both flexibility and individual accountability. NMFS would track the transfers of IFQ and check it against vessel catch. Processors may be given an initial allocation of IFQ or an adaptive management provision may provide processor compensation.

[15] Even if the shoreside nonwhiting and whiting shoreside sectors are combined into a single sector, an allocation between these two sectors will be needed in order to implement the initial QS allocation. After the initial allocation QS would transfer freely between the sectors.

In some respects, the co-op proposals are more complex because they impose requirements on the harvesters, the processors, and the relationship between them. Under both the **mothership and shoreside co-op programs**, **catcher vessels** with permits that meet minimum qualifying requirements would receive a whiting endorsement on their permits. The whiting endorsements would be specific for each whiting sector. An option is provided under which the whiting endorsements could be permanently transferred from one LE trawl permit to another, through NMFS. Another option would prohibit such transfers. When the endorsements are first issued, the permit's history would be used to associate an amount of whiting catch history with each endorsement. The endorsement catch history might be thought of as a permit or endorsement share. However, the endorsement shares are not divisible and the permit holder's exclusive access to the share is limited. Each year the permit holder would choose between participating in a harvester co-op or in the non-co-op fishery. NMFS would allocate to the co-op or the non-co-op fishery based on the catch history associated with each endorsement. Each co-op that receives an allocation based on the catch history of its members would be responsible for managing the fishing of its members through private agreements. It is only through these private agreements that the shares a vessel brings to the co-op could be transferred to a different vessel. The vessels participating in the non-co-op fishery do not have individual exclusive claims to the allocation they contribute to the non-co-op fishery, and therefore have no opportunity to transfer permit shares from one vessel to another independent of the co-ops. NMFS monitors catch at aggregate levels, closing individual co-ops, the non-co-op fishery, and the sector as needed to keep catch within the allocation. If inter-co-op agreements are formed, NMFS may only need to track catch at the inter-co-op level, rather than the level of the individual co-op. If such inter-co-ops cover an entire whiting sector and there are no participants in the non-co-op fishery, then NMFS would track catch at the sector level.

For **mothership processors,** the mothership co-op program provides an LE system. Catcher vessel permits opting to participate in a co-op have all or a portion of their catch tied (obligated) to their initial mothership until the permit participates for a year in the non-co-op fishery. After spending a year in the non-co-op fishery, the portion of the catcher-vessel permit's deliveries that are obligated may be moved to a different processor but are then tied to that new processor until they once again participate for a year in the non-co-op fishery. *(NOTE: At its June 2008 meeting, the rationale Council members put forward for their preferred alternative indicated that they may have an intent to allow the movement of vessels between co-ops through an alternative mechanism, see Section 2.4.1.)*

Two versions of the **shoreside co-op program** are being considered. Under one version there would be no constraints on the processors that participate, and deliveries of permits would not be tied to a particular processor. Under the other version, during the first two years of the program, shoreside processors that are not "co-op eligible" (do not have enough qualifying history) would not be able to receive whiting from the whiting harvester co-ops (as described above). Permit holders opting to participate in a co-op would be tied to processors until the permit participates for a given time (possibly a year or more) in the non-co-op fishery. Within the version of the program that includes ties to processors, there are two options for permit-processor ties after the initial years of the program. Under one option, after the first two years, permits that move into a co-op would not be tied to a processor. Under the other option, ties would be established with a processor any time a permit moves into a co-op (similar to the mothership program).

The **catcher-processor (CP) sector** is already organized as a co-op through a voluntary private agreement. The co-op alternative would provide some additional stability to the co-op by capping the number of permits eligible to participate in the CP sector. Currently, new LE permits may be moved into the CP sector though the combination of smaller trawl permits into a permit large enough for a catcher-processor vessel. If the voluntary private co-op dissolves, quota would be allocated equally among the 10 existing catcher processor permits.

Table 2-1. Comparison of the action alternatives.

Program Components	IFQ Alternative for Nonwhiting & Whiting	Co-op Alternative for Whiting		
		Mothership Program	Shoreside Program	Catcher-Processor (CP) Program
Sector Allocation	Allocation between the trawl an other sectors and among the various trawl sectors will be set in a separate but linked process (Amendment 20)			
Catcher Vessel LE Permit Requirement	LE permit (trawl) required (option to suspend the length endorsement)	New mothership sector whiting endorsement required for mothership deliveries.	New shoreside whiting sector endorsement required for shoreside deliveries.	New CP endorsement required for CP deliveries.
		The new endorsements may or may not be transferable among LE trawl endorsed permits.		No endorsement transferability option.
Harvest Allocation of Pacific Whiting Among Participants	QS issued initially to permits, and possibly processors, based on harvest history. Each year QP will be issued to holders of QS.	At the time of initial implementation, whiting harvest history (endorsement shares) are associated with each whiting endorsement. The shares for a particular endorsement never change. NMFS assigns the endorsement's shares to a co-op or the non-co-op fishery, depending on the which fishery the permit holder chooses to fish in.		None (Allocation among participants currently achieved through private co-op agreement among participants. If the private co-op dissolves, catch will be allocated equally among the CP permits)
Harvest Allocation of Nonwhiting Species Among Participants	Same as for whiting but initial allocation for some incidental species may be based on a target species. (Option: No nonwhiting IFQ for whiting deliveries, bycatch managed as a pool with caps)	There are options for whether or not bycatch species will be allocated in aggregate for all whiting sectors, among whiting sectors, between the co-op and non-co-op fisheries, or among co-ops. If nonwhiting (bycatch) species are allocated between the co-op and non-co-op fisheries or to individual co-ops, bycatch species would be allocated among endorsements based on the endorsement's whiting history.		Same as above.
Monitoring, Transfers, and Catch Control	NMFS monitors at the vessel level, including at-sea catch (restricting the fishery as needed) & monitors QS/QP transfers to a wide class of persons, including anyone eligible to own a U.S. fishing vessel.	NMFS monitors harvest at the sector, co-op/non-co-op and co-op levels, closing segments as needed, but does not monitor inseason transfers of catch opportunities. Co-ops may join together in inter-co-ops, in which case NMFS would track catch of the inter-co-op rather than the co-op. If endorsement transfer is allowed, NMFS would record and track those transfers. Co-ops control catch and inseason transfers among their members. Non endorsed permits may join co-op and fish the allocation of endorsed permits (upon mutual agreement).		NMFS monitors and closes the sector as needed. Distribution of harvest among vessels is currently managed under a private co-op agreement.
Processor Participation Restriction	None	Limited entry for motherships.	Either no restriction or a two-year restriction on those eligible to receive from co-ops ("co-op eligible" processors)	New endorsement for participation as a CP.
Other Processor Provisions	Example Options: Allocation of QS/QP to processors; possible compensation through adaptive management.	Processor tie (all or part of a permit's catch would be obligated to a particular mothership via a processor tie). (Permits opting to participate in a co-op are tied to the mothership until the permit spends a year in the non-co-op fishery (see 2.4.1)).	Either no tie or a processor tie (Permits opting to participate in a co-op are tied to processors until the permit participates the required time in the non co-op fishery. Option: Permits that move into a co-op after the first two years are not tied to a processor.	None

2.3 Status Quo (No Action) Alternative

The groundfish FMP describes the management framework for the groundfish trawl fishery. Analyses of biennial harvest specifications and management measures (For example PFMC 2008a) evaluate the periodic implementation of the management framework. The description of alternatives in these documents gives a picture of how the management framework is implemented on a periodic basis. Section 1.2 describes many of the problems posed by status quo management. These problems prompted the Council to consider the action alternatives below. Chapter 3 provides an overview of the current management system and can serve as a general description of the status quo. This section describes status quo management of the LE trawl sector.

Chapter 4 in the Groundfish FMP describes how MSY is estimated, criteria for determining stock status, procedures for addressing overfishing and overfished stocks, and based on these procedures, how annual OYs are set. Chapter 5 of the Groundfish FMP describes the biennial process for specifying OYs and how they may be adjusted "inseason," or during the 2-year period covered by the biennial specification. Council action occurs over an 8-month period prior to the beginning of the first year in the biennial period. For example, the Council began work on the 2009–10 harvest specifications at their November 2007 meeting by adopting a preliminary range of OYs, based on information from stock assessments or other procedures. (Section 4.6 in the Groundfish FMP describes how OYs should be specified depending on the amount of information available about a stock. Stock assessments are developed through a Council-managed peer review process that culminates with adoption of stock assessment results in advance of the specifications process.) At the April 2008 Council meeting, preliminary preferred OYs are adopted and a range of management measures consistent with these OYs are identified. At the June 2008 meeting the Council takes final action to adopt the full suite of preferred OYs and management measures. This represents a recommendation to NMFS for the Federal regulations necessary to implement the management measures. A lengthy rulemaking process is required, ending with the implementation of the regulations on January 1, 2009.

Table 2–1 in the 2007–08 harvest specifications EIS (PFMC 2006) shows the ABC and OY values adopted by the Council for that 2-year period. For the purposes of management, the Council set OYs for 38 stocks or stock complexes. (In some cases OYs may be set for components of a stock complex, but the overall OY is used as a harvest guideline.) OYs are generally construed as harvest guidelines because catches are managed indirectly through landing limits, closed areas, and other operational restrictions. Furthermore, because the fishery is not fully monitored in real time, it cannot be known with absolute certainty when an OY has been reached, which if set as a quota, would require ending the fishery for the year. (Real time monitoring means that catch information is available to managers soon enough after the catches have been made that they can immediately react to the catch level.) The exception is Pacific whiting, which is set as a quota with the fishery fully monitored in real time and closing upon attainment of the OY.

The Council has established fixed trawl allocations, expressed as a percent of the OY, for two stocks: sablefish north of 36° N latitude and Pacific whiting. Nearshore stocks are allocated by the states because they directly manage them, although they coordinate their management through the Council process. (The trawl sector rarely catches these nearshore species.) The Council has also established some fixed allocations between the LE and commercial open access fisheries. All other stocks are implicitly allocated through the process of developing harvest management regulations; that is, the allocation implications of a particular suite of harvest management measures are considered when the measures are developed. For the trawl sector, for example, catches resulting from a set of proposed cumulative landing limits can be projected, indicating the proportion of the OY expected to be taken by the sector and the amount available to other sectors. During the preseason harvest specification process, if projected catches diverge from generally agreed fishing opportunity for a sector (an implicit allocation

target), the proposed trawl cumulative landing limits (or those established for other sectors) can be adjusted until the projections are in line with expectations.

OYs for some overfished species—in the case of the trawl fishery, particularly canary rockfish on the continental shelf and darkblotched rockfish on the slope—impose the greatest constraint, translated into a variety of management measures that indirectly limit mortality on the constraining stocks. The whiting fishery is an exception here too; beginning in 2005, the Council established sector-wide caps for overfished species that effectively serve as a quota limit on the fishery. Problems with this approach have begun to emerge, not only because of the risk of a race for fish related to the low sector caps for these species, but also because of the different timing of the sub-sectors within the whiting sector. The at-sea sector begins fishing earlier than the shore-based sector and thus risks catching a large proportion of an overfished species catch cap, jeopardizing the later-starting sector's opportunity to catch its whiting allocation.

Chapter 6 in the Groundfish FMP describes the range of management measures and catch monitoring programs available to the Council. According to Section 6.1.1 in the FMP the following general categories of management measures are available to the Council:

- Measures to reduce bycatch and bycatch mortality
- Defining authorized fishing gear and regulating the configuration and deployment of fishing gear, including mesh size in nets and escape panels or ports in traps
- Restricting catches by defining prohibited species and establishing landing, trip frequency, bag, and size limits
- Establishing fishing seasons and closed areas
- Limiting fishing capacity or effort through permits, licenses, endorsements, and quotas, or by means of input controls on fishing gear, such as restrictions on trawl size/shape or longline length or number of hooks or pots, or through programs that reduce participation in the fishery by retiring permits and/or vessels

Of these categories, catch restrictions based on cumulative landing limits are the primary measures set for the trawl sector in the biennial specifications process. The boundaries of closed areas—the RCAs referenced in Section 1.6—are also often adjusted as part of the biennial process. Although trawl gear restrictions, principally intended to keep trawlers out of rocky habitat (where several of the overfished species are found), are an important part of the management process, these requirements are much less frequently modified. In addition to restrictions on the size of trawl net footropes intended for this purpose, selective flatfish trawl gear, which has shown a lower incidental catch rate for some groundfish, including some overfished species, is required shoreward of the Rockfish Conservation Area (RCA) north of Cape Mendocino, California.

Cumulative landing limits are a longstanding feature of the management framework, and were originally implemented on a per-trip basis (thus, confusingly, cumulative landing limits are often referred to as "trip limits"). They worked reasonably well until the need to rebuild overfished stocks became a central concern of the management process. Managing by landings alone then became much less effective because the low landing limits (or no retention rules) established for these stocks led to unacceptable levels of unmonitored bycatch. In order to address this problem NMFS implemented the west coast Groundfish Observer Program (WCGOP), covering the non-whiting trawl sector, in August 2001. The coverage target is to monitor 20 percent of the catch as a proportion of total landings. The whiting fishery, as noted above, is more closely monitored. The at-sea sectors are subject to 100 percent coverage on catcher-processors and motherships. Catcher vessels, whether delivering to shore or motherships, must retain all catch. (Mothership catcher vessels deliver the whole cod-end to the processing vessel.) The shore-based sector is monitored at the processing plant.

Although the WCGOP has substantially improved monitoring of the nonwhiting trawl fishery, as noted above, there is a considerable lag time in the delivery to managers of catch estimates based on WCGOP observations. Currently, observer reports, which contain bycatch rates that can be used to project total catch mortality, are on an 8-month lag. Total catch mortality rates, which give a retrospective picture of how the fishery performed (or the effectiveness of management measures in meeting targets) are on a 1-year lag. Combined with the difficulty in accurately forecasting catches—due to numerous factors affecting the deployment of fishing effort and changes in catch per unit of effort—inseason management action is a regular feature of the management process. As with the biennial setting of management measures, inseason action most commonly modifies cumulative landing limits and the boundaries of the RCA for the trawl fishery.

Other measures affecting the trawl sector are established in permanent regulations and not modified through biennial or inseason action. Important among these are various measures implemented in 2006 and intended to reduce adverse impacts to essential fish habitat. These include gear restrictions and prohibitions and additional areas closed to trawl gear. Measures to control capacity—such as the license limitation and vessel buyback programs described in Section 1.6.4—are another important permanent feature of the current groundfish trawl sector management framework.

2.4 IFQ Alternative

This section details the IFQ alternative. The first part of the section describes major components of the alternative. The second part (Section 2.4.2) details all of the program elements and options in outline (see Table 2-2). Table 2-3, which starts on page 45, presents the IFQ program elements and options at the greatest level of detail. As noted above, Appendix A provides still more detailed descriptions of the program elements along with the rationale and evaluation of the approach taken.

2.4.1 Overview of the IFQ Alternative Elements

Under this alternative, most status quo management tools would remain in place. The main exceptions are cumulative landing limits and the use of season closures to control whiting harvest. Other measures, such as RCA boundaries, may be adjusted as experience is gained with the IFQ program.

An IFQ will grant an entity the privilege to catch a specified portion of the trawl sector's allocation. Within the IFQ program, vessels will be allowed to use a variety of directed groundfish commercial gear, which will thus allow for "gear switching." There is also an option for gear conversion (switching permanently from trawl to some other gear). For the **shoreside non-whiting sector**, IFQs will be created for most or all species of groundfish under the Groundfish FMP (although some will still be managed collectively at the stock complex level). Some groundfish species rarely caught by trawl gear and dogfish may be excluded from the IFQ program. For the **whiting sectors**, IFQ will either be created for all species of groundfish, or IFQ might be created only for the target species, Pacific whiting. Under the second option, the allocation of bycatch to the whiting fishery (or to specific whiting sectors) will be managed as fleet catch caps. Reaching the bycatch limit will trigger closure of the whiting fishery (or a specific whiting sector).

Halibut individual bycatch quota (IBQ) may be created and required to cover the incidental catch of Pacific halibut in the groundfish trawl fishery. Under an IBQ program, retention would not be allowed.

The following sections describe the main components of the IFQ program.

2.4.1.1 Initial Allocation

The program will initially allocate IFQ as QS (QS) to fishery participants based mainly on their historic involvement in the fishery. Following the initial allocation, transfers (described below) will allow for others to also participate in the fishery as quota holders. The initial allocation can be viewed in two segments:

First, in choosing a preferred alternative the Council is considering the groups that should be included in the initial allocation, and the proportional split among the groups. Options range from allocating 100 percent of QS to permit owners in the nonwhiting and whiting trawl sectors to allocating 75 percent to permit owners and 25 percent to processors for the nonwhiting groundfish sector, and 50 percent to permit owners and 50 percent to processors for the whiting sector. Additionally, there are options that would allocate 10 percent of the annual trawl allocation for an adaptive management program.

Second, the Council considered specific allocation formulas that will determine the amount of QS each eligible entity will receive. These calculations are based on the delivery history associated with a vessel permit or processing company over a set number of years. There is an option that would base the allocation to vessel permit owners entirely on permit delivery history and another that would equally divide the pool of QS associated with the buyback permits (see program element A-2.1.3.a, below) among the remaining qualified permits. For nonwhiting catcher vessels and shoreside processors, a special calculation is being considered for overfished species to allocate these species based on a QS recipient's need to cover incidental catch under current fishing practices (as measured by bycatch rates, individual permit logbooks, and the amount of target species QS that an entity receives). A similar approach would be used for the allocation of halibut IBQ. For the whiting sector, there is an option to allocate nonwhiting bycatch species on a pro rata basis, according to the amount of whiting QS an entity is issued. Additionally, as explained above, fleet catch caps may be used instead of IFQs to manage bycatch species in the whiting fishery. If this option is chosen, only whiting QS will be allocated.

2.4.1.2 Stock Management Units for IFQs

QS will be issued for the species groups and areas for which there are OYs (management units). However, exceptions may be made for some rarely-caught species. Catch of these species would be monitored to ensure they don't exceed any established allocations. For all OYs for which there is not already a latitudinal subdivision there is an option under which the trawl allocations and QS management units would be subdivided at 40° 10' N latitude. There are also provisions that provide for the subdivision of QS after initial allocation. There is a regional management zone option that would not change the IFQ management units but would require some IFQ to be landed within a specified latitudinal zone (up to 10 such zones could be designated). For this option, see Section A-7.

2.4.1.3 Annual Issuance, Holding Requirements and Transfer Rules

In designing the management regime for the IFQ program, the Council is balancing the benefits of flexibility and individual accountability with program costs and the constraints of the very low allowable catch levels of overfished species. Prior to the start of each fishing year, NMFS will issue quota pounds (QP) to entities based on the amount of QS they hold and the overall trawl sector allocation. The QP would have to be transferred to a vessel account in order to be used. When a vessel goes fishing under the IFQ program, all catch must be recorded and must be matched by an equal amount of QP from the vessel's QP account. If there is not enough QP to cover the catch from a trip, there is a 30-day grace period during which adequate QP must be transferred into the vessel's account. A vessel's fishing will be limited, and its permit cannot be sold, until the overage is covered. A

carryover provision will allow for an overage in one year to be covered by up to 10 percent of the following year's QP; likewise, the provision also will allow QP that were not used in one year to be carried over into the following year, up to 10 percent.

Bycatch reduction and greater efficiency are expected to occur in the groundfish fishery under the IFQ program because of the transferability of QS and QP. Through the transfer of QS/QP (bought and sold or "leased" through private contract), it is anticipated that those best able to avoid catching overfished species, and those who are most efficient, will increase the amount registered to them, while those who consistently have high bycatch rates or operate less efficiently might choose to sell their QS and leave the fishery. Generally, anyone eligible to own a U.S.-documented fishing vessel could also acquire QS and QP, and the QS and QP could be acquired in very small increments.[16] These provisions will allow for new entrants into the fishery; for example, a crew member could slowly purchase amounts of quota.

While transferability is an important component, in order to protect against unintended consequences some provisions limit transferability. For example, the Council is considering whether to divide the trawl fishery into three or four sectors within the IFQ alternative (under three sectors, the fishery will divide into catcher-processor whiting, mothership whiting, and shoreside; while under four sectors the shoreside sector will divide additionally into shoreside whiting and shoreside non-whiting). QS or QP could not be transferred between the different sectors, so there will be stability in the relative amount of fish caught within each sector. Another provision that limits transferability would establish accumulation limits on the amount of QS or QP that can be controlled by an entity, and accumulation limits on the amount of QP registered to a vessel. The intent of these limits is to prevent excessive control of quota by a participant. A grandfather clause may allow a person initially allocated QS in amounts in excess of the cap to receive and maintain ownership of those QS.

An option for an adaptive management provision would allow the Council to use 10 percent of the trawl allocation to provide incentives, support, or other compensation to offset adverse impacts of the program.

2.4.1.4 Tracking and Monitoring

A monitoring and tracking program is necessary to assure that all catch (including discards) is documented and matched against QP. At-sea observers would be required on all vessels (100 percent coverage), and cameras may be used to augment the observers and assure compliance. Compared to status quo monitoring, this will be a significant increase for a large portion of the trawl fleet, particularly non-whiting shoreside vessels. More accurate estimates of total mortality will benefit stock conservation goals. Discarding may be allowed, though all fish discarded will also have to be covered by QP. There would be 100 percent SS monitoring and there may be limited ports and landing hours. Additionally, a program for the mandatory submission of economic data is included to facilitate monitoring program performance.

2.4.1.5 Costs and Fee Structure

Program costs are of concern and assessed in the analysis. Fee structures will be proposed to recover program costs, and a fee structure aligned with usage level will be considered. The extent to which management system elements will be privatized under the program is also being considered.

[16] To be eligible to own QS the person need not actually own a U.S. documented fishing vessel.

2.4.1.6 Special Provisions for Processors

A number of special provisions for processors are included for consideration in the program:

- Initial allocation of QS to processors
- Limiting the duration of the QS initially issued to processors
- Not allowing processors to use the accumulation limit grandfather clause mentioned above (i.e., processors would not be allowed to use the clause to acquire QS in excess of the accumulation limits based on their processing history)
- Using some of the trawl allocation set-aside for adaptive management to compensate for adverse impacts on processors.

2.4.1.7 Fixed Term and Auctions Option

The IFQ program could optionally include a 15- or 16-year limit on all the QS that have been issued. Starting with Term-2 of the program, every 2 years up to 20 percent of all QS will be returned to NMFS for reissuance via an auction. The specific form of the auction would be decided by the Council in the period between trawl rationalization implementation and the first auction. It would be designed to achieve the goals of the trawl rationalization program, including reducing bycatch; increasing operation flexibility; and producing measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.

2.4.2 Detailed Specification of IFQ Program Elements and Options

The following text summarizes the details of the IFQ program. Table 2-2 provides an overview of the organization of the sections of the program and Table 2-3 (beginning on page 45) provides a complete description.

Table 2-2. Organization of the IFQ alternative program elements and options.

A-1	***Trawl Sector Management Under IFQs***
A-1.1	Scope for IFQ Management (includes gear switching) **(Also see Section A-5)**
A-1.2	IFQ Management Units (includes latitudinal area management)
A-1.3	General Management and Trawl Sectors"
A-1.4	Management of Nonwhiting Trips
A-1.5	Management of Whiting Trips
A-1.6	Groundfish Permit Length Endorsements
A-2	***IFQ System Details***
A-2.1	Initial Allocation and Direct Reallocation
A-2.2	Permit/IFQ Holding Requirements and Acquisition (Includes Annual Issuance and Transfer Rules)
A-2.3	Program Administration (Includes Tracking, Data Collection, Costs, Duration)
A-2.4	Additional Measures for Processors

A-3	***Adaptive Management (Option)***
A-4	***Pacific Halibut IBQ—non-retention (Option)***
A-5	***Alternative Scope for IFQ Management (Option)***
A-6	***Alternative Duration: Fixed Term (and Auctions) (Option)***
A-7	***Gear Conversion (Option)***
A-8	***Regional Landing Zones (Option)***

The Council chose IFQs for management of the nonwhiting sector and shoreside whiting sector as the part of their preliminary preferred alternative (see Section 2.6). (The preliminary preferred alternative also includes the shoreside whiting sector co-operative alternative described in Section 2.5.1.3, which may be implemented instead of IFQs for this sector if legislative remedies are adopted for the processor related elements of the program that are currently illegal.)

In the detailed description below, w*here the Council chose an option as part of the preliminary preferred package, the choice is indicated by a "►" symbol.* Program elements without options are adopted as described unless otherwise noted.

A. Trawl Sector Management under IFQs

A-1.1 Scope for IFQ Management, Including Gear Switching

- Catch-based system
- QP required to cover all groundfish species catch (including all discards)

This implies gear switching is allowed (vessels with LE trawl permits switch between different directed groundfish gears (including open access, longline, and fishpot) to harvest their QP.

See Section A-5 for an alternative specification of the scope for whiting trips.

See Section A-7 for an option on gear conversion. Gear conversion would allow trawl vessels to switch to an alternative gear but not back. The gear conversion option would not change the scope of the program.

A-1.2 IFQ Management Units, Including Latitudinal Area Management

QS (QS)/QP will be for the species and species groups specified in the ABC/OY table produced as part of biennial harvest specifications. This includes any area subdivisions of stocks indicated in the table and QP cannot be transferred between areas.

Notwithstanding, QS/QP may not be issued for some stocks or stock complexes that are rarely caught by the trawl sector and spiny dogfish:

The following options were added as part of the preliminary preferred alternative package.

► In the shoreside trawl sector QS/QP would not be required for: Longspine thornyhead south of 34°27' N latitude, minor nearshore rockfish north, minor nearshore rockfish south, black rockfish (WA), black rockfish (OR-CA), California scorpionfish, cabezon, kelp greenling, shortbelly rockfish, other rockfish, and spiny dogfish. *(Option added as part of the preliminary preferred alternative package.)*

Note: Under the preliminary preferred alternative the at-sea whiting sectors would be managed with co-ops. The following option choice, designated as part of the preliminary preferred alternative, is only relevant if the Council changes the management approach as part of final action.

► In the at-sea trawl sector QS/QP would not be required for any species *except* whiting and:
Option 1: Widow, darkblotched, and canary rockfish.
Option 2: Slope rockfish, shelf rockfish, canary rockfish, darkblotched rockfish, lingcod, Pacific ocean perch, sablefish, widow rockfish, and yellowtail.

QS/QP is issued specifically to manage the trawl sector and will not be used in a nontrawl sector (i.e., by vessels without trawl permits). However, a vessel with a LE trawl permit may catch the trawl QP with nontrawl gear, as noted above in Section A-1.1.

► **Option**: For species with a coastwide OY, the management units for QS will be subdivided geographically at the 40° 10' N latitude line. Alternatively, regional landing zones may be established, see section A-8.

A-1.3 General Management and Trawl Sectors

Unless otherwise specified, status quo regulations, other than trip limits, will remain in place, including season closures and area restrictions, as necessary.

There will be:
► **Option 1:** Three trawl sectors: shoreside, mothership, and catcher-processors.
Option 2: Four trawl sectors: shoreside nonwhiting, shoreside whiting, mothership, and catcher-processors.

Allocation among trawl sectors to be determined in the intersector allocation process.

A-1.4 Management of Nonwhiting Trips

Nonwhiting trips are those with less than 50 percent whiting. No changes to existing management measures other than those specified in Section A-1.3 have been identified at this time.

A-1.5 Management of Whiting Trips

Whiting seasons will not be changed under the IFQ program.

When the primary whiting season is closed:
► If 3 sectors: For shoreside deliveries, sector-specific QP required plus cumulative whiting catch limits apply. Deliveries prohibited for at-sea sectors.
- If 4 sectors: Whiting sectors prohibited from delivering.

A-1.6 Groundfish Permit Length Endorsements

► **Option**: LE permit length endorsement will not apply to vessels using LE trawl gear.

A-2. IFQ System Details

A-2.1 Initial Allocation and Direct Reallocation

A-2.1.1 Eligible Groups

a. Groups and Initial Split of QS

Eligible Groups: The initial allocation of QS will be made either only to permit owners or to permit owners and processors.

Options 6a and 6b were added as part of the preliminary preferred alternative. The Council will choose between the two when taking final action.

	Nonwhiting Sector QS		Whiting Sector QS	
	Amount to Permits	Amount to Processors	Amount to Permits	Amount to Processors
Option 1	100%	0%	100%	0%
Option 2	87.5%	12.5%	75%	25%
Option 3	75%	25%	50%	50%
Option 4 (10% for Adaptive Management)*	100%	0%	100%	0%
Option 5 (10% for Adaptive Management)*	75%	25%	50%	50%
►**Option 6a** (10% for Adaptive Management)*	80%	20%	See note	
►**Option 6b** (10% for Adaptive Management)*	80%	20%	80%	20%

*Up to 10 percent of the annual QP may be set aside for in an adaptive management program.
Note on Option 6a: 80 percent of the whiting sector whiting QS would be allocated to permits and 20 percent to processors, but 100 percent of the whiting sector QS for all other species would be allocated to harvesters.

b. Permits

The permit owner at the time of initial allocation will receive QS based on permit landing history.

c. Processors and Processing Definition

For the purpose of applying the initial allocation formula, only the first processing counts as processing. A special definition of processors and processing is provided to partially address this intent. Fish "receivers" may be used as a proxy for "processors."

d. Attributing and Accruing Processing History

For an allocation to **catcher-processors**, the permit owner at the time of initial allocation will receive QS based on permit landing history (see A-2.1.1-b). *Under the preliminary preferred alternative catcher-processors would not be managed with IFQs, so this provision is only relevant if the Council changes the management approach as part of final action.*

For an allocation to **mothership processors,** history accrues to the vessel on which the at-sea processing occurs.

Option 1: The owner of the vessel at the time of the initial allocation will receive the initial allocation.

Option 2: If a bareboat charter exists, the bareboat charterer will receive the initial allocation

Note: Under the preliminary preferred alternative mothership processors would not be managed with IFQs, so this option choice is only relevant if the Council changes the management approach as part of final action.

For the **shoreside processor** allocation:

► **Option 1:** Attribute history to the receiver reported on the landing receipt.

Option 2: Attribute history to the receiver if that entity meets the definition of processor with respect to trawl-caught groundfish.

► **Option 3:** Same as Option 1, except history may be reassigned to an entity not on the landings receipt, if parties agree or through an agency appeals process.

Note: In taking final action the Council would choose one of these preliminary preferred options.

Successor in interest, as determined by NMFS, will be recognized.

A-2.1.2 Recent Participation

a. Permits

Recent participation is not required in order for a permit to qualify for an initial allocation of QS.

b. Processors (motherships)

Recent participation is required to qualify for an initial allocation of QS: 1,000 mt or more of ground fish in each of any two years from 1997-2003.

Note: Under the preliminary preferred alternative mothership processors would not be managed with IFQs, so this provision is only relevant if the Council changes the management approach as part of final action.

c. Processors (shoreside)

Recent participation is required to qualify for an initial allocation of QS:

Nonwhiting Option 1: 1 nonwhiting groundfish trip delivery from 1998-2003.

► **Nonwhiting Option 2**: 6 mt or more of deliveries from nonwhiting groundfish trips in each of any three years from 1998-2003.

Whiting Option 1: 1 whiting trip delivery from 1998-2003.

► **Whiting Option 2**: 1 mt or more of deliveries from whiting trips in each of any two years from 1998-2003.

A-2.1.3 Allocation Formula

a. Permits with catcher vessel history

For all fish management units:

Option 1: All QS allocated based on permit history (see following formulas).

► **Option 2**: An equal division of the buy-back permits' pool of QS among all qualifying permits plus allocation of the remaining QS based on each permit's history (see following formulas).

Permit-history-based allocation suboptions:

For non-whiting trips, permit history used for QS allocation will be calculated as follows:

For non-overfished species: use an allocation period of 1994-2003. Within that period use relative history and drop the three worst years.

For overfished species *taken incidentally*:

Overfished Species Option 1: as it is calculated for non-overfished species

► **Overfished Species Option 2:** apply a bycatch rate to target species QS

For whiting trips, permit history used for QS allocation will be calculated as follows:

For whiting, using an allocation period of 1994-2003. Within that period, use relative history and drop the two worst years. The same years must be dropped if a permit is used in both the shoreside (SS) and mother ship (MS) sectors. *Note: The last sentence does not address whether or not the same two years must be dropped if the SS sector is managed with IFQ and the MS sector is managed under co-ops.*

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: use history for that species, as it is calculated for whiting

► **Bycatch Option 2**: use the whiting history as a proxy

Area Assignments: Landings history will be assigned to catch areas based on port of landing.

Relative history (%): For each sector, the permit history for each year is measured as a percent of the sector's total for the year.

b. Permits with catcher-processor history

Owners of catcher-processor permits will be allocated whiting QS based on permit history for 1994-2003 (no option to drop years) and using relative history as defined for catcher vessel permits.

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: use history for that species, as it is calculated for whiting

► **Bycatch Option 2:** use the whiting history as a proxy

Note: Under the preliminary preferred alternative catcher-processors would not be managed with IFQs, so this option choice is only relevant if the Council changes the management approach as part of final action.

c. Processors (motherships)

Allocate whiting QS based on the vessel's processing history for 1997-2003 (no option to drop years), and use relative history as defined for catcher vessel permits.

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: using history for that species, as it is calculated for whiting

► **Bycatch Option 2:** using the whiting history as a proxy

Note: Under the preliminary preferred alternative mothership processors would not be managed with IFQs, so this option choice is only relevant if the Council changes the management approach as part of final action.

d. Processors (shoreside)

For non-whiting trips:

- Allocate QS for all species *other than* incidentally-caught overfished species based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history.
- Allocate QS for incidentally-caught overfished species by considering the same **overfished species** allocation options identified for permits in Section A-2.1.3.a. (*Note: the preliminary preferred option under A-2.1.3.a for non-whiting trips is apply a bycatch rate to target species QS (**Overfished Species Option 2***)).

For whiting trips:

- Allocate whiting QS based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history.
- If allocated to shoreside processors, allocate all species other than whiting by considering the same **bycatch species** allocation options identified for permits in Section A-2.1.3.a (*the preliminary preferred option under A-2.1.3.a for whiting trips is use whiting history as a proxy **(Bycatch Option 2))***. *Note: Under A-2.1.1.a, Options 6a and 6b, the Council will decide the allocation of species other than whiting to processors, with respect to whiting trips.*

A-2.1.4 History for Combined Permits and Other Exceptional Situations

Permit history for combined permits includes the catch history for all the permits that have been combined. For history catch occurring when trawl permits were stacked, the catch history is split evenly between the stacked permits. Illegal landings, nonwhiting exempted fishing permit (EFP) landings in excess of cumulative limits for the non-EFP fishery, and "compensation fish" will not count toward an allocation of QS.

A-2.1.5 Initial Issuance—Appeals

No Council appeals process. NMFS will develop a proposal for an internal appeals process. Accepted revisions to fish tickets are those approved by the state.

A-2.1.6 Direct Reallocation after Initial Issuance

When an overfished species is rebuilt or a species becomes overfished, there may be a change in the QS allocation within a sector. If the geographic configuration of area-specific management units is changed (further subdivision, recombination, or change to the boundaries) QS holdings will be adjusted proportionately. (See Table 2-3, Section A-2.1.6 on page 52 for details.) A similar formula will be used

to reallocate shares if a species group is subdivided (e.g., a species currently managed within a complex is removed and managed according to its own OY).

A-2.2 Permit/IFQ Holding Requirements and Acquisition

A-2.2.1 Permit/IFQ Holding Requirement

A LE trawl permit is required to use QP for fishing and the QP must be in the vessel's account to cover catch. Catches must be covered by QP within 30 days of when the catch is made, but catch may be covered by QP carried over into the next year, subject to certain restrictions. If a vessel has caught fish for which it does not have QP it may not fish under the IFQ program until the deficit is covered. A vessel with a deficit may not transfer its LE permit.

► **Exception/Prohibition Option:** There may be some exceptions or additions to the scope of the prohibition on fishing when in QP deficit. (*See Table 2-3 for details and exceptions added as part of the preliminary preferred alternative.*)
Alternative Compliance Option 1: A vessel which has not covered its deficit may resume fishing after two years in deficit.
Alternative Compliance Option 2: A vessel which has not covered its deficit may resume fishing after a period of time which determined using a sliding scale based on the degree of the overage.
Alternative Compliance Option 3: No exceptions to the restriction on fishing when a vessel is in deficit.

A-2.2.2 IFQ Annual Issuance

a. Annual QP Issuance

QP will be issued annually to QS holders.

b. Carryover (Surplus or Deficit)

A vessel may carry over a surplus or deficit from one year to the next subject to the following.
Non-overfished Species: 10 percent carryover for each species
Overfished Species: 10 percent carryover for each species
Surplus QP may not be carried over for more than one year.

c. QS Use-or-Lose Provisions

None. The need for this provision will be evaluated as part of program review process, and the provision could be added later, if necessary.

d. Entry Level Opportunities

No special provisions. QS are infinitely divisible; new entrants may buy-in through small increments over time.

A-2.2.3 IFQ Transfer Rules

a. Eligible to Own or Hold

Those eligible to own QS/QP will be restricted to those eligible to own and control a U.S. fishing vessel or mothership that participated in the west coast groundfish fishery during the allocation period with some exceptions (see Table 2-3 for additional language).

b. Transfers and Leasing

QS/QP will be transferable and transfers must be registered with NMFS. QS leasing will not be facilitated by NMFS but may occur through private contract.

c. Temporary Transfer Prohibition

Temporary prohibitions on QS transfers may be imposed, as necessary for program administration (to be determined by NMFS).

Option 1: QS will not be transferable in the **first year** of the program (QP will be transferrable).
► **Option 2**: QS will not be transferable in the **first 2 years** of the program (QP will be transferrable). (*Added as part of the preliminary preferred alternative package*.)

d. Divisibility

QS will be highly divisible. QP will be in whole pound units.

e. Accumulation Limits (Vessel and Control)

The amount of QP that may be used with a vessel and the amount of QS or QP a person may control will be limited (termed vessel cap and control cap respectively, see Table 2-5, program element A-2.2.3.e on page 69 for options; *as part of the preliminary preferred alternative the Council modified the contents of this table but did not select a preliminary preferred option*). The control limit will be based on the individual and collective rule.

A grandfather clause (allowing those initially qualifying for QS in excess of limits to receive and maintain it) may apply to vessel and control accumulation limits.

Option 1: Full grandfather clause.
Option 2: Grandfather clause capped at twice the vessel limits.
► **Option 3**: No grandfather clause.

Note: QS not allocated because of the grandfather clause will be distributed to other eligible recipients based on allocation formulas.

A-2.3 Program Administration

A-2.3.1 Tracking and Monitoring

Tracking and monitoring program components and options are detailed in Table 2-3, Section A-2.3.1 on page 56. These cover at-sea discarding, at-sea and shoreside monitoring, catch tracking mechanisms, cost control mechanisms, and program performance measures.

► *The Council specified the following as its preliminary preferred tracking and monitoring alternative:*

IFQ species **may be discarded**, but discards still count against a vessel's QP; IBQ species must be discarded.

Observers are required on all vessels for nonwhiting trips (100 percent observer coverage). For shoreside whiting trips observers are required (100 percent observer coverage) in addition to, or as a replacement for, video monitoring.[17]

In order to **control costs** landing hours will be limited.

All **other provisions** of the tracking and monitoring program would be as specified in Table 2-3, program element A-2.3.1.

A-2.3.2 Socio-economic Data Collection

There will be expanded data collection and mandatory compliance of harvesters and processors. Audits may be used to validate data. Include transaction prices in a central QS ownership registry.

A-2.3.3 Program Costs

a. Cost Recovery

► **Option 1:** Recover IFQ program costs but not enforcement or science costs. A maximum of 3 percent of ex-vessel value.

Option 2: Full cost recovery through landing fees plus privatization of certain elements of the management system.

[17] If, as part of the Council's final preferred alternative, IFQs are applied to at-sea whiting sectors: (1) the same provision would apply to those sectors (100 percent observer coverage in addition to, or as a replacement for, video monitoring), and (2) for motherships and catcher-processors statements that "supplemental video monitoring on processors may also be used" would be removed from the description of the preferred alternative.

b. Fee Structure

To be determined. TIQC recommends a fee structure that reflects usage. Option (to be developed) that allows for equitable sharing of observer costs for smaller vessels.

A-2.3.4 Program Duration and Modification

Starting four years after implementation the program performance will be reviewed every four years. A community advisory committee will be included as part of the review process.

A-2.4 Additional Measures for Processors

Any one or all of the following options may be included in the program. *Note: None the options were included as part of the Council's preferred alternative. However the Council did consider excluding processors from the grandfather clause but did not include the provision because a grandfather clause had not been included as part of the Council's preliminary preferred alternative.*

Option: Any QS received for processing history as part of the initial allocation will expire after a certain period of time (to be determined prior to final Council action).

Option: The accumulation limit grandfather clause of Section A-2.2.3.e will not apply for processing history. Processors will not be allowed to use history receiving groundfish to qualify for QS in excess of accumulation limits.

Option: The Adaptive Management allocation and process (Section A-3) will be used to compensate processors for demonstrated harm by providing QP to be directed in a fashion that increases benefits for affected processors.

A-3 Adaptive Management (Option)

► **Option**: Annually, up to 10 percent of the QP will be set aside for use in an adaptive management program to create incentives for developing gear efficiencies, for community development, or to compensate for unforeseen outcomes from implementing the IFQ program. The set asides would be trawl sector specific (i.e., shoreside, at-sea mothership, at-sea catcher-processor); that is, QP would be deducted from a sector's allocation and then only distributed within that trawl sector. The amount to be set aside, if any, would be determined as part of the biennial specifications process.

Those processors receiving an initial allocation based on their processing history would not be eligible to hold adaptive management QP issuances.

A-4 Pacific Halibut IBQ—Non-retention (Option)

► **Option:** IBQ for Pacific halibut bycatch in the trawl fishery will be established. Such IBQ will be issued on the basis of permit specific logbook information and fleet bycatch rates applied to the target species QS an entity receives. IBQ will not be geographically subdivided.

A-5 Alternative Scope for IFQ Management (Option)

Option: IFQ will be required to cover all groundfish catch except for bycatch species taken on whiting trips. If this option is adopted a number of sections above would be amended to conform with the option (see Table 2-3, Section A-5 on page 59 for details).

A-6 Duration: Fixed Term (and Auctions) (Option)

Option: The term of all QS issued will be limited to 15 years (except that the Term-1 QS may last 15 or 16 years, depending on when the biennial specification period ends).

Reallocation Sub-option 1: QS will be reallocated to holders at the end of the term, unless the program is otherwise modified.

Reallocation Sub-option 2: Starting with Term-2 of the program, every two years up to 20 percent of all QS will be returned to NMFS for reissuance via an auction, unless the program is otherwise modified.

The specific form of the auction will be decided by the Council in the period between trawl rationalization implementation and the first auction. It will be designed to achieve the goals of the trawl rationalization program.

A-7 Gear Conversion (Option)

The scope of the IFQ program allows trawl vessels to use other types of gear to harvest groundfish quota pounds, see Section A-1.1. At their June 2008 meeting, the Council added the following option for consideration when taking final action but did not identify it as part of the preliminary preferred alternative.

Option: Allow a permit holder to use an alternative legal gear for a 2-year period after which the permit holder decides whether to continue to use the alternative gear or trawl gear.

A-8 Regional Landing Zones (Option)

► **Option**: Establish regional landing zones as an alternative to splitting management units at 40° 10' N latitude as described in Section A-1.2. This option does not change the IFQ management units but does address concerns about geographic redistribution by restricting landing areas. It has the following elements:

1. QS will be designated either "zone-specific" or "zone-free." QS for incidentally-caught overfished species will not be designated zone specific (i.e., it will all be "zone-free" QS).
2. The Council will decide what proportion of QS will be designated zone specific and the same proportional split will apply to all recipients of the initial QS allocation (e.g., permit holders, processors).

3. There will be up to 10 geographic zones, divided latitudinally. States will identify zones in adjacent waters with designations then made by the Council.
4. QP issued from zone-specific QS has to be landed at ports within the zone. However, the zone designation would not restrict the catch area. Although, zone-specific QS would be freely transferrable, the landing zone requirement applies no matter the location of the purchaser.
5. The zone designations would not alter the amounts of QS a person receives as part of the initial allocation. For the initial allocation, each recipient's recent landings history (2004–06) by port will be used to determine the split among zones for the zone-specific portion of the QS allocation.
6. The Council may modify the designations to adapt management to changing conditions. This could include redesignating the split between zone-specific and zone-free QS; permitting, in limited circumstances, QS holders to redesignate which zone some portion of their zone-specific QS is assigned to; and changing the number and extent of the geographic zones, with attendant redesignation of zone-specific QS.

Table 2-3. Full description of the IFQ Alternative (preliminary preferred options from the June 2008 Council meeting are indicated by an arrow ("►"))

	Element	SubElement	
A. ***Trawl Sector Management***			
A-1.1	Scope for IFQ Management, Including Gear Switching		QP will be required to cover catch of all groundfish (including all discards) by LE trawl vessels using any directed commercial groundfish gear, EXCEPT when such vessels also have a LE permit endorsed for fixed-gear (longline or fishpot) AND have declared that they are fishing in the LE fixed-gear fishery. ***See Section A-5 for an alternative specification of the scope for whiting trips.*** ►The Council's preliminary preferred alternative would exclude certain species in the shoreside trawl sector. A list is provided in Table 2-4. For the purpose of the trawl rationalization alternatives, "directed commercial groundfish gear" is defined as all legal commercial groundfish gear including LE gear and commercial vertical hook-and-line, troll, and dinglebar gear. *This definition of the scope allows a LE trawl vessel to switch between trawl and nontrawl groundfish gears, including fixed-gear, for the purpose of catching their QP ("gear switching"). It also allows a nontrawl vessel to acquire a trawl permit, and thereby use trawl QP to catch the LE trawl allocation using nontrawl gear*. An option was added to allow "gear conversion" (the permanent switch from trawl to some other legal groundfish gear). **This option is described in Section A-7**.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-1.2	IFQ Management Units, Including Latitudinal Area Management		QS will carry designations for the species/species group, area, and trawl sector to which it applies (see A-1.3 for the list of trawl sectors). The QP will have the same species/species group, area, and sector designations as the QS on the basis of which the QP was issued. QP will not be used in a trawl sector other than that for which it was issued, unless specifically allowed, and will not be used in a nontrawl sector (i.e. by vessels without trawl permits).[a] QP will not be used in a catch area or for a species/species group other than that for which it is designated. The species, species groupings and area subdivisions will be those for which OYs are specified in ABC/OY table that is generated through the groundfish biennial specifications process. QS for remaining minor rockfish will be aggregated for the nearshore, shelf, and slope depth strata, as per Table 2-5. ► Geographic Subdivision **Option:** Additionally, for species or species groups for which the OY is not geographically subdivided (i.e. there is only a coastwide OY), the QS will be subdivided geographically at the 40°10' N latitude line. Existing geographic lines for other species will be maintained. (If this option is not adopted, area divisions will be as specified for OYs in the biennial ABC/OY table, unless changed by the Council.) ***OR*** ► See Section A-8 for an alternative approach to addressing concerns about geographic shifts: "regional landing zone restrictions." Regional landing zone restrictions would not alter the IFQ management units. Changing the management units. After initial QS allocation the Council may alter the management units by changing the management areas or subdividing species groups. Section A-2.1.6 provides methods for reallocating QS when such changes are made after initial implementation of the program.[b] *Hereafter, all references to species include species and species group, unless otherwise indicated.*
A-1.3	General Management and Trawl Sectors		Unless otherwise specified, status quo regulations, other than trip limits, will remain in place. If individual vessel overages (catch not covered by QP) make it necessary, area restrictions, season closures or other measures will be used to prevent the trawl sector (in aggregate or the individual trawl sectors listed here) from going over allocations.[c] The IFQ fishery may also be restricted or closed as a result of overages in other sectors. There will be: ►**Option 1:** three trawl sectors: shoreside, mothership, and catcher-processors. **Option 2**: four trawl sectors: shoreside nonwhiting, shoreside whiting, mothership, and catcher-processors. *Allocation among trawl sectors to be determined in the intersector allocation process.*[d] *Trawl vessels fishing IFQ with nontrawl gear will be required to comply with the RCA lines applicable for that gear. Such restrictions, as necessary, will be determined in a separate process.*
A-1.4	Management of NonWhiting Trips		Nonwhiting trips are those with less than 50% whiting. No changes to management measures, other than those identified in Section A-1.3, have been identified at this time.[e]

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-1.5	Management of Whiting Trips[f]		Whiting seasons will not be changed under the IFQ alternative, and so the current spring openings will be maintained to control impacts on ESA-listed salmon.[g] When the primary whiting season for a sector is closed (see Section A-1.3 for options on the number of trawl sectors) • If there are 3 sectors: for shoreside deliveries, sector-specific QP will be required plus cumulative whiting catch limits apply. Deliveries will be prohibited for at-sea sectors. • If there are 4 sectors: whiting sectors will be prohibited from delivering.
A-1.6	Groundfish Permit Length Endorsements		►**Option:** Length endorsement restrictions on LE permits endorsed for groundfish gear will not apply for vessels using LE trawl gear.[h] (This action will not change the application of length endorsement restrictions for vessels using LE longline or pot gear.)

Table 2-3. Full description of the IFQ Alternatives (continued).

<table>
<tr><th></th><th>Element</th><th>SubElement</th><th></th></tr>
<tr><td colspan="4">A-2. <u>IFQ System Details</u></td></tr>
<tr><td>A-2.1</td><td colspan="2">Initial Allocation and Direct Reallocation</td><td></td></tr>
<tr><td>A-2.1.1</td><td>Eligible Groups</td><td>a Groups and Initial Split of QS</td><td>
Eligible Groups The initial allocation of QS will be made either only to permit owners or to permit owners and processors.
<table>
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</table>
* Up to 10% of the annual QP may be set aside for use in an adaptive management program.

Note on Option 6a: 80 percent of the whiting sector whiting QS would be allocated to permits and 20 percent to processors, but 100 percent of the whiting sector QS for all other species would be allocated to harvesters.

The Council may select other distributions within this range.

Due to limitations on available documentation, fish “receivers” may be used as a proxy for the “processors” (see A-2.1.1.d). After initial allocation, trading will likely result in changes in the distribution of shares among permit owners and processors. Additionally, entities that are neither permit owners nor processors may acquire QS (see below: “IFQ/Permit Holding Requirements and IFQ Acquisition”).
</td></tr>
<tr><td></td><td></td><td>b Permits</td><td>Landing[i] history will accrue to the permit under which the landing was made. The owner of a groundfish LE permit at the time of initial allocation will receive the QS issued based on the permit. (See Section A-2.1.4 on permit combinations and other exceptional situations.)</td></tr>
<tr><td></td><td></td><td>c Processors and Processing Definition</td><td>A special definition of “processor” and “processing” will be used for initial QS allocation. A main intent of the definition is to specify that, if QS is issued for processing, only the first processor of the fish receives an initial allocation of QS (see footnote for definition).[j] However, due to limitations on available documentation, fish “receivers” may be used as a proxy for “processors, as per the following section.</td></tr>
</table>

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
		d Attributing and Accruing Processing History	Use at-sea fishery observer data and weekly processing reports to document history for allocations to **at-sea processors**. [k] For an allocation to **catcher-processors**, see A-2.1.1-b. For an allocation to **mothership processors,** history accrues to the vessel on which the at-sea processing occurs. **MS Option 1:** The owner of the vessel at the time of the initial allocation will receive the initial allocation. **MS Option 2:** If a bareboat charter exists, the bareboat charterer will receive the initial allocation For an allocation for **shoreside processors:** ►**Option 1:** attribute history to the receiver reported on the landing receipt (i.e. the entity responsible for filling out the state fish ticket). *The fish receiver would serve as a proxy for processor because of limited availability of official documentation on actual processing history.* **Option 2:** attribute history to the receiver reported on the landing receipt, if that entity meets the definition of a processor with respect to trawl-caught groundfish. *The option is similar to Option 1 except that the fish receiver would have to demonstrate at least some processing of trawl-caught groundfish.* ►**Option 3:** same as Option 1, except history may be reassigned to an entity not on the landings receipt, if parties agree or through *an agency* appeals process. *The intent of this option is to provide an opportunity for catch history to be assigned to the entity that actually processed the fish.* For shoreside processors, allocations go to the processing business. For all three of the options for accruing history, successor-in-interest will be recognized. NMFS will develop criteria for use in determining the successor in interest with respect to the entities listed on the landings receipts or otherwise covered in one of these options.[l]
A-2.1.2	Recent Participation	a Permits (including CP permits)	Recent participation is not required in order for a permit to qualify for an initial allocation of QS.
		b Processors (motherships)	Recent participation is required to qualify for QS: 1,000 mt or more of groundfish in each of any two years from 1997-2003.[k]
		c Processors (shoreside)	Recent participation is required to qualify for an initial allocation of QS: **Nonwhiting Option 1:** 1 nonwhiting groundfish trip delivery from 1998-2003. ►**Nonwhiting Option 2:** 6 mt or more of deliveries from nonwhiting groundfish trips in each of any three years from 1998-2003. **Whiting Option 1:** 1 whiting trip delivery from 1998-2003. ►**Whiting Option 2:** 1 mt or more of deliveries from whiting trips in each of any two years from 1998-2003.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-2.1.3	Allocation Formula	a Permits with catcher vessel history	For all fish management units, as specified in Section A-1.2: **Option 1:** All QS allocated based on permit history (see following formulas). ►**Option 2**: An equal division of the buy-back permits' pool of QS among all qualifying permits plus allocation of the remaining QS based on each permit's history (see following formulas). (The QS pool associated with the buyback permits will be the buyback permit history as a percent of the total fleet history for the allocation period. The calculation will be based on total absolute pounds with no other adjustments and no dropped years.) **Permit history based allocation suboptions** For **non-whiting** trips, permit history used for QS allocation will be calculated: **For non-overfished species**: using an allocation period of 1994-2003. Within that period use relative history and drop the three worst years.[m] **For overfished species taken incidentally:**[n] **Overfished Species Option 1:** as it is calculated for non-overfished species. ► **Overfished Species Option 2:** use target species QS as a proxy based on the following approach: Apply fleet average bycatch rates to each permit's depth and latitude distributions and target species QS allocations. Fleet average bycatch rates for the areas shoreward and seaward of the RCA and north and south of 40° 10' N will be developed from West Coast Observer Program data for 2003-06. For the purposes of the allocation, a permit's QS for each target species will be distributed shoreward and seaward of the RCA and latitudinally based on the permit's logbook information for 2003-06. If a permit does not have any logbooks for 2003-06, fleetwide averages will be used.[o] For **whiting** trips, permit history used for QS allocation will be calculated as follows: **For whiting**, use an allocation period of 1994-2003. Within that period, use relative history and drop the two worst years. If a permit participated in both the shoreside and mothership whiting sectors, the same two years must be dropped for calculation of the permit's QS for each sector.[p] **For bycatch species** (if IFQ is used for bycatch species): **Bycatch Option 1:** use history for that species, as it is calculated for whiting. ► **Bycatch Option 2:** use the whiting history as a proxy (i.e., allocation will be pro rata based on the whiting allocation). **Area Assignments:** Landings history will be assigned to catch areas based on port of landing.[q] **Relative history (%).** For each sector, the permit history for each year is measured as a percent of the sector's total for the year.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
.		b Permits with catcher-processor history	Allocate whiting QS based on permit history[r] for 1994-2003 (do not drop worst years) and using relative history as defined for catcher vessel permits. **For bycatch species** (if IFQ is used for bycatch species): **Bycatch Option 1:** use history for that species, as it is calculated for whiting. ►**Bycatch Option 2:** use the whiting history as a proxy (i.e., allocation will be pro rata based on the whiting allocation).[s]
		c Processors (motherships)	Allocate whiting QS based on a vessel's processing history for 1997-2003 (do not drop worst years) and using relative history as defined for catcher vessel permits. **For bycatch species** (if IFQ is used for bycatch species): **Bycatch Option 1:** use history for that species, as it is calculated for whiting. ►**Bycatch Option 2:** use the whiting history as a proxy (i.e. allocation will be pro rata based on the whiting allocation).[s]
		d Processors (shoreside)	For non-whiting trips: • Allocate QS for all species *other than* incidentally-caught overfished species based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history. • Allocate QS for incidentally-caught overfished species by considering the same **overfished species** allocation options identified for permits in Section A-2.1.3.a. (*Note: the preliminary preferred option under A-2.1.3.a is **Overfished Species Option 2***.) For whiting trips: • Allocate whiting QS based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history. • If allocated to shoreside processors, allocate all species other than whiting by considering the same **bycatch species** allocation options identified for permits in Section A-2.1.3.a (*the preliminary preferred option under A-2.1.3.a is **Bycatch Option 2***). *Note: Under A-2.1.1.a, Options 6a and 6b, the Council will decide the allocation of species other than whiting to processors.*
A-2.1.4	History for Combined Permits and Other Exceptional Situations		Permit history for combined permits will include the history for all the permits that have been combined. For history occurring when two or more trawl permits were stacked, split the history evenly between the stacked permits. History for illegal landings will not count toward an allocation of QS. Landings made under nonwhiting EFPs that are in excess of the cumulative limits in place for the non-EFP fishery will not count toward an allocation of QS. Compensation fish will not count toward an allocation of QS.
A-2.1.5	Initial Issuance Appeals		There will be no Council appeals process on the initial issuance of IFQ. NMFS will develop a proposal for an internal appeals process and bring it to the Council for consideration. Only revisions to fish tickets accepted will be those approved by the state. Any proposed revisions to fish tickets should undergo review by state enforcement personnel prior to finalization of the revisions.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-2.1.6	Direct Reallocation After Initial Issuance		**Reallocation With Change in Overfished Status**: When an overfished species is rebuilt or a species becomes overfished there may be a change in the QS allocation within a sector (allocation between sectors is addressed in the intersector allocation process). When a stock becomes rebuilt, the reallocation will be to facilitate the re-establishment of historic target fishing opportunities. When a stock becomes overfished, QS may be reallocated to maintain target fisheries to the degree possible. That change may be based on a person's holding of QS for target species associated with the rebuilt species or other approaches deemed appropriate by the Council. **Reallocation With Changes in Area Management** (Changes in management lines are expected to be rare, however, when they occur the following provides for the reallocation of QS in a manner that will give individual QS holders with the same amounts of total QP before and after the line changes.) **Area Subdivision**: If at any time after the initial allocation an IFQ management unit is geographically subdivided, those holding QS for the unit being subdivided will receive equal amounts of shares for each of the newly created IFQ management units. **Area Recombination**: When two areas are combined, the QS held by individuals in each area will be adjusted proportionally such that (1) the total QS for the area sums to 100%, and (2) a person holding QS in the newly created area will receive the same amount of total QP as they would if the areas had not been combined. **Area Line Movement**: When a management boundary line is moved, the QS held by individuals in each area will be adjusted proportionally such that they each maintain their same share of the trawl allocation on a coastwide basis (the fishing area may expand or decrease, but the individual's QP for both areas combined wouldn't change because of the change in areas). In order to achieve this end, the holders of QS in the area being reduced will receive QS for the area being expanded, such that the total QP they would be issued will not be reduced as a result of the area reduction.[t] Those holding QS in the area being expanded will have their QS reduced such that the QP they receive in the year of the line movement will not increase as a result of the expansion (nor will it be reduced). **Reallocation With Subdivision of a Species Group**: If at any time after the initial allocation an IFQ management unit for a species group is subdivided, those holding QS for the unit being subdivided will receive equal amounts of shares for each of the newly created IFQ management units. For example, if a person holds 1% of a species group before the subdivision, that person will hold 1% of the QS for each of the groups resulting from the subdivision.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-2.2	**Permit/IFQ Holding Requirements and Acquisition (after initial allocation)**		
A-2.2.1	Permit/IFQ Holding Requirement		1. Only vessels with LE trawl permits are allowed to fish in the trawl IFQ fishery. 2. For a vessel to use QP, the QP must be in the vessel's QP account. 3. All catch taken on a trip must be covered with QP within 30 days of the landing for that trip unless the overage is within the limits of the carryover provision (Section A-2.2.2.b), in which case the vessel has 30 days or a reasonable time (to be determined) after the QP are issued for the following year, whichever is greater. [u] 4. For any vessel with an overage (catch not covered by QP), fishing that is within the scope of the IFQ program will be prohibited until the overage is covered, regardless of the amount of the overage. Vessels which have not adequately covered their overage within the time limits specified in paragraph 3, must still cover the overage before resuming fishing, using QP from the following year(s), if necessary. If a vessel covers its overage, but coverage occurs outside the specified time limit (paragraph 3), the vessel may still be cited for a program violation. ►**Exception Prohibition Suboption:** There may be exceptions and additions to the activities which will be prohibited when a vessel has an overage. A vessel with a deficit in its QP account would not be prohibited from participating in any of the following fisheries, even if they fall within the scope of the program: salmon troll; HMS troll/surface hook-and-line; Dungeness crab; all other HMS gears, except small mesh gillnet; and CPS purse seine. Additionally, vessels with a QP deficit would be prohibited from participating in state trawl fisheries such as pink shrimp, California halibut, ridgeback prawn, and sea cucumber, and small mesh gillnet. 5. For vessels with an overage, the LE permit may not be sold or transferred until the deficit is cleared. 6. **Alternative Compliance Options** **Option 1:** After two years in deficit, a vessel may resume fishing. ► **Option 2:** A sliding scale exception would allow a vessel that does not cover its deficit to resume fishing after a period of time. The period of time the vessel would be prohibited from participating in certain fisheries would vary depending on the degree of the uncovered overage. The scale that would be used is still to be developed. [v] **Option 3:** No exceptions to Element 4 of this provision.
A-2.2.2	IFQ Annual Issuance	a Annual Quota Pound Issuance	QP will be issued annually to QS holders based on the amount of QS held. *As specified above, QS holders will have to transfer their QP to a vessel account in order for those QP to be used.*

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
		b Carryover (Surplus or Deficit)	A carryover allowance will allow surplus QP in a vessel's QP account to be carried over from one year to the next or allow a deficit in a vessel's QP account for one year to be carried over and covered with QP from a subsequent year. Surplus QP may not be carried over for more than one year. A vessel with a QP **surplus** at the end of the current year will be able to use that QP in the immediately following year, up to the limit of the carryover allowance (see below). A vessel with a QP **deficit** in the current year will be able to cover that deficit with QP from the following year without incurring a violation if (1) the amount of QP it needs from the following year is within the carryover allowance (see below), and (2) the QP are acquired within the time limits specified in A-2.2.1.[w] **Carryover Allowance**: Limit of up to 10 percent carryover for each species. This applies to both non-overfished species and overfished species. The percentage is calculated based on the total pounds (used and unused) in a vessel's QP account for the current year.[x] *Note: This provision relates only to carryover of what is in the vessel's account.*
		c QS Use-or-Lose Provisions	None. The need for this provision will be evaluated as part of program review process, and the provision could be added later, if necessary.
		d Entry Level Opportunities	Under the MSFCMA, the Council is required to consider entry level fishermen, small vessel owners, and crew members, and in particular the possible allocation of a portion of the annual harvest to individuals falling in those categories. No special provisions have been identified for analysis, given that new entry is addressed indirectly by allowing crew, captains and others to acquire QS in small increments.
A-2.2.3	IFQ Transfer Rules	a Eligible to Own or Hold	Those eligible to own QS/QP will be restricted to (i) any person or entity eligible to own and control a US fishing vessel with a fishery endorsement pursuant to 46 USC 12108 (general fishery endorsement requirements) and 12102(c) (75% citizenship requirement for entities) and (ii) any person or entity that owns a mothership that participated in the west coast groundfish fishery during the allocation period and is eligible to own or control that US fishing vessel with a fishery endorsement pursuant to Sections 203(g) and 213(g) of the American Fisheries Act (AFA).
		b Transfers and Leasing	QS/QP will be transferable and transfers must be registered with NMFS. NMFS will not differentiate between a transfer for a lease and a permanent transfer.[y]
		c Temporary Transfer Prohibition	NMFS may establish temporary prohibitions on the transfer of QS, as necessary to facilitate program administration. ►**Option:** QS will not be transferred in the SubOption 1: the first year ►SubOption 2: the first two years of the program (QP will be transferable).
		d Divisibility	QS will be highly divisible and the QP will be transferred in whole pound units (i.e. fractions of a pound could not be transferred).

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
		e Accumulation Limits (Vessel and Control)	Limits[z] may vary by species/species group, areas, and sector. See options for each sector listed in Table 2-5. **Vessel Use Limit**: A limit on the QP that may be registered for a single vessel during the year. This element will mean that a vessel could not have more used and unused quota pounds registered for the vessel than a predetermined percentage of the QP pool. **Own or Control Accumulation Limit:** A person, individually or collectively, may not control QS or QP in excess of the specified limit (unless exempted by the grandfather clause). QS or QP controlled by a person shall include those registered to that person, plus those controlled by other entities in which the person has a direct or indirect ownership interest, as well as shares that the person controls through other means. The calculation of QS or QP controlled by a person will follow the "individual and collective" rule. Individual and Collective Rule: The QS or QP that counts toward a person's accumulation limit will include 1) the QS or QP owned by them, and 2) a portion of the QS or QP owned by any entity in which that person has an interest. The person's share of interest in that entity will determine the portion of that entity's QS or QP that counts toward the person's limit.[aa] **Grandfather Clause:** **Option 1:** A grandfather clause will apply to 1) vessel accumulation limits, and 2) control accumulation limits. This clause allows a person, if initially allocated QS in amounts in excess of the cap, to maintain ownership of the QS. The grandfather clause will expire with a change in ownership[bb] of the QS. If the owner divests some of the QS, the owner may not reacquire QS or QP until the owner is under the cap. Once under the cap, the grandfather clause expires and additional QS or QP may be acquired but not in excess of the control caps. **Option 2:** Same as Option 1 but the maximum allowed under the grandfather clause will be twice the vessel accumulation limit. ►**Option 3:** There will not be a grandfather clause. *Note: Absent guidance otherwise, Options 2 and 3 will be implemented in such a manner as to not alter other provisions of the program. Specifically, QS that is not allocated because of the limit or absence of the grandfather clause will be distributed to other eligible recipients in a manner that maintains the distribution among groups specified in A-2.1.1 and based on the allocation formulas specified in A-2.1.3.*

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-2.3	**Program Administration**		
A-2.3.1	Tracking, Monitoring and Enforcement		**Discarding** ►**T&M Program Alt 1:** Non-whiting – *Discarding of ITQ allowed*, discarding of IBQ required, discarding of non-groundfish species allowed. **T&M Program Alt 2:** Non-whiting – *Discarding of ITQ species prohibited, discarding of non ITQ commercial species prohibited*, discarding of IBQ species required, discarding of non-groundfish species allowed except retention of non-IBQ prohibited species would be required. ►**T&M Program Alt 1 & 2:** Shoreside whiting *Maximized retention vessels:* Discarding of ITQ, IBQ, and non-groundfish species prohibited. *Vessels sorting at-sea:* Discarding of ITQ allowed, discarding of IBQ required, discarding of non-groundfish species allowed. At-sea whiting Discarding of ITQ allowed by processors, discarding of IBQ required by processors, discarding of non-groundfish species allowed by processors, mothership catcher vessels prohibited from discarding catch. **At-Sea Catch Monitoring** **T&M Program Alt 1:** Nonwhiting – The sorting, weighing and discarding of any ITQ or IBQ species must be monitored by an observer with supplemental video monitoring. ►**T&M Program Alt 2:** Nonwhiting – The sorting of catch must be monitored by an observer. The weighing and discarding of any IBQ species must be monitored by an observer. The retention of ITQ species monitored by the observer. (The preliminary preferred alternative matches this with T&M Program Alt 1, discarding allowed. Therefore, discards would also have to be monitored.) ►**T&M Program Alt 1 & 2:** Shoreside whiting *For maximized retention vessels*: video monitoring as proposed under Amendment 10. ►**Suboption:** Observers would be required in addition to or as a replacement for video monitoring. *For vessels that sort at-sea:* The sorting, weighing and discarding of any ITQ or IBQ species must be monitored by an observer with supplemental video monitoring. At-sea whiting *Catcher vessels.* Observers would be required in addition to or as a replacement for video monitoring. *Motherships and catcher/processors*: The sorting, weighing and discarding of any ITQ or IBQ species must be monitored by an observer. ►**Shoreside Landings Monitoring (T&M Program Alt 1 & 2)** Non-whiting The sorting, weighing and reporting of any ITQ or IBQ species must be monitored by a catch monitor. Shoreside whiting The sorting, weighing and reporting of any ITQ or IBQ species must be monitored by a catch monitor. *(Description continued on next page.)*

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
			(...continued from previous page) ►**Catch Tracking Mechanisms (T&M Program Alt 1 & 2)** **Electronic vessel logbook report** Non-whiting, shoreside whiting and at-sea whiting: VMS-based electronic logbook required to be transmitted from vessel. At-sea entry by vessel personnel required including catch weight by species and if retained or discarded. **Vessel landing declaration report** Non-whiting and shoreside whiting: Mandatory declaration reports. **Electronic ITQ landing report** Non-whiting and shoreside whiting: Mandatory reports completed by processors and similar to electronic fish ticket report. **Processor production report** Non-whiting, shoreside whiting and at-sea whiting: Mandatory reports (possible inclusion of proprietary data included to be recommended as option is fleshed out). **Cost Control Mechanisms** **Shoreside landing hour restrictions** **T&M Program Alt 1,** Non-whiting and shoreside whiting: Landing hours not restricted. ►**T&M Program Alt 2,** Non-whiting and shoreside whiting: Landing hours limited. **Shoreside site Licenses** ►**T&M Program Alt 1 & 2,** Non-whiting and shoreside whiting: Mandatory license for shoreside deliveries. License can be issued to any site that meets the monitoring requirements. **Vessel Certification** ►**T&M Program Alt 1 & 2,** All Trawl Sectors: Mandatory certification. Certificate can be issued to any vessel that meets the monitoring requirements. **Program Performance Measures** ►**T&M Program Alt 1 & 2,** All Trawl Sectors: Integrate into the tracking and monitoring program the collection of data on cost, earnings and profitability; Economic efficiency and stability; capacity measures; net benefits to society; distribution of net benefits; product quality; functioning of quota market; incentives to reduce bycatch; market power; spillover effects into other fisheries; contribution to regional economies (income and employment); distributional effects/Community Impacts; employment-seafood catching and processing; safety; bycatch and discards; administrative, enforcement, and management costs. (See A-2.3.2)
A-2.3.2	Socio-Economic Data Collection[cc]		The data collection program will be expanded and submission of economic data by harvesters and processors will be mandatory. Random and targeted audits may be used to validate mandatory data submissions. See footnote for a full description[dd] Information on QS transaction prices, will be included in a central QS ownership registry. *NOTE: Data collection started before the first year of implementation would be beneficial, in order to have a baseline for comparison.*

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-2.3.3	Program Costs Options to be Refined.	a Cost Recovery	►**Option 1:** Fees will be used to recover costs associated with management of the IFQ program but not for enforcement or science. The limit on fees will be 3% of ex-vessel value, as specified in the MSFCMA. **Option 2:** There will be full cost recovery. Cost recovery will be achieved through landing fees plus privatization of elements of the management system. In particular, privatization for monitoring of IFQ catch (e.g., industry pays for their own compliance monitors). Stock assessments will not be privatized and the electronic fish ticket system will not be privatized.
		b Fee Structure	To be determined. TIQC recommends a fee structure that reflects usage. Option (to be developed) that allows for equitable sharing of observer costs for smaller vessels.
A-2.3.4	Program Duration and Modification		Four-year review process to start four years after implementation. Community advisory committee to review IFQ program performance.
A-2.4	**Additional Measures for Processors**	► **None of these options are part of the preliminary preferred alternative**	**Option 1:** Any QS received for processing history as part of the initial allocation will expire after a certain period of time (to be determined prior to final Council action). At that time all remaining QS will be adjusted proportionally so that the total is 100%. **Option 2:** The accumulation limit grandfather clause of Section A-2.2.3.e will not apply for processing history. Regardless of the percent of the total QS designated for processors, processing history will not entitle a person to receive QS in excess of the accumulation limits. **Option 3:** The Adaptive Management allocation and process (Section A-3) will be used to compensate processors for demonstrated harm by providing QP to be directed in a fashion that increases benefits for affected processors.
A-3	***Adaptive Management (Option)***		►During the biennial specifications process, up to 10% each year's QP available for the trawl IFQ program will be set aside for use in an adaptive management program that could create incentives for developing gear efficiencies, or community development or to compensate for unforeseen outcomes from implementing the IFQ program. Examples of unforeseen outcomes include, but are not limited to, unexpected geographic shifts in the distribution of catch or landings, unexpected effects on certain segments of the industry (e.g. processors), or an unexpected barrier to new entry into the fishery. Should the Council adopt initial allocation of **fishing QS** to processors, those processors receiving an initial allocation would not be eligible to hold QP issued through an adaptive management program. This provision will apply to the overall trawl sector (whiting and non-whiting) but the QP set aside from each trawl sector would be specific to that sector.
A-4	***Pacific Halibut IBQ—non-retention (Option)***		►Option: IBQ for Pacific halibut bycatch in the trawl fishery will be established. Such IBQ will be issued on the basis of a bycatch rate applied to the target species QS an entity receives in a manner similar to that described in Section A-2.1.3.a, Overfished Species Option 2. Area specific bycatch rates may be used for allocation but halibut IBQ will not be geographically subdivided.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-5	***Alternative Scope for IFQ Management (Option)*** ***► Not part of the preliminary preferred alternative.***		**Option:** IFQ will be required to cover all groundfish catch except for bycatch species taken on whiting sector trips. **If this option is selected sections above would be modified as follows.** **Section A-1**. Replace "QP will be required to cover catch of all groundfish (including all discards" with "for non-whiting trips, QP will be required to cover catch of all groundfish (including all discards), for whiting trips, QP will be required to cover catch of all whiting (including all whiting discards but not incidental catch of nonwhiting groundfish species)." If the three sector option is selected in Section A-1.3, then in the previous sentence replace "non-whiting trips" with "shoreside trips" and replace "whiting trips" with "trips delivered at-sea." **Section A-1.3** Under the three sector option (shoreside, mothership, and catcher-processors) this alternative scope does not apply to the shoreside sector. For all catch destined for shoreside delivery QP would be required, including catch on trips targeted on whiting. For catch destined for at-sea delivery, QP would be required for whiting but not bycatch species. Under the four sector option, shoreside whiting trips would be included among those for which QP is required to cover whiting and not required for bycatch species. **Section A-1.5.** Whiting trip bycatch species will not be managed with IFQ but will be pooled and managed with bycatch caps. Select one of the following options for incorporation in Section A-1.5: **Bycatch Management Option 1: A single bycatch caps covering all whiting sectors.** All sectors and co-ops will close as soon as the whiting fishery bycatch cap is reached for one species; a controlled pace may be established if the sectors choose to work together cooperatively, potentially forming an intersector/interco-op cooperative. **Bycatch Management Option 2: A single bycatch caps covering all whiting sectors and seasonal releases.** Same as Option 1, including the potential for forming co-ops, except there will be seasonal releases of bycatch allocation.[ee] **Bycatch Management Option 3: A separate bycatch caps for each sector.** Each sector closes when its bycatch cap is reached. **Bycatch Management Option 4: A separate bycatch cap for each sector and a roll-over.** Each sector closes when its bycatch cap is reached. Unused bycatch may be rolled over from one sector to another if the sector with unused bycatch has used its full allocation of whiting or participants in the sector do not intend to harvest the remaining sector allocation.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-6	***Duration: Fixed Term (and Auctions) (Option)*** ***► Not part of the preliminary preferred alternative.***		**Fixed Term Option:** The term of all QS issued will be limited to 15 years (except that the Term-1 QS may last 15 or 16 years, depending on when the biennial specification period ends). Starting with Term-2 of the program, **Reallocation SubOption 1:** QS will be reallocated to holders at the end of the term, unless the program is otherwise modified. **Reallocation SubOption 2:** Starting with Term-2 of the program, every two years up to 20% of all QS will be returned to NMFS for reissuance via an auction, unless the program is otherwise modified. **If the fixed term option is selected, sections above would be modified as follows.** **Section A-2.3.4.** Add the following. The initial allocation of QS will be valid for a period of 15 or 16 years (ending at the end of the second year of the biennial specification period). Thereafter, in the absence of actions to end or amend the program, QS will be issued for 15 year terms (i.e. all QS will expire every 15 years) on the following basis. **Section A-2.1.6.** Add the following. **Reallocation Option 1:** After initial issuance, for the start of each subsequent term of the program, QS will be reallocated to current QS holders (those holding the QS on the day the term expires), in proportion to the amounts they held on the day of expiration, unless the program is otherwise modified. **Reallocation Option 2** After initial issuance, for the start of each subsequent term of the program, up to 20% of the QS will be reallocated in an auction with the remainder going to the current QS holders (those holding the QS on the day the term expires), in proportion to the amounts they held on the day of expiration, unless the program is otherwise modified. Additionally, every two years during the term up to 20% of each holder's QS will return to NMFS for redistribution via an auction. All auctions for the QS to be redistributed will be held at least one year in advance of the actual redistribution. When the redistribution occurs, the QS will come from those holding it at the time of the redistribution and go to the winners of the auction. The specific form of the auction will be decided by the Council in the period between trawl rationalization implementation and the first auction. It will be designed to achieve the goals of the trawl rationalization program, including reducing bycatch, increasing operation flexibility, measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.
A-7	***Gear Conversion (Option)***		The scope of the IFQ program allows trawl vessels to use other types of gear to harvest groundfish quota pounds. At its June 2008 meeting, the Council added the following option for consideration. ***This option is not necessarily a preferred option.*** **Gear Conversion Option:** allow a permit holder to use an alternative legal gear for a two-year period after which the permit holder decides whether to continue to use the alternative gear or trawl gear.

Table 2-3. Full description of the IFQ Alternatives (continued).

	Element	SubElement	
A-8	***Regional Landing Zones (Option)***		Under the preferred alternative, the Council will choose between creating a split in the management units at 40°10' N latitude and regional landing zones (see Section A-1.2). The following describes the regional landing zone option. ►**Regional Landing Zone Option:** 1. Two basic types of QS would be issued for target species: (a) zone-specific QS and (b) zone-free QS. Zone specific QS would not be required for incidentally caught overfished bycatch species. 2. The Council would decide the overall split between zone-specific and zone-free QS (e.g., 80% zone-specific, 20% zone-free). Each permit owner or processor would be allocated the same split of zone-specific and zone-free QS.[ff] 3. Zones would be limited in number (i.e., two to six per state with a coastwide maximum of ten), designed and nominated by the states, and approved by the Council. The states could design individual zones to encompass a single port or group of ports.[gg] 4. QP from zone-specific QS could only be landed in the zone for which the QS is issued. However, the zone designation would not restrict the catch area. Zone-specific QS would be transferable to holders outside the zone, but the QP associated with that QS would have to be landed within the specified zone. 5. QS would be issued to permit owners and processors based on the allocation formulas specified in Section A-2.1. These formulas use a 1994-2003 allocation period. The QS issued to each recipient would be designated for a particular zone based on the recipient's landings history over a time period chosen to reflect recent conditions (e.g., 2005-2007). For each target species, zone-specific QS would be issued to a recipient based on the proportion of landings history in each zone during the recent period. 6. The Council could adaptively manage the system by varying the split of zone-specific to zone-free QS, redistributing QS among zones, permitting limited transfers between zones, adding or subtracting zones, etc.

[a] Not withstanding this provision, a vessel with a LE trawl permit may catch the trawl QP with a nontrawl gear, as per Section A-1.1.

[b] Such changes in latitudinal area management may occur as a result of changes in the management areas for species/species complexes in the ABC/OY table or as a result of separate Council action to change the trawl QS by area. In either case, specific Council action will be required to change the management areas and such action will be accompanied by appropriate supporting analysis and public comment opportunity.

[c] The Council authority to establish or modify RCAs will not be changed by this alternative.

[d] The allocation among trawl sectors will be determined as part of the intersector allocation process. The TIQC recommended a number of options for determining the allocation among trawl sectors. One of these would have based the allocation on fleet history, but would not have included in the fleet history

Table 2-3. Full description of the IFQ Alternatives (continued).

the history of any vessel not meeting the recent participation requirement. The Council rejected this application of a recent participation requirement to a determination of fleet history. The remaining TIQC options recommend that the division of allocation among trawl sectors be based on the fleet history over the same time periods used to allocate QS. The TIQC further recommends that if different periods are used for different trawl sectors, either (1) calculate the share for each sector based on its IFQ allocation period, then adjust all percentages proportionately such that they sum to 100%; OR (2) use the shortest period common to the allocation formula for all sectors.

If bycatch in the whiting sectors is not managed with IFQs and is pooled at the overall whiting fishery or sector level, allocations of bycatch will be determined through the intersector allocation process. The TIQC recommends allocation among the whiting sectors based on: Option 1: pro rata in proportion to the whiting allocation, or Option 2: weighted historical catch formula (for example, in projecting bycatch in the whiting fisheries prior to the start of the season, the GMT uses a four-year weighted average starting with the most recent year: 40%, 30%, 20%, 10%).

[e] For the nonwhiting fishery there is a potential that a vessel might make a targeted whiting trip by accumulating whiting QPs provided to cover whiting bycatch in the nonwhiting fishery. This could create a problem if it occurred during a time when the whiting fishery is closed to control for impacts on ESA-listed salmon. Other than that, whiting targeted trips using whiting QP intended for whiting bycatch in the nonwhiting fishery might not create a problem. Restrictions might be imposed on whiting catch in the nonwhiting fishery as needed to address concerns ESA concerns.

[f] A whiting QP rollover provision was considered but rejected from further analysis. This provision would have allowed unused QP to be reclassified so that they could be used in any whiting sector.

[g] The current process for changing the whiting fishery opening dates involves a regulatory amendment developed under the FMP through a framework process. Implementation of an IFQ program should not change this process.

[h] Nor will it restrict the vessel size if the vessel is using an open access gear to take its trawl IFQ.

[i] The term "landing," as defined in the regulations, includes both shoreside and at-sea deliveries.

[j] "**Processors"** are defined as follows:

An at-sea processor is a vessel that operates as a mothership in the at-sea whiting fishery or a permitted vessel operating as a catcher-processor in the at-sea whiting fishery.

A shoreside processor is an operation, working on US soil, that takes delivery of trawl-caught groundfish that has not been "processed at-sea" and that has not been "processed shoreside"; and that thereafter engages that particular fish in "shoreside processing." Entities that received fish that have not undergone "at-sea processing" or "shoreside processing" (as defined in this paragraph) and sell that fish directly to consumers shall not be considered a "processor" for purposes of QS allocations.

"Shoreside Processing" is defined as either of the following:

1. Any activity that takes place shoreside; and that involves: cutting groundfish into smaller portions; OR freezing, cooking, smoking, drying groundfish; OR packaging that groundfish for resale into 100 pound units or smaller for sale or distribution into a wholesale or retail market.

OR

2. The purchase and redistribution into a wholesale or retail market of live groundfish from a harvesting vessel.

Table 2-3. Full description of the IFQ Alternatives (continued).

[k] Note: The Council's preliminary preferred alternative does not include IFQs for the at-sea sectors (catcher-processors and motherships). Options related to those sectors will only be relevant if the Council changes the management approach as part of final action.

[l] Transfer of physical assets alone should not be considered a basis for successor in interest. Business relationships such as transfer of the company name and customer base might be reasonable evidence of successor in interest.

[m] State landings receipts (fish tickets) will be used to assess landings history for shoreside deliveries and observer data will be used for deliveries to motherships.

[n] The intent is to consider an alternative allocation method QS for overfished species which, at reduced harvest levels, are needed primarily to cover incidental catch in fisheries that target healthy stocks. The alternative method (Option 2) would attempt to allocate the species to those who will be receiving QS for related target species. By allocating overfished species QS to those most in need of it, such an allocation would be expected to reduce transition costs. Currently, the list of overfished species that fall into this category is as follows: canary rockfish, darkblotched rockfish, Pacific Ocean perch, widow rockfish, yelloweye rockfish. This list may change by the time the program is ready to be implemented. If a major target species became overfished, it would not be intended that such a species would be allocated via an alternative method (for example species such as Dover sole, sablefish, or Pacific whiting).

[o] In order to determine an amount of aggregate target species to which bycatch rates will be applied, each vessel's QS will be multiplied by the trawl allocation at the time of implementation.

[p] State landings receipts (fish tickets) will be used to assess landings history for shoreside deliveries and observer data will be used for deliveries to motherships.

[q] Catch area data on fish tickets are not considered appropriate for this purpose. It is often filled out by fish receivers that assume the vessel has been fishing in nearby ocean areas. Therefore it will be assumed that all catch comes from ocean areas near the port of landing.

[r] Permit history from observer data.

[s] The Council's preliminary preferred alternative included the allocation of bycatch species in the mothership and catcher processor sectors pro rata based on the whiting allocation. However, these options could come into play if the Council does not go with its preliminary preferred alternative to adopt the co-op alternatives for these two sectors.

[t] Unless there is a change in the total OY or other factors affecting trawl allocation for the areas involved, in which case their change in QP would be proportional to the change in the trawl allocation.

[u] QP from a subsequent year may not be accessed not until such QP have been issued by NMFS.

[v] Example: a minimum of 4 months (120 days) for 100 lbs plus an additional month for every additional 50 pounds of overage (1 mt overage = 44 months)

[w] Carryover of deficits provides some flexibility to use pounds from a year to cover a deficit from a previous year. Without a carryover provision, a vessel would still need to use pounds in a subsequent year to cover an overage but would incur a violation.

[x] There has been some GMT discussion of a possible need for the QP surpluses carried over to a following year be adjusted proportionally in the following year if the trawl allocation for the following year changes.

[y] QS may be transferred on a temporary basis through private contract (leased) but NMFS will not track lease transfers differently than any other transfer.

Table 2-3. Full description of the IFQ Alternatives (continued).

[z] In this section, the term "permit" was changed to "vessel" to be consistent with Section A-2.1.3, which indicates that QP go into vessel accounts, not permit accounts. The term "own or control" was shortened to "control" for simplicity. "Control" includes ownership and therefore is inclusive of "ownership."

[aa] For example, if a person has a 50 percent ownership interest in that entity, then 50 percent of the QS owned by that entity will count against the individual's accumulation limit.

[bb] **Change in Ownership definition:** For the purpose of the grandfather clause, ownership of a legal entity is defined to change with the addition of a new member to the corporation, partnership or other legal entity. Members may leave without causing the grandfather clause to expire for that entity.

[cc] Status quo **data collection** includes:

voluntary submission of economic data for LE trawl industry (status quo efforts);

voluntary submission of economic data for other sectors of the fishing industry; and

ad hoc assessment of government costs.

Voluntary Provisions: NMFS will continue to support the Pacific States Marine Fisheries Commission Economic Fishery Information Network (PSMFC EFIN) project attempts to collect economic and social data useful in evaluating the impacts of fishing and fishing regulations.

Central Registry: The program will include no new central registries for QS owners/lessees or LE permit owners/lessees other than that necessary to directly support the IFQ tracking and monitoring system, as maintained by the NMFS Permit Office.

Government Costs: Data on the monitoring, administration, and enforcement costs related to governance of the IFQ program will be collected and summarized on an ad hoc basis.

[dd] **Expanded data collection** would include:

mandatory submission of economic data for LE trawl industry (harvesters and processors),

voluntary submission of economic data for other sectors of the fishing industry,

transaction value information in a centralized registry of ownership, and

formal monitoring of government costs.

Mandatory Provisions: The Pacific Fishery Management Council and NMFS shall have the authority to implement a data collection program for cost, revenue, ownership, and employment data, compliance with which will be mandatory for members of the West Coast groundfish industry harvesting or processing fish under the Council's authority. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA.

A mandatory data collection program shall be developed and implemented as part of the groundfish trawl rationalization program and continued through the life of the program. Cost, revenue, ownership, employment and other information will be collected on a periodic basis (based on scientific requirements) to provide the information necessary to study the impacts of the program, including achievement of goals

and objectives associated with the rationalization program. This data may also be used to analyze the economic and social impacts of future FMP amendments on industry, regions, and localities. The program will include targeted and random audits as necessary to verify and validate data submissions. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA. Additional funding (as compared to status quo) will be needed to support the collection of these data. The data collected would include data needed to meet MSA requirements (including antirust).

The development of the program shall include: a comprehensive discussion of the enforcement of such a program, including discussion of the type of enforcement actions that will be taken if inaccuracies are found in mandatory data submissions. The intent of this action will be to ensure that accurate data are collected without being overly burdensome on industry in the event of unintended errors.

Voluntary Provisions: A voluntary data collection program will be used to collect information needed to assess spillover impacts on non-trawl fisheries.

Central Registry: Information on transaction prices will be included in a central registry of QS owners. Such information will also be included for LE permit owners/lessees.

Government Costs: Data will be collected and maintained on the monitoring, administration, and enforcement costs related to governance of the trawl rationalization program.

[ee] At the outset, it is envisioned that the seasonal approach will be used to manage widow rockfish bycatch; for canary rockfish and darkblotched rockfish, status quo management will be maintained (i.e., no sector allocation and no seasonal apportionment).

A seasonal release bycatch management program will be implemented through regulation. For reference, a similar program is used to manage halibut bycatch in NPFMC-managed flatfish and Pacific cod fisheries, see 50CFR679.21(d).

In practice, seasonal releases protect the next sector entering the fishery. For example, a May 15-June 15 release will be used by the catcher-processors and motherships, but it protects the shoreside fishery; the June15-September release will be used by shoreside and whatever catcher-processors and motherships are still fishing whiting, and to protect a fall at-sea season after September 15; the final release in September will again be shared by the catcher-processors and motherships, assuming shoreside is done.

For example:

1. No sector bycatch allocations.
2. Status quo for canary and darkblotched rockfish; i.e., no seasonal or sector allocation.
3. May 15 - June 15; 40% of widow hard cap released.
4. June 15 - August 31; an additional 45% of widow hard cap released.
5. Sept. 1 - Dec. 31; final 15% of widow hard cap released.
6. Once a seasonal release of widow rockfish is reached, the whiting fishery is closed to all three sectors for that period. The fishery re-opens to all three sectors upon release of the next seasonal release of widow rockfish.

Table 2-3. Full description of the IFQ Alternatives (continued).

7. Unused amounts from one seasonal release rollover into subsequent release periods.

(Note: percentages are for illustration purposes only, actual release percentages will be developed through the PFMC process).

[ff] The analysis should consider a reasonable range of zone-specific/zone-free splits (e.g., 80/20, 75/25, 50/50).

[gg] WDFW would likely nominate two zones: Bellingham-North Coast and South Coast-Columbia River.

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Table 2-4. Limitation on IFQ program scope (dual preferred alternative).

For the **shoreside trawl sector** IFQ **is not required** for:	
Longspine South of 34°27'	California Scorpionfish
Minor Nearshore Rockfish N	Cabezon
Minor Nearshore Rockfish S	Kelp Greenling
Black Rockfish (WA)	Shortbelly
Black Rockfish (OR-CA)	Other Rockfish
	Spiny Dogfish

For the **at-sea trawl** sectors IFQ* is **only required** for whiting and:	
Option 1 (similar to status quo):	Option 2 (extended List)
Widow	Slope Rock
Darkblotched	Shelf Rock
Canary	Canary
	Darkblotched
	Lingcod
	Pop
	Sablefish
	Widow
	Yellowtail

*Under the preliminary preferred alternative these sectors (mothership and catcher-processor) are managed under co-ops, in which case sector- or co-op-specific bycatch caps may be applicable to these species.

Table 2-5. Control cap, and vessel cap options to define QS/QP accumulation limits in IFQ Program Alternatives.

Stock	Option 1		Option 2		Option 3	
	Control Cap (%)	Vessel Cap (%)	Control Cap (%)	Vessel Cap (%)	Control Cap (%)	Vessel Cap (%)
All nonwhiting groundfish (in aggregate)	1.5	3.0	2.2	4.4	3.0	6.0
Lingcod - coastwide c/	5	10	7.5	15		
N. of 42° N (OR & WA)	5	10	7.5	15		
S. of 42° N (CA)	5	10	7.5	15		
Pacific Cod	5	10	7.5	15		
Pacific Whiting			0	0		
Shoreside Sector	10	15	15	22.5	25	37.5
Mothership Sector	10	25	15	37.5	25	50
Catcher Processors	50	65	55	70	60	75
All Whiting Sectors Combined	15	25	22.5	37.5	40	50
Sablefish (Coastwide)	1.9	3.8	2.9	5.7		
N. of 36° N (Monterey north)	2	4	3	6		
S. of 36° N (Conception area)	5	10	7.5	15		
PACIFIC OCEAN PERCH	5	10	7.5	15		
Shortbelly Rockfish	5	10	7.5	15		
WIDOW ROCKFISH	3.4	6.8	5.1	10.2		
CANARY ROCKFISH	5	10	7.5	15		
Chilipepper Rockfish	5	10	7.5	15		
BOCACCIO	5	10	7.5	15		
Splitnose Rockfish	5	10	7.5	15		
Yellowtail Rockfish	5	10	7.5	15		
Shortspine Thornyhead - coastwide	3.1	6.2	4.7	9.3		
Shortspine Thornyhead - N. of 34°27' N	4.8	9.6	7.2	14.4		
Shortspine Thornyhead - S. of 34°27' N	4.7	9.4	7.1	14.1		
Longspine Thornyhead - coastwide	2	4	3	6		
Longspine Thornyhead - N. of 34°27' N	2	4	3	6		
Longspine Thornyhead - S. of 34°27' N	5	10	7.5	15		
COWCOD - Conception and Monterey	5	10	7.5	15		
DARKBLOTCHED	5	10	7.5	15		
YELLOWEYE g/	5	10	7.5	15		
Black Rockfish	5	10	7.5	15		
Black Rockfish (WA)	5	10	7.5	15		
Black Rockfish (OR-CA)	5	10	7.5	15		
Minor Rockfish North	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	4	8	6	12		
Slope Species	5	10	7.5	15		
Minor Rockfish South	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	5	10	7.5	15		
Slope Species	5	10	7.5	15		
California scorpionfish	5	10	7.5	15		
Cabezon (off CA only)	5	10	7.5	15		
Dover Sole	1.8	3.6	2.7	5.4		
English Sole	10	20	15	30		
Petrale Sole (coastwide) c/	2.9	5.8	4.4	8.7		
Arrowtooth Flounder	5	10	7.5	15		
Starry Flounder	5	10	7.5	15		
Other Flatfish	10	20	15	30		
Other Fish	5	10	7.5	15		

2.5 Whiting Sector Cooperative Alternative

This alternative considers cooperatives, another form of limited access privilege, for the whiting fishery. If the co-op alternative is adopted for all of the whiting sectors, the Council could still consider adopting the IFQ alternative for the non-whiting shoreside sector only, or maintaining the non-whiting shoreside sector under status quo. Similarly, the Council could adopt co-ops for all or any combination of the three whiting sectors (shoreside, mothership, and catcher processor).

The whiting sector co-op alternative is described generally below. Table 2-6 provides an outline of the sections of the alternative. A full description of the alternative and its various co-op programs follows Table 2-6, beginning with a section on management of the whiting fishery and followed by sections on each sector of the whiting fishery.

2.5.1 Overview of Program Elements

2.5.1.1 Whiting Sector Management under Co-ops

While co-ops will be used to control the harvest within a whiting sector, a number of management measures will still be required to control competition between the whiting sectors. This section covers those measures along with other measures which will apply to all sectors managed under co-ops, such as observer requirements, mandatory submission of economic data (option) and adaptive management (option). The description of the co-op management tools starts in Section 2.5.1.2.

The existing allocation of whiting between the shoreside whiting, mothership, and catcher-processor (CP) sectors will not change under this alternative (42, 24, and 34 percent, respectively). Whiting from one sector could not be transferred to another sector, except possibly through a rollover of excess whiting from a sector that does not have the intent or ability to use it for another sector.

Provisions also address bycatch in the whiting fishery (particularly that of certain overfished species). The Council is considering whether or not to create incidental groundfish species caps for all whiting sectors combined, for each of the whiting sectors, for the co-op and non-co-op fisheries within the mothership and shoreside sectors, or for the co-ops within the mothership and shoreside sectors. If fleet caps are sector-specific, an allocation among sectors will be made as part of the intersector allocation EIS. Within sectors, bycatch allocations would be pro rata, based on the amount of whiting allocated to that sector.

Seasonal releases of bycatch and area closures may be used to control the pace of the fishery. For the mothership and shoreside sectors, the fishery will be divided into a co-op fishery and a non-co-op fishery (for those who do not desire to take part in a co-op). Participants in the non-co-op fishery will not have a claim to a particular amount of the fish allocated to that fishery; therefore the vessels will likely race to harvest the available allocation. Options are being considered that would employ buffers to try to ensure that the non-co-op fishery does not overrun its allocation and fish into the co-op allocation.

NMFS will close the whiting fishery, a particular sector, the co-op or non-co-op fishery within a sector, or individual co-ops, as appropriate, if a whiting catch or bycatch limit is reached. With respect to co-ops, inseason monitoring and closure will be needed only at the highest level of aggregation of the co-ops. For example, if individual co-ops join together to form an inter-co-op that covers the entirety of one of the whiting sectors, then NMFS will track and close at the sector level.

Given the high level of monitoring already in place in the whiting fishery, only moderate changes in monitoring are expected to be needed to implement this alternative for the at-sea whiting fishery. For the at-sea segment of the fishery, 100 percent coverage aboard mothership and CPs will continue. For the shoreside whiting fishery, at-sea monitoring will be increased to 100 percent to enforce catch accounting requirements. Additionally, a program for the mandatory submission of economic data is also included, to facilitate monitoring program performance.

The general provisions for the co-op alternative also include an option for an adaptive management provision that would allow the Council to use 10 percent of a trawl sector's allocation to provide incentives, support, or other compensation to offset adverse impacts of the program related to that sector.

2.5.1.2 Co-ops for Catcher Vessels Delivering to Motherships

Under this program, those who hold whiting-endorsed permits for catcher vessels in the mothership sector will choose each year whether to be part of a co-op or to register to fish in the non-co-op portion of the fishery. The holders of catcher vessel permits with mothership whiting endorsements will form the co-ops. Based on its catch history, each permit that qualifies for a mothership whiting endorsement will be allocated a portion of the history (endorsement share) of the mothership sector allocation. There is an option which would allow the endorsement, together with the associated shares, to be transferred as a unit from one LE trawl permit to another. Each year, NMFS will distribute a catch allocation to a catcher vessel co-op based on the sum of the endorsement shares for the permits registered to that co-op. NMFS will also distribute a catch allocation each year to the non-co-op portion of the fishery, based on the collective endorsement shares of the permits opting to participate in the non-co-op fishery.

The co-op organization will coordinate harvest by its members. Although co-op agreements will include a mandatory clause that the catch allocation made to a member must equal the amount that the member brings into the co-op, co-op members may transfer catch allocations among themselves. Similarly, if multiple co-ops join together in an inter-co-op, one co-op will be allowed to transfer catch allocation to another co-op within that inter-co-op. NMFS will not necessarily need to track transfers among co-op members or within an inter-co-op.

The class of motherships will be closed by creating a LE permit for mothership vessels. Each catcher vessel permit will be obligated to deliver all or a portion of its catch to a mothership based on past deliveries. There are a number of options for determining which motherships the permit will be obligated to. A catcher vessel permit owner may join a different co-op or deliver to a different mothership than the one to which it is first assigned. However, the permit owner may first be required to enter into the non-co-op portion of the fishery for one year. While catch may be transferred among participants in a co-op or inter-co-op, such transfers would not change the mothership to which the catch is obligated, unless a mutual agreement is reached or other specified circumstances prevail. *NOTE: During its discussion of processor linkage provisions at the Council's June 2008 meeting, the Council members expressed that by selecting a 90 percent linkage option as part of their preferred alternative it was their intent to provide a means for vessels to move between motherships without entering into the non-co-op fishery. In order to achieve this intent, additional modifications will be required.*

As in the IFQ alternative, accumulation limits will be imposed to prevent excessive concentration of catch allocations. They will cap the proportion of whiting that an individual or entity can process and will cap the proportion of whiting an individual or entity could accumulate via ownership of catcher vessel permit(s).

2.5.1.3 Co-ops for Catcher Vessels Delivering Shoreside

While some of the options and details of the mothership and shoreside co-op program vary, the general description of the program with respect to catcher vessels participating in the shoreside sector is exactly as described in the first two paragraphs in the above section on the mothership sector (except that endorsements would be for the shoreside whiting catcher vessels).

Under one version of the shoreside whiting co-op program there will be no constraints on participation by processors and no ties or delivery obligations between vessels and processors. Under the other version of the program, for the first two years, only processors that have qualified for a shoreside processor permit will be eligible to receive fish from a co-op. Qualification will be based on having processed a specified amount of whiting during certain qualifying years. A permit that is in the non-co-op portion may deliver to any processor but a permit in a co-op will be required to deliver whiting to a co-op-qualified processor. If a permit owner wants to deliver to a processor different than the one(s) it is assigned to, it will have to enter the non-co-op portion of the fishery for a given number of years, after which it will be released from obligations and may deliver to any shoreside processor. There are two options for processor ties. Under one, after the first two years of a program, once a permit breaks its processor tie it can rejoin a co-op, deliver to any processor, and is not obligated to deliver to that same processor in subsequent years. Under the other option, the permit will be obligated to the processor(s) to which it chooses to deliver in its first year upon rejoining the co-op and in order to break that obligation must again return to the non-co-op fishery for a period of time.

Like in the IFQ alternative, accumulation limits will be imposed to prevent excessive concentration. These limits will cap the proportion of whiting an individual or entity could accumulate via ownership of catcher vessel permit(s).

2.5.1.4 Co-ops for Catcher-Processors

Under this alternative, the main change from the current CP sector management will be the creation of a CP endorsement to close the CP fishery to new entrants. This endorsement will be granted to LE permits registered to CP vessels if they meet specified qualification criteria. Only vessels with a CP LE permit will be allowed to harvest fish from the sector's allocation. LE permits with CP endorsements will continue to be transferable.

Catch by the CP sector will be controlled primarily by closing the fishery when a constraining allocation is reached. As under status quo, co-op(s) may continue to be formed voluntarily by CP permit holders. If a co-op is formed, the sector will be managed as a private voluntary cooperative and governed by a private contract that will likely include division of the sector allocation among eligible vessels according to an agreed harvest schedule. NMFS will not establish an allocation of catch or catch history among permits unless the co-op fails to form. In such case, individual quota will be allocated to each CP permit (equally divided among all CP endorsed permits). If more than one co-op is formed, a race for fish could ensue absent an inter co-op agreement.

2.5.2 Detailed Specification of Co-op Program Elements and Options

Table 2-6. Overview of the co-op alternative.

B.1	***Whiting Sector Management Under Co-ops***
B-1.1	Whiting Management
B-1.2	Annual Whiting Rollovers
B-1.3	Bycatch Species Management
B-1.4	At-sea Observers/Monitoring
B-1.5	Mandatory Data Collection
B-1.6	Adaptive Management
B-2	***Whiting Mothership Sector Co-op Program***
B-2.1	Participation in the Mothership Sector
B-2.2	Permits/Endorsement Qualification and Characteristics
B-2.3	Co-op Formation and Operation Rules
B-2.4	Processor Ties
B-2.5	NMFS Role
B-3	***Whiting Shoreside Sector Co-op Program***
B-3.1	Participation in the Shoreside Whiting Sector
B-3.2	Permits/Endorsement Qualification and Characteristics
B-3.3	Co-op Formation and Operation Rules
B-3.4	Processor Ties
B-3.5	NMFS Role
B-3.6	Exclude Processor Ties and Processor Licensing (Option)
B-4	***Co-ops for Catcher-Processors***
B-4.1	Participation in the Catcher-Processor Sector and Endorsement Qualification
B-4.2	Co-op Formation and Operation Rules
B-4.3	NMFS Role

The Council chose cooperative management for the at-sea whiting mothership sector (Section B.2) and catcher-processor sector (Section B.4) as part of their preliminary preferred alternative (see Section 2.6). (The preliminary preferred alternative also includes the shoreside whiting sector co-operative alternative described below in Section B.3, which would be implemented instead of IFQs for this sector if legislative remedies are adopted for the elements of the program that are currently illegal. However, the Council did not select between any of the options in the shoreside cooperative proposal in formulating their preliminary preferred alternative.) *In the detailed description below,* w*here the Council chose an option as part of the preliminary preferred package, the choice is indicated by a "►" symbol.* Program elements without options are adopted as described unless otherwise noted.

B-1 Whiting Sector Management Under Co-ops

B-1.1 Whiting Management

Under the co-op options for the mothership and shoreside sectors, catcher vessel permits will be endorsed for deliveries to these sectors and amounts of history assigned.

The whiting catch history calculation for each mothership-endorsed catcher vessel permit [CV(MS)] and shoreside-endorsed catcher vessel permit [CV(SS)] will be assigned to a pool for the co-op in which the permit will participate or a pool for the mothership or shoreside non-co-op fishery. Co-ops are responsible for monitoring and enforcing the catch limits of co-op members. NMFS will monitor the catch in the non-co-op fishery, the co-op fisheries, and the overall catch of all three sectors. NMFS will close these fisheries when their catch limits have been achieved.

B-1.2 Annual Whiting Rollovers

► **Whiting Rollover Option 1**: There will not be a rollover of unused whiting from one whiting sector to another.

Whiting Rollover Option 2: Each year rollovers to other sectors may occur if sector participants are surveyed by NMFS and no participants intend to harvest remaining sector allocations in that year. Current provisions for NMFS to re-allocate unused sector allocations of whiting (from sectors no longer active in the fishery) to other sectors still active in the fishery will be maintained (see 50CFR660.323(c)—Reapportionments).

B-1.3 Bycatch Species Management

For the foreseeable future, the whiting fishery will be managed under bycatch limits (hard caps) for widow, canary, and darkblotched rockfish. The ESA-listed salmon bycatch management measures—that is, the 11,000 Chinook threshold, 0.05 rate threshold, and triggered 100 fathom closure—will also continue to be in place. The goal of bycatch management is to control the rate and amounts of rockfish and salmon bycatch to ensure each sector is provided an opportunity to harvest its whiting allocation.

B-1.3.1 Bycatch Allocation Subdivision

Subdivision Option A (No Subdivision): Do not subdivide bycatch species.

Subdivision Option B (Subdivide by Sector): Subdivide bycatch species allocation among each of the whiting sectors (sector allocations will be determined in the intersector allocation process).

Subdivision Option C (Subdivide by Sector and Co-op/Non-co-op Fisheries): Subdivide bycatch species allocation among each of the whiting sectors, and within the sectors subdivide between the co-op fishery and non-co-op fishery (subdivision for the non-co-op fishery does not apply to the catcher-processor co-op program).

► **Subdivision Option D** (Subdivide by Sector, Co-op/Non-co-op Fisheries, and Among Co-ops): Same as C, but in addition subdivide bycatch among the co-ops.

B-1.3.2 Bycatch Management

► *Under the Council's preliminary preferred alternative, the references to "seasonal releases" would be eliminated from the following paragraph*.

All sectors and co-ops will close as soon as the whiting fishery bycatch cap is reached for one species. The Council may use *seasonal releases* of allocations and area closures (seasonal or year-round) to manage overfished stocks in the co-op and non-co-op fisheries. The *seasonal releases*

and area closures may be the same or different for different species. Area closures may be year-round, seasonal, or triggered automatically by the attainment of certain levels of catch.[18]

For Subdivision Option A (No Bycatch Subdivision): If bycatch species are not allocated among the sectors, then:

Bycatch Management Option 1: Initially, the Council will not use seasonal releases and a controlled pace may be established if the sectors choose to work together cooperatively, potentially forming an inter-sector/inter-co-op cooperative.

Bycatch Management Option 2: There will be seasonal releases of bycatch allocation. At the outset, it is envisioned that the seasonal approach will be used to manage widow rockfish bycatch; for canary rockfish and darkblotched rockfish, status quo management will be maintained (i.e., no sector allocation and no seasonal apportionment).

A seasonal release bycatch management program will be implemented through regulation.[19]

In practice, seasonal releases protect the next sector entering the fishery. For example, a May 15-June 15 release will be used by the catcher-processors and motherships, but it protects the shoreside fishery; the June 15-September release will be used by shoreside and whatever catcher-processors and motherships are still fishing whiting, and to protect a fall at-sea season after September 15; the final release in September will again be shared by the catcher-processors and motherships, assuming shoreside is done fishing.

For example:

1. Status quo for canary and darkblotched rockfish; i.e., no seasonal or sector allocation.
2. May 1-June 15: 40 percent of widow hard cap released.
3. June 15-August 31: An additional 45 percent of widow hard cap released.
4. September 1-December 31: Final 15 percent of widow hard cap released.
5. Once a seasonal release of widow rockfish is reached, the whiting fishery is closed to all three sectors for that period. The fishery re-opens to all three sectors upon release of the next seasonal release of widow rockfish.
6. Unused amounts from one seasonal release rollover into subsequent release periods.

   (Note: percentages are for illustration purposes only, actual release percentages will be developed through the Council process).

For Subdivision Options B, C, and D (Bycatch Subdivision Among Trawl Sectors):

► **Rollover Option 1**: If each sector has its own allocation of bycatch, unused bycatch may be rolled over from one sector to another if the sector's full allocation of whiting has been harvested or participants in the sector do not intend to harvest the remaining sector allocation.

[18] The Council asked for analysis of *seasonal releases* and area management at the sector, individual, and co-op levels (if here is an inter-co-op agreement).

[19] For reference, a similar program is used to manage halibut bycatch in NPFMC-managed flatfish and Pacific cod fisheries, see 50CFR679.21(d).

Rollover Option 2: **Rollovers are not allowed.**

For Subdivision Options C, and D (Bycatch Subdivision Among the Co-op and Non-cop Fisheries):
A sector's bycatch allocation will be divided between the co-op and non-co-op fishery of the sector, in proportion to the whiting allocated to each fishery. The co-op fishery will close based on attainment of its allocation.

Option 1: For the non-co-op fishery there will be a bycatch buffer. When only the buffer remains, the fishery would close temporarily while a determination is made as to a possible re-opening. If the fishery is reopened it will close based on attainment of its allocation. The buffer amounts considered will be:

Sub-option i: 20 percent
Sub-option ii: 10 percent
Sub-option iii: 5 percent

► **Option 2**: For the non-co-op fishery there will not be a buffer. The fishery will close based on projected attainment of its allocation.

For Subdivision Option D (Bycatch Subdivision Among Co-ops):
Bycatch will be allocated to each co-op pro rata in proportion to its whiting allocation. Each co-op will cease fishing when its bycatch allocation is reached.

B-1.4 At-sea Observers/ Monitoring

Shoreside Whiting Fishery: Increase observer coverage to 100 percent to enforce catch accounting requirements.
At-sea Whiting Fishery: 100 percent observer coverage aboard mothership and catcher-processors will continue.

For some coverage, cameras may be used in place of observers (feasibility to be determined).

B-1.5 Mandatory Data Collection (Option)

► The following are the central elements of the data collection program that will be implemented as part of the co-op alternative.

- Mandatory submission of economic data for LE trawl industry (harvesters and processors).
- Voluntary submission of economic data for other sectors of the fishing industry.
- Include transaction value information in a centralized registry of ownership.
- Formal monitoring of government costs.

Mandatory Provisions. The Pacific Fishery Management Council and NMFS shall have the authority to implement a data collection program for cost, revenue, ownership, and employment data, compliance with which will be mandatory for members of the west coast groundfish industry harvesting or processing fish under the Council's authority. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA.

A mandatory data collection program shall be developed and implemented as part of the groundfish trawl rationalization program and continued through the life of the program. Cost, revenue, ownership, employment and other information will be collected on a periodic basis (based on scientific

requirements) to provide the information necessary to study the impacts of the program, including achievement of goals and objectives associated with the rationalization program. These data may also be used to analyze the economic and social impacts of future FMP amendments on industry, regions, and localities. The program will include targeted and random audits as necessary to verify and validate data submissions. *Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA*. Additional funding (as compared to status quo) will be needed to support the collection of these data. The data collected would include data needed to meet MSA requirements (including antirust).
The development of the program shall include a comprehensive discussion of the enforcement of such a program, including discussion of the type of enforcement actions that will be taken if inaccuracies are found in mandatory data submissions. The intent of this action will be to ensure that accurate data are collected without being overly burdensome to industry in the event of unintended errors. Annual reports will be provided to the Council.

Voluntary Provisions: A voluntary data collection program will be used to collect information needed to assess spillover impacts on non-trawl fisheries.

Central Registry: Information on transaction prices will be included in a central registry of whiting endorsed permit and processor permit owners. Such information will also be included for sales and lessees.

Government Costs: Data will be collected and maintained on the monitoring, administration, and enforcement costs related to governance of the rationalization program.

B-1.6 Adaptive Management (Option)

► During the biennial specifications process, up to 10 percent of the available aggregate harvest pounds for the co-op program (including harvest potentially available both to co-ops and the non-co-op fisheries) will be set aside for use in an adaptive management program that could create incentives for developing gear efficiencies, or community development or to compensate for unforeseen outcomes from implementing the trawl rationalization program. Examples of unforeseen outcomes include, but are not limited to, unexpected geographic shifts in the distribution of catch or landings, unexpected effects on certain segments of the industry (e.g. processors), or an unexpected barrier to new entry into the fishery. This provision will apply to the overall trawl sector (whiting and non-whiting) but the allocation set aside from each trawl sector would be specific to that sector.

B-2 Whiting Mothership Sector Co-Op Program

Overview. Qualified permits will be endorsed for mothership (MS) co-op participation. Each year the holders of those permits will choose whether their vessels will fish in the co-op fishery, in which individual co-ops will direct harvest, or fish in a non-co-op fishery that will be managed by NMFS as an Olympic style fishery. The co-op will be obligated to deliver its fish to specific mothership processors based on the obligations of each permit in the co-op. LE permits will be issued for motherships and required for a mothership to receive whiting from catcher vessels.

B-2.1 Participation in the Mothership Sector

a. Catcher Vessels

Vessels with CV(MS)-endorsed permits may participate in either the co-op or non-co-op portion of the mothership fishery. They will choose annually which fishery they will participate in for the coming year. Additionally, any groundfish LE trawl permitted vessels may participate in the co-op portion of the fishery if they join a co-op (as described in Section B-2.3.3).[20] No other catcher vessels may participate in the mothership fishery.

► **Option:** A vessel may not engage in the processing of whiting during any year in which a catcher vessel (mothership) (CV(MS)) endorsed permit is registered for use with the vessel.

b. Processors

Only motherships with a mothership LE permit may receive deliveries from catcher vessels participating in the co-op or non-co-op portions of the mothership sector whiting fishery. (Note: motherships may acquire such permits by transfer; see Section B-2.2.2.)

c. Vessels Excluded[21]

Motherships also operating as a catcher-processor may not operate as a mothership:

► **Option 1**: During a year in which it also participates as a catcher processor.
Option 2: During a month in which it also participates as a catcher-processor.
Option 3: At the same time it is participating as a catcher-processor.

B-2.2 Permits/Endorsement Qualification and Characteristics

B-2.2.1 Catcher Vessel Mothership Whiting Endorsement (CV(MS) Whiting Endorsement)

a. Endorsement Qualification and History Assignment

Permits with a qualifying history will be designated as CV(MS) permits through the addition of an endorsement to their LE groundfish permit. At the time of endorsement qualification, each permit will also be assigned a catch history that will determine the share of the mothership whiting allocation associated with that permit.

Qualifying for a CV(MS) Whiting Endorsement. A LE permit will qualify for a CV(MS) whiting endorsement if it has a total of more than 500 mt of whiting deliveries to motherships from:

► **Qualification Option 1**: 1994 through 2003
Qualification Option 2: 1997 through 2003

Catch History Assignment (Identification of Endorsement Related Catch History). The following are options for the initial calculation to be used in determining NMFS distribution to co-op and

[20] When such permits participate in a co-op the co-op will not be allocated any additional fish based on participation by such a vessel.

[21] A vessel that has been under foreign registry after the date of the AFA and that has participated in fisheries in the territorial waters or exclusive economic zones of other countries will not be eligible to participate as a mothership in the mothership sector of the Pacific whiting fishery, as per Section 12102(c)(6) of the AFA.

non-co-op fishery pools. A CV(MS) whiting endorsement calculated catch history will be based on whiting history during the related permit's:

Catch History Assignment Option 1: best 6 out of 7 years from 1997 through 2003.
► **Catch History Assignment Option 2:** best 8 out of 10 years from 1994 through 2003.

(Note: for vessels qualifying in both the shoreside and mothership co-op programs, the same year must be dropped.)

For the purpose of the endorsement and initial calculation, catch history associated with the permit includes that of permits that were combined to generate the current permit.

b. Whiting Endorsement Transferability and Endorsement Severability

Transfer Option 1: The CV(MS) whiting endorsement (together with the associated catch history) *may not be* severed from the groundfish LE trawl permit.
► **Transfer Option 2:** The CV(MS) whiting endorsement (together with the associated catch history) *may be* severed from the groundfish LE trawl permit and transferred to a different LE trawl permit. Catch history associated with the whiting endorsement may not be subdivided.

c. Accumulation Limit

CV(MS) Permit Ownership: No individual or entity may own CV(MS) permits for which the allocation totals greater than:

Option 1: 10 percent,
Option 2: 15 percent, or
Option 3: 25 percent
► **Option 4:** the amount of the largest current owner (no grandfather clause)

of the total mothership sector whiting allocation.

d. Combination

CV(MS) Permit Combination to Achieve a Larger Size Endorsement. When a CV(MS)-endorsed permit is combined with another permit, the resulting permit will be CV(MS) endorsed, except when the CV(MS) permit is combined with a CP permit, in which case the CV(MS) endorsement will not survive on the resulting permit.[22]

B-2.2.2 Mothership Processor Permit

[22] Specifically, a CV(MS)-endorsed permit that is combined with a LE trawl permit that is not CV(MS) endorsed or one that is CV(Shoreside) [CV(SS)] endorsed will be reissued with the CV(MS) endorsement. If the other permit is CV(SS) endorsed, the CV(SS) endorsement will also be maintained on the resulting permit. However, CV(MS) and CV(SS) catch histories will be maintained separately on the resulting permit and be specific to participation in the sectors for which the catch histories were originally determined. If a CV(MS) permit is combined with a CP permit, the CV(MS) endorsement and history will not be reissued on the combined permit. The size endorsement resulting from permit combinations will be determined based on the existing permit combination formula.

a. Qualifying Entities

► **Option 1**: The owners of qualifying motherships will be issued MS permits. In the case of bareboat charters, the charterer of the bareboat will be issued the permit.
Option 2: The owners of qualifying motherships will be issued MS permits.

b. Qualification Requirements

A qualifying mothership is one which processed at least 1,000 mt of whiting in each of any two years from 1997 through 2003.

c. Transferability

1. MS permits will be transferable, and
2. MS permits may be transferred to a vessel of any size (there will be no size endorsements associated with the permit)
► 3. **Option 1**: MS permits **may not** be transferred to a vessel engaged in the *harvest* of whiting in the year of the transfer.
Option 2: MS permits **may** be transferred to a vessel engaged in the *harvest* of whiting in the year of the transfer.
4. Limit on the Frequency of Transfers:
Option 1: MS permits may not be transferred during the fishing year.
Option 2: MS permits may only be transferred one time during the fishing year.
► **Option 3:** MS permits may be transferred two times during the fishing year.

d. Usage Limit

No individual or entity owning a MS permit(s) may process more than:
Option 1: 20 percent,
Option 2: 30 percent,
► **Option 3**: 40 percent, or
Option 4: 50 percent
of the total mothership sector whiting allocation.

B-2.3 Co-op Formation and Operation Rules.

B-2.3.1 Who and Number of Co-ops

Co-ops will be formed among CV(MS) permit owners.

Co-op Formation Option 1 (Multiple Co-ops): *Multiple co-ops would be organized around motherships*. Permit owners choosing to participate in the co-op fishery must form a separate co-op based on the mothership where the CV(MS) permit holders delivered the majority of their most recent year's catch.

► **Co-op Formation Option 2**: Multiple co-ops are not required. Catcher vessels may organize a single co-op or multiple co-ops but are obligated to deliver to the processors as proscribed in B-2.4.

B-2.3.2 When

Each year at a date certain prior to the start of the fishery, MS and CV(MS) permit holders planning to participate in the mothership sector must register with NMFS. At that time CV(MS) permit holders must identify which co-op they will participate in or if they plan to participate in the non-co-op fishery.

B-2.3.3 Co-op Agreement Standards

The following section has been modified based on guidance provided in Motion 27 at the November 2007 Council meeting. These modifications have not yet been reviewed by the northwest region (NWR) and NOAA general counsel (GC) and may be changes as a result of that review.

a. Submissions to NMFS and the Council

Co-op agreement. Co-op agreements will be submitted to NMFS for approval. Signed copies of the cooperative contracts must be filed with the Council and NMFS and available for public review before the co-op is authorized to engage in fishing activities. (**During council discussion this was flagged by NOAA GC as a potential legal problem.**) Any material changes or amendments to the contract must be filed annual with the Council and NMFS by a date certain.

Letter to Department of Justice. Co-ops must also file with the Council and NMFS a copy of a letter from the co-op requesting a business review letter on the fishery cooperative from the Department of Justice and any response to such request.

b. Number of Participants in Each Co-op (Including Inter-co-ops)

Two or more permits may form a co-op for harvesters but participation must conform to the requirements of Section B-2.3.1. Co-ops may form co-ops with other co-ops. Within one of the whiting sectors, these co-ops may be formed to manage directed catch and/or bycatch.

c. Catch History Distributions Among Permits

Co-op agreements must stipulate that catch allocations to members of the co-op be based on their catch history calculation distribution to the co-op by NMFS.

d. Participation by Non-CV (MS) Endorsed Permits

Through temporary arrangements a co-op allocation may be harvested by any catcher vessel holding a valid LE trawl permit which has joined the co-op (including one that does not have a CV(MS) endorsement).[23]

e. Other Required Co-op Agreement Provisions

A co-op agreement must include:

1. A list of all vessels, and which must match the amount distributed to individual permit holders by NMFS

[23] As a member of the co-op, such a vessel would be subject to Section B-2.4 and the indicated processor obligations.

2. Signature of all permit holders participating in the co-op
3. A plan to adequately monitor catch and bycatch
4. Adequate enforcement and penalty provisions to ensure that catch and bycatch overages do not occur
5. Measures designed to reduce bycatch of overfished species
6. An obligation to manage inseason transfers of catch history
7. A requirement that agreement by at least a majority of the members is required to dissolve a co-op (**During council discussion this was flagged by NOAA GC as a potential legal problem**)
8. An obligation to produce an annual report to the Council and NMFS by a date certain documenting the co-op's catch and bycatch data and inseason transfers (the report is to be available for review by the public)
9. Identification of a co-op manager who will:
    a. serve as the contact person with NMFS, the Council and other co-ops,
    b. be responsible for the annual distribution of catch and bycatch,
    c. oversee transfers,
    d. prepare annual reports, and
    e. be authorized to receive or respond to any legal process against the co-op.
10. Provisions that prohibit co-op membership by permit holders that have incurred legal sanctions that prevent them from fishing groundfish in the Council region
11. A provision that requires new owners to comply with membership restrictions in the co-op agreements

f. Additional Provisions for Inter-co-op Agreements

1. In the case of two or more cooperatives entering into an inter-cooperative agreement, the inter-co-op agreement must incorporate and honor the provisions of the individual co-op agreements unless all such agreements (or modifications thereof) are resubmitted for approval.
2. The requirements of Sections 2.3.3.a-2.3.3.e apply to the inter-co-op agreement, except that for the purpose of Section 2.3.3.e., subparagraph 7, the members of the inter-co-ops are the co-ops and not the participants in each co-op.

B-2.3.4 Annual Allocation Transferability

1. The annual allocations received by a co-op based on catch history of the whiting endorsements held by its members may be transferred among co-op members and from one co-op to another so long as obligations to processors are met (as per Section B-2.4). Additionally, in order to transfer annual allocation from one co-op to another there must be a NMFS approved inter-co-op agreement.
2. Allocations may not be transferred from the mothership sector to another sector.

B-2.4 Processor Ties

Permits will be obligated to deliver:

Option 1: all
► **Option 2**: 90 percent
Option 3: 75 percent
Option 4: 50 percent

of their catch (the permits' "obligated deliveries") to certain motherships, as specified in the following sections. Catch that is not so obligated may be delivered to any mothership with an MS permit.

NOTE: During discussion of processor linkage provisions at the Council's June 2008 meeting, the Council members expressed that by selecting a 90 percent linkage option as part of their preferred alternative it was their intent to provide a means for vessels to move between motherships without entering into the non-co-op fishery. In order to achieve this intent, additional modifications will be required. Specifically, in the last paragraph of the following section, the sentence

> *"*Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the same mothership to which they were obligated in the previous year."

would need to be changed to read:

> *"*Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the mothership to which they delivered the majority of their catch in the previous year."

B-2.4.1 Formation and Modification of Processor Tie Obligations

In the first year of the program, the CV(MS) permit owner's choice will be between delivering in the non-co-op fishery and making deliveries as part of a co-op. If the permit chooses to participate in a co-op its obligated deliveries must go to the licensed mothership to which the permit delivered the majority of its whiting catch in:

Option 1: The most recent year that it fished before the program was implemented
Option 2: From 1997 through 2004
Option 3: From 1994 through 2003
► **Option 4:** If the permit chooses to participate in a co-op its obligated deliveries must go to the licensed mothership to which the permit made a majority of its whiting deliveries in 2009

If a mothership does not qualify for an MS permit in the first year of the program,[24] the catcher vessel which delivered to that mothership in the previous year may deliver its obligated catch to the qualified mothership to which it last delivered the majority of its catch. If none of the motherships to which the permit would be obligated qualify for an MS permit, the permit may participate in the co-op and deliver to a licensed mothership of its choosing. Alternatively, the permit may choose to participate in the non-co-op fishery.

Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the same mothership to which they were obligated in the previous year. However, if the CV(MS) permit owners chose to participate in the non-co-op fishery in the previous year, or did not participate in the mothership whiting fishery, they are released from their obligation to a particular mothership and may deliver to any mothership with an MS permit.

Mothership Permit Transfer. If a mothership transfers its MS permit to a different mothership or different owner, the CV(MS) permit obligation remains in place and transfers with the MS permit to the replacement mothership unless the obligation is changed by mutual agreement or participation in the non-co-op fishery.

[24] If a mothership that does not qualify for a permit acquires such a permit (i.e., arranges for the transfer of a permit) by the time co-ops are established for the first year of the program, would it be the Council's intent that such the catcher vessel obligation to that mothership remain in place?

B-2.4.2 Flexibility in Meeting Processor Tie Obligations

a. Temporary Transfer of the Annual Allocation Within the Co-op or from One Co-op to Another

When CV(MS) permit owners transfer co-op allocations from one co-op member to another within the co-op or from one co-op to another within an inter-co-op, and the allocation that is transferred is part of the obligated deliveries, such allocations must be delivered to the mothership to which the allocation is obligated, unless released by mutual agreement.

b. Mutual Agreement Exception

By mutual agreement of the CV(MS) permit owner and mothership to which the permit is obligated, and on a year-to-year basis, a permit may deliver its obligated deliveries to a licensed mothership other than that to which it is obligated. Such an agreement will not change the permit's future-year obligation to the mothership (i.e., the permit will still need to participate in the non-co-op fishery for one year in order to move its obligated deliveries from one mothership to another).

B-2.4.3 Mothership Processor Withdrawal

Mothership Withdrawal. If a mothership does not participate in the fishery and does not transfer its permit to another mothership, or does not agree to transfer delivery to another mothership, the CV(MS) permit holders obligated to that mothership may

► **Option 1:** participate in the non-co-op fishery
Option 2: join a different co-op and deliver their obligation to a different mothership; or the entire co-op which delivered to that mothership may deliver its obligated catch to a different mothership. The permits will not be required to participate in the non-co-op fishery in order to shift from one mothership to another.

SubOption 2a: If the mothership returns within two years, any permit with an obligation to that mothership prior to its departure will have the obligation reinstated, unless the permit has participated for one year in the non-co-op fishery. After two years, the permit's obligation will become linked to the mothership to which it most recently delivered its obligated catch.

SubOption 2b: The permit will become obligated to the mothership that it delivers its obligated catch to subsequent to the withdrawal of the mothership to which it was previously obligated.

B-2.5 NMFS Role

B-2.5.1 Permit and Endorsement Issuance

NMFS will issue all necessary permits and endorsements under the rules specified under this program. Appeals processes will be provided as appropriate and necessary.

B-2.5.2 Fishery Registration and Co-op Approval

NMFS will announce a deadline before which all co-op agreements must be received for the coming year. NMFS will review and approve or reject co-op agreements based on standards provided here and other standards that it deems necessary to achieve the policy intent of the Council's actions.

B-2.5.3 Annual Allocation to Co-ops and the Non-co-op Fishery

a. Co-op Allocation

Each year NMFS will determine the percent of the mothership sector's harvest allocation to be given to each co-op based on the catch history calculation of CV(MS) permits registered to participate in the co-op that year. NMFS does not allocate to the individual permit holder; rather, NMFS allocates an aggregate amount of harvest tonnage annually to the co-op based on the catch histories associated with the members of the co-ops.

b. Non-co-op Allocation

Each year NMFS will determine the distribution to be given to the non-co-op fishery based on the catch history calculation of permit holders registered to participate in that fishery.

c. Adaptive Management Allocation

In determining the amounts available for co-ops and the non-co-op fishery, subtractions will be made as necessary for the adaptive management set aside described in Section B-1.6.

B-2.5.4 Fishery Management and Co-op Monitoring

1. NMFS will track all permit and endorsement transfers (if endorsement transfers are allowed) and the invocation of mutual agreement exceptions. Permit and endorsement transfers will not be valid until registered and acknowledged by NMFS.

2. NMFS will monitor catch and close segments of the fishery as necessary to ensure catch limits are not exceeded for:
   a. the whiting mothership co-op fishery
   b. the whiting mothership non-co-op fishery
   c. the mothership whiting sector as a whole
3. NMFS will not necessarily monitor, but will investigate and enforce as it deems necessary, the permit and co-op obligations to processors
4. NMFS will not necessarily monitor or enforce (except as it deems necessary):
   a. an individual permit's progress towards its catch allocations (permit level catch control will be at the co-op level and enforced through execution of the private contract)
   b. a co-op's progress toward its catch allocation[25]

[25] This assumes that there is an inter-co-op agreement in place that covers the entire co-op fishery. If such an agreement is not in place covering both catch and bycatch, NMFS may need to monitor catch by each individual co-op (but not by the individual vessels in the co-op).

c. actual performance of the co-op agreement (the parties to the contract will resolve through private contract and remedies any deviation from provisions such as that requiring that a vessel have the opportunity to harvest the catch allocated to the co-op based on that vessel's permit, Section B-2.3.3.c)

5. NMFS will monitor other program provisions as needed. In some situations, there may need to be a declaration procedure to determine where a permit is delivering its obligated catch, for example, if a mothership withdraws without transferring its permit or reaching a mutual agreement for the transfer of obligated deliveries to a different mothership.
6. NMFS will administer the adaptive management program, allocating the set-aside for that program as needed based on the adaptive management goals, objectives, and adjustment measures recommended by the Council.

B-3 Whiting Shoreside Sector Co-Op Program

Overview: Qualified permits will be endorsed for shoreside co-op participation. Each year the holders of those permits will choose whether their vessels will fish in the co-op fishery, in which case individual co-ops will direct harvest, or fish in a non-co-op fishery that will be managed by NMFS as an Olympic-style fishery. The co-op will be obligated to deliver its fish to specific processors based on the obligations of each permit in the co-op. For the first 2 years, only certain qualified processors will be eligible to receive deliveries from co-op vessels. Over time, these obligations may change or end (depending on options selected).

B-3.1 Participation in the Shoreside Whiting Sector

a. Catcher Vessels

Vessels with CV(SS)-endorsed permits may participate in either the co-op or non-co-op portion of the shoreside fishery. They will choose annually which portion of the fishery they will participate in for the coming year. Additionally, any groundfish LE trawl permitted vessels may participate in the co-op portion of the fishery if they join a co-op (as described in Section B-3.3.3).[26] No other catcher vessels may participate in the shoreside whiting sector.

b. Processors

Any processor may receive fish from vessels participating in the shoreside non-co-op fishery. In the first 2 years, only co-op qualified shoreside processors[27] that have declared their intent to participate

[26] When such permits participate in a co-op the co-op will not be allocated any additional fish based on participation by such a vessel.

[27] **A shoreside processor** is an operation, working on U.S. soil, that takes landings of trawl-caught groundfish that has not been processed at-sea or previously processed shoreside, and that thereafter subjects those groundfish to shoreside processing. Entities that received fish that have not undergone at-sea processing or shoreside processing (as defined in this paragraph) and sell that fish directly to consumers shall not be considered a processor for purposes of the shoreside co-op program.
"Shoreside processing" is defined as any activity that takes place shoreside; and that involves:
a) cutting groundfish into smaller portions; or
b) freezing, cooking, smoking, drying groundfish; or
c) packaging that groundfish for resale into 100 pound units or smaller for sale or distribution into a wholesale or retail market.

may receive deliveries from catcher vessels in a shoreside co-op (Section B-3.3). Thereafter, any shoreside processor may receive deliveries from co-ops.

c. Catcher Vessels and Processors in the Nonwhiting Fishery

This program does not affect vessels or processors receiving whiting taken incidentally in the nonwhiting fishery.

B-3.2 Permits/Endorsement Qualification and Characteristics

B-3.2.1 Catcher Vessel Shoreside Whiting Endorsement (CV(SS) Endorsement)

a. Endorsement Qualification and History Assignment

Permits with a qualifying history will be designated as CV(SS) permits through the addition of a CV(SS) endorsement to their LE groundfish permit. At the time of endorsement qualification, each permit will also be assigned a catch history that will determine the share of the shoreside whiting allocation associated with that permit.

Qualifying for a CV(SS) Endorsement. A LE permit will qualify for a CV(SS) endorsement if it has a total of more than 500 mt of whiting deliveries to shoreside processors from 1997 through 2003.

Catch History Assignment. An initial calculation will be used to determine NMFS's distribution to co-op and non-co-op fishery pools. A CV(SS) permit calculated landings history will be based on whiting history during the related permit's best 6 out of 7 years from 1997 through 2003. (Note: for vessels qualifying in both the shoreside and mothership co-op programs, the same year must be dropped.)

For the purpose of the endorsement and initial calculation, landing history associated with the permit includes that of permits that were combined to generate the current permit.

b. Transferability and Endorsement Severability

Transfer Option 1: The CV(SS) endorsement (together with the associated catch history) may not be severed from the groundfish LE trawl permit.
Transfer Option 2: The CV(SS) endorsement (together with the associated catch history) may be severed from the groundfish LE trawl permit and transferred to a different LE trawl permit. Catch history associated with the whiting endorsement may not be subdivided.
Whiting harvest history (i.e., co-op shares) are not permanently separable from the CV(SS) endorsement.

c. Accumulation Limits

CV(SS) Permit Ownership. No individual or entity may own CV(SS) permits for which the allocation totals greater than 15 percent of the total whiting shoreside allocation.

d. Combination

CV(SS) Permit Combination to Achieve a Larger Size Endorsement. When a CV(SS)-endorsed permit is combined with another permit, the resulting permit will be CV(SS) endorsed, except when the CV(SS) permit is combined with a CP permit, in which case the CV(SS) endorsement will not survive on the resulting permit.[28]

B-3.2.2 Shoreside Co-op Eligible Processor Permit

a. Activities Requiring this Permit

Only processing entities with a shoreside co-op processor permit (SSP) are eligible to receive whiting fish from whiting cooperatives in the first 2 years of the program. Thereafter, any processing corporation could be eligible to receive whiting from participants in a whiting cooperative, subject to the other provisions of this plan. Processors without SSPs may receive whiting from participants in the non-co-op fishery and whiting harvested incidentally in the nonwhiting fishery at any time, including within the first 2 years of the program.

b. Qualification Requirements

An initial co-op-qualified shoreside processing entity is one that processed at least 1,000 mt of whiting in each of any two years from 1998 through 2003.

c. Transferability

SSP permits will be transferable. If a shoreside processor transfers its SSP permit to a different shoreside processor or different owner, the CV(SS) permit's obligation remains in place unless changed by mutual agreement (as per Section 3.4.3.b) or participation in the non-co-op fishery, (as per Section 3.4.2).

d. Duration of this Section

Since SSP permits are only in effect for the first 2 years of the program, this section is also in effect only for the first 2 years of the program.

B-3.3 Co-op Formation and Operation Rules

B-3.3.1 Who

Co-ops will be formed among CV(SS) permit owners. Multiple co-ops may be formed and new co-ops may be formed each year, prior to annual registration. Owners of LE trawl permits that are not CV(SS) endorsed may join a co-op, but their participation in the co-op will not add to the co-op's allocation.

[28] Specifically, a CV(SS)-endorsed permit that is combined with a LE trawl permit that is not CV(SS) endorsed or one that is CV(MS) endorsed will be reissued with the CV(SS) endorsement. If the other permit is CV(MS) endorsed, the CV(MS) endorsement will also be maintained on the resulting permit. However, CV(SS) and CV(MS) histories will be maintained separately on the resulting permit and be specific to participation in the sectors for which the histories were originally determined. If a CV(SS) permit is combined with a CP permit, the CV(SS) endorsement and history will not be reissued on the combined permit. The size endorsement resulting from permit combinations will be determined based on the existing permit combination formula.

Vessels fishing in the non-co-op fishery may not form co-ops to coordinate harvest in the non-co-op fishery. [29]

B-3.3.2 When

Each year CV(SS) permit holders planning to participate in the shoreside sector must register with NMFS and express their intent to be a member of the co-op at a date certain prior to the start of the fishery. At that time CV(SS) permit holders must identify which co-op they will participate in or if they plan to participate in the non-co-op fishery.

B-3.3.3 Co-op Agreement Standards

The following section has been modified based on guidance provided in Motion 27 at the November 2007 Council meeting. These modifications have not yet been reviewed by the NWR and NOAA GC and may be changes as a result of that review.

a. Submissions to NMFS and the Council

Co-op agreement. Co-op agreements will be submitted to NMFS for approval. Signed copies of the cooperative contracts must be filed with the Council and NMFS and available for public review before the co-op is authorized to engage in fishing activities. (**During council discussion this was flagged by NOAA GC as a potential legal problem.**) Any material changes or amendments to the contract must be filed annually with the Council and NMFS by a date certain.

Letter to Department of Justice. Co-ops must also file with the Council and NMFS a copy of a letter from the co-op requesting a business review letter on the fishery cooperative from the Department of Justice and any response to such request.

b. Number of Participants in Each Co-op (Including Inter-co-ops)

Two or more permits may form a co-op for harvesters but participation must conform to the requirements of Section B-3.3.1. Co-ops may form co-ops with other co-ops (inter-co-op). Within one of the whiting sectors, these co-ops may be formed to manage directed catch and/or bycatch.

c. Catch History Distributions among Permits

Co-op agreements must stipulate that catch allocations to members of the co-op be based on their catch history calculation distribution to the co-op by NMFS.

d. Participation by Non-CV(SS) Endorsed Permits

Through temporary arrangements a co-op allocation may be harvested by any catcher vessel holding a valid LE trawl permit which has joined the co-op (including one that does not have a CV(SS) endorsement).[30]

[29] This provision does not cover cooperative behavior that is not governed by formally memorialized covenants (written contracts).

[30] As a member of the co-op, such a vessel would be subject to paragraph B-3.4 and the indicated processor obligations.

e. Other Required Co-op Agreement Provisions

A co-op agreement must include:
1. A list of all vessels and permit holders participating in the co-op and their share of allocated catch, which must match the amount distributed to individual permit holders by NMFS
2. Signature of all permit holders participating in the co-op
3. A plan to adequately monitor catch and bycatch
4. Adequate enforcement and penalty provisions to ensure that catch and bycatch overages do not occur
5. Measures designed to reduce bycatch of overfished species
6. An obligation to manage inseason transfers of catch history
7. A requirement that agreement by at least a majority of the members is required to dissolve a co-op, (**During Council discussion this was flagged by NOAA General Counsel as a potential legal problem**)
8. An obligation to produce an annual report to the Council and NMFS by a date certain documenting the co-op's catch and bycatch data and inseason transfers (the report is to be available for review by the public)
9. Identification of a co-op manager who will:
    a. serve as the contact person with NMFS, the Council and other co-ops,
    b. be responsible for the annual distribution of catch and bycatch,
    c. oversee transfers,
    d. prepare annual reports, and
    e. be authorized to receive or respond to any legal process against the co-op.
10. Provisions that prohibit co-op membership by permit holders that have incurred legal sanctions that prevent them from fishing groundfish in the Pacific Fishery Management Council region
11. A provision that requires new owners to comply with membership restrictions in the co-op agreements

f. Additional Provisions for Inter-co-op Agreements

1. In the case of two or more cooperatives entering into an inter-cooperative agreement, the inter-co-op agreement must incorporate and honor the provisions of the individual co-op agreements unless all such agreements (or modifications thereof) are resubmitted for approval.
2. The requirements of Section 3.3.3.a through 3.3.3.e apply to the inter-co-op agreement, except that for the purpose of Section 3.3.3.e, subparagraph 7, the members of the inter-co-ops are the co-ops and not the participants in each co-op.

B-3.3.4 Annual Allocation Transferability

a. Temporary Transfer of QS within the Co-op

Temporary transfers of harvest allocation may take place within the co-op between permit holders.[31] Temporary transfers may also be made from one co-op to another so long as both co-ops are part of an inter-co-op agreement. Such inter- or intra-co-op transfers must deliver co-op allocation (shares) to the shoreside processor to which the shares are obligated unless released by mutual agreement (see Section B-3.4).

[31] Such transfers may be used to allow a permit holder to make deliveries exclusively to one processor.

b. Transfer of Shares from the Shoreside Sector

Transfers of shares from the shoreside sector to other sectors in any form are prohibited.

B-3.4 Processor Ties

B-3.4.1 Initial Formation of Ties

During the first 2 years of co-op formation, permit owners that join a co-op shall be required to deliver their whiting catches to the co-op qualified processors that were the basis of their landing history during the period:

Years Option 1: **2001**
Years Option 2: **2000**
Years Option 3: **2000-2003**

on a pro rata basis. Determination of the processor(s) to which a permit owner is obligated will take into account any of the processor's(s') successors in interest.

Processor Successor In Interest. In determining the processor to whom a permit owner that participates in a co-op is required to deliver in the first 2 years of the program, a processor's successor in interest will be taken into account. If a processor's assets were purchased and the landing history expressly identified as an asset in the purchase agreement, then any permit owner obligation based on those landings will accrue to the processor making the purchase. For landings history associated with a defunct or non-qualifying processor, that portion of a permit's allocation will be linked to the permit's initially-assigned landing history on a pro rata basis.

B-3.4.2 Duration and Modification of Processor Ties (Options 1 and 2)

A permit's obligation to a processor will remain in place from one year to the next unless modified through the following process.

Option 1: Once a CV(SS) permit has participated in the non-co-op fishery for [***Options: 1 to 5 consecutive years***], it is released from its delivery obligations to the processor(s) that were the basis of its history, and may join any of the various co-ops, or join with other permit holders who have also been released from delivery obligations to form a new co-op, and deliver to any shoreside processor in the subsequent years after the SSPs have expired.

Option 2: Any CV(SS) permit participating in a co-op is linked indefinitely to the processor they are delivering to under the initial linkage requirements. The permit can sever that linkage by participating in the non-co-op fishery for a period of [***Options: 1 to 5 years***] years. After completing their non-co-op obligation, the permit is then free to re-enter the co-op system and deliver to a processor of their choosing. Once the permit re-enters the co-op system and elects to deliver their fish to a processor, a new linkage is then established with that processor. Should the permit later choose to break that new linkage, the non-co-op participation requirements again apply.

Should a permit elect to enter the non-co-op fishery within the first two years of this program, that permit must participate in the non-co-op fishery for a minimum of [***Options: 2 to 5 years***], regardless of other non-co-op participation requirements applying elsewhere in this document. Once the permit meets

that obligation and later elects to enter a co-op, all provisions of co-op participation, including the processor linkage provisions, apply.

B-3.4.3 Flexibility in Meeting Processor Tie Obligations

a. Temporary Transfer of the Annual Allocation within the Co-op or from One Co-op to Another

When a co-op or inter-co-op transfers catch among its members it must ensure that the total co-op allocation received by the co-op, based on the permit holders that are members thereof, is distributed between the various co-op qualified processors on a pro rata basis, based on the landing history of the members of the co-op during the initial formation period specified in Section B-3.4.1 or the ties established through subsequent obligations, as per Section B-3.4.2.

b. Mutual Agreement Exception

By mutual agreement of the CV(SS) permit owner and shoreside processor to which the permit's catch is obligated, the vessel with the CV(SS)-endorsed permit may deliver to a shoreside processor other than that to which it is obligated. The transfer may be temporary or permanent. In either case the vessel's catch taken under that permit will continue to be obligated to the same processor (which, in future years, is the transferring processor if the transfer is temporary or the processor receiving the transfer if the transfer is permanent) subject to the terms of the transfer agreement. To make an additional change from its processor link (a change that is not by mutual agreement) the permit will need to be used in the non-co-op fishery for the prescribed time (as per Section B-3.4.2).

B-3.4.4 Shoreside Processor Annual Declaration and Withdrawal

1. Each year SSP permit holders planning to participate in the shoreside sector must register with NMFS.
2. If a qualified shoreside processor does not participate in the whiting fishery in any year in which the co-op fishery is in operation, the CV(SS) permit holders that will otherwise be obligated to deliver to that shoreside processor shall be free to deliver to any other shoreside processor that year.

B-3.5 NMFS Role

B-3.5.1 Permit and Endorsement Issuance

NMFS will issue all necessary permits and endorsements under the rules specified under this program. Appeals processes will be provided as appropriate and necessary.

B-3.5.2 Fishery Registration and Co-op Approval

1. NMFS will announce a date certain before which all co-op agreements must be received for the coming year. NMFS will review and approve or reject co-op agreements based on standards

provided here and other standards that it deems necessary to achieve the policy intent of the Council's actions.
2. For the first 2 years of the program NMFS will announce a date certain before which processors with SSPs must declare their intent to participate in the fishery.

B-3.5.3 Annual Allocation

a. Co-op Allocation

Each year NMFS will determine the distribution to be given to each co-op based on the landing history calculation of CV(SS) permits registered to participate in the co-op that year. In addition, NMFS will determine the landing history linking each co-op to each processor, if any.

b. Non-co-op Allocation

Each year NMFS will determine the distribution to be given to the non-co-op fishery based on the landing history calculation of permit holders registered to participate in that fishery. The whiting allocation for the non-co-op segment shall be in proportion to the permit history of non-co-op participants, relative to the co-op participants. That allocation shall be available to all CV(SS)-endorsed permit holders who have registered to participate in the non-co-op fishery that year.

c. Adaptive Management Allocation

In determining the amounts available for co-ops and the non-co-op fishery, subtractions will be made, as necessary, for the adaptive management set aside described in Section B-1.6.

B-3.5.4 Fishery and Co-op Monitoring

1. NMFS will track all permit and endorsement transfers (if endorsement transfers are allowed) and the invocation of mutual agreement exceptions. Permit and endorsement transfers will not be valid until registered and acknowledged by NMFS.
2. NMFS will monitor catch and close segments of the fishery as necessary to ensure catch limits are not exceeded for:
   a. individual co-ops[32]
   b. the whiting shoreside co-op fishery
   c. the whiting shoreside non-co-op fishery
   d. the shoreside whiting sector as a whole
3. NMFS will not necessarily monitor, but will investigate and enforce as it deems necessary, the permit and co-op obligations to processors.
4. NMFS will not necessarily monitor or enforce (except as it deems necessary):
   a. an individual permit's progress towards its catch allocations (permit level catch control will be at the co-op level and enforced through execution of the private contract)
   b. actual performance of the co-op agreement (the parties to the contract will resolve through private contract and remedies any deviation from provisions such as that requiring that a vessel

[32] If a co-op of co-ops (inter-co-op) is formed, NMFS will only monitor catch at the highest co-op level that meets the co-op agreement standards. If an inter-co-op covers the entire shoreside sector's whiting harvest then NMFS will monitor the sector as a whole.

have the opportunity to harvest the catch allocated to the co-op based on that vessel's permit, Section B-2.3.3.c)

5. NMFS will monitor other program provisions as needed.
6. NMFS will administer the adaptive management program, allocating the set aside for that program as needed based on the adaptive management goals, objectives, and adjustment measures recommended by the Council.

B-3.6 Exclude Processor Ties and Processor Licensing (Option)

Option: Exclude from the above all references to processor ties and processor licensing.

This option includes the following changes to Section B-3:

Section B-3.1.b, Processors: Delete "non-co-op" from the first sentence and delete the remainder of the section. This section constrains processor participation in the first two years of the program.

Section B-3.2.2, Shoreside Co-op Eligible Processing Permit: Delete the entire section.

Section B-3.3.4, Annual Allocation Transferability. Delete the last sentence (refers to the handling of permit obligations to processors when allocations are transferred).

Section B-3.4, Processor Ties: Delete the entire section.

Section B-3.5.2.b: Delete the entire paragraph (addresses preseason registration of processors with shoreside processing permits).

Section B-3.5.3.a: Delete the last sentence (refers to the NMFS need to make determinations on permit links to processors).

Section B-3.5.3.c: Delete "and co-op obligations to processors."

B-4 Co-ops for Catcher-Processors

Catch by the catcher-processor sector will be controlled primarily by closing the fishery when a constraining allocation is reached. As under status quo, vessels may form co-ops to achieve benefits that result from a slower-paced, more controlled harvest. The main change from status quo is the creation of a limited number of catcher-processor endorsements. A new entrant will have to acquire a permit with a catcher-processor endorsement in order to enter the fishery.

B-4.1 Participation in the Catcher-Processor Sector and Endorsement Qualification.

Catcher-processor (CP) Endorsement. The class of CP endorsed permits (CP permits) will be limited by an endorsement placed on a LE permit. LE permits registered to qualified catcher-processor vessels will be endorsed as CP permits. A qualified permit is one that harvested and processed in the catcher-processor sector of the Pacific whiting fishery at any time from 1997 through 2003. Only vessels catcher-processor vessels with a CP endorsed LE permit will be allowed to process whiting at-sea. LE permits with CP endorsements will continue to be transferable.

CP Permit Combination to Achieve a Larger Size Endorsement. A CP permit that is combined with a LE trawl permit that is not CP endorsed will result in a single CP permit with a larger size endorsement. (A CV(MS) or CV(SS) endorsement on one of the permits being combined will not be reissued on the resulting permit.) The resulting size endorsement will be determined based on the existing permit combination formula.

B-4.2 Co-op Formation and Operation Rules

No annual registrations or declarations are required. As under status quo, co-op(s) will be formed among holders of permits for catcher-processors. Participation in the co-op will be at the discretion of those permit holders. If eligible participants choose to form a co-op, the catcher-processor sector will be managed as a private voluntary cooperative and governed by a private contract that specifies, among other things, allocation of whiting among CP permits, catch/bycatch management, and enforcement and compliance provisions. NMFS will not establish an allocation of catch or catch history among permits unless the co-op fails to form. In such case, individual quota will be allocated to each CP permit (equally divided among all CP endorsed permits). If more than one co-op is formed, a race for fish could ensue absent an inter co-op agreement.

Annual Reporting Requirements. The CP cooperative will submit an annual report to the Pacific Fishery Management Council at their November meeting. The report will contain information about the current year's CP fishery, including the CP sector's annual allocation of Pacific whiting; the CP cooperative's actual retained and discarded catch of Pacific whiting, salmon, rockfish, groundfish, and other species on a vessel-by-vessel basis; a description of the method used by the CP cooperative to monitor performance of cooperative vessels that participated in the CP sector of the fishery; and a description of any actions taken by the CP cooperative in response to any vessels that exceed their allowed catch and bycatch. The report will also identify plans for the next year's CP fishery, including the companies participating in the cooperative, the harvest agreement, and catch monitoring and reporting requirements.

B-4.3 NMFS Role

B-4.3.1 Permit and Endorsement Issuance

NMFS will issue all necessary endorsements under the rules specified under this program. Appeals processes will be provided as appropriate and necessary.

B-4.3.2 Annual Allocation

Option 1: There will be no government-directed subdivision of the catcher-processor sector quota among participants.

► **Option 2:** Harvest amounts for the co-op will be specified in regulation. If the co-op breaks up, harvest will be divided equally among the 10 permits.

However, up to 10 percent of the allocation to the catcher-processor may be set aside as necessary for the adaptive management set aside described in Section B-1.6.

The catcher-processor sector allocation may be divided among eligible catcher-processor vessels (i.e., those catcher-processor vessels for which a CP permit is held) according to an agreed catcher-processor cooperative harvest schedule as specified by private contract.

B-4.3.3 Fishery and Co-op Monitoring

1. NMFS will track all permit transfers. Permit transfers will not be valid until registered and acknowledged by NMFS.

2. NMFS will monitor catch and close the catcher-processor sector fishery as necessary to ensure catch limits are not exceeded.
3. NMFS will administer the adaptive management program, allocating the set aside for that program as needed based on the adaptive management goals, objectives, and adjustment measures recommended by the Council.

2.6 Council Preliminary Preferred Alternative

By sector, the main trawl rationalization tools included in the Council's preliminary preferred alternative are:

- The **shoreside whiting and nonwhiting fisheries** will be managed under an IFQ system, as a single combined shoreside sector. See the detailed description beginning on page 32. However, if Congress passes the necessary legislation, the Council might favor management of the shoreside whiting fishery as a co-op with processor linkages rather than with IFQs. This legislation would be needed to allow processor ties (program element B-3.4) and restrict processor participation in the first two years of the program (program element B-3.1.b). In this case, the shoreside whiting and nonwhiting fisheries would be managed separately.
- The **whiting mothership sector** will be managed as a co-op fishery. See the detailed description beginning on page 73; provisions specific to the mothership sector begin on page 77.
- For the **catcher-processor sector** the current LE system will be modified to facilitate continuation of the current voluntary co-op system. As fallback, failure of the voluntary co-op system would trigger individual quota provisions. A description of program elements begins on page 94.

As noted above, as part of the preliminary preferred alternative the Council chose between many of the options offered as part of the programs' elements. Where such a choice was made it is indicated with "►" symbol throughout Section 2.4.2, including Table 2-3, for the IFQ alternative and Section 2.5.2 for the co-op alternatives. In some cases the Council further modified program provisions or added options in developing the preliminary preferred alternative package.

For the **IFQ program** the following program elements remain to be decided:

A.1.2	Management units for at-sea sector QS/QP (if IFQs are used for the at-sea sector) Geographic subdivision option (or Section A-8)
A-2.1.1.a	Groups eligible to receive an initial split of QS (with respect to the allocation of bycatch species in the shoreside whiting fishery)
A-2.1.1.d	Attributing shoreside processors' processing history
A-2.2.3.e	Accumulation limits
A-2.3.3	Fee structure

In most cases, at least two options are included in the preliminary preferred alternative, with the decision on which option to include deferred to final action. In the last case, there is still some need for option development.

Note that some IFQ program elements are optional, meaning that the element as a whole may be either included or excluded from the program (see elements A-2.4, A-3 through A-8). Unless indicated with the "►" symbol, these program elements were not included in the preliminary preferred alternative. Note that program element A-7 (relating to gear conversion) was added when the Council chose its

preliminary preferred alternative but it was not included as part of the preliminary preferred alternative. The Council will decide whether to include it in the preferred alternative when it takes final action.

For the **mothership co-op program** and provisions to support current catcher-processor co-ops no options remain undecided. It should be noted that

- The Trawl Individual Quota Committee (TIQC) developed some species lists that were adopted by the Council for the scope of the IFQ alternative that could also be potentially included as part of a co-op program Table 2-4.
- The Council had specified that if co-ops are also adopted for the shoreside sector catcher vessels should be required to drop the same two years for both the determination of mothership and shoreside permit history. The Council's intent with respect to the adoption of co-ops for one but IFQs for the other was unstated.
- During its discussion of processor linkage provisions at the Council's June 2008 meeting, the Council members expressed that by selecting a 90 percent linkage option as part of their preferred alternative it was their intent to provide a means for vessels to move between motherships without entering into the non-co-op fishery. In order to achieve this intent, additional modifications will be required.

For the **shoreside whiting co-op program** (Section 2.5.2, B-3) no options were selected as part of the Council's decision on the preliminary preferred alternative (i.e. all options remain undecided with respect to the preliminary preferred alternative).

For the **whiting catcher-processor co-op program** (Section 2.5.2, B-3) all options have been specified.

The following is some suggested language that the Council might wish to consider in directing how the groundfish FMP would be amended to implement the above provisions.

> The language of the FMP will be amended to indicate the following:
>
> 1. the shoreside whiting and nonwhiting trawl fishery will be managed under a single IFQ system;
> 2. the mothership whiting fishery will be managed as a co-op with processor linkages;
> 3. the catcher processor fishery will be managed with a catcher-processor endorsement or an IFQ program in which each permit starts with the same initial allocation;
> 4. the Council may use some of the trawl allocation for an adaptive management program;
> 5. the length endorsement will not apply with respect to LE trawl endorsements.
>
> The specific provisions of the trawl rationalization program provided here will be incorporated as appendices to the FMP but will be amendable through regulatory action. The recommendations for a halibut IBQ provision will be implemented as a regulatory action.

When the Council takes final action to choose its preferred alternative (scheduled for the November 2008 meeting) any outstanding decisions on program design will be made. At the November 2008 meeting in its final action the Council may go outside the scope of the preliminary preferred alternative as it learns more about the issues and impacts of the alternatives, so long as any changes from the preliminary preferred alternative fall within the range of alternatives and program elements presented in this chapter and the accompanying analysis.

2.7 Summary of the Impact of the Preliminary Preferred Alternative Compared to Status Quo

This section briefly summarizes the impacts of the preliminary preferred alternative in compared to continuing management under the current framework for the LE trawl fishery. Chapter 4 includes a detailed evaluation of impacts to environmental components, including stakeholders and environmental resources. This summary is organized similarly Chapter 4, according to the environmental components that may be affected by the proposed action, although not all the impacts to environmental components evaluated in Chapter 4 are summarized here.

2.7.1 Limited Entry Trawl Groundfish Harvesters

Limited entry trawl harvesters may be substantially affected by the Council's preliminary preferred alternative for rationalization. These impacts are driven by the individual accountability measures implemented for total catch (both landings and discard), through fleet consolidation, and through the aspect of harvest privilege transfers that exist as part of a rationalization program. The effect of rationalization on limited entry trawl harvesters is described in detail in Section 4.6. The main effects of the Council's preliminary preferred alternative, as compared to status quo, include the following:

- Decrease in the number of limited entry trawl vessels
- Increase in the harvest of under-utilized target species
- Receipt of transferable harvest privileges
- Increase in per vessel profit
- Changes in the geographic distribution and timing of harvest
- Utilization of non-trawl gear to prosecute groundfish resources managed under the rationalization program
- Product quality improvements in the whiting fishery
- Improved safety conditions on board trawl vessels

2.7.1.1 Revenues, Costs, and Assets under a Rationalized Fishery

- Harvest will increase in the fishery, leading to higher gross revenue per vessel.
- Consolidation will shrink fleet size and the most efficient vessels will remain, leading to a decrease in the cost of harvesting
- Harvesters not receiving an initial allocation (or one of sufficient size) will incur an additional expense to acquire the quota necessary to participate in the fishery

In the non-whiting portion of the trawl fishery the change in profits per vessel are expected to be the most pronounced relative to the other sectors of the trawl fishery. This is because of several factors including the existing state of over-capitalization estimated to exist under the status quo regime and the fact that the preliminary alternative does away with many measures that restrict consolidation in the fishery. In addition, the catch of currently under-utilized species is expected to increase under a rationalized fishery. This is because rationalization makes harvesters individually accountable and this accountability provides incentives to change gear and behavior in order to optimize revenues. Evidence indicates that when these incentives are applied to the west coast groundfish fishery, harvesters will find new ways of avoiding depleted stocks that constrain access to target species under the status quo regime. This in turn will allow those harvesters to leverage higher amounts of target species than under status quo.

To a large degree, harvest in the Pacific witing fishery is not expected to deviate from status quo. This is because the majority of the whiting OY is harvested in any given year, with a couple of notable exceptions.

Harvest privileges in the form of IFQ (for the shoreside sector) and catch history (for the mothership sector) acts as a capital asset to harvesters that hold those privileges. This harvest privilege asset has value because it is transferable. The value those privileges hold are largely based on the net revenue those privileges can create. For those harvesters who enter the fishery after the program is implemented, or who must acquire additional quota to continue operating at an efficient production volume, the acquisition of harvest privileges represents an additional operation cost. In general, the cost of acquiring IFQ should reflect the potential net revenue that harvesters are able to achieve under the rationalization program. Thus the effect of the IFQ program on second generation owners may be relatively neutral, because the cost of acquiring quota offsets potential net revenue generated by fishing activity, leaving them with a normal profit level for a fishery that may have a prognosis for greater stability than under status quo management.

The exvessel price received for delivered fish affects profits generated by vessels. The price received for such deliveries depends on the degree to which buyers and sellers are price takers and the amount of QS each side brings to the transaction. When buyers and sellers are price takers, there is a going market price at which most transactions occur and efforts to negotiate more favorable prices will have only minimal success. Alternatively, when market prices are not firmly established, known prices may affect negotiations but individual negotiations will play a substantial role in determining price.

When market prices are not well established, the negotiation between harvesters and processors is affected by the negotiation skill and effective bargaining stance of both sides engaged in the negotiation. The relative degree of negotiation power is influenced by the amount of quota held by harvesters and the amount of quota held by processors. Both processors and harvesters are expected to have some negotiation power over exvessel prices. It is not clear how the Council's preliminary preferred alternative (which allocates 80 percent of the quota to shoreside harvesters) will impact exvessel prices relative to status quo conditions. Additionally, regardless of the initial allocation, over time as QS is traded the distribution of QS between the sectors may change.

2.7.1.2 Geographic Shifts in Delivery and Fishing Activity

- Individual accountability measures and the ability to transfer harvest privileges in a relatively fluid manner are expected to result in geographic shifts in fishing effort and delivery locations.

Individual accountability measures will induce harvesters, or quota, to move from areas where constraining species are relatively abundant, to areas where constraining species may be less abundant. Regional economic conditions are also expected to result in shifts of vessels and harvest privileges from those areas where operating a fishing business may be relatively more costly, toward areas where operating such a business may be less costly. Since the Council's preliminary preferred alternative implements provisions which restrict delivery or fishing location, the amount of geographic shift is somewhat minimized. In the case of regional landings zones (one option for area restriction), the degree of shift in delivery activity may be small relative to a case with no area restrictions if more than a single zone is established for each of the three west coast states. However, it is possible that shifts in delivery activity could occur within one of those landing zones on a more micro scale. The degree to which this may occur depends on the size of the landing zone. These landing zones are expected to result in an ad hoc restriction on the location of fishing activity even though there is no formal restriction on the location of actual fishing activity. The implementation of a formal area fishing and catch restriction (a

second option for area restriction) is expected to result in less shift in delivery and fishing activity compared to a case without an area management restriction; however, the restriction implements a single line at Cape Mendocino. The result is one where large scale, aggregate shifts in fishing and delivery location may be restricted, but shifts within the area to the north and south are still likely to occur.

2.7.1.3 Timing of Fishing Operations

- The timing of fishing operations is expected to change, particularly in the shoreside and mothership portions of the whiting fishery.

Rather than engaging in race for fish behavior, which arguably exists in both whiting sectors under status quo, it is expected that the issuance of harvest privileges will allow harvesters to time fishing operations in a manner that optimizes revenue. Available literature indicates that the whiting resource becomes more valuable later in the season as the fish grow in size and other desirable attributes improve. It is expected that harvesters in the whiting fishery will increase the amount of effort spent prosecuting whiting later in the season in order to capitalize on these conditions relative to status quo. Furthermore, because harvesters in the whiting fishery no longer compete for catch, the way harvesters prosecute whiting is expected to change in a manner that improves the quality of the catch. Some of this quality improvement is associated with the timing of the fishery and the relative degree of fishing that occurs during periods when quality attributes are more desirable. However, other factors are expected to improve quality including the slowing of harvest and handling activity in order to minimize damage to harvested whiting. This behavior is a result of the issuance of defensible harvest privileges that eliminate the incentive to compete with other harvesters for catch.

2.7.1.4 Safety Conditions

- Safety conditions associated with fishing activity onboard trawl vessels is expected to improve as a result of the Council's preliminary preferred alternative.

Such improvements are predominately due to an elimination of the race for fish in the whiting fishery and because of increased revenue per vessel in all sectors of the trawl fishery, which should lead to improvements in maintenance of vessels.

2.7.2 Captain and Crew

- Rationalization is expected to result in a decrease in the number of captain and crew jobs. At the same time, the remaining captain and crew positions are expected to receive higher wages.

Available information indicates the number of captain and crew positions may be approximately 25-50 percent of the current number of positions, but wages for these positions are expected to more than double. In addition, the working conditions for captain and crew remaining in the fishery are expected to improve. This is the result of the elimination of race for fish conditions in the whiting fishery (which can lead to instances of fishing in hazardous conditions) and a general improvement in the status of remaining trawl vessels due to improved maintenance spurred by greater revenues associated with fishing activity. The effect on Captain and Crew is described in detail in Section 4.7.

2.7.3 Non-trawl Commercial Harvesters

- Non-trawl commercial harvesters may or may not be affected.

Non-trawl commercial harvesters have the potential to be affected by the Council's preliminary preferred alternative for rationalization of the limited entry trawl fishery, though it is not known to what degree non-trawl commercial harvesters may be affected, if at all. On the one hand, trawl vessels consolidated out of the trawl fishery may spend more time participating in non-trawl fisheries and in this way increase the competition in these non-trawl fisheries. On the other hand, vessels in a rationalized fishery theoretically have more control over future fishing opportunity and this tends to lessen the need to diversify, meaning vessels remaining in a rationalized fishery may spend less time engaged in non-trawl fisheries. Rationalization of the trawl fishery can lead to several outcomes that can impact non-trawl harvesters. Though the likelihood of these effects and their magnitude is not known, they are expected to be minor. These potential effects are described in detail in Section 4.8 and include:

- Spillover of vessel participation into the pink shrimp, Dungeness crab, or other fisheries that are operationally similar.
- Bycatch of non-target species as a form of spillover, such as Pacific halibut.
- Resource, grounds, and market competition through gear switching opportunities and increased amount of trawl target species on the market.

The adoption of a Pacific halibut IBQ program is one feature that may minimize potential impacts to some non-trawl harvesters. Through the adoption of halibut IBQ, the catch of Pacific halibut in the trawl fishery will be capped, eliminating the potential for trawl bycatch to increase and inadvertently result in an adverse impact to directed Pacific halibut vessels.

2.7.4 Shoreside Processors of Trawl Groundfish

Trawl rationalization may result in a wide range of impacts to processors, distributed according to the geographic shift of fishing effort and subsequent consolidation of fishing and processing enterprises. Impacts may also occur based on the extent to which processing companies gain of control QS. The types of impacts to shoreside processors resulting from the trawl rationalization program, and associated mechanisms, are outlined in more detail in Section 4.8. In this section, the primary effects of the Council's preliminary preferred alternative, as compared to status quo, are discussed. The effects can be summarized as follows:

- Increased cost for raw fish when harvesters hold the QS.
- Potential regional shifts in landings may or may not be under the control of processors.
- Increase in the processing of under-utilized target species
- Lower cost of production in non-whiting sector due to increased harvest and more utilization of processing capital
- Lower cost of production in whiting sector because of increased season length
- Consolidation among shoreside whiting processors reducing total capital costs while changing asset values.

2.7.4.1 Ex-Vessel Price Negotiation

See Section 2.7.1.1 above for a discussion of the effects of the trawl rationalization program on exvessel prices.

2.7.4.2 Regional Shifts in Landings

- To the degree that there are regional shifts in landings that are not controlled by processors, there could be a mismatch between the distribution of existing physical plant infrastructure and the volume of catch landed in different ports.
- Both an allocation to processors and an area management restriction are expected temper geographic shifts.

The distribution of landings across ports may change as a result of fleet consolidation, industry agglomeration, and the comparative advantage of certain ports for a variety of reasons. Processors have invested in physical plant facilities (processing facilities and related infrastructure) that are distributed along the coast to take advantage of opportunities under status quo. Rationalization is expected to result in a shift of delivery activity for a variety of reasons, including regional economic opportunities and individual accountability of constraining species. To the degree that landings shift on a regional basis, there could be a mismatch between the distribution of existing physical plant infrastructure and the volume of catch landed in different ports. If processors retain a relatively large degree of bargaining power (by holding QS), they could have influence over the location of landings by enticing or directing harvests to existing plants even if the harvesters prefer to fish in other areas. Otherwise, processors may need to enlarge operations at facilities seeing an increase in landings and reduce operations, or shut down plants, in ports where landings permanently decline. Alternatively, they could truck fish from the port of landing to their facilities. In either case, a shift in the location of landings may mean a shift in the location of where those landings are processed.

The Council's preliminary preferred alternative allocates QS to shoreside processors and implements an area management provision (which may come in one of two forms). Both an allocation to processors and an area management restriction are expected to temper the degree of geographic shift in delivery activity. An initial allocation to processors is expected to result in actions on the part of processing entities that direct landings associated with their quota to areas that are beneficial to them. An area management provision is expected to influence this geographic shift by reducing large-scale shifts in delivery activity, though shifts on a more micro scale may still occur.

These effects are evaluated in detail in Section 4.8.2.2

2.7.4.3 Changes in the Quantity and Mix of Landings

- Processors will benefit through an increase in the quantity of harvest, increasing revenue and decreasing average costs.

The quantity of harvested species in the non-whiting sector is expected to increase as a result of rationalization, especially in the form of increased harvests of currently under-utilized species. The implications of higher harvest volumes could be positive for processors of non-whiting groundfish if higher harvest volumes decrease the cost of production. Available information suggests that excess capacity exists in the shoreside processing industry and this has meant that the cost per unit of processed product has increased substantially since the late 1990s when harvest volumes were larger. Depending on the degree of increase in landings anticipated under rationalization, existing yet idle capital may simply be reactivated, or new capital may be constructed. In any event, the cost per pound of finished product should decline in the shoreside non-whiting processing industry as a result of higher landings.

These effects are evaluated in detail in Section 4.8.2.3.

2.7.4.4 Changes in the Timing of Landings

- For the shoreside whiting fishery, peak harvest volumes are expected to decline, decreasing the amount of capital necessary to process the shoreside whiting harvest.

Rationalization of the shoreside whiting fishery will eliminate the Olympic- or derby-style fishery that currently exists. This derby style of fishing has resulted in a concentrated harvest period with large volumes of catch occurring over a few weeks. The implementation of a rationalization program is expected to eliminate the aspect of competition that is responsible for current derby practices, and allow harvesters to spread out their harvest timing. Spreading out this harvest timing is expected to lead to a reduction in peak harvest volumes and this will decrease the amount of capital necessary to process whiting harvested in the shoreside whiting fishery. Such a decrease in necessary capital should be expected to lead to consolidation of processing activity and to the downsizing or closure of some existing whiting processing facilities.

These effects are evaluated in detail in Section 4.8.2.4.

2.7.5 Mothership Processors of Trawl Groundfish

The Council's preliminary preferred alternative for rationalization of the mothership sector is expected to result in several types of impacts to mothership processing entities. The types of impacts to mothership processors resulting from the trawl rationalization program, and associated mechanisms, are outlined in more detail in Section 4.10 and Appendix B. In this section, the primary effects of the Council's preliminary preferred alternative, as compared to status quo, are discussed. The effects can be summarized as follows:

- Processor linkages are expected to give mothership entities leverage in negotiations with catcher vessels over exvessel prices and other matters
- Linkages are expected to give processing entities more certainty over deliveries from catcher vessels
- Amount of mothership processing capacity in the fishery may decline due to an increase in season length and a decline in peak harvest volumes
- Cost of processing whiting may decline because of increased season length and less processing capital necessary to handle the same harvest volume
- Product recovery and quality may improve along with the opportunity to develop new products and markets.

2.7.5.1 Ex-Vessel Price Negotiation

- Increased profits from rationalization will be shared between vessels and processors.

A cooperative based fishery with processor linkages results in both harvesters and processors having leverage over price negotiations. The result of a processor linkage provision is a harvesting and processing operation that takes on many characteristics of a vertically integrated firm. The outcome is one where profits from harvesting and processing activities are shared between the linked harvester and the linked processor. The Council's preliminary preferred alternative creates processor linkages and is therefore expected to result in the sharing of profits between harvesters and processors.

2.7.5.2 Business Planning and Certainty over Catcher Vessel Deliveries

- Increased certainty about deliveries will enhance effectiveness of business planning, increasing efficiency.

A processor linkage provision makes it relatively certain that a mothership processor will receive a given quantity of harvested fish from catcher vessels in the current year. It also allows the mothership processor to negotiate with the catcher vessel over delivery timing in order to capitalize on favorable economic conditions which may be seasonally motivated. While this linkage can be broken, putting into question the certainty of deliveries in future years, the mothership operation has an enhanced ability to engage in more optimal business planning in the current year because of a reasonable expectation regarding delivery volumes and timing in that year. This enhanced ability to engage in business planning makes it more likely that processors can fine tune costs and capitalize on more favorable economic conditions compared to a case with no processor linkages where delivery volumes, and their associated timing, are relatively uncertain.

2.7.5.3 Changes in the Timing of Landings and Increased Season Length

- Reduced peak harvest will reduce peak capital needs, reducing capital costs.

Rationalization of the whiting fishery will eliminate Olympic- or derby-style fisheries. To the degree that rationalization allows catch privileges to be assigned to individual harvesters or cooperatives that coordinate their behavior, landings could be more evenly distributed throughout the season. As a result, the mothership sector should be expected to elongate their season. Such an increase in season length decreases the amount of processing capital necessary to handle harvest in the fishery. This decrease in capital would tend to reduce the cost of processing activity.

2.7.5.4 Changes in the Quality of Product

- A slower paced better timed harvest will increase product recover rates and product quality, and allow the development of new products and markets.

Rationalization should allow harvesters the opportunity to increase the recovery rate and quality of landed fish, because a more measured pace of fishing will allow more attention to factors affecting recovery rates and quality. Furthermore, research has demonstrated that the value of whiting increases later in the year, due in large part to the improvement of certain quality attributes as fish mature later in the year. This could benefit mothership processors by assuring a stable, high quality supply, which would make it easier to maintain existing markets and develop new ones. With more stability in catches, harvesters and processors may be able to coordinate to develop new products and markets.

2.7.6 Catcher-processors

- Minor impacts expected relative to status quo.

The Council's preliminary preferred alternative is expected to result in only minor impacts to the catcher-processor sector. The catcher-processor sector operates as a rationalized fishery under status quo conditions through a private cooperative agreement. The preliminary preferred alternative would continue limited entry to the catcher-processor sector that was established through Amendment 15, and impose sector-specific bycatch limits which would protect the catcher-processor sector from bycatch in

other sectors. In the event that the voluntary co-op system failed, IFQs would be granted to catcher-processor participants. The effect of rationalization on catcher-processors is described in detail in Section 4.11.

2.7.7 Fishing Communities

Trawl rationalization is expected to result in changes in the spatial distribution of effort and processing, along with consolidation of vessels and processors. These changes will have both positive and negative impacts on fishing communities.

2.7.7.1 Identifying fishing communities

The following are principle ports for the trawl fleet:

Port name	Whiting	Nonwhiting
WASHINGTON		
Bellingham		X
Anacortes	X	
Neah Bay		X
Seattle	X	
Westport	X	X
Ilwaco	X	
OREGON		
Astoria	X	X
Newport	X	X
Charleston/Coos Bay	X	X
Brookings		X
CALIFORNIA		
Crescent City	X	X
Eureka	X	X
Fort Bragg		X
San Francisco		X
Moss Landing		X
Princeton/Half Moon Bay		X
Morro Bay		X

2.7.7.2 Broad-level impacts

Community impacts from fleet consolidation

- QS control limits would serve to reduce ownership consolidation and increase the number and types of businesses involved in the fishery, contributing to diversity and stability.

Consolidation limits are built into the trawl rationalization program, but because of the nature of vessel efficiency in this fishery, the number of vessels is not expected to fall so far that the consolidation limits will be reached. However, control limits (or limits on the amount of quota businesses may control) may be reached. Control limits would be half the amount of vessel limits, so that more than one business would be needed to meet the limit on one vessel. The additional QS could be owned by crew members (who were not technically part of the business owning the vessel), communities, conservation organizations, or other parties.

Community impacts from geographic shifts in fishing effort

- As a result of consolidation and increased efficiency, shifts in the geographic distribution of fishing and processing activity are expected to result from rationalization.

In some areas, the presence of constraining overfished species will be an important factor influencing geographic shift in fishing effort. Vessels that traditionally operate in areas with relatively high bycatch rates (such as Neah Bay) will find themselves at a disadvantage. Vessels in these areas will likely modify their behavior in order to decrease bycatch of overfished species. This could be achieved by switching to non-trawl gear, changing the location of fishing, moving to another port, or selling QS to another vessel and leaving the fishery. These actions could affect the trawlers' home and delivery ports, as well as other non-trawl ports that depend on the infrastructure present in nearby trawl ports.

Such geographic considerations are likely to be influenced by market conditions, quota allocation, and the spatial distribution of consolidation. Ports with a relatively large presence of efficient vessels may see less consolidation than ports with less efficient vessels. If enough vessels are lost from a particular community, it may mean a decrease in the amount of fishing related activity occurring in that area.

Community impacts as a result of changes in fishing employment

- Studies of existing IFQ programs have documented a variety of positive and negative impacts on fishing employment

Impacts on fishing employment include job loss, shifts in the compensation system from shares to wages, higher wages for remaining crew (despite lower crew shares), longer hours, changing skill requirements, changes in bargaining power between quota owners and crew, and quota owners charging crew for use of quota. Researchers have also observed the development of new businesses based on leasing quota rather than harvesting.

A loss of fishing employment can have particularly negative impacts in isolated communities where there are few alternative employment opportunities.

Other impacts on harvesters

Other community-related impacts on harvesters include new economic hurdles for those who are not allocated quota, increased incentives to switch gear types in some communities, changing crew needs for those switching gear, impacts of gear switching on suppliers, changes in exvessel prices, and increased (or decreased) safety.

Community impacts resulting from effects on processors and suppliers

- Processors are expected to consolidate and possibly move.

A wide variety of potential impacts on processors has been predicted and documented in other rationalization programs. Movement of processors will have subsequent impacts on processor labor and municipal revenue. In addition, infrastructure could be positively or negatively impacted by geographic shift, having ripple effects on local non-trawl communities as well as the trawl sector. Businesses that support the trawl sector will also be impacted, depending on their location, specialization, and reliance on the trawl sector.

Effects on community stability and culture

- Community stability is also an issue under status quo.
- Rationalization could have both positive and negative impacts on community stability, depending on the distributional impacts of the program.

Community stability is often cited as a goal in natural resource management. A community stability program was initially included in the package of rationalization options, but was removed by the Council in March 2007 and replaced with an adaptive management proposal that could be used to serve a variety of purposes.

In communities where fishing is culturally important, the loss of trawl activity could be a hardship. The literature suggests that equity issues may arise depending on how initial allocation is conducted. However, under the status quo, fishing community residents have reported a lack of community stability due to fluctuations in fishing activity and an inability to plan for the future (Goblirsch 2002).

During the past decade, the groundfish fishery has experienced major declines in harvest levels, increasing regulation and area closures, and a 2003 buyout of trawl vessels. Some communities have already begun to adapt (for better or worse) to the loss of the trawl sector. Any stability that remains in these communities is largely due to diversification, both within fisheries and outside the fishing industry. In some ways, rationalization is expected to improve stability in those communities that benefit from the program. By allowing for better business planning, higher wages for those remaining in the fishery, and better stewardship of the resource, rationalization should increase stability *in those communities that benefit from rationalization*. However, it is clear that some communities will lose harvesting and processing activity. Whether these communities would continue to suffer under the status quo is arguable, but it is likely that current trends in increased regulation and decreased harvests would continue, at least until overfished groundfish species are rebuilt.

Cultural impacts

- For diverse communities, a decline in trawl fishing activity might not change a community's symbolic identification with fishing.

Fishing, in all its diversity, is culturally important to the communities that will be affected by trawl rationalization. The cultural importance of fishing is reflected in community symbolism. However, in none of the trawl communities possibly affected by rationalization is trawling the sole fishing activity. The communities where the most trawl fishing activity takes place, such as Newport and Astoria, are also the communities where the most other fishing activity takes place. While a decline in trawling may not impact community identity, it could have substantial impacts on the economic structure of all fisheries if it leads to a decline in infrastructure, and social impacts on those directly affected by rationalization.

Impacts on families

- Families could be negatively affected by the loss of trawl and processing activity in communities that do not benefit from rationalization.

In communities that do receive quota, the literature documents complications in family fishing businesses arising from the increasing value of fishing quota. Such complications relate to the "newly taxable dimensions of exit and the newly costly conditions of entry" (McCay 1995).

Since rationalization is expected to increase efficiency in the fleet as a whole, the mechanism for leaving the fishery will be to sell quota and associated vessels and equipment, so economic impacts of leaving the fishery will be *somewhat* mitigated. However, the non-economic impacts of leaving the fishing industry may be substantial. For example, a person leaving the harvesting sector and selling or leasing quota could experience a major change in personal identity and job satisfaction. In addition, the daily life of a fishing family, particularly a fishing family that has been involved in fishing for a substantial amount of time, could be expected to change dramatically if the family were to leave the fishing industry altogether.

Impacts on tourism

- If a large sector of the fishing industry were to disappear, tourism revenues could be lost.

Tourism is also increasingly important to many west coast communities. In some communities, such as Newport and Morro Bay, fishery-related tourism, including the draw of a "working waterfront," is an important factor in the local economy.

Impacts to non-trawl communities

- Non-trawl communities could be affected by rationalization through increased competition, gear conflicts, impacts on the support sector, infrastructure impacts, and competition in the marketplace.

2.7.7.3 Effects Related to Program Features in the Alternatives

Communities will be most affected by five decisions made by the Council during the trawl rationalization planning process. These decisions are about:

- IFQs or co-ops
- Initial allocation
- Accumulation limits/grandfather clause
- Area management
- Adaptive management

The effects of particular features of the trawl rationalization program (including the five identified as key decisions), which are included in the preliminary preferred alternative are described below.

How do IFQs and co-ops affect communities (relative to status quo)?

Changing the catch control tool in the fishery to IFQs and/or harvest co-ops is expected to impact communities in a variety of ways described throughout this section. Under a co-op system, some profits would be shared between motherships and catcher processors, while under IFQs, revenues would stay with the QS owner. At most, 20 percent of the QS would be initially allocated to processors. Therefore, with co-ops, revenues may be more likely to leave small communities (since most motherships are headquartered in Seattle or Anacortes).

How does initial allocation affect communities?

Initial allocation and qualification could have significant impacts on communities by benefiting some harvesters (and their communities) and putting other harvesters and communities at a disadvantage.

Astoria, Bellingham, Brookings, Coos Bay, Eureka, Fort Bragg, Newport, San Francisco, and Moss Landing are expected to benefit from initial allocation, regardless of whether or not some of the QS is equally allocated. Princeton/Half Moon Bay may benefit, depending on the allocation formula. Neah Bay, Westport, Ilwaco, Crescent City, and Morro Bay are expected to receive less than the average amount of quota allocated to all communities.

If quota is allocated to processors, it is likely that processors will adjust operations so that ports where processing plants are already located will receive more landings. Therefore, ports without processors (such as Neah Bay, Brookings, and Crescent City) may see a reduction in landings if processors are allocated QS.

How will accumulation limits affect communities?

As discussed above, accumulation limits could also have an important impact on communities. The presence of a vessel accumulation limit would set a minimum on the number of vessels in the fishery and spread the amount of fishing activity across a wider number of entities. As noted above, because of the nature of vessel efficiency in this fishery, the number of vessels is not expected to fall so far that the consolidation limits will be reached. However, control limits (one-half of vessel limits) will constrain and spread activity across more businesses, increasing business diversity and economic stability. Some communities will experience the negative impacts of losing fishing activity, while others will benefit from the increased revenue of the successful fishing enterprises that remain.

How will a grandfather clause affect communities?

The grandfather clause would allow some vessels and processors to have quota in excess of accumulation limits, based on their history, making it more likely that highly productive vessels and processors would be able to maintain that relatively large degree of production. This effect would be transitory, in effect slowing the shift from the status quo to a new market-based system. Over time, the grandfather clause would expire and the excess quota would be redistributed through the market.
How do processor allocations/ties affect communities?

An initial allocation of QS to processors and/or processor linkages in a co-op program would allocate quota to processors and, for the co-op alternative, create affiliations between harvesters and processors, influencing negotiations over exvessel prices. The more QS processors have, the more bargaining power they have. Such leverage could serve to help make their operations more profitable, possibly leading to consolidation or movement. It is worth noting that many processors have corporate owners and may not necessarily be tied to an individual community. Therefore, an allocation of quota to processors does not necessarily lead to quota remaining in a particular community. Similarly, some permit owners do not live in the community where their vessels are located and are also free to move their harvesting operations to a different community.

With whiting co-ops and processor linkages, harvesters may find it more difficult to change processors, which could affect communities positively (if such linkages discourage harvesters or processors from leaving a community) or negatively (if local harvesters are forced to sell product for less than another processor might offer). A whiting processor could move, but a move outside of the current geographic distribution (southern Washington to northern Oregon) is unlikely due to geographic constraints and availability of infrastructure to support a large whiting processor.

How do the number of trawl sectors influence communities?

The choice here is between a single shoreside sector, or a shoreside sector divided between a whiting and nonwhiting allocation. Dividing the sector would restrict the ability of one sector to acquire large amounts of quota, limiting the access of the other sector to quota or to fishing opportunity. This could have both positive and negative impacts on communities, depending on which communities host the sector that benefits the most.

How will an adaptive management provision affect communities?

Adaptive management allows a certain amount of quota to be used to 1) help adversely affected communities, 2) provide incentives to use habitat- and bycatch-friendly gear, and/or 3) mitigate adverse impacts on processors. No further details on this option have yet been specified. The effects of the adaptive management provision are distributional: some communities would benefit and others would have their quota reduced in order to "pay" for the adaptive management provision.

How will area management affect communities?

Area management refers to the splitting of QS between the north and south. For the last few years, there has been less and less trawl activity off central and southern California, and more in northern California and Oregon. This option would essentially freeze this ongoing south-to-north shift, and may reverse it, depending on how quota distribution is implemented. This could benefit central and southern California communities by lessening the ability of northerners to accumulate southern QS.

Other factors

Some factors within the suite of rationalization options will impact the fleet as a whole but will not necessarily impact one community more than another. These include carryover, which increases flexibility for individual harvesters; and tracking and monitoring, which will reduce the short-term profitability of harvesters, because they will need to pay for part of the tracking and monitoring effort. In the long term, however, at-sea monitoring will help ensure the continued viability of stocks.

The species covered by the program could have an impact on communities, depending on the community's location and the type of species covered by IFQs.

2.7.7.4 Impacts on Specific Communities

The Comparative Advantage model uses four variables to assess the relative advantage or disadvantage of each port. These include: 1) bycatch rates of constraining stocks that are in preferred fishing grounds of various ports, 2) relative economic efficiency of vessels in that port, 3) the relative amount of fishing business and infrastructure in that port, and 4) the initial distribution of QS to those ports relative to status quo, and relative to the distribution made to other ports. A more detailed discussion of results is included in Section 4.14.5.4. Appendix C details how these variables were measured.

We summarize the comparative advantage of non-whiting trawl communities in the table below. Ports that are at a disadvantage from consolidation and geographic shift have a relatively inefficient fleet (vessels with a relatively long travel time to fishing grounds, those with relatively unsuccessful operators, costly vessels, and inefficiently-sized vessels contribute to the "fleet efficiency" score in the table below); insufficient infrastructure; and are adjacent to fishing grounds with high constraining overfished species abundance ("bycatch dependence" in the table below). The table also includes a positive or negative score for "initial allocation of groundfish," as determined by the initial allocation model described in Section 4.2.1.3 (page 258).

Table 2-7. Comparative advantage of non-whiting trawl communities under rationalization.

Port	Fleet Efficiency Score	Bycatch Dependent Area Score	Shorebased Infrastructure	Initial Allocation of Grndfish	Score
Bellingham	?	− −	+ +	+	
Neah Bay	−	− −	− −	−	−
Westport	−	+	+	−	
Astoria	+	+	+ +	+ +	+
Newport	+	−	+ +	+	
Charleston (Coos Bay)	+	+	+ +	+	+
Brookings	+	+	−	+	
Crescent City	−	+	+	−	
Eureka	+	+	+	+	+
Fort Bragg	−	+	+	+	
San Francisco	−	−	+ +	+	
Moss Landing	−	− −	+	+	
Princeton/Half Moon Bay	−	− −	+	+	
Morro Bay	?	+	−	−	

While this information suggests that shifts in fishing effort may occur as a result of rationalization, these shifts can be mitigated or restricted to some degree by various aspects of the alternatives, including area management and adaptive management.

Whiting communities are not as likely to see a shift in Pacific whiting fishing activity. This is because of resource access and access to infrastructure necessary to support a processing plant for Pacific whiting.

Resilience and dependence

Knowing the resilience and dependence level of coastal communities helps to assess impacts from the trawl rationalization program. Resilience refers to a community's ability to adapt to change, while "dependence" refers specifically to a community's socioeconomic reliance on the groundfish fishery. Impacts that may be minor to a very resilient community (like Seattle) could be substantial for a community with low resilience (like Neah Bay). Section 4.14.5.6 summarizes work done on dependence on the groundfish fishery and resilience in fishing communities for the 2007-08 groundfish harvest specifications (PFMC 2006, Appendix A, page A-86). The following table summarizes dependence and resilience of west coast trawl communities:

Most vulnerable communities (medium dependence on groundfish, least resilience)

Neah Bay	Moss Landing

Relatively lower dependence, but low resilience

Ilwaco

Relatively higher dependence, medium resilience

Bellingham	Crescent City
Astoria	Eureka
Coos Bay	Fort Bragg

Relatively higher dependence, higher resilience

Newport	Morro Bay

Medium dependence but higher resilience

Westport

Relatively lower dependence and relatively higher resilience

Warrenton

Higher dependence, but high resilience (not considered "vulnerable")

Brookings	San Francisco

Low dependence, high resilience (not considered "vulnerable")

Anacortes	Hammond
Seattle	Half Moon Bay

Section 4.14.5.7 summarizes the impacts of rationalization for each community individually.

2.7.8 Management Agencies

State fisheries agencies and the National Marine Fisheries Service would experience the following changes to management methods due to rationalization:

- increase in level of staffing, primarily for federal agencies;
    - NOAA Fisheries (NMFS) Northwest Region
        - 5.5 additional staff
        - Performance monitoring contract, $100,000.
        - One contracted PSMFC position
    - NOAA General Counsel
        - Two additional lawyers and an appeals paralegal
    - Office of Law Enforcement
        - One additional uniformed officer
        - Four additional support staff
    - Northwest Fisheries Science Center
        - $3 million estimated cost increase
    - States
        - One additional enforcement person in each state, reimbursed through Federal cost recovery program
- changes in data collection and data sharing efforts; and
- decrease in in-season management duties for the Council and NMFS.

See Section 4.16 for more detailed information regarding the predicted changes for management agencies due to rationalization.

2.7.9 The Groundfish Resource and California Current Ecosystem

No changes in the groundfish resource or ecosystem are predicted to be significant. For the groundfish resource, the changes anticipated from rationalization (in comparison to status quo) include:

- changes in location of catch with potential for spatial concentration of fishing and potential for localized depletion;
- increased harvest of target catch;
- improvement in fishery-dependent data due to the increased observer coverage, decreasing one source of uncertainty in some stock assessments; and
- increased catch accountability due to increased observer coverage.

See Section 4.17 for more detailed information regarding the predicted changes to the groundfish resource due to rationalization.

For the California Current ecosystem, changes predicted from rationalization (in comparison to status quo) include:

- changes in catch may result in changes to the ecosystem's foodweb;
- predictions from the Atlantis model for the highest catch model scenario showing a reduction of biomass of large demersal predators (lingcod) and an increase in their prey (miscellaneous nearshore fish and shallow small rockfish); and
- changes in location of catch and changes in the type of gear utilized may result in changes to the amount and kind of essential fish habitat impacted.

See section 4.20 for more detailed information regarding the predicted ecosystem changes from rationalization.

Appendix A
ANALYSIS OF COMPONENTS, ELEMENTS, AND OPTIONS FOR THE IFQ ALTERNATIVE
TIQ COMPONENTS ANALYSIS

RATIONALIZATION OF THE PACIFIC COAST GROUNDFISH LIMITED ENTRY TRAWL FISHERY PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

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Organization of Appendix A

Each section starts with a restatement if the provision and option being analyzed. A rationale is then provided, followed by an explanation of the interlinked elements and an analysis of the provision.

In the provisions a "►" indicates an option that is part of the Council's preliminary preferred alternative.

Interlinked elements include measures that are

- directly dependent on one another (e.g. if QP did not need to be placed into a vessel account in order to be used we would need to change the way the use-or-lose provision is specified), and
- those which if changed would substantially alter the impact or decisions made on other provisions (for example, if only vessel owners are allowed to own QS/QP we would have to rethink many of the provisions and rationale related to how we are addressing the needs of communities and crew members).

□ In some cases while conducting the analysis we identified an issue that may warrant additional Council attention. In most cases these issues are related to either some remaining vagueness in the provision, a conflict or inconsistency within or between provisions. The paragraphs discussing these issues are marked by a □ in the left hand margin.

A-1 TRAWL SECTOR MANAGEMENT UNDER IFQS

A-1.1 Scope for IFQ Management, Including Gear Switching

Provisions and Options

QP will be required to cover catch of all groundfish (including all discards) by limited entry trawl vessels using any directed commercial groundfish gear, EXCEPT when such vessels also have a limited entry permit endorsed for fixed gear (longline or fishpot) AND have declared that they are fishing in the limited entry fixed gear fishery. ***See Section A-5 for an alternative specification of the scope for whiting trips.***

► The Council's preliminary preferred alternative would exclude certain species in the shoreside trawl sector. A list is provided in Table A-1 (Table A-1 of this appendix).

For the purpose of the trawl rationalization alternatives, "directed commercial groundfish gear" is defined as all legal commercial groundfish gear including limited entry gear and commercial vertical hook and line, troll, and dinglebar gear.

This definition of the scope allows a limited entry trawl vessel to switch between trawl and nontrawl groundfish gears, including fixed gear, for the purpose of catching their QP ("gear switching"). It also allows a nontrawl vessel to acquire a trawl permit, and thereby use trawl QP to catch the LE trawl allocation using nontrawl gear.

An option was added to allow "gear conversion" (the permanent switch from trawl to some other legal groundfish gear). **This option is described in Section A-7**.

Table A-1. Limitation on IFQ program scope (dual preferred alternative).

For the **shoreside trawl sector** IFQ **is <u>not</u> required** for:	
Longspine South of 34°27'	California Scorpionfish
Minor Nearshore Rockfish N	Cabezon
Minor Nearshore Rockfish S	Kelp Greenling
Black Rockfish (WA)	Shortbelly
Black Rockfish (OR-CA)	Other Rockfish
	Spiny Dogfish

For the **at-sea trawl** sectors IFQ* is **only <u>required</u>** for whiting and:	
<u>Option 1 (similar to status quo):</u>	<u>Option 2 (extended List)</u>
Widow	Slope Rock
Darkblotched	Shelf Rock
Canary	Canary
	Darkblotched
	Lingcod
	Pop
	Sablefish
	Widow
	Yellowtail

*Under the preliminary preferred alternative these sectors (mothership and catcher-processor) are managed under co-ops, in which case sector- or co-op-specific bycatch caps may be applicable to these species.

Rationale and Policy Issues

Coverage of Landings and Discards

Coverage of landings and discard is expected to be consistent with several aspects of the MSA, the Groundfish FMP, and the Council's goals and objectives for Amendment 20. Accountability for landings and discard are expected to increase the certainty managers have regarding fishing mortality, and this in turn is expected to foster the rebuilding of overfished species (consistent with MSA – 303A(c)(1)(A). Furthermore, the increased observation necessary to monitor landings and discard is expected to increase the information flow on the status of the fishery as the fishery occurs (consistent with the Groundfish FMP objective 1). Finally, responsibility of landings and discard – and the monitoring necessary for that type of management – is expected to increase accounting ability and result in changes to fishing behavior, which include a reduction in the bycatch rate of constraining stocks and an elimination, or reduction, in the need for regulatory discarding. These changes are expected meet Council objectives 1 and 3 of Amendment 20, which speak to total catch accounting, reducing bycatch, and reducing discard mortality. Coverage of total catch is also consistent with the bycatch mitigation program (Amendment 18).

The reduction in bycatch rates for constraining overfished species will allow harvesters to increase their harvest of currently under utilized target species and thereby increase the value of the groundfish fishery. Such an increase in value is consistent with the Groundfish FMP objective 6 (attempt to achieve the greatest net economic benefit to the nation), with Groundfish FMP objective 2 (maximize the value of the groundfish resources as a whole).

Species Coverage

The coverage of species with quota is intended to act as a catch control tool to ensure that management targets are adhered to, that other sectors are not affected by higher than expected catch levels in the trawl fishery, or both. One rationale is that the lack of IFQ coverage (or some other management tool) of some species may lead to a case where trawl vessels target uncovered species in unchecked quantities. However, this is not necessarily the case, especially for those species which may be inaccessible to groundfish gear, or for those species that are constrained by the catch of other species. Implicit in this concept is that not every species in the Pacific Ocean that may be encountered by commercial groundfish vessels needs to have catch managed through a catch control tool in order to stay within management targets. Many species may be encountered in such small volumes that their management through IFQ could be unnecessary and lead to administrative costs that are not necessary for successful management of fishing mortality. Species where it may not be necessary to cover catch with quota include infrequently encountered non-groundfish species such as sardines, Ocean Sunfish, and Albacore tuna. However, it may also be unnecessary to cover many groundfish species with quota because the amount of those species encountered by trawl vessels is small relative to management targets.

In addition to the idea of whether it is necessary to cover such species with quota in order to stay within management targets is the idea that for some species, their coverage with quota may lead to a case where the market does not act in an efficient manner. This could be due to relatively infrequent encounters of such species and the relatively infrequent trades that occur on the market (often called thin market conditions). Infrequent trades make it difficult to effectively price transactions on the market because there is relatively little historic information on the trading price of those species. This means that prices may be determined more by negotiation skill than market conditions and the implications are an over-inflated, or deflated, price of the quota.

The species covered with IFQ (shown in the table above) would be different for the shoreside whiting sector depending on whether 3 versus 4 trawl sectors are established. If three sectors are established, the shoreside whiting and non-whiting sectors would be combined, whereas if 4 sectors are established, the shoreside whiting sector would be responsible for the same species as found in the at-sea portion of the table. This is due to the fact that, if a three sector option is established then shoreside whiting and non-whiting would be able to trade quota with one another. In order for this to occur, both sectors would need to hold quota for the same species. If four sectors are established, the shoreside whiting and non-whiting sectors would be separated and it would not be necessary for them to hold quota of the same species. The four sector option may make the shoreside whiting fishery responsible for the same species as the at sea sectors because the mix of species caught by shoreside whiting vessels is similar to that of vessels in the at sea fishery.

Gears and Fisheries Covered and Gear Switching

In the current groundfish fishery, when trawl vessels use a non-trawl gear their groundfish catch is attributed to the trawl sector. If IFQ were not required when these vessels used a non-trawl gear within the rationalization program, then the program would have to be constructed in some way to keep the trawl fishery within its allocation (e.g., by splitting the trawl allocation between trawl vessels fishing with trawl gear [under the IFQ program] and those using other gear, or by counting the catch of trawl vessels with open access gear against the open access fishery). In order to avoid these complex situations, the program scope includes all groundfish taken directed legal commercial groundfish gear by a limited entry trawl vessel and counts that catch toward the trawl allocation. However, catch by limited entry trawl vessels using gears that are legal groundfish gears but take groundfish incidentally in fisheries that are not targeted on groundfish would not fall under the scope of the program. Another approach would be to make preseason adjustments to the trawl allocation for trawl vessel usage of gears expected to take very small amounts of groundfish.

The proposed scope implicitly allows gear switching and would not prevent a vessel from converting[1] to a non-trawl gear; however the vessel could reverse the gear switch or transfer IFQ back to a trawl vessel if conditions warranted it. There is also an option for permanent gear conversion (Section A-7.0). Under the gear conversion option, under certain circumstances IFQ would be permanently converted away from trawl gear and restricted from switching back. In addition to resolving the management complexities mentioned in the previous paragraph, a scope that allows gear switching may generate some conservation benefits if the gears to which harvest is switched generate smaller habitat impacts or have selectivity that increases stock productivity (e.g. disproportionately remove from the biomass fish that are of a less productive age or size class). Gear switching also provides vessels with an increased amount of flexibility in determining the most efficient mix of harvest strategies (as compared to a scope that includes only catch taken with groundfish trawl gear).

Interlinked Elements

Alternative Scope – Section A.5 provides an alternative scope which allows QS for whiting only and no QS for bycatch species in the shoreside whiting sector. While this alternative scope would effectively change the species that whiting vessels are individually responsible for, and is therefore a replacement to much of the analysis in this section rather than an interlinked element, it is useful to consider this alternative program scope while considering the analysis in this section.

[1] Converting means permanently switching harvest to a non-trawl gear. In contrast, gear switching implies the ability to switch back.

Gear switching/gear conversion - Based on the logic that the risk of yelloweye rockfish encounters should be minimized, and that hook and line gear encounter yelloweye much more frequently than trawl gear: "for trawl vessels fishing IFQ with longline gear, RCAs may need to be more conservative."

Gear conversion – In addition to gear switching, which is part of the scope of Amendment 20, a gear conversion provision (A-7) was added as an option for Council consideration. The gear conversion option would add to the scope of the trawl rationalization program, if adopted as part of the preferred alternative, and there may need to be some alteration of the gear switching portion of the scope.

Fishing restriction while in deficit – The scope of Amendment 20 defines which gears and fisheries are participating in trawl rationalization, but Section A-2.2.1, lists which fisheries trawlers may or may not have access to when in violation (e.g. IFQ overage). This provision would further refine the scope of the program.

Tracking and Monitoring Program. – Observer coverage is a necessary element for the trawl rationalization program and Amendment 20 could not be implemented without the tracking and monitoring provision.

Although not a provision of Amendment 20, the inter-sector allocation process is necessary to define the trawl sector allocation, which in turn is necessary for issuance of individual and co-operative shares.

Analysis

In general, imposing a rationalization program on the limited entry trawl sector is expected to result in some substantial changes to the fishery. Much of the expected effect of a rationalization program is discussed in Chapter 4 and is therefore only briefly summarized here where appropriate. The general effects of rationalization on the west coast trawl fleet include a variety of effects such as: fleet consolidation; elimination of derby-style fishing in the whiting sectors; and increased landings of currently under-utilized species, among others. The reader is referred to Chapter 4 for a more detailed description of generalized effects of rationalization.

Coverage of Landings and Discards

Requiring that vessels be held individually responsible for both catch and discard is a departure from the status quo approach of holding vessels individually accountable for landings but the fleet accountable for landings and discards. Holding vessels responsible for both landings and discard is expected to result in some substantial changes in behavior, especially in the case of overfished species encounters. Under status quo conditions, managers attempt to craft regulations that limit the amount of fishing effort occurring in areas where overfished species are relatively abundant. This is necessary because discard mortality is 100 percent in many cases, so holding vessels accountable for landings is not sufficient alone to control total mortality. Holding vessels accountable for both landings and discard shifts the burden of catch control to those engaged in the harvesting of groundfish resources and the expected outcome is one where vessel operators engage in techniques that avoid depleted species and/or fish in areas where they are less abundant.

❖ Conservation

Key to the IFQ program is holding vessels accountable for their landings and discards. Because of the incentives to under report and discard IFQ species in order conserve QP, 100% at-sea monitoring is required. A side benefit of the monitoring program will be the increased certainty that managers have about total fishing mortality. This will improve their control of total mortality as well as improve the information used in stock assessments. The improved information will help to sustainably manage all stocks and, in particular, assist in the successful implementation of rebuilding plans.

Individual vessel responsibility for total mortality is expected to encourage fishermen to reduce their incidental catch rates (and decrease their incentive to discard incidental catch). Empirical information suggests that the outcome of imposing responsibility for both landings and discard on vessels can result in substantial changes in the amount of bycatch of depleted species. As illustrated in Chapter 4, the Washington Arrowtooth Flounder EFP was conducted in a manner that held vessels responsible for both landings and discard and the result was one where bycatch rates of constraining overfished species decreased substantially relative to status quo management. It is likely that the same result would occur in a rationalized trawl fishery.

The implication of reducing bycatch rates of constraining overfished species means that there is likely to be increased access to currently under-utilized target species. In other words, many species are not accessed fully under status quo conditions because managers limit access to those stocks in order to rebuild depleted stocks. If harvesters reduce the encounter rate of such constraining species under rationalized fishery conditions, they will in turn be able to leverage more target species that were not being fully accessed under status quo. From a biological perspective, increased removals may mean a lower biomass level for those species that experience higher mortality levels. However, as shown in Chapter 4, the estimated increase in mortality levels is not expected to result in any species falling within the precautionary zone within the 20 year time period analyzed.

❖ Economic Effects

A fishery rationalization program that holds individuals accountable for their discards will induce reductions in the bycatch rate of constraining overfished species. Since fishermen are then accountable for bycatch mortality, managers no longer need to impose regulatory constraints to control bycatch. For example, if an IFQ system were developed that covered landings only, managers would have to reduce the amount of QP issued for target species in anticipation of the average incidental catch rates for overfished species. As covered in the section on conservation, making fishermen responsible for their discards gives them the incentive to reduce unwanted incidental bycatch in order to increase the harvest of currently under utilized target species, thus increasing the value of the groundfish fishery. The result is an increase in economic activity associated with fishing through higher landings, higher exvessel revenues, and increased processing among other things. These impacts have positive effects on objectives related to net benefits, efficiency, sector health, labor and communities.

❖ Program Costs and Effectives

One of the main implications of the decision to require QP to cover discards is the need for 100% at-sea monitoring. The costs of this monitoring program are covered in Section A-3.1.

Species Covered

Two options exist for species coverage with IFQ. One option would cover all species in the Council's ABC/OY table, while another option would cover a sub-set of those, leaving a number of species that are rarely encountered by trawl vessels out of the program.

Requiring that all species be covered with IFQ introduces a factor of risk to harvesters engaged in IFQ activities with minimal conservation benefit. For those species that are rarely encountered, it is likely that there will be a small allocation made to the trawl sector. Two sources of risk exist from a species that is rarely encountered and with a small allocation. A rarely encountered species is likely to have IFQ that is "thinly" traded, meaning that IFQ for these species will be traded infrequently. The implication of infrequent trading is the lack of a clear price signal to both the buyer and the seller and the end result is a traded price that is often based more on personal relationships and negotiation skill than supply/demand conditions. Depending on the skill of the buyer, the buyer may end up paying a large cost for acquiring shares of these species. This potential means there is a possibility that harvesters in the trawl sector that need to acquire shares of those species will pay a large cost.

A second source of risk is derived from the small sector allocation. In many markets, supply will rise to meet demand. However, in a trawl IFQ program, the quota pounds of each species are fixed, but it is entirely possible that harvesters could catch more than the total amount of quota pounds available to the fishery. In cases where allocations made to the sector are relatively small and catch events are highly uncertain and variable, it is not unreasonable to expect that a single trawler could take a substantial portion of the sector allocation on one trip. If that amount is enough to put the total sector catch over the allocation, then that harvester will not be able to acquire additional quota pounds, requiring that vessel be tied up for a period of time (the actual period of time, and the factors determining that time period, is to be determined, see Section A-2.2.1). This tie up provision imposes risk to that harvester because he must forego some future fishing opportunity. However, the potential of exceeding the sector's allocation means that there is also a collective risk to the entire sector. If the sector allocation is exceeded, NMFS may respond by closing areas of the west coast where that species is found and this is likely to prevent harvest of certain target species found in the same areas. This effectively eliminates future harvest opportunity for some target species for all harvesters, creating a risk that is collective to the entire sector. If the risk of this event occurring is great enough, and harvesters in the fishery know that risk is relatively great, then a gradual tendency toward a derby fishery may begin to develop as harvesters effectively "race for bycatch".

From an empirical basis, the trawl sector currently harvests relatively small amounts of some rarely encountered species (such as cabezon, kelp greenling, and nearshore rockfish). In 2005 and 2006, the trawl fishery harvested 1 mt and 5 mt of black rockfish respectively, relative to a 2008 OY of 1,262 mt. If, hypothetically, the trawl sector had been allocated 3 metric tons of black rockfish in 2006, the sector would have exceeded its allocation by 2 metric tons. If that occurred in an IFQ fishery, the economic implications to harvesters in the trawl sector could be fairly large, but the implications to the stock (and by extension, to other recreational and commercial fisheries) would be essentially unnoticeable. Instances like this suggest that the cost of covering rarely encountered species that are not overfished with IFQ may be large to the trawl sector, but with little or no benefit to management, to other fishery sectors, or to the status of the stock.

Table A-2. Catches of selected nearshore species by trawl sectors, 2005–06.

	2006		2005		2008 OY
	Non-Whiting Trawl	Whiting Trawl	Non-Whiting Trawl	Whiting Trawl	
Black rockfish	5	0	1	0	1,262
Other Nearshore rockfish N	3	0.1	1	0	142
Other Nearshore rockfish S	0	0	0	0	564
Cabezon	0	0	0	0	69
Kelp greenling	0	0	0	0	NA

Coverage of species with IFQ is expected to be consistent with several aspects of the MSA, the Groundfish FMP, and the Council's goals and objectives for Amendment 20. Covering species with IFQ means that harvesters are responsible for the catch of those species. When combined with monitoring requirements envisioned to be necessary to support a total catch IFQ program, the coverage of overfished species with IFQ is expected to help foster the rebuilding of those stocks, which is consistent with MSA – 303A(c)(1)(A). This consistency exists because of increased catch certainty associated with IFQ coverage of those species. This increased catch certainty exists because of the type of monitoring associated with a total catch IFQ program (monitoring is expected to be more timely than status quo conditions), and the fact that vessels must stop fishing when reaching their quota. For these same reasons, the coverage of species with total catch IFQ promotes conservation of those stocks, which is consistent with MSA – 303A(c)(1)(C)(ii).

For some species that may be infrequently encountered, the conservation benefit associated with covering those stocks with quota may be minimal. However, the cost and risks associated with covering those stocks with quota could be quite large. When considering this effect next to MSA standards, FMP and Amendment 20 objectives, the coverage of infrequently encountered species with quota may be contrary to the Groundfish FMP objective 15, which states "avoid unnecessary adverse impacts on small entities". This could occur if a vessel falling under the definition of a small entity catches an unexpected quantity of a relatively infrequently encountered species. The cost of covering that catch with quota could be high because of the limited amount of quota available on the market. Additionally, that vessel may incur an enforcement action (if unable to cover that catch with quota) which could be costly. Relative to the OY of infrequently encountered nearshore stocks, the catch occurring in the trawl sector is small. This means that the possible cost to a vessel encountering an unexpected amount of catch of one of these species may be "unnecessary" for the successful management and conservation of the stock while also having an "adverse impact" on that vessel. Furthermore, for reasons outlined in paragraphs above, a catch event could be large enough to affect the entire trawl sector and trawl dependent communities while having little to no effect on the status of the stock or other fishery sectors.

Alternative Scope (A-5)

One option exists that would require whiting vessels to be individually responsible for whiting, but not be individually responsible for the catch of other species. Under this form of management, it is envisioned that bycatch limits would continue to be use for the three whiting sectors (either collectively or at a sector level). The effect of this type of management was discussed in Chapter 4, section 4.6.2.4 therefore the reader is referred to that section for additional discussion that may not be contained here.

The effect of this alternative scope has two principal effects. One effect deals with risk management by quota holders in an IFQ program. The other effect is related to management complexity. Under status quo measures, bycatch limits are used to manage the bycatch of select species in the whiting fishery. Beginning in 2009-2010 bycatch limit management will be applied on a sector-specific basis. It is

envisioned that this type of management would continue under the alternative scope, meaning that managing the bycatch of the three whiting sectors would not change from status quo if one or more sectors of the fishery were managed with IFQ. This means that management of bycatch in the whiting fishery is not likely to add to administrative complexity of the program of this alternative scope is adopted.

Harvesters under an IFQ program face a degree of risk based on the species those harvesters are responsible for, and whether they are responsible for those species collectively or individually. As stated in Chapter 4, holding harvesters individually responsible for bycatch species may create a relatively high amount of risk to individuals, but a relatively low amount of collective risk. Individual risk is defined as one where individuals face a relatively high cost of some form if they catch greater than expected amounts of bycatch species and are responsible for covering that catch with quota individually. This is a relatively high individual risk because, if a harvester incurs a "disaster tow", that harvester would be responsible for purchasing enough quota to cover that catch event by themselves and this may prove quite costly. A collective risk is one where the actions of one harvester can affect the opportunities to another harvester, potentially leading to a break down in rational fishing behavior and race for fish conditions via a race for bycatch even though the fishery may be "rationalized". Such an outcome could occur if a bycatch limit is applied at a sector or fishery level and participants in that sector or fishery do not believe that they can successfully manage that bycatch collectively. When participants stop believing that successful bycatch management is a possibility, the likely outcome is one where they begin to race to catch their target species before the bycatch limit is reached.

The alternative scope described in this section would effectively trade some individual responsibility for some collective responsibility, and decrease individual risk while potentially increasing collective risk. The degree to which individual risk is traded for collective risk depends on the level of bycatch management and whether bycatch is managed at a fishery level or a sector level.

Gears and Fisheries Covered and Gear Switching

❖ Gears and Fisheries Covered

Language in the existing alternatives states:

> QP will be required to cover catch of all groundfish (including all discards) by limited entry trawl vessels using any directed commercial groundfish gear, ... For the purpose of the trawl rationalization alternatives, "directed commercial groundfish gear" is defined as all legal commercial groundfish gear including limited entry gear and commercial vertical hook and line, troll, and dinglebar gear.

The definition of "directed commercial groundfish gear" is difficult to translate into specific gear types. In recent years, groundfish regulations have been applied to salmon troll vessels and ridgeback prawn trawl vessels (among others), implying that gears used in those fisheries may fall under the category of "legal groundfish gear", though they may not be "directed groundfish gear". In any case, discerning particular gear types as "directed" versus "incidental" groundfish activity is not easily specified. Therefore, the type of gears and fisheries covered in the trawl rationalization program would be difficult to specify in regulation and may be somewhat subjective, unless specific gears falling under the IFQ program are listed.

- In order to facilitate the development of this list of gear types and/or fisheries, the following strawman options were developed for consideration. However, before examining the strawman options, it is important to understand the existing scope of groundfish regulations.

- Under existing regulations vessels must "take, retain, and possess" groundfish in order to fall under the authority of groundfish regulations.
- Regulations define specific gear types as legal groundfish gear. This includes legal groundfish trawl gear.
- A vessel with a limited entry trawl permit attached to it that lands groundfish will have that groundfish applied to its trawl cumulative limit for that period. In other words, groundfish landed by trawl vessels when those vessels are participating in non-trawl fisheries still counts toward the trawl allocation.

The following strawman options are based on logic within the bullets above.

Strawman Option 1 for gear falling under the scope of the program	Strawman Option 2 for gear falling under the scope of the program
A vessel with a limited entry trawl permit would be required to have groundfish catch covered with IFQ taken with the following gears unless all groundfish taken with those gears is discarded. If any groundfish is retained, then groundfish catch with the following gear types would require IFQ: • Legal groundfish trawl gear (including bottom, pelagic, and demersal seine) • Anchored longline gear (except when fishing under a LE fixed gear permit) • Anchored fish pot gear (except when fishing under a LE fixed gear permit) • Anchored vertical hook and line gear	A vessel with a limited entry trawl permit would be required to cover all groundfish catch made with the following gear types with IFQ even if all groundfish is discarded: • Legal groundfish trawl gear (including bottom, pelagic, and demersal seine) • Anchored longline gear (except when fishing under a LE fixed gear permit) • Anchored fish pot gear (except when fishing under a LE fixed gear permit) • Anchored vertical hook and line gear • Dingle bar gear • Jig • Set net

To assist in determining which gears and or fisheries the Council may wish to include or exclude from the trawl rationalization program, the following information was developed. This information shows landings of groundfish by fishery and this information is useful for illustrating the potential amount of groundfish catch that occurs in each of the fisheries. Based on this information, the California halibut, pink shrimp, fish pot, Pacific halibut, salmon and set net fisheries take the most groundfish (Table A-4.). However, the catch of groundfish in the pink shrimp fishery has declined dramatically since the introduction of fish excluder devices and that fishery now takes some of the smallest amount of groundfish relative to other non-groundfish fisheries. Of the previously listed fisheries it is primarily the California trawl and pink shrimp fisheries which have substantial crossover with the groundfish trawl fishery and some participation in the California halibut fishery is considered to be part of the limited entry trawl fishery. Outside of the California halibut, fishpot and Pacific halibut fisheries, the exvessel revenue from groundfish contributed less than 3% of the value of the total catch in these open access fisheries (Table A-5).

Of these listed fisheries, California halibut trawl and sea cucumber trawl use gear defined as "legal groundfish gear". Pacific halibut uses anchored longline, fish pot uses anchored fish pot gear, and set net and California halibut hook and line use gear often described as groundfish gear. Participation in the pink shrimp, ridgeback prawn, spot prawn, CPS, crabpot, HMS, salmon, and sea urchin would not be included under the scope of the program in either options 1 or 2.

Table A-3. Gears listed in each option.

	Option 1 (When groundfish is retained by this gears IFQ must be used)	Option 2 (When groundfish is caught by these gears, IFQ must be used).
Legal Groundfish Trawl	Yes	Yes
Anchored Longline	Yes, except when used with a fixed gear permit.	Yes, except when used with a fixed gear permit.
Anchored Fishpot	Yes, except when used with a fixed gear permit.	Yes, except when used with a fixed gear permit.
Anchored Vertical Hook&Line	Yes	Yes
Dinglebar	No	Yes
Jig	No	Yes
Setnet	No	Yes
CPS Gears	No	
Crabpot	No	
HMS Gears	No	
Salmon Troll	No	

Table A-4. Federal groundfish landings in incidental fisheries, 1998-2006, including averages.

Fishery	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVG
Non-groundfish trawl										
California halibut	56.6	47.3	22.5	21.7	14.3	10.6	28.1	31.6	22.7	28.4
Pink shrimp	186.5	220.8	153.0	94.2	47.0	1.3	1.8	0.1	0.0	78.3
Ridgeback prawn	1.9	4.1	8.0	9.1	3.8	3.4	0.9	1.2	3.4	4.0
Sea cucumber	3.1	1.6	1.2	1.4	0.9	1.1	0.3	0.1	0.0	1.1
Spot prawn 1/	28.8	16.0	6.0	3.4	2.0	0.2	0.0	0.0	0.0	6.3
subtotal	276.9	289.8	190.7	129.8	68.0	16.6	31.1	33.0	26.1	118.0
California halibut HL 2/	4.7	5.8	5.2	3.7	2.3	3.4	3.0	1.2	1.1	3.4
CPS	6.2	3.6	2.5	2.8	2.0	4.3	2.9	0.8	1.9	3.0
Crabpot	1.5	1.0	1.2	0.7	0.6	0.9	1.2	4.3	6.1	1.9
Fish pot 2/	3.7	3.1	6.8	9.0	3.1	3.9	4.5	2.3	1.2	4.2
HMS	3.8	2.7	2.9	3.4	4.1	1.9	2.1	1.7	1.7	2.7
Pacific halibut LL 2/	2.0	4.6	3.7	5.6	4.1	10.9	15.9	20.3	20.3	9.7
Salmon	37.8	22.5	18.0	13.4	9.3	8.7	13.1	11.5	4.1	15.4
Sea urchin	0.0	0.1	0.5	0.1	0.3	0.3	0.0	0.0	0.0	0.1
Set net 2/	31.9	57.7	46.3	38.8	29.2	25.8	16.8	22.3	14.4	31.5
subtotal	91.6	100.9	87.1	77.5	54.9	60.1	59.6	64.4	50.8	71.9
TOTAL	368.5	390.7	277.8	207.3	122.9	76.7	90.7	97.4	76.9	189.9
Fishery unknown	96.2	58.4	63.1	81.2	6.9	2.7	3.6	5.4	3.6	35.7
TOTAL (2)	464.7	449.1	340.9	288.5	129.8	79.4	94.3	102.8	80.5	225.6

1/ Prohibited in California starting April 2003. Incidental landings are allowed with ridgeback prawn landings

Table A-5. Summary of open access incidental fishery landings of federal groundfish, 1998-2006 annual averages.

	Target species		Federal groundfish		Federal groundfish % based on	
Fishery	mt	K$$	mt	K$$	mt	K$$
Non-groundfish trawl						
California halibut	111.2	759.4	28.4	66.1	25.5%	8.7%
Pink shrimp	8,244.7	6,254.2	78.3	90.9	0.9%	1.5%
Ridgeback prawn	219.6	625.5	4.0	7.6	1.8%	1.2%
Sea cucumber	91.5	162.4	1.1	2.7	1.2%	1.6%
Spot prawn 1/	57.5	929.7	6.3	11.3	10.9%	1.2%
subtotal	8,724.6	8,731.1	118.0	178.5	1.4%	2.0%
California halibut HL 2/	66.1	467.6	3.4	15.3	5.1%	3.3%
CPS	149,012.7	31,799.8	3.0	5.3	0.0%	0.0%
Crabpot	15,428.1	60,653.2	1.9	7.2	0.0%	0.0%
Fish pot 2/	288.8	542.0	4.2	41.7	1.4%	7.7%
HMS	12,194.8	22,361.4	2.7	4.9	0.0%	0.0%
Pacific halibut LL 2/	62.0	308.3	9.7	31.8	15.6%	10.3%
Salmon	3,196.3	13,655.2	15.4	24.1	0.5%	0.2%
Sea urchin	5,618.8	9,336.6	0.1	1.0	0.0%	0.0%
Set net 2/	351.5	1,356.7	31.5	37.8	9.0%	2.8%
subtotal	186,219.0	140,480.8	71.9	169.1	0.0%	0.1%
TOTAL	194,943.6	149,212.0	189.9	347.6	0.1%	0.2%
Unknown	NA	NA	35.7	NA	NA	NA
Total (2)	194,943.5	149,211.9	225.6	NA	NA	NA

1/ spot prawn trawling prohibited in California starting April 2003. Incidental landings allowed with ridgeback prawn landings

Association with the Inter-Sector Allocation Process

Requiring that a vessel with a limited entry trawl permit cover groundfish catch in non-groundfish fisheries with quota is consistent with existing provisions which applies groundfish landings made by a vessel with a limited entry permit in a non-trawl sector to that vessel's trawl cumulative limit. This effectively limits groundfish catch by a trawl vessel to its cumulative limit regardless of which fishery that vessel may have harvested groundfish and expands the trawl sector allocation to participation in fisheries other than the trawl fishery. Exceptions do exist however, such as when a trawl vessel with a limited entry fixed gear permit participates in the sablefish tier fishery. Under this circumstance, the catch of a vessel with a trawl permit associated with it in the sablefish tier fishery is not applied to the trawl cumulative limit.

If groundfish catch made by LE trawl licensed vessels that are participating in a non-trawl fishery are not included under the scope of the trawl rationalization program, then the inter-sector allocation process may need to take that decision into account. One method of dealing with this issue is to attribute groundfish catch in fisheries not covered under the scope of the rationalization program toward the non-trawl sector. This could be done by developing estimates of groundfish catch made by licensed trawl vessels participating in fisheries not covered under the scope of the program and applying that estimated catch to the allocation made to the non-trawl sectors. Another approach for some legal gaers that take a very small aobut of groundfish quota would be to estimate the expected mortality preseason and deduct it from the trawl allocation before allocating out the QP. Adjustments would be made from year to year if the actual take were greater or smaller than the estimates but given the low harvest levels, deviations from the estimates would be unlikely to have a significant conservation impact.

❖ Gear Switching

Gear switching is an implied result of the definition of the program scope. Gear switching may be used to balance catch accounts (because different gears have relatively different catch rates), take advantage of differing market opportunities, or to respond to public relations issues. Although difficult to predict, some information suggests that there are harvesters located in different sections of the west coast that are more likely to engage in gear switching on a permanent basis. Harvesters located in the central and southern-central California coast have expressed a desire to switch from trawl gear to groundfish fixed gear (longline and pots) in recent years because of public relations issues and because consumers in central and southern California appear to prefer non-trawl caught fish. In addition, harvesters that have typically relied on areas with relatively high rates of constraining species bycatch may be more likely to switch to a non-trawl gear to avoid those constraining stocks since many types of fixed gear have lower bycatch rates of overfished stocks than trawl gear (though not always as is evidenced by the comparative bycatch rates of yelloweye rockfish). This may encompass harvesters located in northern Washington and some harvesters in southern Oregon ports. Other factors may cause harvesters to temporarily use non-trawl gear to prosecute fishing activities during certain times of the year. This may be due to market conditions where there is a noticeable differential in the prices paid for groundfish species caught with one gear versus another. This is particularly the case for sablefish. The figure below shows that there is a substantial price differential between fixed-gear-caught sablefish and trawl-caught sablefish. If the trawl sector harvests 10 percent of the trawl allocation with fixed gear, this would increase exvessel revenues by approximately $600,000. If 20 percent of the trawl allocation was caught with fixed gear, exvessel revenues may increase by $1.2 million.

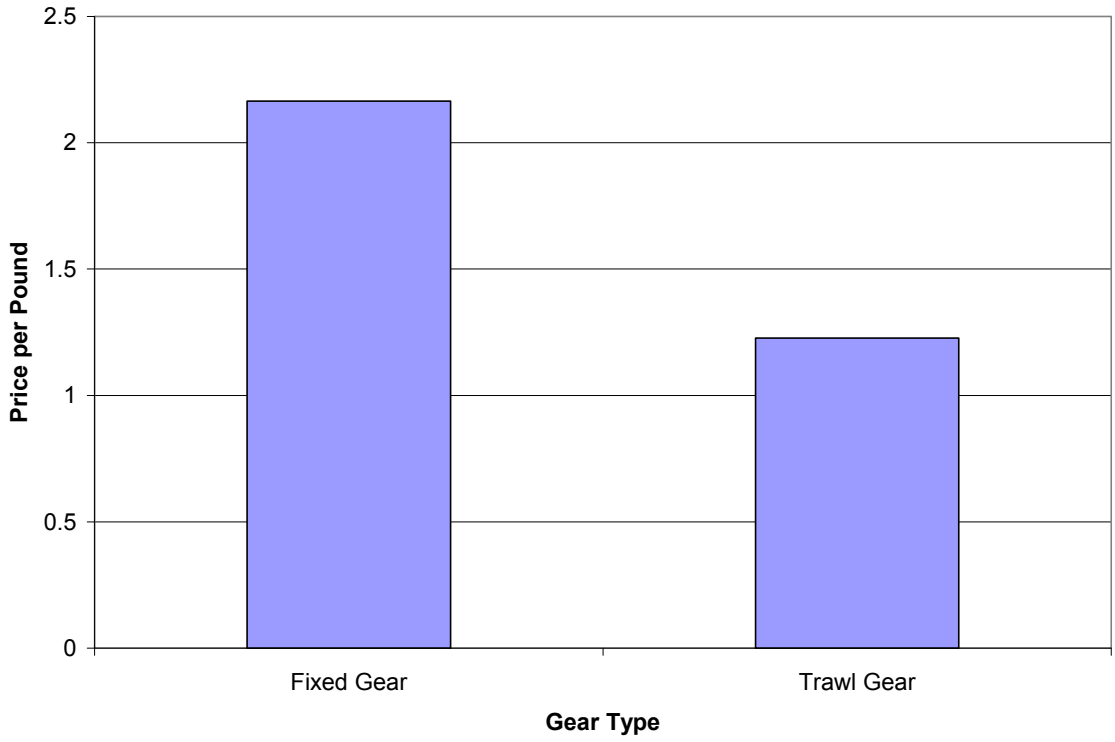

Figure A-1. Average price per pound for sablefish by gear type (2004–07).

Another factor influencing gear switching, aside from the price differential, is the ability to harvest some types of groundfish with trawl gear that cannot be caught with non-trawl gear. Harvesters in many areas are not likely to abandon trawl gear completely because doing so would mean giving up the catch of many species of flatfish, which are not easily caught with non-trawl gears. In other words, in many areas of the coast, harvesters may use non-trawl gear to target species such as sablefish during certain times of the year and use trawl gear to prosecute petrale sole, Dover sole, and other flatfish during other times of the year. The relative catch rate—under status quo conditions—for bottom trawl and fixed gear is shown in Table A-6. This information shows that fixed gear is successful at catching sablefish, shortspine thornyhead, and arrowtooth to some degree, but is not productive for catching many types of flatfish. Trawl gear on the other hand is capable of catching all of the species listed in the table. One reason these flatfish are not successfully caught with hook-and-line gear is because of their feeding patterns. While many longline fishermen may use herring with large hooks for example, several of the flatfish shown below feed on small prey, like worms, and have mouths too small to be caught with many of the hook sizes currently used. This information implies that large-scale gear switching may result in several species of flatfish being left unharvested.

Table A-6. Catch of select groundfish by gear type, mt (2006).

Species	Non-whiting trawl	Fixed Gear
Sablefish	2,654.3	3,119.3
Shortspine	648.7	178.1
Longspine	821.3	21.2
Dover sole	7,475.5	4.6
Petrale sole	2,690.1	4.1
English sole	1,291.4	0.0
Arrowtooth flounder	2,817.6	78.8
Other Flatfish	1,854.9	4.1

Gear switching in an IFQ program address several aspects of guidance related to rationalization. Gear switching is related to conservation, net benefits and sector health. The MSA at 303A(c)(1)(C)(ii) states that LAPPs shall promote fishery conservation and management, while the Groundfish FMP objective 5 specifies the objective of minimizing adverse impacts on EFH. Gear switching is expected to result in a wider use of gear types sine of which may have a smaller impact on habitat than bottom trawl gear. However, this is not necessarily always the case, especially in cases where fixed gear can access high relief substrate and trawl gear cannot. If gear switching results in increased fishing pressure in areas where trawl gear currently cannot access, the result may be a greater impact on habitat than under status quo. In other areas (those that are accessible to trawl gear), the impact may be a reduction in the impact on habitat. A reduction in habitat impacts is expected to have an indirect effect on fish stocks and in this way influence fishery conservation.

A-1.2 IFQ Management Units, Including Latitudinal Area Management

Provisions and Options

QS will carry designations for the species/species group, area, and trawl sector to which it applies (see A-1.3 for the list of trawl sectors). The QP will have the same species/species group, area, and sector designations as the QS on the basis of which the QP was issued. QP will not be used in a trawl sector other than that for which it was issued, unless specifically allowed, and will not be used in a nontrawl sector (i.e. by vessels without trawl permits).[2] QP will not be used in a catch area or for a species/species group other than that for which it is designated.

The species, species groupings and area subdivisions will be those for which OYs are specified in ABC/OY table that is generated through the groundfish biennial specifications process. QS for remaining minor rockfish will be aggregated for the nearshore, shelf, and slope depth strata, as per Table A-65.

- ► Geographic Subdivision **Option:** Additionally, for species or species groups for which the OY is not geographically subdivided (i.e. there is only a coastwide OY), the QS will be subdivided geographically at the 40°10' N latitude line. Existing geographic lines for other species will be maintained. (If this option is not adopted, area divisions will be as specified for OYs in the biennial ABC/OY table, unless changed by the Council.)

OR

- ► See Section A-8 for an alternative approach to addressing concerns about geographic shifts: "regional landing zone restrictions." Regional landing zone restrictions would not alter the IFQ management units.

Changing the management units. After initial QS allocation the Council may alter the management units by changing the management areas or subdividing species groups. Section A-2.1.6 provides methods for reallocating QS when such changes are made after initial implementation of the program.[3] *Hereafter, all references to species include species and species group, unless otherwise indicated*

Rationale and Policy Issues

The IFQ units would be matched to the ABC/OY table species and species complexes in order to allow managers to control trawl harvest with respect to the annual ABC/OY management targets.

The option to provide a further geographic subdivision of those categories is intended to spread out effort to decrease the likelihood of localized depletion of fish species/populations and to disperse landings to sustain a variety of coastal communities. Managers of both British Columbia groundfish and IPHC halibut employ area management.

The GMT recommended in June 2007 that status quo area management measure be applied as a precautionary measure under both status quo and rationalization management systems.

> As evidenced by the March 2007 groundfish inseason action, increasingly complex spatial management measures may be necessary within the existing management framework. Intersector allocations and the implementation of trawl individual fishing quotas (TIQ) may further increase the need for spatial management, perhaps in a manner different than status quo….

[2] Not withstanding this provision, a vessel with a LE trawl permit may catch the trawl QP with a nontrawl gear, as per Section A-1.1.

[3] Such changes in latitudinal area management may occur as a result of changes in the management areas for species/species complexes in the ABC/OY table or as a result of separate Council action to change the trawl QS by area. In either case, specific Council action will be required to change the management areas and such action will be accompanied by appropriate supporting analysis and public comment opportunity.

> Spatially-explicit management has proven to be critical to meeting conflicting management goals and objectives, such as maintaining fishing opportunities on healthy stocks while reducing incidental catches of rebuilding species, and meeting habitat protection requirements. Furthermore, there is a growing appreciation of the significance of heterogeneity in population structure for most marine organisms, as well as for the potential interaction between population structure and fishing behavior, that scientists and managers alike will find increasingly necessary to confront in population models and management measures….
>
> The GMT recommends incorporating current area management tools within the TIQ program, recognizing the limitations, and continue to pursue research and data that may further inform spatial management. As data become available, area management within the TIQ program is expected to evolve and adapt.

- A further explanation of how north-south trawl IFQ allocation would work is provided below.
  1. Allocation of QS would be based on landings by area north and south of the 40° 10' North Latitude area management line. The area to the north sums to 100% and the area to the south sums to 100%.
  2. Division of trawl allocation between north and south areas could be based on average landings over a series of years (1994-2003 was suggested by the GMT, 2004-2006 is the status quo years used in the analysis). The Council has not selected a period of years.

  Currently and in the past, permits could be sold coastwide. There is a possibility, if a permit was sold to a different part of the west coast, that the permit would not get an initial allocation of QS that match the present-day location of the vessel, but rather match the history of the permit. For example, if someone in California wanted to sell their permit to someone fishing in Washington, that vessel might qualify, based on fishing history, for southern QS, but not northern. That vessel would have to acquire northern quota shares to fish by a different means than initial allocation, such as buying or trading.

  The goals and objectives addressed by the Area Management provision include; promote fishery conservation (MSA 303A(c)(1)(A)); consider biological stock structure and minimize localized concentrations of fishing effort (Amendment 20 Constraint 3); address concerns over excessive geographic consolidation in the harvesting or processing sectors (MSA 303A(c)(5)(B)(ii)); and promote sustained participation of fishing communities and address concerns over excessive geographic consolidation (MSA 303A(c)(5)(B)).

Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
X			X				X			

A process option to form a group to address area management was considered but rejected.

Interlinked Elements

General Management and Trawl Sectors –The north-south division of coastwide OYs would not apply to the shoreside whiting fishery if managed by IFQs, as it occurs entirely to the north.

Stock distribution vs. distribution of trawl sector allocation – The north and south distribution of trawl sector allocation, if based on past landings amounts, may not match up with future groundfish locations and centers of abundance. The percentage of the north-south OY split is typically based on biological considerations, is part of the biennial specifications process, and would not necessarily be indicated under Amendment 20. IFQ area management units are related to decisions to be made under the intersector allocation and/or 2011-12 groundfish harvest specifications EISs.

Reallocation with changes in management area – There are specific formulas proposed in the program provision alternatives which describe how reallocation would occur if there were an area subdivision, area recombination, area line movement, or species group subdivision.

Analysis

Area management units would have both a biological effect and a socioeconomic effect. Under a rationalized fishery it is anticipated that harvest privileges will be more fluid than under status quo. Under status quo, permit owners can sell their permit, or lease their permit to another individual that fishes that permit. However, IFQ is anticipated to be more fluid because it is divisible and one individual's quota can be spread throughout several different active vessels, or stacked on one vessel. Because of this envisioned fluidity, fishing effort is likely to be much more concentrated in areas where economic conditions (including catch per unit effort and species mix in the catch) are most favorable (assuming area management restrictions do not exist). This may have the effect of shifting fishing and delivery activity away from some areas and toward others, resulting in an overall shift in location in which fishing activity occurs.

Assuming area management units do not exist, then from an economic standpoint this shift can be viewed as favorable to some as quota owners are best able to capitalize on favorable economic conditions. In the case of coastal communities, the effect is largely distributional. Those communities that lose fishing activity stand to be adversely affected while those communities that gain fishing activity stand to be positively affected.

From a biological standpoint the issue is somewhat mixed. On the one hand, if short term economic conditions dominate the decision of where fishing effort will be concentrated, then stocks present in areas with an increase in fishing effort may experience more mortality than under status quo. However, if those stocks become less abundant, harvesters may elect to move and fish to areas where stocks are more abundant, allowing stocks in the first area to recover while harvesters fish in the area of more abundant stocks. Even so, if costs are lower in a particular port or region of the coast, or the travel distance to the fishing grounds shorter, QP may tend to flow to vessels in those locations even though the CPUE is lower due to localized depletion.

If area management restrictions exist, this is likely to temper the geographic shift effect. In general, trawling effort has been becoming increasingly concentrated in areas off Oregon and northern California, and less concentrated in areas off central and southern California. If an area management boundary is put in place at 40° 10' North Latitude (just south of Cape Mendocino), it is expected that the shift in concentration of fishing to the north of that latitude line will be halted/reversed and more fishing activity will take place to the south compared to a case where no area management restrictions

exist. Implementing this area restriction may have the effect of spreading the distribution of fishing activity across a wider number of communities. However, quota owners may be less able to capitalize on favorable economic conditions and the fluidity of QS will be reduced.

In November 2007, the GMT proposed a north-south QS split based on average fleet catch history in the two areas during the 1994-2003 period. In Table A-7 below, trawl caught average percentages north and south for 1994-2003 are compared to more recent years (2004-2006 averaged) for certain species.

Table A-7. Share of Trawl Landings North and South of 40° 10' North Latitude Line averaged for the years 1994-2003 and 2004-2006.

	1994-2003		2004-2006
	All Permits	Non-buyback	
Sablefish			
North of 40-10	82.34%	80.78%	86.96%
South of 40-10	17.66%	19.22%	13.04%
Shortspine Thornyheads			
North of 40-10	72.77%	68.26%	71.39%
South of 40-10	27.23%	31.74%	28.61%
Longspine Thornyheads			
North of 40-10	75.39%	71.10%	54.37%
South of 40-10	24.61%	28.90%	45.63%
Dover Sole			
North of 40-10	71.73%	66.82%	81.92%
South of 40-10	28.27%	33.18%	18.08%
Petrale Sole			
North of 40-10	81.99%	77.26%	86.08%
South of 40-10	18.01%	22.74%	13.92%
Other Flatfish			
North of 40-10	56.25%	44.66%	77.02%
South of 40-10	43.75%	55.34%	22.98%

- For some species, such as other flatfish, Petrale sole, and Dover sole, the more recent years show the trawl catch is greater in the north. Using 1994-2003 would not reflect the current trawl effort as well as more recent years would, but using the older years would spread the effort out more between northern and southern areas. For other species, such as sablefish, there is less of a discrepancy between using an older data set and more recent years. The Council may wish to split north and south the QS for shortspine and longspine thornyheads to disperse the trawl effort on those species. However, the provision as it is currently written would have to be changed to include the thornyheads, because the current provision only applies to species that have no OY management division. Thornyheads have a management division at 34° 27' North Latitude Line, which has little application to the trawl fishery.

The status quo management of some species' OY currently divides fishing effort to the north and south of 40° 10' North Latitude, such as minor nearshore, shelf and slope rockfish. Other species have an OY management division at a different line of latitude, such as shortspine and longspine thornyhead, and 34° 27' North Latitude. Most groundfish species, such as whiting, Dover sole, petrale sole, and widow rockfish, have a coastwide OY with no specified area management. Below is a table (Table A-8) which lists every west coast groundfish stock and stock complex with a specified OY and whether that OY is

coastwide or has a division. Those species with no OY division would have the 40° 10' North Latitude management line applied to it under rationalization.

Table A-8 furthers the analysis by commenting on the potential biological effect of creating a management division at 40° 10' North Latitude. In general species that are found further off-shore, e.g. on the continental slope, have a life history that involves broadcast spawning, higher level of adult mobility, and a higher level of genetic mingling than species found on the continental shelf and nearshore. Adult nearshore species tend to have higher site fidelity, and is less likely to colonize new habitats, have lower levels of genetic mixing and therefore higher levels of genetic specialization and diversity. Nearshore species are more vulnerable to intense and localized fishing effort, because they tend to be more adapted to a specific area than slope species. If concentrated fishing effort occurred on slope species, there is a lower risk of localized population depletion because other individuals in the population are genetically similar and could migrate to re-populate the depleted area. Localized depletion would have a greater effect on species occurring on the shelf and nearshore, because in general their life history characteristics tend to include low larval dispersal, high geographic loyalty, and high genetic diversity.

In addition to the generalized differences in life characteristics of slope versus shelf species, there are other considerations that bear on whether or not the management division at 40° 10' North Latitude would apply in a useful way. For example, some species range entirely above or below 40° 10' North Latitude, are not caught in either the north or the south, and a management line at that location would not help spread out the catch effort (such as arrowtooth flounder, Pacific ocean perch, and Pacific cod, which all primarily occur in the northern area). Some species have an unknown distribution, and still other species are so rarely caught by the bottom trawl fishery that an area management line would have little biological implication.

Table A-8. West coast grounfish stocks and stock complexes with harvest specifications. (Overfished stocks in CAPS.)			
Stock	**Geographic extent of specified optimum yields (OYs)**	**Potential biological benefit of separate OYs N and S of 40°10' N lat. (if current OY is coastwide)?**	**Comments**
Lingcod	Coastwide	Likely	Southern sub-population has different pop. dynamics and is more depleted
Pacific Cod	Coastwide	Unlikely	Rare S of 40°10' N lat.
Pacific Whiting (U.S.)	Coastwide	Unlikely	Highly migratory with majority of fishing pressure in the north
Sablefish	Separate OYs N and S of 36° N lat.	N/A[4]	
PACIFIC OCEAN PERCH	Coastwide	Unlikely	Rare S of 40°10' N lat.
Shortbelly Rockfish	Coastwide	Unlikely	Negligible exploitation
WIDOW ROCKFISH	Coastwide	Unknown	Stock differences along west coast unknown
CANARY ROCKFISH	Coastwide	Unknown	Stock differences along west coast unknown
Chilipepper Rockfish	S of 40°10' N lat.	N/A	Managed under the minor shelf rockfish complex in the north
BOCACCIO	S of 40°10' N lat.	N/A	Managed under the minor shelf rockfish complex in the north
Splitnose Rockfish	Coastwide	Unknown	Stock differences along west coast unknown
Yellowtail Rockfish	N of 40°10' N lat.	N/A	Managed under the minor shelf rockfish complex in the south
Shortspine Thornyhead	Separate OYs N and S of 34º27' N lat.	N/A	
Longspine Thornyhead	Separate OYs N and S of 34º27' N lat.	N/A	
COWCOD	S of 40°30' N lat. (Con. and Mon. areas)	N/A	
DARKBLOTCHED	Coastwide	Unlikely	Slope species: genetic diversity likely low along west coast due to broad larval dispersal
YELLOWEYE	Coastwide	Unknown	Stock differences along west coast unknown; sedentary life history may lead to stock differences
Black Rockfish	Separate OYs N and S of WA-OR border	N/A	
Minor Rockfish North	N of 40°10' N lat.	N/A	
Nearshore Species	N of 40°10' N lat.	N/A	
Shelf Species	N of 40°10' N lat.	N/A	
Slope Species	N of 40°10' N lat.	N/A	
Minor Rockfish South	S of 40°10' N lat.	N/A	
Nearshore Species	S of 40°10' N lat.	N/A	

[4] Not Applicable (N/A). The 40°10' N lat. management line would not be applied to species with a previously specified management division.

Table A-8. West coast grounfish stocks and stock complexes with harvest specifications. (Overfished stocks in CAPS.)

Shelf Species	S of 40°10' N lat.	N/A	
Slope Species	S of 40°10' N lat.	N/A	
California scorpionfish	Coastwide	No	Ranges S of 37° N lat. and rare N of 34°27' N lat.
Cabezon	OY for CA only	N/A	
Dover Sole	Coastwide	Unlikely	Stock differences along west coast unknown, but long larval period (2 yrs) and offshore larval transport prob. contribute to low genetic diversity
English Sole	Coastwide	Likely	Stock differences along west coast unknown, but inshore larval dispersal may contribute to higher genetic diversity
Petrale Sole	Coastwide	Likely	Stock differences along west coast unknown, but inshore larval dispersal may contribute to higher genetic diversity
Arrowtooth Flounder	Coastwide	Unknown	Stock differences along west coast unknown, but deeper shelf spawning and 4 week larval period may contribute to higher genetic diversity
Starry Flounder	Coastwide	Likely	Stock differences along west coast unknown, but nearshore distribution prob. contributes to higher genetic diversity
Other Flatfish	Coastwide	Likely	Mix of species including nearshore species with probable high genetic diversity
Other Fish	Coastwide	Unknown	Mix of species with disparate life histories; Though stock differences along west coast unknown there may be some trawl-caught species with higher genetic diversity
Kelp Greenling	HG for OR only	N/A	
Longnose Skate	Coastwide	Unlikely	Stock-specific OY specified starting in 2009; Highly migratory with prob. low genetic diversity

Creation of a line for species that are abundant coastwide but present in relatively small quantities south of Cape Mendocino may risk the creation of problems similar to those described in Section A-.1.1 with respect to species that are generally caught in small quantities by the trawl fishery (e.g. cabezon and black rockfish). See Species Covered in section A-1.1 for a discussion of the implications of requiring IFQ for species which rarely encountered species and for which the available QP is very limited.

Minor effects of the area management provision, would include additional tracking, monitoring, and enforcement of QS harvest location. North and South categories of QS would be created and tracked to make sure that are fished and traded/sold in the correct area. Likewise, if adaptive management QS are part of the rationalization program, those quota shares would also be designated North and South.

In summary, an OY management division at 40° 10’ North Latitude would result in a more precautionary management measure for some of the species currently lacking north/south area management divisions; would be more effective for certain species than others depending on life history traits; would help ensure some communities retain some amount of historical fisheries commerce; and would restrict coastwide tradability of QS.

A-1.3 General Management and Trawl Sectors

Provisions and Options

Unless otherwise specified, status quo regulations, other than trip limits, will remain in place. If individual vessel overages (catch not covered by QP) make it necessary, area restrictions, season closures or other measures will be used to prevent the trawl sector (in aggregate or the individual trawl sectors listed here) from going over allocations.[5] The IFQ fishery may also be restricted or closed as a result of overages in other sectors. There will be:

►**Option 1:** three trawl sectors: shoreside, mothership, and catcher-processors.
Option 2: four trawl sectors: shoreside nonwhiting, shoreside whiting, mothership, and catcher-processors.

Allocation among trawl sectors to be determined in the intersector allocation process.[6]
Trawl vessels fishing IFQ with nontrawl gear will be required to comply with the RCA lines applicable for that gear. Such restrictions, as necessary, will be determined in a separate process.

Rationale and Policy Issues

Within a rationalization program, the more transferability allowed among vessels the more efficient the use of the fishery resource and hence the greater the potential total economic benefits of the program. However, in an attempt to preserve certain characteristics of a fishery that may be considered desirable, limits on IFQ transfers among sectors may be adopted despite being less economically efficient overall.

The Council, at the recommendation of the TIQC, eliminated the one trawl sector option from further analysis. By not differentiating between trawl sectors, the single trawl sector option would maximize potential transferability among trawl fisheries. However, with one sector the market may not fully capture all the important social and economic effects, particularly if some IFQ buyers in the market benefit from both harvesting and processing profits while others only harvest or only process. It is anticipated, therefore, that a single sector would lead to migration of quota to the more vertically integrated catcher-processor sector. Such expected consolidation would likely result in disruption of other sectors in the fishery and a change to its current landscape, including loss of small-boat/owner-operator businesses that could be out-competed in both the shoreside and mothership fleets. Such situations would conflict with the objective to minimize adverse effects on fishing communities to the extent practical and the MSA mandate to consider the basic cultural and social framework of the fishery (303A(c)(5)(B).

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[5] The Council authority to establish or modify RCAs will not be changed by this alternative.

[6] The allocation among trawl sectors will be determined as part of the intersector allocation process. The TIQC recommended a number of options for determining the allocation among trawl sectors. One of these would have based the allocation on fleet history, but would not have included in the fleet history the history of any vessel not meeting the recent participation requirement. The Council rejected this application of a recent participation requirement to a determination of fleet history. The remaining TIQC options recommend that the division of allocation among trawl sectors be based on the fleet history over the same time periods used to allocate QS. The TIQC further recommends that if different periods are used for different trawl sectors, either (1) calculate the share for each sector based on its IFQ allocation period, then adjust all percentages proportionately such that they sum to 100%; OR (2) use the shortest period common to the allocation formula for all sectors.
If bycatch in the whiting sectors is not managed with IFQs and is pooled at the overall whiting fishery or sector level, allocations of bycatch will be determined through the intersector allocation process. The TIQC recommends allocation among the whiting sectors based on: Option 1: pro rata in proportion to the whiting allocation, or Option 2: weighted historical catch formula (for example, in projecting bycatch in the whiting fisheries prior to the start of the season, the GMT uses a four-year weighted average starting with the most recent year: 40%, 30%, 20%, 10%).

While less economically efficient in theory, the options of three sectors or four sectors would better protect communities and regions once the fishery was rationalized. Multiple sectors would allow the Council to make explicit decisions about how to allocate QS between the sectors in order to incorporate some of the socio-economic values that might not be captured by a market driven allocation.

Four sectors represent the current groundfish fishery and its diversity.

Under a three sector fishery, the shore-based harvesting sector would share one pool of whiting and other groundfish, and this could allow for more flexibility to move harvest opportunity between shoreside whiting and nonwhiting trips to address the fishery's needs. This would relieve some of the Councils allocation tasks and result in more economically optimal distribution, particularly with respect to the consideration of the shoreside whiting and non-whiting fisheries needs for bycatch, which would be addressed through market-based mechanisms rather than regulatory, administration-based mechanisms.

Interlinked Elements

IFQ or cooperatives as the catch control tool: If the non-whiting sector is managed with IFQ and the shoreside whiting sector is managed with cooperatives, the fishery must be managed with four trawl sectors.

Analysis

Number of Trawl Sectors

It has been hypothesized that if one sector of the fishery has more financial capability of purchasing quota than another sector, then establishing a single shoreside sector may tend to result in a flow of quota from one group of harvesters to another. If overfished species IFQ flows from one sector to another (because one sector has greater purchasing power), the sector that loses the overfished species IFQ may see their ability to access target species reduced (because of the constraining nature of overfished stocks). Alternatively, if there are four sectors, the separation would tend to preserve the amount of species available to each sector. It is important to note that this argument is theoretical. Available information suggests that both shoreside sectors will see profits improve under a well designed rationalization program. However, having a single shoreside sector will tend to make it easier for trades to occur, while having two shoreside sectors will tend to maintain two fairly distinct sectors (though some vessels may participate in both).

The number of trawl sectors established will likely influence the flexibility that harvesters have in either sector. By creating three trawl sectors and bundling both shoreside sectors into a common allocation, the trading of quota can occur between both sectors in a manner that creates flexibility in harvesting activity because of the ability to acquire and sell quota as needed. The establishment of four trawl sectors imposes risks to harvesters because it reduces the amount of quota pounds available to each sector and creates a firm set of allocations that could cause a sector to close if one or more of those allocations was met. For example, if the incidental catch of Pacific whiting in the non-whiting sector is higher than anticipated, non-whiting harvesters could end up being constrained by Pacific whiting and would not be able to purchase whiting quota from shoreside whiting harvesters to alleviate some of that constraint. This division of quota between the shoreside sectors could restrict the ability of non-whiting harvesters to prosecute fishing activity if some species become unexpectedly constraining, because it establishes boundaries and restrictions on fishing activity without a mechanism for harvesters to work around those restrictions. Alternatively, the establishment of four trawl sectors implies that a set-aside

or allocation of non target species will be necessary for the whiting fishery. Such a set aside may be a target species for the non-whiting fishery. Setting firm allocations for separate trawl shoreside sectors may mean a loss of economic opportunity in years where the whiting fishery does not need that entire set aside, thus jeopardizing the ability of the trawl sectors to achieve their allocation. Sablefish is one example of a species where catch in the whiting fishery has varied from year to year and for which allocations necessary to establish four sectors may result in lost potential or produce a constraining species. In years where the catch of sablefish is low in the whiting fishery, that catch will reflect a lost economic opportunity to non-whiting harvesters if that quota cannot be transferred to them. Figure A-2 shows sablefish catch in the whiting fishery over the past several years. This figure shows that the catch of sablefish has varied substantially. Interestingly, the largest source of variation is in the shoreside whiting fishery. In years where sablefish bycatch is low, the inability to transfer that catch to the non-whiting sector (because of the establishment of four trawl sectors) represents a lost opportunity.

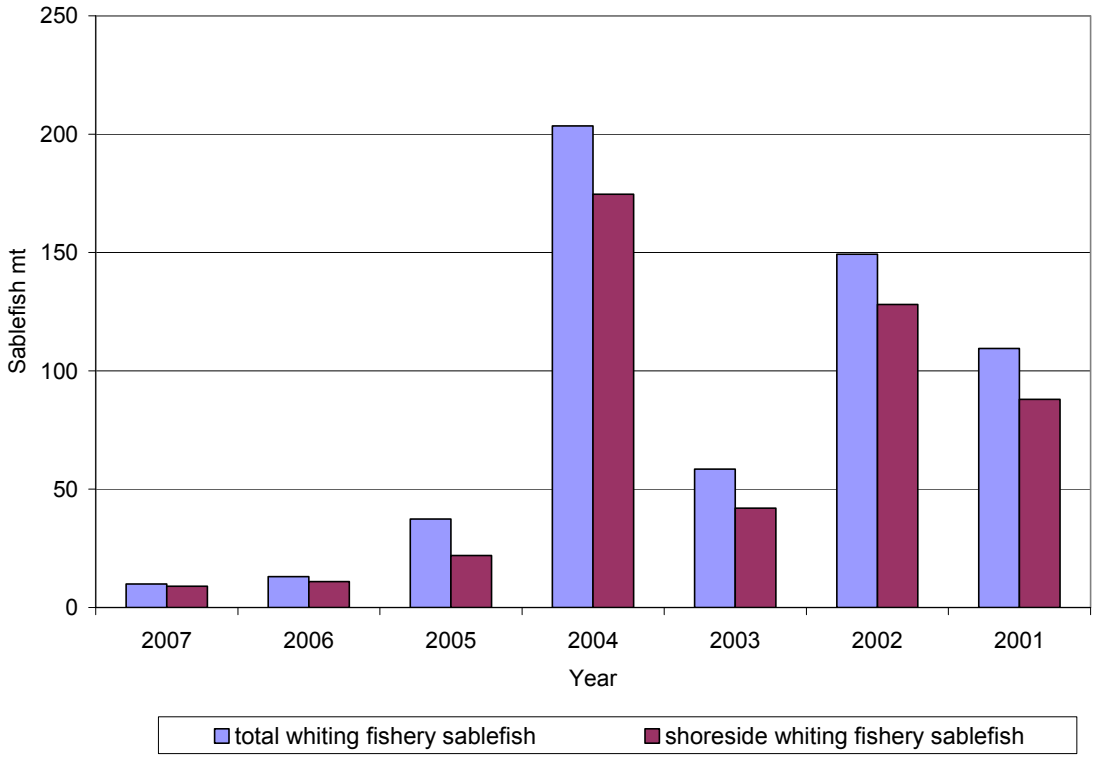


Figure A-2. Bycatch of sablefish in the Pacific whiting fishery (2001–07).

Measures used to Prevent Exceedance of Allocations

Closing portions of the fishery through area restrictions, season closures, or some other measure to prevent the trawl sector from going over an allocation, or implementing those measures because another sector has exceeded its allocation, are likely to mean the preemption of some fishing opportunities to harvesters in the trawl sector. Many target species are only available in certain areas, such as shelf flatfish. If, hypothetically, an overage of yelloweye rockfish occurs in the trawl sector or another sector which requires that depths less than 150 fathoms be closed to trawl activities, several species of flatfish will be inaccessible (such as sand sole, sanddabs, and English sole, among others). This area-based closure would mean that the sector would not be able to harvest these target species and revenues in the fishery would be less than expected. In other cases some vessels may not have the capacity to fish at

depths deeper than 150 fathoms even if target species are available at those deeper depths. However, because of the transferability provisions of a rationalization program, harvesters not able to fish in those other areas can transfer quota to a vessel that does operate in areas remaining open and in this way continue to participate in the fishery.

If measures were not used to prevent overages from the trawl sector or from other sectors, the outcome may mean the exceedance of a management target such as an OY. In the worst case scenario, the belief that another sector or another harvester can affect the opportunities of trawlers in a rationalized fishery can lead to behavior that resembles race for fish behavior. This is most likely to occur for bycatch species, or cases where catch potential is large relative to the management target. Not implementing a restriction, such as an area closure, in a case where a management target is met or exceeded may mean that rebuilding plans are jeopardized or over-fishing occurs. Area closures could also be used to slow the harvest of some species if the Council identifies the need for additional tools to achieve various goals for managing the fishery that are not being achieved by the rationalization program itself. Therefore, while implementing a restriction on the trawl sector to prevent an overage in the trawl sector, or as a result of an overage in a non-trawl sector, may restrict economic opportunity, it is likely to assist in the long-term health of groundfish stocks.

A-1.4 Management of Non-Whiting Trips

Provisions and Options

> Nonwhiting trips are those with less than 50% whiting. No changes to management measures, other than those identified in Section A-1.3, have been identified at this time.[7]

Nonwhiting trips are those where whiting comprises less than 50 percent of the groundfish catch.

No management measures other than those identified in Section A-1.3 have been identified at this time.

A-1.5 Management of Whiting Trips

Provisions and Options

> Whiting seasons will not be changed under the TIQ program, and so the current spring openings will be maintained to control impacts on ESA-listed salmon. [8]
>
> When the primary whiting season for a sector is closed (see section A-1.3 for options on the number of trawl sectors)
>
> - If there are 3 sectors: for shoreside deliveries, sector specific QP will be required plus cumulative whiting catch limits apply. Deliveries will be prohibited for at-sea sectors.
> - If there are 4 sectors: whiting sectors will be prohibited from delivering.

[7] For the nonwhiting fishery there is a potential that a vessel might make a targeted whiting trip by accumulating whiting QPs provided to cover whiting bycatch in the nonwhiting fishery. This could create a problem if it occurred during a time when the whiting fishery is closed to control for impacts on ESA listed salmon. Other than that whiting targeted trips using whiting QP intended for whiting bycatch in the nonwhiting fishery might not create a problem. Restrictions might be imposed on whiting catch in the nonwhiting fishery as needed to address concerns ESA concerns.

[8] The current process for changing the whiting fishery opening dates involves a regulatory amendment developed under the FMP through a framework process. Implementation of an IFQ program should not change this process

Rationale and Policy Issues

Maintaining the existing season structure of the whiting fishery is intended to accomplish several objectives. One objective is to continue to minimize interactions with salmon and in this way continue to meet ESA requirements over salmon management. The reason for continuing to maintain different start dates for the at sea fishery and the shoreside fishery is because many mothership catcher vessels also deliver to shoreside processors. Having the fisheries timed differently is expected to minimize conflicts between the mothership sector and the shoreside sector over catcher vessel participation in both sectors. By maintaining different start dates for this fishery, catcher vessels can participate in the mothership sector in May and early June, and motherships can expect those vessels to deliver catch without concern that catcher vessels would unexpectedly move to the shoreside sector. The inverse is also true. By maintaining a different start date, shoreside processors do not need to have much concern that catcher vessels will unexpectedly move to the mothership sector.

Options Considered but not Analyzed Further

If the trawl sector is divided into subsectors:

Option 1: Whiting QP rollover provision.
Option 2: No whiting QP rollover provision.

Rationale for rejecting inclusion of a whiting rollover: QP can be sold, let market handle it.

The above rationale for rejecting the inclusion of a whiting rollover is applicable in a case where there is a single trawl sector and all sectors can trade quota with one another. Since a single trawl sector is no longer an option, the rationale for rejecting a whiting rollover provision is no longer relevant.

Interlinked Elements

Sector management (Three versus four sectors) - Under the four sector option, the directed whiting sectors would be prohibited from delivering whiting when the fishery is closed. Under the three sector option, QP and cumulative limits would be used for managing shoreside whiting outside the whiting season.

Analysis

The existing start date for the at sea portion of the Pacific whiting fishery was established as a mechanism to minimize the take of salmon. Historical information suggests that salmon bycatch is higher in months prior to May. It can be reasonably inferred that changing the start date of the fishery to an earlier time period would therefore result in more salmon bycatch than would otherwise be the case.

The effect of the existing start date has economic implications in addition to biological implications. The existing timing of the fishery allows participants in the at sea fishery to engage in fishing opportunities before moving to the Bering Sea Pollock fishery or to the shoreside whiting fishery. This allows participants to engage in multiple fishing opportunities throughout the year and generate greater revenues compared to a case where no differentiation in the timing of fishing opportunities existed. While rationalization may make differential season start dates less necessary for those harvesters that desire to participate in multiple fisheries, it still has the effect of minimizing conflicts that may arise between various processors over catcher vessel deliveries and the timing of those deliveries. Since shoreside processors and motherships use many of the same catcher vessels, maintaining a differential

start date minimizes the conflict shoreside processors and mothership may have over when those catcher vessels should engage in at sea activity or shoreside activity.

A-1.6 Groundfish Permit Length Endorsements

Provisions and Options

> **Option:** Length endorsement restrictions on limited entry permits endorsed for groundfish gear will not apply for vessels using limited entry trawl gear. (This action will not change the application of length endorsement restrictions for vessels using limited entry longline or pot gear).

Rationale and Policy Issues

Elimination of the groundfish permit length endorsement is being considered because rationalization of the fishery is expected to eliminate the incentives for "capital stuffing" and increasing capacity in the fishery beyond what is necessary to harvest the available catch. In a race for fish fishery where vessels compete with one another for catch, there is a large incentive to increase the capacity and competitiveness of vessels by increasing speed, hold capacity, equipment capacity, etc because increasing this type of capacity makes it more likely that a vessel will out-compete other vessels in a fishery and assume a large percentage of the available harvest.

Since rationalization eliminates the need for vessels to compete with one another, it also eliminates the incentive vessel owners and operators have for capital stuffing. The incentives created by rationalization lead toward capital that is able to maximize revenue given the opportunities in the fishery, but this can only be done if the market is able to indicate the correct incentives toward fishery participants. The elimination of the length endorsement is intended to allow fishery participants the ability to optimize their fishing capital relative to their fishing opportunity.

Interlinked Elements

No provisions of Amendment 20 appear to be substantially interlinked with length endorsement.

Analysis

Retaining a vessel length endorsement on a limited entry trawl permit is expected to result in some inefficiency. The effect of retaining the length endorsement may very well mean that vessels of an inefficient size category will remain in the fishery, increasing the aggregate cost of harvesting groundfish, and decreasing the economic efficiency of the fleet. If a length endorsement is retained, some permits may have a greater asset value if their associated length endorsement is of the size necessary to prosecute fishing activities efficiently. The following figure illustrates the existing count of limited entry trawl permits by size category.

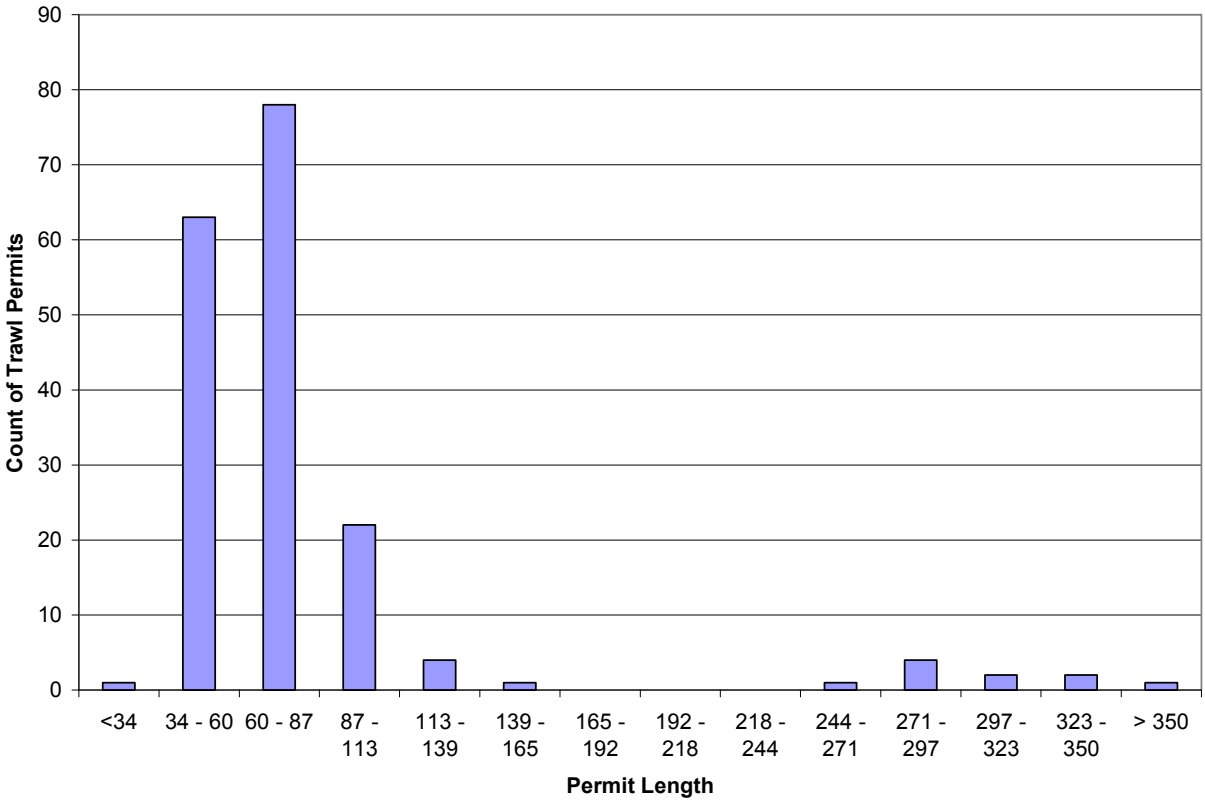


Figure A-3. Count of limited entry trawl permits by size category.

Elimination of the permit length endorsement is consistent with policy guidance contained in the MSA National Standards, the Groundfish FMP, and Amendment 20 objectives. MSA National Standard 5 requires a consideration of efficiency. The elimination of the length endorsement is expected to result in vessel sizes that are more efficient relative to the catch quantities when compared to status quo conditions where the length endorsement exists. The Groundfish FMP goal 2 (maximize the value of the groundfish resource as a whole) may be related to the elimination of the length endorsement if the value of the groundfish resource is measured against the cost spent to harvest the resource. Since elimination of the length endorsement is expected to reduce the cost of harvesting, this would tend to increase the value (in terms of profit) from harvesting groundfish resources. Amendment 20 objective 2 (provide for a[n]…efficient groundfish fishery) is consistent with elimination of the length endorsement for reasons stated previous. The elimination of the length endorsement is expected to result in increased efficiency of the harvesting sector.

A-2 IFQ SYSTEM DETAILS

A-2.1 Initial Allocation and Direct Reallocation

The Council begain its development of the IFQ alternatives under the guidance provided in MSA as reauthorized by the Sustainable Fishery Act of 1996; and completed the design pursuant to the requirements of the 2007 reauthorization of the Magnuson Stevens Act. Under the Sustainable Fisheries Act, Councils developing IFQ programs were required to take into account an NRC study on the topic (NRC, 1999). The NRC recommended that "the councils consider a wide range of initial allocation

criteria and allocation mechanisms in designing IFQ program . . . "and more broadly consider ". . . (1) who should receive initial allocation, including crew, skippers, and other stakeholders (councils should define who are included as stakeholders); (2) how much they should receive; and (3) how much potential recipients should be required to pay for the receipt of initial quota (e.g.,, auctions, windfall taxes)." (NRC 1999) (pg. 203). Councils should "avoid taking for granted the option of 'gifting' quota shares to the present participants in the fishery, just as they should avoid taking for granted that vessel owners should be the only recipients and historical participation the only measure of what each deserves. Councils should consider using auctions, lotteries, or a combination of mechanisms to allocate initial shares of quota" (NRC 1999) (pg. 207). This section covers the topics raised by the NRC, with the exception of the NRC question on the amount that initial recipients might pay to receive there initial IFQ allocation (see Sections A-2.3.2 and A-6) as well as the requirements of the MSA as reauthorized in 2007 are addressed (Table A-9). Specifically, this section covers the following issues related to initial allocation of IFQ as quota shares (QS):

Eligible Groups

- What groups will be eligible to receive an initial allocation of QS (A-2.1.1.a)?
- How much of the initial allocation will go to each group (A-2.1.1.a)?
- What criteria must be met for membership in each group and how might the attributes that meet those criteria be passed on or accrue to successors in interest (A-2.1.1.b, c, and d)?

Initial Recipients vs. Eligible to Own

The question "Who should be eligible to receive an initial allocation of IFQ?" is separate from a similar question "Who should be eligible to acquire IFQ after the initial allocation?" The latter question is covered in Section A.2.2.3. The initial allocation does not tell us which groups (permit owners, crew, processors communities or others) will come to hold the initial allocation over the long run.

Recent Participation

- Should more recent activity or membership in the group be required to receive an initial allocation? (A-2.1.2.a, b, and c)

Allocation Formula

- What amounts of QS should be allocated to each of those qualifying for an initial allocation? (A-2.1.3, a, b, c, and d) The following are considered in addressing this allocation question:
    - Should there be an equal allocation element in the allocation formula?
    - Should there be a landing history element in the allocation formula?
    - What time periods should be used for allocation?
    - Should the allocation formula take hardships into account?
    - Should the same credit be received for a given amount of catch, regardless of the year in which it is harvested?
    - Should all species be allocated on the same basis?

Exceptional Situations

- With respect to the allocation formulas, what provisions can be developed to address classes of exceptional situations (e.g., credit for EFP landings in excess of trip limits)? (A-2.1.4)

Appeals

- What process should be provided to address disagreements about applications of the provisions and unusual situations that may arise that are not otherwise addressed? (A-2.1.5)

Direct Reallocation after Initial Issuance

- If after QS is issued direct reallocation appears to be needed to address the redefinition of a management units[9] or if there is a substantial changes in the status of a species, how would those reallocations be achieved? (A-2.1.6)

Policy guidance on allocation actions is provided in the Magnuson-Stevens Act (National Standards and 303A provisions pertaining to limited access privilege programs), the goals and objectives of the Council's groundfish FMP and those specified for this amendment. Guidance related to initial allocation has been grouped into categories in the summary shown in Table A-9. In the following sections, we will draw on this guidance in focusing our evaluation of various initial allocation provisions.

[9] For the IFQ program, a management unit is defined by the species or species group, area, and trawl sector (e.g., shoreside, mothership, or catcher-processor) for which QS is issued.

Table A-9. Policy guidance on allocation decisions from the MSA, as reauthorized in 2007) and Council goals and objectives.

Guidance	Reference
Conservation: Allocations Reasonably Calculated to Promote Conservation.	MSA - National Standard 4(b)
Net Benefits and Efficiency	
Consider Efficiency	MSA - National Standard 5
Reduce Capacity	MSA - 303A(c)(1)(B)
Attempt to achieve the greatest net economic benefit to the nation	GF FMP Obj 6
Provide for a[n] . . . efficient groundfish fishery.	A-20 Obj 2
Disruption (Efficiency and Equity Implications). Accomplish change with the least disruption of current domestic fishing practices, marketing procedures, and the environment (NOTE: this objective also has implications for efficiency and net benefits).	GF FMP Obj 15
Excessive Shares (Efficiency and Equity Implications). Control of Excessive Shares(including geographic concentration)	MSA - National Standard 4(c) MSA – 303A(c)(5)(B)(ii) MSA – 303A(c)(5)(D) A-20 Constraint 6
Fairness and Equity	MSA - National Standard 4(a) GF FMP Obj 13
Establish procedures to ensure **fair and equitable** initial allocations, including consideration of (i) **current and historical** harvests; (ii) **employment** in the harvesting and processing sectors; (iii) **investments** in, and dependence upon, the fishery; and (iv) the **current and historical participation** of fishing communities;	MSA – 303A(c)(5)(A)
Fishery Participation. Limit IFQ to persons who **substantially participate** in the fishery	MSA – 303A(c)(5)(E)
Market Power. Avoiding provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors.	A-20 Constraint 5
Sector Health	
Provide for a viable, profitable . . . groundfish fishery.	A-20 Obj 2
Promote measurable economic . . . benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.	A-20 Obj 6
Labor: Crew, Processing Plant Workers Etc.	
Include measures to assist, when necessary and appropriate, . . . captains, crew	MSA – 303A(c)(5)(C)
Promote measurable . . . employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.	A-20 Obj 6
Communities	
Consider Importance to Communities (in order to provide sustained participation and to the extent practicable minimize adverse impacts)	MSA - National Standard 8
Consider promotion of sustained participation by fishery dependent communities	MSA – 303A(c)(5)(B)(i)
Include measures to assist, when necessary and appropriate, entry level and small fishing communities	MSA – 303A(c)(5)(C)
Consider the importance of groundfish resources to fishing communities, provide for the sustained participation of fishing communities, and minimize adverse economic impacts on fishing communities to the extent practicable.	GF FMP Obj 17
Minimize adverse effects from an IFQ program on fishing communities and other fisheries to the extent practical.	A-20 Obj 5
Small Vessels, Small Entities, and New Entrants	
Consider promotion of sustained participation by small owner operators	MSA – 303A(c)(5)(B)(i)
Include measures to assist, when necessary and appropriate, entry level and small vessel owner-operators . . .	MSA – 303A(c)(5)(C)
Avoid unnecessary adverse impacts on small entities.	GF FMP Obj 16
General Public: Auctions **–** must be considered	MSA – 303A(d)

A-2.1.1 Eligible Groups

A-2.1.1.a Groups and Initial Split of QS

Eligible Groups

- What groups will be eligible to receive an initial allocation of QS (A-2.1.1.a)?
- How much of the initial allocation will go to each group (A-2.1.1.a)?

❖ Provisions and Options

Eligible Groups The initial allocation of QS will be made either only to permit owners or to permit owners and processors.

	Nonwhiting Sector QS		Whiting Sector QS	
	Amount to Permits	Amount to Processors	Amount to Permits	Amount to Processors
Option 1	100%	0%	100%	0%
Option 2	87.5%	12.5%	75%	25%
Option 3	75%	25%	50%	50%
Option 4 (10% for Adaptive Management)*	100%	0%	100%	0%
Option 5 (10% for Adaptive Management)*	75%	25%	50%	50%
►**Option 6a** (10% for Adaptive Management)*	80%	20%	See note	
►**Option 6b** (10% for Adaptive Management)*	80%	20%	80%	20%

* Up to 10% of the annual QP may be set aside for use in an adaptive management program.

Note on Option 6a: 80 percent of the whiting sector whiting QS would be allocated to permits and 20 percent to processors, but 100 percent of the whiting sector QS for all other species would be allocated to harvesters.

The Council may select other distributions within this range.

Due to limitations on available documentation, fish "receivers" may be used as a proxy for the "processors" (see A-2.1.1.d). After initial allocation, trading will likely result in changes in the distribution of shares among permit owners and processors. Additionally, entities that are neither permit owners nor processors may acquire quota shares (see below: "IFQ/Permit Holding Requirements and IFQ Acquisition").

❖ Rational and Options Considered but Not Included

The NRC report on IFQ program design (NRC 1999, pgs. 202-207) contained the following recommendations with respect to groups for which an initial allocation of QS might be considered.

NRC Recommendations for Allocation Groups **(Other than Vessel Owners)**	
Skippers and Crew Allocations	Consider where appropriate. Lack of detailed catch data is not a reason to forgo this option as equal allocation is an option. It may be less appropriate in industrial fisheries that do not involve crew members as co-venturers in the same sense as other fisheries.
Processor Allocation	No compelling reason to include or exclude processors from an initial allocation.
Communities	Consider initial allocations of IFQ to communities. Some communities may be heavily dependent on fishing for social, cultural, and economic values and/or are lacking in alternative economic opportunities.
Public	Consider auctions, lotteries or combinations of mechanisms to allocate initial shares. Avoid taking for granted the option of "gifting" IFQ.

With respect to vessel owners, the NRC report notes that they are usually the recipients of initial allocations. Initial allocation to "permit owners" as a group was not considered in the NRC report. Most likely because the permit owner was considered to be analogous to the vessel owner. Permit owners generally tend to be the vessel owner but not always. Since establishment of the groundfish license limitation system, permit owners have been the recipient of new limited entry allocations (the fixed gear sablefish endorsement and fixed gear tier system). Criteria often mentioned in connection with this issue include compensation for those whose asset values are adversely affected by the new program and minimizing disruption (PFMC, 1998). During scoping, public comments also recommended consideration of allocations to crew and captains, vessel owners, communities, lottery entrants, and auction. Of these the TIQC recommended that consideration be given to allocation to current owners of LE permits, vessel owners, processors or combinations thereof, or auctions, but it included only LE permits and processors in the program alternatives it recommended to the Council.

- Consideration of Vessel Owners

The TIQC recommended against allocation to vessel owners rather than permit owners, because once the limited entry fishery was established most of the value of the fishery was capitalized into the value of the permit. The TIQC recommends not considering allocation to the owner of a vessel or permit at time of landing (i.e., personal history) because no rationale could be identified for allocating to someone who no longer owns the fishing asset used to take the fish. Allocations should go to the current owner of an asset based on the history of the asset (e.g., permit or vessel). Allocation to crew members was opposed because of the data problems entailed and because crew members did not have physical capital, the value of which would be affected by the initial allocation.

- Consideration of Crew

Direct allocation to crew members was discussed and the costs of tracking and identifying crew members was noted along with the greater number of economic alternatives available for labor as compared to a fishing permit or vessel. Dislocation and ability to maintain operations would be

minimized by allocating to the harvesting companies rather than crew members who could easily move between vessels, leaving fixed capital assets without significant production opportunities.

- Consideration of Communities

Direct allocation to communities was discussed and it was noted that it would be difficult to determine what body within the community might represent that community. Further communities expressed little if in any interest in receiving an initial allocation, and voiced concern over the administrative costs and political difficulties that would be entailed in managing the QS and distributing it within the communities. Community needs are addressed in numerous ways including;

1. Maintenance of a split between the at-sea and shoreside fisheries (options for a single sector had been considered) (Section A-1.3),
2. Specification of a broad class those eligible to acquire QS, including communities (Section A-2.2.3.a),
3. A temporary moratorium on the transfer of QS to ease the adjustment period and allow for adaptive response (Section A-2.2.3.c),
4. Specification of vessel and control limits to spread QS among more owners and potentially more communities. (Section A-2.2.3.e),
5. Inclusion of a community advisory committee as a formal part of the program performance review process (Section A-2.3.4),
6. The provisions for a set-aside, as needed to support an adaptive management program that may be used at some future time to address community concerns or create other incentives to benefit the groups listed in 303A(c)(5)(C) or for other purposes (Section A-3).

Consideration is also being given to area management (Section A-1.2) and a landing zone requirement (Section A-8) both of which would have some effect in maintaining a distribution of landings along the coast, but the latter of which would be most directly targeted to that purpose. A number of other provisions to address community concerns were considered at the November 2005 Council meeting but rejected, such as the right of first refusal before QS is transferred out of a community, an owner on board requirement, a partial prohibition on leasing, and the redistribution of QS to new entrants, including nonprofit community organization.

- Consideration of Permits and Processors

Many reasons have been given for allocating to permits and allocating to processors. The following tables list some of the reasons that are contained within the records of the Council deliberations.

Table A-10. Some of the reasons given for allocating to permit holders.

Reasons to Allocate to Permit Holders	Reasons Given for Not Allocating All QS to Permit Holders
The management problem to be resolved with IFQs is the management of harvesting not processing.	The problem of managing the harvest is still resolved if some of the QS is given to processors.
It is the harvesters who have become overcapitalized as a result of the management system.	The processing sector is also overcapitalized either as a result of participating in the race for fish or as a result of reductions in harvest.
Compensation for reduced permit value and compensation to those who are squeezed out in the consolidation process.	Long-term compensation should not be given for a short term problem.
The language of the MSA strongly indicates an emphasis on the allocation to harvesters (e.g. National Standard 4). Permit holders are fishery participants that are invested and dependent on the fishery (303A) and have made contributions to the development of the fishery.	Permit holders may not be operating the harvesting business. They may be leasing to the vessels. Further, they are often owned by corporate entities, not the fishermen themselves.
Harvesters cannot operate without QS or QP to support their harvest.	Harvesters can acquire QS/QP through the market and by partnering with processors.
A harvesting operation not receiving an initial allocation of QS/QP will be in a position of greater financial risk than a processing operation without QS/QP.	Processors may be at financial risk if harvesters get all the QS, gain market power, and reduce processor profits.
The allocation of QS to harvesters will correct a current imbalance in market power between the two sectors.	If processors receive no QS as part of the initial allocation, a market power imbalance will be created in favor of harvesters.
There is a greater conservation benefit if the QS is in the hands of the fishermen, including the reduction of bycatch of overfished species. An allocation to fishermen clearly puts responsibility on them.	Permit holders will not necessarily be the fishermen and may lease the QP to harvesters. If the system allows processors to acquire QS then conservation concerns should not be a reason for not giving it to them as part of the initial allocation. Earlier analysis indicated there was not a difference between allocations to harvesters and processors with respect to conservation effects.
If QS is given to processors they will have less incentive to ensure that it is used optimally than if they have to buy it.	Regardless of how they receive it, they will still lose benefits if the QS/QP is not used optimally.
Processors will benefit in other ways and therefore don't need that additional compensation. For example, the total volume of product may increase.	Harvesters will also benefit from the increase in total product volume.
The history of development of this program encompasses the identification of a continued harvester overcapacity problem and conception of the buyback program in 1996, the groundfish strategic plan, and the bycatch reduction amendment. The success of this long-term effort requires protection for those established in the fishery in order to increase the economic stability for all.	For stability, harvesters need a stable processing sector to sell to.

Table A-11. Some of the reasons given for allocating to processors.

Reasons to Allocate to Processors	Reasons Given for Not Allocating to Processors
Compensation for stranded capital	Stranded capital will not occur for processors. Long-term compensation should not be given for a short term problem.
Processors are fishery participants that are invested and dependent on the fishery (303A) and have made contributions to the development of the fishery.	National Standard 4 says allocations, when necessary, should be to "fishermen." No precedence for allocating IFQ to processors
Keep balance of market power and flow of product to existing plants	Will create a market power imbalance.
Facilitate communication and coordination of fishing activity between plants and vessels, including management of total harvest, bycatch, and participation among co-ops.	Such communication and coordination occurs under status quo and processors do not need an initial allocation to continue. If processors do not receive an initial allocation they can still participate in co-ops by acquiring QS in the market place.
There is a conservation benefit whether you give QS to permit holders or processors.	Degrades conservation benefit.
Maintain diversity and competition in the processing sector.	The processing sector will be consolidated and new entry will become more difficult.
Processor buy-in is needed to move the program forward.	
Since processing plants are more tied to communities than vessels are, an allocation to processors will stabilize the distribution of harvest across communities.	The major processing companies are active in multiple ports and may move allocations between ports. It is not clear that an allocation to processors will address concerns about geographic redistribution.
If processors do not receive an initial allocation existing working relationships will be disrupted.	Long established relationships between processors and harvesters will continue to exist, there will not be widespread disintegration and relocation of these relationships.
	Consolidation among permit holders not associated with processors will increase, reducing the number of participants in the fishery that are not linked to processors.
	An allocation to processors does not take into account the permit owner's obligation to repay loans from the buyback program. Those loans bought up permits representing nearly 50% of the fleets landing history.
	There is not a large disadvantage to processors if they do not receive an initial allocation.
	An initial allocation to processors may lead to greater than desirable consolidation, particularly if there is a grandfather clause.
	The processing sector as a whole, will receive some allocation because they hold permits.

An option to allocate non-whiting groundfish evenly between permit owners and processors (50 percent each) was rejected. The following is the rationale provided by the TIQC and GAC in its recommendations for removal of this option.

Rationale for removing the 50/50 option for nonwhiting groundfish:

- TIQC members raised concern that with a 50 percent allocation to processors, the quota initially allocated to a trawl permit may not be enough to allow for fishing. One TIQC member opposed to removal of the 50 percent allocation option noted that analysis of

impacts has not been completed and so the suggested impacts are only assumed. *(2/2007 TIQC mtg)*

- The majority of GAC members believed that a 50 percent initial allocation to processors would create an imbalance of power. They cited as examples the lack of power that vessel owners have had in negotiating crab prices and the potential for the number of alternative buyers to be more restricted within smaller geographic regions than it is coastwide. GAC members also noted concern that the initial allocation would only be the starting point with respect to the amount of shares controlled by processors and that they would expect processors to acquire additional shares, subject to accumulation limits. Some processor/permit owners may also receive shares for both their processing activity and permits they own. In general, there was a perception that there is a current imbalance in favor of the processors and that a 100 percent allocation to harvesters would not create an imbalance in favor of harvesters. On that basis they recommended that the analyzed range be narrowed by reducing the maximum amount that might be allocated to processors while maintaining the option of a 100 percent allocation to permit holders. A minority of GAC members wanted to see the analysis of a 50/50 split before making a decision. It was noted that analysis has not yet been produced to demonstrate that an imbalance would result from a 50/50 initial allocation, though question arose as to the extent that a quantitative analysis could provide insight on this issue. *(12/2006 GAC mtg)*
- During discussion, concern was also expressed that vessels fishing IFQ provided by processors might not have the same incentive to minimize bycatch as it would for its own IFQ. Others countered that the processor and vessel would both have incentive to minimize bycatch in order to maximize their ability to harvest and process target species. *(12/2006 GAC mtg)*

Initial rationale for including a 50/50 option: Part of the original rationale for the 50/50 option, when the TIQC developed it, was that it was the closest legal alternative to a two-pie system.

- Option 6b for Whiting

At its June 2008 meeting the Council added an option that would allocate QS for whiting to processors but not QS for bycatch species in the whiting fishery. This option provides another variation on the initial allocation balance between harvesters and permits and provides a different result with respect to the distribution of wealth and control generated by the initial allocation. Because it is a variation that was added on late in the process, in its analyzed separately at the end of the analysis section (page A-111).

❖ Interlinked Elements

The following elements of the IFQ program interact with the decision on groups to which an allocation will be made.

- Number of Trawl Sectors (Section A-1.3)

The Council's preferred alternative combines the shoreside whiting and nonwhiting harvest into a single sector. Creating a single shoreside sector has implications for the effects of Option 6a, which would not allocate bycatch species for whiting history to processors, diminishing the effect of that provision.

- Moratorium on Trading (Section A-2.2.3.c)

At the start of the program the Council's preferred alternative will include a two-year moratorium on trading. This moratorium will make it more difficult for processors receiving only whiting (Option 6a) to adjust by either acquiring the needed bycatch species QS or divesting themselves of whiting. Until they are able to balance their whiting QS holdings with bycatch species, in years when bycatch species limit whiting harvest, they may find themselves with whiting QP that have little value.

- Grandfather Clause Exemption for Everyone (Section A-2.2.3.e)

There are options:

- To provide a full grandfather clause exemption to those who would receive QS in excess of the accumulation limits as a result of the initial allocation (Grandfather Clause Option 1),
- To provide an exemption for up to twice the vessel accumulation limits (Grandfather Clause Option 2), and
- To provide no exemption (Grandfather Clause Option 3).

Depending on which of these options are implemented, the initial allocation results may be substantially altered. The only way to acquire QS above the accumulation limits is through a grandfather clause such as that provided in Grandfather Clause Options 1 and 2. Because elements in the QS allocation formula that tend to even out distribution of QS among recipients, in general, the amounts of QS allocated to an entity will be less than the shares of harvest the entity has taken historically. If there is a grandfather clause, but the amount of QS allocated to the harvesting sector is reduced, the level at which larger harvesters are grandfathered in will be reduced even further from their historic levels and there will be no way for them to get nearer to those levels because of the accumulation limits. This assumes that the history of the permits that an entity uses to qualify for an allocation reflects that entities historic production.

- Additional Measures for Processors (Sections A-2.4 and A-3)

The key decision for eligible groups and initial split (A-2.1.1.a) is whether or not processors will receive an initial allocation of IFQ and if so how much. The following elements are contingent on initial allocation of QS to processors to address concerns about adverse impacts of IFQ program on processors. While addressing this impact, these options would issue QS that is different in character or for a different duration than the QS issued to LE permit holders.

A-2.4. Additional Measures for Processors. There are options in section A-2.4, all of which are interlinked with the options of Section A-2.2.1. The options are not mutually exclusive.

Option 1 (Limited Duration QS): QS issued to processors based on buying history will expire after a certain period of time (to be determined as part of final Council action). When they expire all remaining QS would be increased proportionally to sum to 100 percent. The rationale for this provision is based on the idea that, if an initial allocation to processors is intended to provide an adjustment period and compensate processors for potential harm, this intent can be fulfilled by issuing QS that has shorter duration than those issued based on harvesting history.

Option 2 (No Grandfather Clause for Processing History): Any QS issued for processing history would not be subject to the accumulation limit grandfather clause (i.e.,, processors would be held to the accumulation limits except with respect to landing history issued for any LE permits held by the processor). The rationale for this provision is that processors need not be grandfathered in above accumulation limits in order to receive sufficient compensation for adverse impacts of the IFQ program.

Option 3 (Adaptive Management): The adaptive management program will be used to compensate processors for demonstrated harm by providing them with QP. This provision provides processors relief one year at a time only after harm has been demonstrated. This option strongly interacts with Eligible Group Options 4 and 5. Under Eligible Group Option 5, only those processors that do not receive an initial allocation (either because they don't meet recent participation requirements or enter the fishery after 2003) could directly receive QP issued as compensation for harm to processors under the Option 3 criteria.

A-3. Adaptive Management. Under the adaptive management program, 10 percent of the trawl allocation available for the IFQ program would be set aside as QP that would not be issued to eligible groups directly; rather, some other criterion would be used to compensate for such things as unexpected shifts in the geographic distribution of catch or landings. If a set aside for adaptive management is provided and there is no QS allocation to processors, then the adaptive management provisions might be used to benefit processors (Eligible Groups Options 4). If processors receive an initial allocation (Eligible Groups Options 5, 6a, or 6b) those processors receiving an initial allocation would not be eligible to hold QP issued through the adaptive management program because they would have already received compensation through the initial allocation.

❖ Analysis

The following are the key questions to be covered in this section of the analysis.

1. How does the initial allocation affect who holds the QS over the long-term?
2. How does who holds the QS at any point in time affect achievement of goals and objectives, including the equity effects related to who receives the initial financial benefit (wealth) from the initial allocation?

The answer to the first question determines the duration and timing of the effects covered under the second question. The sections in which each of the goals and objectives will be discussed is covered in the following table. The section on the effect of the QS allocation on the long-term distribution is extensive and covers topics of relative efficiency, vertical integration, market power and access to capital. For that reason a full analysis of that issue is provided in a separate appendix (Appendix E) and a summary is provided here.

	Related Category of Goals and Objectives										
Sections	Summary (Page Ref)	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Impact of QS Allocation on Long Term Distribution	A-55 -A-63	X	X	X	X	X	X	X	X	X	
Impact on Conservation (Resource Stewardship)	A-64	X									
Impact on Sector Health											
Buyers/Processors	A-67			X			X			X	
Harvester Sector—Permits	A-82			X			X				
Harvester Sector—Vessels	A-98			X			X			X	
Labor—Harvester	A-99							X			
Labor—Processors	A-99							X			
Impact on Net Benefits	A-102		X								X
Impact on Equity	A-108				X	X					

Note: The general public is affected by many if not all of these impacts. For example, reduced net benefits has an effect on the general public, but indirectly though the effect on the economy. Here the emphasis is on the direct effect (e.g., paying for administrative costs related to allocation).

Table A-12 provides an explanation of some of the economic terms that are used in this analysis.

Table A-12. Explanation of Terminology: return on investment, profits and rents.

General Term and Description of the Concept	Economic Term
Return on Investment: The level of profit required to compensate for capital investment (compensate the owners of capital). For industries that involve greater risk, greater return is required to compensate or attract capital investment. If the industry profit level is not enough to compensate capital, there will not be new investment.	Quasi Rents
Efficiency Profits: Profits earned by firms that are more efficient than others.	Intramarginal Rents
"Reasonable" Profit Level: Income necessary to pay for all labor, supplies, capital, and entrepreneurial expertise used by a firm at going market prices. This includes compensation for capital (quasi rents).	Normal Profits (Zero Economic Rent or Zero Economic Profit)
Extra Profits (Abnormal Profits): Any earnings above normal profits are considered "economic profits" or "economic rents." Economic profits or rents attract new entrants.	Economic Rents (Above Normal Profits)
Cost of the Resource: Amount paid for the use of a raw resource. In open access fisheries management, no one collects resource rents; therefore resource rents show up as economic rents, which attract new entrants until efficiency decreases to the point that only normal or less than normal profits are earned.	Resource Rents

Key Findings

1. The initial allocation may have a substantial effect on how the QS is distributed over time (with initial recipients being more likely to accumulate additional QS, up to accumulation limits).
2. Market conditions under rationalization will vary from status quo thus changing the market power dynamics.
   Under status quo,
   - harvesters and processors negotiate with one another in an attempt to capture the profits that are associated with the resource (resource rents),

- harvesters, and possibly processors, are overcapitalized, putting them in a position where they are willing to accept unsustainable prices over the shorter term, giving up some of their returns to capital in order to continue operation (operating at a long-term loss).

Under a rationalized system,

- profits that are associated with resource rents will be captured by whoever owns the QS/QP,
- rationalization (once the rationalization process is completed) will result in more appropriate levels of capitalization and substantially reduce a business' willingness to accept unsustainable prices (operate at less than normal profit levels),
- if a vessel is unwilling to operate for less than normal profit levels (or alternatively a processor), the only other potential source of profit is that attributable to the QS,
- under such circumstances, holding the QS does not give any additional leverage in determining how the available profits from the harvest and processing of fish will be distributed (i.e. the QS holder will receive the profits associated with the resource and each business will have little willingness to participate in the transaction if they are not able to earn a normal return from their own operations).

Before discussing how the initial allocation affects distribution over the long term and the impacts resulting from allocation of QS to different groups, it is useful to have a brief discussion about the entities composing those groups.

Who: Nature of the Entities and Group Membership

As we consider the groups to which allocations are made, we should take into account that some entities may qualify as members of a variety of groups. For example, when we talk about vessel owners or permit owners, they may also be processors. People have many a variety of roles in the harvesting and buying sectors including.

Permit owner	Vessel owner
Vessel operator	Crew member
Fish buyer	Fish buyer/processor
Fish buyer/processor employee	

Individual or business entity may combine a mix of roles to create a business or income earning strategy. As summarized below, these strategies vary in profit generation and risk exposure. Specific criteria for membership in the groups to which allocations might be made are described starting in Section A-2.1.1.b.

Summary of the Impact of QS Allocation on Long Term QS Distribution

Appendix E contains a detailed analysis of the relationship between the initial and long-term distribution of QS among groups. The results are summarized here. The main dynamic driving the long-term distribution is that more profitable entities are more likely to acquire the QS than less profitable entities; and initial recipients of QS are likely to have a period of greater profitability than those who do not receive QS or receive less QS. This initial advantage may, to some degree, be self perpetuating. In considering relative profitability both the total financial profits and the level of risk must also be taken into account. Broadly speaking, a firm's financial profitability is affected by the following factors:

- its relative operating efficiency
- its vertical integration (which affects both operating efficiency and market power)
- its ability to exert market power to capture above-normal profits

- its access to capital.

Market power is defined as the ability to influence prices in order to obtain above-normal profits for a sustained period of time, and requires barriers to entry. Within the framework of these considerations Table A-13 on page 26 provides this section's main conclusions on:

- status quo conditions,
- the influences of the IFQ program on QS distribution (regardless of the initial allocation), and
- the effect of initial allocation on the long-term distribution of QS.

♦ *Summary of the Analysis in Appendix E*

The main points made in each section of Appendix E that support the conclusions in Table A-13 are presented below.

RAW FISH MARKETS AND RESOURCE RENT DISSIPATION OR CAPTURE UNDER STATUS QUO

(Section E.2)

This section describes how prices and quantities produced are determined in a typical market. The main points are:

1. The yield constraint in fisheries (usually an OY or allocation) results in a gap between the minimum harvesters are willing to fish for and the maximum that processors are willing to pay.
2. The gap between these two values is the potential resource rents.
3. Both sides will try to use bargaining power to capture a portion of those rents.
4. Potential resource rents (resource related profits) are dissipated when both sides of the raw fish market are competitive (both buyers and sellers accept a going market price with little deviation based on negotiations, such that neither side exerts market power) and harvesting costs (and potentially processing costs) increase as part of the competition for fish.
5. Some resource rents may be saved from dissipation in the competition for fish and preserved as private profit, if one or both sides of the market are able to exert some market power[10].

QP MARKETS AND INTERACTION WITH RAW FISH MARKETS

(Section E3)

1. Under an IFQ program, the QP will represent an additional key input. The need to hold QP becomes an additional cost of providing the raw fish.
2. Costs of production, excluding the cost of the QP, are expected to decline by an amount that offsets the price of the QP.

[10] Note that for item 3 the term "bargaining power" was used rather than market power. Bargaining power is a short term concept. It may enable a firm to establish an above normal price. Marketing power requires that the above normal price be sustainable. Unless there is a barrier to entry, the higher price established through bargaining power will be dissipated has high profits invite competition.

3. In most circumstances, the QP holder is expected to capture the difference between the minimum price for which harvesters are willing to fish (excluding the cost of the QP) and the maximum that processors are willing to pay, i.e. the resource rents.
4. The reported transaction price for raw fish costs (reported exvessel value) will depend on who provides the QP for the transaction and the terms under which they are provided (e.g. a processor might provide the QP to a vessel at no charge and the reported price will be the vessel's minimum price, or the vessel will provide the QP and the price will include an amount that covers the vessels costs, including normal profit for the vessel, and the cost of the QP).
5. With respect to the QP owner's ability to exert market power,
   a. The QP holder will only be able to exert market power to the degree that there are not enough independent players in the market to establish effective going market prices. However, even if such prices are established inevitably there will be opportunity to express some bargaining power due to transaction cost factors such as convenience and search times or the linkage of deliveries of groundfish with other species. However, ability to use bargaining power to leverage higher prices will be limited by the fluidity of the QP and raw fish markets.
   b. In attempting to exert market power, it is difficult for an entity that holds QP to substantially increase its profits on a transaction for which it holds the QP[11]. This is because, in the absence of overcapitalization (for the sector as a whole or within a locally isolated market), the profit that is primarily available for capture is that which goes to the QP holder (i.e. the entity exerting the market power).
   c. If an entity successfully exerts market power over a transaction for which it <u>does not</u> hold QP,[12] the QP holder for that transaction[11] would be expected to experience a loss of profits.
   d. If the source of an entity's or sector's market power is the amount of QP it holds, the additional profits that it might collect using that power is limited to those associated with the QP held by the entity it faces across the market (e.g. if harvesters hold all the QP, they collect all of the resource rents (profits related to the resource) and are not in a strong position to extract additional profits from processors, except possibly during the transition period during which the processors are overcapitalized).

QS FLOW AMONG GROUPS (INDEPENDENT OF THE INITIAL ALLOCATION)

(Section E.4)

In this section we look at the dynamics affecting the flow of QS among groups independent of the initial distribution. The dynamics to be discussed affect the willingness and ability to pay for QS (the center box in Figure A-4.) Topics addressed are:

- relative efficiency;
- vertical integration;
- market power; and
- access to capital.

These topics are represented by the hexagons in Figure A-4. Factors to be considered for each of these topics are provided in the related squares and each square is accompanied by a note box indicating the nature of the dynamic or affect.

[11] Or for the portion of the transaction for which it holds the QP.
[12] Or for the portion of the transaction for which it does not hold the QP.

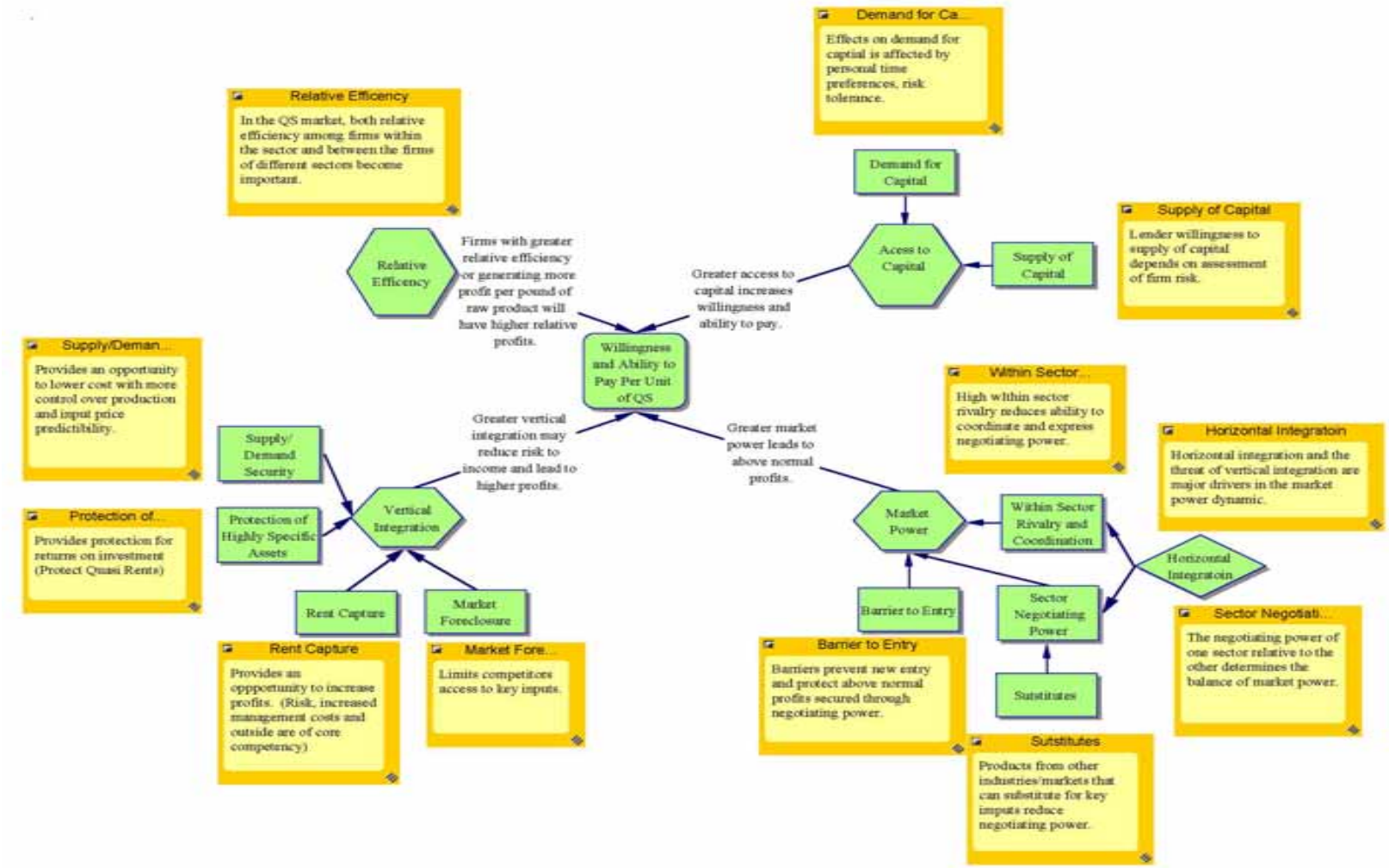


Figure A-4. Factors influencing QS flow among groups.

Relative Efficiency

(Section E.4.1)

This section of Appendix E explains the concept of relative efficiency within a sector with respect to profits per unit of raw product. Key points are:

1. Those firms with greater relative efficiency are more likely to acquire QS over the long term.
2. There may be overcapitalization in both the harvesting and processing sectors, and the possibility that over the short term IFQs provide more mechanisms for harvesters to increase efficiency than processors.
3. Firms with identical efficiency could have substantially different levels or profit per unit of raw product. A firm that generates more profit (including returns to capital) than another for the same amount of raw product will be more likely to accumulate QS. These differences may occur within a sector or across sectors. If harvesters tend to have the same efficiency per unit of raw product as processors but generate more profit per unit of raw fish, they will be willing to pay more for QS and will likely accumulate it over time, or visa versa.

Vertical Integration, Return on Investment (Quasi Rents), and Above Normal Profits (Economic Rents)

(Section E.4.2)

1. Under status quo, most vertical integration occurs through processor ownership of vessels. There has been relatively little harvester ownership of processors in the nonwhiting fleet, though some has recently developed in the at-sea mothership fishery and catcher-processing vessels are vertically integrated.
2. The IFQ program provides processors a new opportunity to vertically integrate by acquiring QS, but acquisition of QS does not provide harvesters an opportunity to control processing operations. Therefore, vertical integration by harvesters is discussed under the section on market power.
3. There are a number of reasons to expect processor vertical integration, including supply security, profit protection, and capture and expansion of market share by preventing competitors from accessing a key input (raw fish), i.e. foreclosing access.
4. Typically, vertical integration also involves certain management expenses and additional risks. QS provides an opportunity to exert control over harvesting operations at substantially less management expanse and risk.
5. Firms that are already vertically integrated through ownership or control of permits and/or vessels will have more profits per unit of raw product to protect with QS than firms that are not vertically integrated, and will therefore be more likely to accumulate QS over time.
6. The opportunity for individual processors to vertically integrate will be limited by accumulation limits. If there is no grandfather clause provision for accumulation limits, some processors may find themselves in a position of needing to divest themselves of vessels in order to stay within the limits.
7. The opportunity for the sector as a whole to vertically integrate through acquisition of QS will depend on the total number of active processors and the accumulation limits.

Market Power, Horizontal Integration, and Consolidation

(Section E.4.3)

As a reminder, in this section of Appendix E we evaluate effects of the IFQ program on market power **independent of the effects of the initial QS allocation.**

1. If a firm or sector is able to exert market power, it will be more willing and able to pay for QS.
2. An adaptation of a widely used market power model (the Porter 5 Forces Model) specifies criteria for evaluating the following factors:
    a. Rivalry and coordination within a sector
    b. Relative bargaining power across sectors (between harvesters and processors, including the threat of substitutes)[13]
    c. Barriers to entry
3. Rivalry and coordination. The more rivalry there is within a sector the more difficult it will be for members of the sector to exert market power. Ten criteria are used for this evaluation, including concentration of production within the sector and the presence of an active industry shakeout process.
    a. Under status quo, there are many reasons to expect high rivalry for both harvesters and processors. However, license limitation may constrain high rivalry among harvesters. For processors, previous industry shakeouts, the small number of firms handling most of the product, and the threat of the effects of another shakeout may reduce rivalry.
    b. Under IFQs, a shakeout among **harvesters** is expected, followed by a period of reduced rivalry with fewer total participants. The need to acquire QP may stimulate rivalry in the QS/QP market, but higher costs (e.g. observer costs) may stimulate cooperation among harvesters in their negotiations with processors over raw fish prices. For **processors**, the low cost of moving QS/QP across geographic areas and the link between the QS/QP and raw fish markets will increase competition by decreasing the geographic isolation of local markets for raw fish. This will expand the number of processors that effectively have a role in a particular transaction. Rivalry may increase if processors attempt additional consolidation as a means of defending against the possible exercise of harvester market share. Rivalry will also increase because the expansion by any processor will require the direct and immediate contraction of processing by another processor (as compared to the current lag, which occurs as an expansion by a particular processor works itself out in the bimonthly trip limit based management system and marketplace).
4. Bargaining Power. Bargaining power of one sector *vis a vis* another is an important element of market power. There are seven criteria for evaluating bargaining power (including ability to threaten vertical integration and ability to switch to a different processor or different harvester.
    a. Under status quo, nearly all of the criteria favor processors.
    b. Under IFQs, **harvesters'** bargaining power may increase. Harvesters may acquire or pool QS and use it to support their own processing facility or encourage a new entrant. Consolidation will leave fewer harvesters for processors to deal with. **Processor** bargaining power may increase or decrease.

[13] The 5 forces model separates the bargaining power of each side and the threat of substitutes into three separate market forces.

Processors may be able to vertically integrate at a lower cost than under status quo, but for larger processors vertical integration will be limited by accumulation limits. Some larger firms may have to reduce existing levels of vertical integration (depending on accumulation limit rules). Liquidity of QP will expand the geographic area from which buyers with an interest in a potential QP/raw-fish sale may be drawn. This will increase the number of potential participants in the transaction, encouraging development of a market that functions well enough to establish "going prices," thereby reducing bargaining power. However, it may also increase pressure for further consolidation. This within sector, consolidation may be hampered by QS accumulation limits or occur in spite of them.

5. Barriers to entry are necessary to preserve any market power advantage that is achieved. Five criteria were used to evaluate barriers to entry, including government regulation and economies of scale.
    a. Under status quo, license limitation provides the barrier for harvesters and economies of scale may create barriers for processors.
    b. Under IFQs, the entry barrier for **harvesters** will be greater because of greater fixed costs related to compliance with program regulations, and the need to acquire QS or access to QP to reach efficient scales of production. There may also be an increase in the entry barriers for **processors.** The increase in compliance costs for processors is likely to be relatively small compared to harvesters. If some processors experience higher profitability through the acquisition of QS, subsequent entrants will have a higher entry cost to attain the same level of profitability.

Access to Capital (Demand) – Discount Rates

(Section E.4.4)

1. The price of QS represents the present value of a stream of current profits.
2. Individuals who place a relatively high value on current income (as compared to future income) have what is called "high time preferences" and will not be willing to pay as much for QS as those with "low time preferences" (those who are relatively indifferent between receiving income now or in some future period).
    a. There are indications that fishermen may have high time preferences relative to others.
    b. Those with relatively low incomes also tend to have high time preferences. Crew members may fall into this category.

Access to Capital (Demand – Planning Horizon and Investment Recovery)

(Section E.4.5)

The length of time over which one anticipates receiving a benefit will also affect how much one is willing to pay for QS. However, the opportunity to sell the QS and fish-related businesses at the end of a personal planning horizon diminishes the importance of the planning horizon, with certain exceptions; for example, the QS owner who has special skills enabling him/her to generate levels of profit that subsequent owners are unlikely to anticipate will find it difficult to capture the profits associated with those special skills when he/she sells his/her QS.

Access to Capital (Supply)

(Section E.4.6)

1. In determining risk, lender considerations include size of the firm, its diversification, assets that may be used as security, and the value of those assets outside the industry in which the firm participates. The cost of loans is lower for entities with lower risk profiles.
2. Harvesting firms tend to be smaller than processing firms and less of the capital may be useful in other sectors making it more expensive for harvesters to access capital as compared to processors (on average).
3. The IFQ program will decrease the risk profile for harvesters that remain after consolidation.
4. If it is anticipated that harvesters will be able to exert market power, there may be a perceived increase in risk to processor profits. There also may be a transition period during which processor profits are reduced prior to the exit of excess processing capital from the industry.
5. Harvesters and processors that acquire QS are likely to reduce risk and the cost of their access to capital as compared to firms that do not have QS.
6. A harvester without QS will be viewed as a substantially greater financial risk than a processor without QS.

SUMMARY AND EFFECT OF THE INITIAL ALLOCATION

(Section E.5)

Table A-13 summarizes the conditions for the harvesting and processing sectors with respect to each of the four major influences on willingness and ability to pay for QS. The first column provides the conditions under status quo and the second the expected influence of the IFQ program, as described above. The third column summarizes the effect of the initial allocation on the long-term

Table A-13. Summary of influences of the IFQ program and the initial allocation on the flow of QS with a focus on the harvesting and processing sectors.

	Status Quo	IFQ Program	Initial Allocation
Relative Efficiency: If there is an efficiency differential between the sectors, IFQ will flow to the more efficient sector (See Section E.4.1)			
	One sector may have greater relative efficiency than the other.	• If there is an efficiency differential between the sectors, IFQ will flow to the more efficient sector • Over the short term, there are more reasons to expect the harvester sector efficiency will be enhanced than the nonwhiting processing sector. • If so, this may or may not alter whether and if so which group is more efficient (depends on whether there is a differential, the starting point and degree of change).	The capital infusion represented by the initial allocation will provide an opportunity for harvesters and processors that receive an initial allocation to increase their efficiency. This will increase the initial recipients ability to accumulate QS.
Vertical Integration: Firms integrate vertically for market security, asset protection, rent capture, and market foreclosure. IFQs will increase vertical integration incentive (See Section E.4.2)).			
	Processors tend to be more vertically integrated than harvesters.	• Harvester's vertical integration will not be constrained by accumulation limits. • As harvesters become more profitable, they could become more of a target for vertical integration by smaller processors (rent capture). • QS provides processors a less expensive way to vertically integrate and a new way to foreclose market opportunities of competitors. • However, processor vertical integration will be constrained by accumulation limits.	• Initial allocations will enhance the recipient's resources for vertical integration. • For processors, a larger allocation to processors will lock in a greater vertical integration advantage for established larger processors *vis a vis* other processors (assuming a grandfather clause); however, accumulation limits will prevent them from increasing their vertical integration. As grandfather clauses expire (or if there is not a grandfather clause), more QS will flow into the market and strongly vertically integrated processors will weaken.
Market Power: QS will likely flow toward those with more market power because of their higher profits (See Section E.4.3))			
	Incentives for processor and harvester rivalry may each be constrained. There are more indicators that processors are likely to be able to exert bargaining power than there are for harvesters (this is not a statement as to whether or not either sector has in fact exerted market power) Indicators of potential bargaining power favor processors and indicators of entry barriers may favor harvesters. Barriers are necessary for long term-preservation of market power.	For harvesters • Rivalry is expected to decrease after an initial shakeout, • Bargaining power increase through consolidation and opportunity to vertically integrate, and • Entry barrier increase For processors • Rivalry is expected to increase, • Possible bargaining power decrease because QP liquidity increases the distance from which potential buyers may be drawn, reduced opportunity for vertical and a decrease in the relative advantages of horizontal integration. • The result for entry barriers is more uncertain.	***As amount allocated to processors increases*** For harvesters, • Increased rivalry in QP and raw fish market including increased strategic stakes. • Latent permits may become active to handle processor QP • Fewer assets to support vertical integration threat in price negotiations For processors • Effect on rivalry depends partly on the grandfather clause (grandfather clause will decrease rivalry relative to no grandfather clause) • Reduced exit barrier would tend to decrease rivalry • Increase assets to support vertical and horizontal integration (may be more an advantage for smaller firms, depending on relative efficiencies) • Processor-held QP can be used to activate latent permits, increasing processor bargaining power • A greater entry barrier (including a temporary scale advantage by larger processors) will help protect any negotiating advantages that are established.
Access to Capital: QS will flow to those with greater demand for and cheaper access to capital. (See Sections E.4.4–.4.6)			
	Harvesters may be willing to pay less for capital because of high time preference. Processors may have access to cheaper capital because of lower investment risks.	• Industry stability is expected to increase (particularly for harvesters), potentially decreasing the cost of capital. • QS of tenuous value as an asset for securing a loan. • Firms with cheap access to capital are more likely to acquire QS & grow. • The risk of lending may increase, if the IFQ program increases harvester opportunity to exert market power.	• Initial recipients will receive an infusion of wealth which may give them cheaper access to capital (lower interest rates). • Harvesters not receiving enough QS to support their business plan will have a less secure income flow and if financially distressed; may have a hard time securing loans for QS/QP acquisition or other capital investments. • For processors, QS/QP is not needed for operation but an initial allocation will increase the security of their access to raw product, reducing risk and therefore lowering capital costs.

● Impact on Conservation (Resource Stewardship Effect)

Resource stewardship is a term often used to describe actions that are taken to benefit the resource without respect to personal economic gain. It has been proposed that IFQ programs generate a "resource stewardship effect" as a result of privatization of the opportunity to harvest fish. A recent study of IFQ systems worldwide showed that even after taking into account factors such as the intensity of management, fisheries under IFQs appear less likely to be overfished. We will look at four factors related to the degree to which an IFQ program might generate a resource stewardship effect and examine influence of the initial allocation on the likelihood that a resource stewardship effect is realized:

1. Degree of exclusivity of access
2. Discounted value for future benefits (i.e. delayed gratification)
3. Ethical Action
4. Control over what happens on the vessel

♦ *Exclusivity*

Ownership of QS gives individuals a direct interest in the productivity of the resource, which cannot be impinged upon by others. However, it does not give them control or access to specific fish. Therefore, any action that a QS owner undertakes that either benefits or harms the resource is still shared proportionally with all other QS owners (NRC 1999, pg 36). Nevertheless, the approximation of sole ownership is greater under IFQs than under license limitation or open access management. Under these two systems, a fisherman is not even certain of receiving a share of the available harvest.

It may be that collective stewardship action (e.g., fishermen's associations working to benefit the resource) is encouraged by IFQs more than individual stewardship action. For example, Nova Scotia fishermen worked with managers to develop stronger conservation measures, while at the same time there were anecdotal reports that individual actions for personal benefit continued, even though they adversely affected for the resource (highgrading and under-reporting catch) (NRC 1999)(, pg 106").[14] Collective actions (or collective restrictions) ensure that all participants are contributing to a particular outcome and making it more likely that the individual will receive a benefit commensurate with his or her contribution. Collective actions where the commitments are made up front will be most easily enforced (for example, an association of fishermen might invest in research to support a stock assessment). Other types of collective actions motivated by economic incentive require participants to trust one another to contribute to the collective good, resting on the belief that violators will be detected and penalized.

Sole ownership (i.e., exclusivity) may be a necessary condition for "stewardship" motivated by economic incentives alone; however, it does not guarantee a stewardship result. For example, economically driven stewardship may require that the returns available from harvesting all the fish and putting the net proceeds in the bank be less than the growth rate of the fish stock. This issue is addressed in the following section.

[14] Highgrading problems have appeared to have escalated in the Icelandic ITQ fishery where there is not full observer coverage. For other programs, such as those in New Zealand and the Alaskan halibut fishery, it is reported that under reporting of catch appears to be minimal. There are some questions as to whether or not there may have been problems in the Alaska sablefish fishery (NRC 1999). Highgrading also occurred in the Alaska red king crab fishery after rationalization.

♦ *Discount Rates*

Assuming that someone is relatively certain of gaining the return from their investment in stewardship, one must still ask whether the return they will receive is enough to compensate them for incurring a cost and waiting for that return. The term associated with this concept of "delayed gratification" is discount rates. Discount rates are discussed more fully above and in Appendix E. If the stock growth/improvement rate is greater than the individual's discount rate, then it will make sense for the individual to make an investment in anticipation of the greater return. If it is difficult for humans to take into account returns that take longer than a generation to be realized (e.g., longer than 30 years), or longer than the remaining span of their lifetime, then economically driven stewardship incentives for some of the slowest growing west coast rockfish species may be limited. Thus, if QS holder discount rates are high and resource condition improvement rates are slow, even if a fishermen were relatively certain of reaping the benefits from his conservation action, there may not be sufficient incentive for fishermen to make the investment that stewardship actions require, purely based on economic incentives.

♦ *Ethical Action*

Stewardship based on ethical action may occur even if the action does not make "economic sense" when we consider only exclusivity and discount rates. There is much research showing that fairness and reciprocity are strong determinants of human behavior (Falk, *et al.* 2002) Under the models in this body of research, individuals value an outcome both for its effect on themselves and on others. Game theory experiments developed by Falk, et al. classified participants into those strongly motivated by reciprocity and those motivated primarily by personal economic gain. They observed that institutional rules determined the observed outcome, i.e., determined whether the outcome in the human system is driven by reciprocity or solely by economic self interest. If there is not an institutional rule that either externally forces cooperation or provides the possibility that participants will find ways to sanction one another, a non-cooperative outcome is more likely to result. Falk, et al. (Falk, *et al.* 2002) state "In a sense, institutions select the type of player that shapes the final result." The following section identifies some ways in which the structure of the institutions (i.e. rules on who is allowed to hold QS) may affect the opportunity for development of informal sanctions for non-cooperation.

Falk, et al. (2002) also identify other theories for outcomes that are not solely economically driven, including "moral norm activation" (Stern, *et al.* 1999). Under this theory, if people accept a value (e.g., fishery conservation), believe that things important to that value are threatened (e.g., that excess harvest could damage the status and productivity of a stock), and that they can take actions which will help alleviate the threat, they will take those actions.

♦ *Control Over Activities on the Vessel*

If we assume that through economic or non-economic values there is a potential for sufficient incentive to encourage stewardship behavior, then the question is who is in the best position to control such behaviors. In this discussion we will assume that the QS holder has the greatest incentive for stewardship, due to combined economic and non-economic values. Dawson reviews the issue of control over production from the perspective of transaction costs associated with contract formation and contract enforcement (Dawson 2003). He identifies that specifying the exact behavioral deliverables in a contract, monitoring that behavior, and enforcing the contract become more difficult as the relational distance between the parties to the contract increases. For example, establishing standards, monitoring and control is much easier with an employee than with a contractor. Following this line of thought it

appears that in terms of vessel operations the following would be a reasonable ranking of those with greatest control over stewardship behavior to those with the least such control.

- Crew members (most control if stewardship actions have to do with how individual fish are handled on deck).
- Vessel operator (most control for stewardship actions having to do with where the vessel fishes, length of tow, etc).
- Vessel owner/lessee (most control for stewardship actions having to do with gear and vessel equipment).
- Processor/permit owner.
- Other entities that do not own QS.

On this basis, if the Council wants to place maximum emphasis on the likelihood that the IFQ program will lead to stewardship behavior (possibly diminishing achievement of other objectives), the program should be designed to encourage ownership consistent with the priorities in the above list. Moreover, the decision on which groups will be allowed or encouraged to own QS could be part of the design of an institutional framework that supports a stewardship ethic, as discussed in the Ethical Action section (page A-65). This design may include consideration of the ability of QS holders to observe the actions of other QS holders and ability to impose sanctions. Those with the greatest ability to impose sanctions within a harvesting operation may be the owners of such operations. Those with the greatest ability to monitor the activities of other QS holders may be crew members (on a vessel where more than one of the participants owns QS).

♦ *Summary*

The initial allocation among groups is just that, an initial distribution. It does not determine where the QS will end up over time. However, those receiving an initial allocation will receive a leg up by the capital infusion represented by the allocations, and will be in a better position to maintain their QS and acquire additional QS in the future.[15] With respect to the potential stewardship effect, those present on the boat will be able to most effectively act on the stewardship incentive (i.e., be able to implement stewardship actions at the least cost). This is consistent with Clark's finding that fishermen who lease will have little incentive to conserve because they do not have long-term access (Francis, *et al.* 2007).

[15] Except those who receive an allocation at or above their accumulation limits would not be able to acquire additional QS or QP.

Table A-14. Table: Summary of analysis of stewardship effect.

Exclusivity	QS owners have limited exclusivity because the benefit/cost of any action they take individually may be shared by all other QS owners. Yet there is more exclusivity than under open access or license limitation.
Discount Rates	Even if individuals have exclusivity, if they have a high discount rate, the increase in benefits over time may not be sufficient to compensate them for the near-term sacrifices. Fishermen have been reported to have relatively high discount rates.
Ethical Action	Ethical action may override (or act in concert with) action based solely on economic incentives. Therefore lack of complete exclusivity or discount rates higher than benefit return rates does not mean there will not be a stewardship effect. Institutional design can affect whether or not ethical considerations dominate behavior. Buy-in on the problem and potential for individual action to help alter the outcome can also be important.
Control	Crew members and vessel operators may be in the best position (have the lowest cost) to monitor and control stewardship behavior.

- Impact on Sector Health

  - *Buyers/Processors*

There is an overlap between buyers and processors in that some businesses act only as buyers, some buyers act as processors (buying only for themselves), and some buyers act as processors but also buy raw fish for other processors. The set of all businesses functioning as buyers is of concern because it is they who interact with harvesters in the raw fish market. Those buyers acting as processors are of concern because of their larger capital investment in the fishery and the over investment that may have been caused by the regulatory regime. In Section A-2.1.1.d we will discuss whether the Council allocation to "processors" would be to actual processors or to buyers (as a proxy for processors), and the implications of that choice on the results of the analysis. In order to minimize confusion between the terms used in the analysis and those used in the alternatives (e.g. allocation to processors), in the following discussion we will use the term "processors" to refer to both buyers and processors, unless otherwise noted.

COMPETITIVENESS

There are a number of aspects of sector competitiveness to consider:

1. Competition in negotiations with harvesters
2. Competitiveness within the sector (smaller processors and large processors)
3. Competitiveness in wholesale markets

Negotiations with Harvesters. In Appendix E, section on market power, we focused on competitiveness within the sector, focusing on the processing sector's interactions with harvesters in the raw fish market. There we found indicators that:

- Processors are in a strong position to exert market power under status quo (whether they do or not) and may have cheaper access to capital than harvesters.
- An IFQ program under which processors do not receive an initial allocation would weaken that position.
- Even if weakened, processors could regain some strength through the acquisition of QS, but only up to accumulation limits (see Appendix E for a list of indicators of factors affecting the flow of QS among groups independent of the initial allocation).

- That an initial allocation of QS would give them a stronger bargaining position than if they do not receive an initial allocation.
- If there are well established market prices for QP and raw fish, it is then implied that strength of bargaining position will be less important in establishing market prices. However, to the degree that there are transaction costs associated with moving between one buyer and another (or from one seller to another) it will still be possible to use bargaining power to influence the price away from established market prices.

Specifically, an initial allocation of QS would:

1. Provide a capital infusion that may allow processors to employ one of a number of different strategies to grow and increase their efficiency (e.g., acquisition of additional QS, horizontal integration, etc.).
2. Diminish the exit barrier (liquidation of QS would allow a firm to exit the industry with less debt or greater gains).
3. Initially provide processors with greater bargaining power (as compared to their initial situation under IFQs if they did not receive an initial allocation), useful mainly if market prices do not establish themselves.
4. Create a greater barrier to new entry.
5. Create an even greater barrier to entry if there is an accumulation limit grandfather clause.
6. Decrease the cost of processor access to capital.

The initial capital infusion may have a long-term affect on the distribution of wealth in the industry. The effect of the IFQ program on processors' ability to remain in business is discussed below in the section on investments (page A-69).

Effect on Smaller Processors. If there is not an initial allocation to processors, smaller processors will be at a disadvantage relative to larger processors. At this time, most of the limited entry permits that are owned by processors are owned by larger processors. Therefore, smaller processors would have to acquire QS or operate at a lower profit level. Either way, they would be at a competitive disadvantage within the sector. Anecdotal information has indicated that those processors in the IFQ system in British Columbia who did not own vessels or were not closely partnered with vessels had a financially difficult time competing while also having to make payments on their QS acquisitions. This is consistent with reports from New Zealand that indicate lower economic satisfaction for later entrants who have to buy QS to enter the fishery (as compared to those receiving an initial allocation) (Dewees 2006). An initial allocation of QS would give smaller processors some QS to work with, and if there is no accumulation limit grandfather clause, would substantially even the distribution of QS among processors. If there is an accumulation limit grandfather clause, an initial allocation of QS would probably still leave them at a significant disadvantage in QS holdings as compared to the larger processors.

Effect on Larger Processors. If there is an initial allocation to processors, larger processors will likely be at their accumulation limits. If they are at their accumulation limits they would have no ability to extend their vertical integration (expanding their harvesting activities) and if there is no grandfather clause they may have to reduce their level of vertical integration. Further expansion of their shares of the market would have to occur without the support of QS. Whether large processors are more likely than small processors to expand their market share would depend on the relative profitability of adding an increment of production to a large-scale processor without the support of QS, as compared to adding the same increment of production to a small scale processor with the support of QS.

Competition in the Wholesale Market. One factor to be considered is how the IFQ program may affect the competitiveness of west coast seafood processors in the wholesale market. While west coast

processors may participate and have an advantage in local niche markets, many of the fish products currently produced in the west coast groundfish fishery are sold into a wholesale market in which there is global competition.

It has been argued that processors need to receive an initial allocation of QS and be able to accumulate larger volumes of QS in order to be competitive in the world market. However, processors do not need QS to process fish and if they cannot sell the available product, then fishermen or QP holders will be forced to lower their prices to move the available product. If fishermen are already accepting their minimum price (covering costs including normal profit) then the value of the QP will diminish. If the fishermen are at their minimum prices and marginal QP values near zero, then it is likely that some fish would go unharvested. However, overall, the IFQ program will likely reduce operation costs and make west coast products more competitive on the global market thus increasing the volume of what processors are able to sell at a normal profit level even if processors do not receive an initial allocation.

An initial allocation to processors would improve individual processor marketing flexibility and profits. Individual processors would have more direct control over the price they pay for the QS (what they pay themselves) and have more immediate flexibility to respond to marketing opportunities with price adjustments rather than having to wait for the changing price signals to work their way through the QS and raw fish markets.

INVESTMENT, DEPENDENCE, AND DISRUPTION

Dependence on the groundfish trawl fishery is a function of the degree of investment in the fishery and the ability to employ the assets representing those investments in activities outside the groundfish trawl fishery. Thus, dependence on the trawl groundfish fishery implies that, absent an opportunity to earn income from the fishery, there would not be sufficient returns to compensate those making the original investment. The investments we will focus on in this section are primarily investments in physical capital, but there may also be investments in human capital (e.g., specialized knowledge or labor skills). The IFQ program will change the management system and markets, potentially disrupting a firm's ability to recover returns on fishery dependent investments and affecting a firm's ability to sustain participation in the industry. In this section we will assess the conditions and mechanisms under which a firms ability to recover returns on fishery-dependent investments and sustain participation will be adversely affected. We will also look at some qualitative indicators of the degree of that effect.

When the IFQ Program is implemented, those holding quota shares are expected to capture the difference between the maximum price for raw fish processors are willing to pay and the minimum price at which vessel owners are willing to harvest (the difference between P2 and P1 in resource rents). In question is whether QS holders might also capture a portion of the processor's earnings needed to cover capital investments (their quasi rents).

Under status quo, if there is no processor overcapitalization, we would expect that the market would allow processors to cover their average total costs (i.e., earn enough to pay for their variable operating costs and earn a normal return for their fixed/capital costs). However, if there is more capital than is necessary to utilize the available raw product, some processors will produce at less than their optimal output, until the excess capital leaves the fishery. In Section 4.9 we identify that the nonwhiting processing sector could be overcapitalized due to the recent contraction in the fishery and that the catcher vessel whiting sectors are overcapitalized due to their need to compete for vessel deliveries during the Olympic-style whiting seasons.

- Given an overcapitalized situation, processors will compete with one another to reach, as close as possible, their optimal level of output. In that competition, processors may bid away some of the profit that would otherwise go to return on their capital investment.

The following text box provides a technical explanation of this point.

Text Box: Technical Explanation of Dissipation of Returns to Capital when the Processing Sector is Over Capitalized

Figure A-5 illustrate the economic choices. The diagrams show a price or dollar cost per unit on the vertical axis and a quantity on the horizontal axis. The curves shown are supply curves for a single firm. Three curves are shown in each figure: the top curve shows average total cost (including capital investments), the lower curve shows average variable costs and the curve crossing the other two shows marginal costs. The amount paid for raw fish is an input that affects the height of the curves. As the price of raw fish increases all three curves move up. The difference between the left figure and the right figure is that the right-hand figure reflects a higher price for the raw product.

In order to achieve a normal profit, a firm must cover its variable and fixed costs (total costs). In the left-hand figure, a price of P1 for processed product would allow the firm to achieve a normal profit with the production of about 25 units. Twenty five units represents optimum capacity for this firm; however, if the industry is overcapitalized not all firms will be able to achieve optimum capacity. Assuming that wholesale prices are fixed (that the wholesale market is competitive), as a firm's production decreases it can be seen that it will no longer achieve normal profits (in the left-hand figure the revenue line, P1, is below the total cost line when production is less than 25 units). At around 5 units of production the firm would no longer cover variable costs and would cease production over the short term. Between 5 units and 25 units, the firm will continue to produce over the short run but over the long run it will not be able to replace capital as it wears out. Excess capacity in the sector means that some processors will face producing at levels at which they cannot cover total costs and will compete to reach as close to their optimal production levels as possible. In this example assume there are only 50 units of harvest available and five companies, each with a cost structure identical to that described here. Each company will strive to maintain as close to 25 units of production using whatever leverage it has available to acquire product. For example, a company might vertically integrate, link its willingness to accept deliveries to other products for which there is not a surplus in processing capacity, guarantee its ability to receive a vessel's product during an Olympic fishery, or it might offer higher exvessel prices. If a processor must attract product by raising the exvessel price it offers, the company raises its cost curves. A $15 per unit increase results in the cost curves shown on the right. If this increase is enough for the company to win 22+ units of production it will stay in business over the short term (i.e., cover its variable costs) but will not cover much if any of its fixed costs (i.e., its return on investment, quasi rents, will have been dissipated).

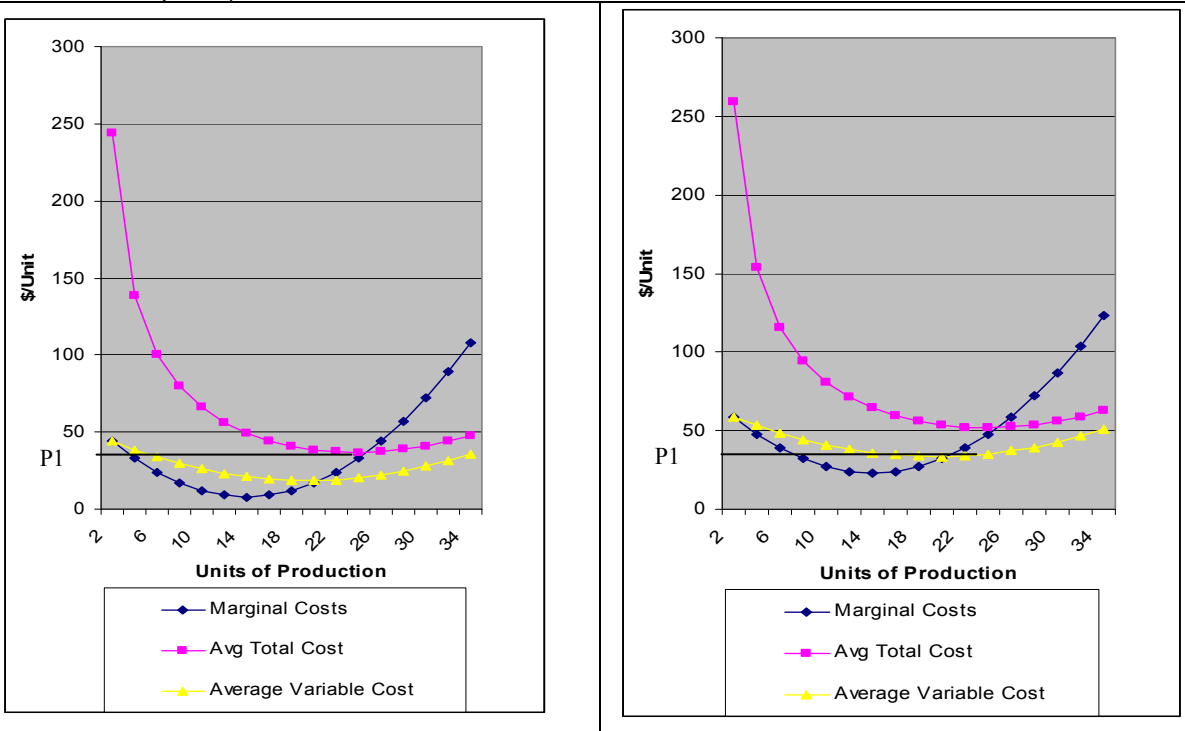


Figure A-5. Comparison of cost curves before (left) and after (right) an increase in the cost of a key input.

If there is overcapitalization in the processing sector and the sector is fully competitive under status quo, processors will already be bidding away some of their rents in the competition for the limited amount of raw product available. The IFQ program will reduce flexibility to turn to alternative harvesters, which might further increase the competition and hence price for raw product. These processors may find their situation somewhat improved if the IFQ program results in an increase in total landings (through bycatch avoidance), provides processors an opportunity to reduce costs (most likely in the whiting fishery), or provides processors an opportunity to seek higher wholesale prices. Even so, until excess capital is dissipated they may bid away any improvement as part of the competition for landings[16] and end up in a position similar to what they would be under status quo.[17] Capital will leave the fishery either as it wears out or as other markets are found for it. If a processor is covering its variable costs but can get a higher return on investment from liquidation of its capital assets than it can from continuing to produce, it may choose to liquidate rather than remain in the fishery.

If processors are overcapitalized but able to compete for deliveries at least partially through their ability to handle volume (i.e., not solely based on prices offered for raw product), then they may be earning some return on their capital investments that may be captured in bidding for raw fish after the transition to an IFQ program. This may be the situation for processors in the catcher vessel sectors of the whiting fishery.

If the processing sector does not exert market power, then so long as they are able to continue to do so after implementation of the IFQ Program, QS holders will not be able to capture the processors' investment return related profits. If the processing becomes competitive after implementation of the IFQ program, then it is possible that the QS holders will be able to capture some of the investment return related profits so long as the sector remains overcapitalized. If the processing sector is not overcapitalized, the QS holders will not be able to capture investment related profits from the processing sector. Table A-15 provides a summary of the effects on processor return on investment as it varies by the degree of competitiveness in the sector under status quo.

[16] Unless there are other means by which buyers ensure they have access to sufficient raw product.

[17] Since the nonwhiting fishery is already run at a slower pace, the opportunity for processing cost reduction or revenue increases may be relatively limited compared to the whiting fishery.

Table A-15. Effects on processor returns to investment resulting from the transition from status quo to an IFQ program.

Processing Sector Capitalization	Processing Sector Competitiveness		
	Market Power Exerted	Processors Compete for Product Based on Price	Processors Compete for Product Based on Ability to Handle Capacity
Fully Capitalized	Normal or above normal returns under status quo. QS holders will, at most, be able to capture resource rents (will not be able to capture processor profits that would go to return on investment).		
Overcapitalized	In a situation where market power is exerted under status quo, overcapitalization would most likely arise as a result of historic conditions (e.g. a contraction in the available harvest). Under IFQs, processors would maintain their previous profit levels unless the sector becomes competitive after the IFQ program is implemented.	Under status quo, returns to capital dissipated. This continues under the IFQ program until no longer overcapitalized (unless the IFQ program allows processors to exert market power, i.e., transition to a less competitive situation)	Under status quo, processors may be earning some returns to capital. Under IFQs, processors would no longer compete based on their capacity to handle product. If they then compete based on price offered for raw product, QS holders may be able to capture the profits associated with the processor assets (unless the IFQ program allows processors to exert market power, i.e., transition to a less competitive situation).

Note: market power in the harvester sector is not considered in this table. If that sector is able to exert market power, they would capture some of the rent that QS holders would otherwise capture.

In a situation where some profits that would otherwise go to capital might be lost as part of the competition for raw product under an IFQ program, it is important to consider the degree and duration of that loss. We do not necessarily expect that every firm will bid away all or even most of its returns to capital in the transition. Whether a particular firm is affected and the degree of impact depends on the cost structure and debt positions of other firms in the industry. In particular, the position of the weakest firms will have a significant bearing on the amount of profit that other firms dissipate in bidding for raw product to serve an overcapitalized industry. Firms with higher average variable costs and firms for which a significant portion of the difference between average total cost and average variable cost is dedicated to payments on a loan will have less flexibility to weather price competition. If these firms drop out quickly in the price competition, there will not be so much of a need for remaining firms to bid away a portion of their profits. Some of the capacity within a firm may also "dropout" of production to the degree that it goes unused. Ultimately, the price that processors will bid for raw product will be just below the average variable costs of the most efficient of the excess units of capital. (The units of capital that are in excess are considered to be those that are less efficient. On this basis, the price paid will be slightly below the average costs of the most efficient of the capital units with lesser efficiency). Each unit of capacity remaining active will be able to capture the profit that corresponds to the amount by which the efficiency of that unit exceeds the efficiency of the most efficient unit of capacity that drops out. A visual example of this concept is illustrated in the two diagrams in Figure A-6 of the following text box.

The above discussion establishes that :

- Under status quo, if the processing sector is overcapitalized and unable to exert market power it will already be bidding away returns to capital, unless it is able to compete for raw product through non-price competition (e.g. to handle a large volume of product during a derby fishery).
- If the processing sector is overcapitalized and unable to exert market power under an IFQ program, it may bid away some of its returns to capital as increased prices offered raw product

- The price that must be paid for raw produce will only increase until enough capacity is left idle such that the remaining active capacity is just able to process the available product.
- When that price is reached, the financial return for units of capital remaining active may be diminished, however, it is unlikely that there will be a complete loss of returns to investment
- Once excess capacity has left the fishery, normal returns to capital will be restored.

Text Box: Visual Illustration of Elimination of Capacity and Retention of Some Returns to Capital

Five hypothetical firms are represented with different average total costs (top end of each bar), average variable costs (bottom end of each bar) and debt service (difference between the bottom of the bar and the circle in the middle of each bar). With a price of wholesale price of P1 on the left hand side:

- Firm A: Covers average total costs, average variable costs and makes payments on debt.
- Firm B: Cannot cover average total costs but covers average variable costs (stays in business over the short run). Cannot make complete payments on debt.
- Firm C: Covers average total costs, covers average variable costs, covers debt and has some cash flow representing additional returns to capital (difference between total costs and debt).
- Firm D: Covers average total costs, average variable costs makes payments on debt and has some earnings above total costs (economic profit)
- Firm E: Cannot cover average total costs but covers average variable costs (stays in business over the short run and makes payments on debt).

If these firms now compete for raw product by raising exvessel prices, hence raising their average variable costs while revenues (P1) remain constant (figure on the right), firm E will drop out as soon as its average costs exceed P1. Firms A and B may also drop out if they cannot make arrangements for payments on their debt and Firm C will remain for the short run, collecting some returns on capital investment, but if raw product prices do not drop back down it will eventually have to exit as its capital wears out and needs to be replaced. Firm D remains, covering its total costs. This figure illustrates the dynamics that may occur if firms have dissimilar cost structures and debts. If instead all firms have similar cost structures and debt it would be more likely that production will be scaled back across the entire industry, with individual firms cutting out their least efficient units of production first. However, the same general rule would apply, with each unit of capacity remaining active capturing the profit that corresponds to the amount by which the efficiency of that unit exceeds the efficiency of the most efficient unit of capacity that drops out.

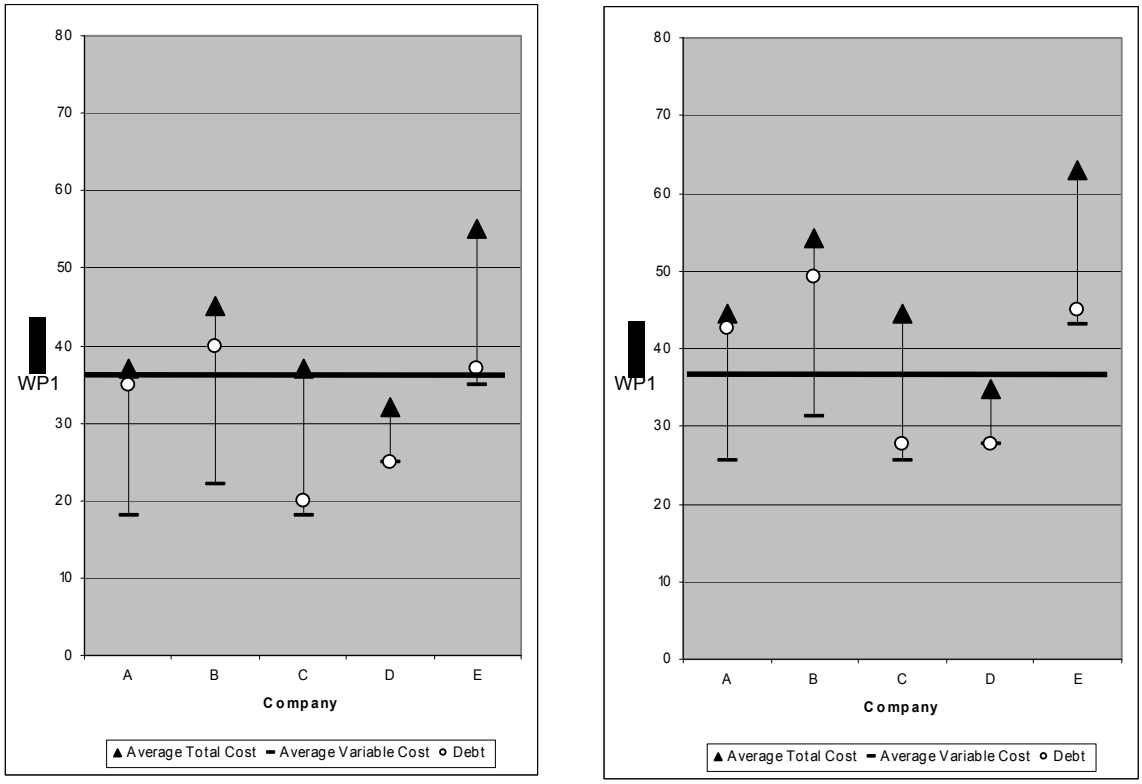


Figure A-6. Hypothetical cost structures and debt positions for 5 firms at a set level of production.
The right hand side figure assumes an increase in variable costs due to price competition for raw product deliveries.

Reduced Value of Processor Assets. Relative to status quo, processors are not expected to lose returns on their investment to QS holders unless processors are overcapitalized and either: have been competing for raw fish deliveries based at least partially on something other than price (e.g.,

competition based on ability to handle volume); or have been able to exert market power to protect their returns to assets and lose that ability under an IFQ program. If processors are overcapitalized and under IFQs are unable to influence prices substantially away from a natural equilibrium (i.e. not able to exert market power) it does not necessarily mean that they will lose all of their returns to capital. They will still earn a return that is related to the difference in efficiency between their capital and the most efficient units of capital that drop out of production. Inability to exert market power does not necessarily mean that harvesters have exerted market power but could also mean that both sides accept going market prices and are unable to use negotiating leverage to gain major deviations from those prices. To the extent that processor returns on irretrievable investment are diminished under IFQs, the allocation of QS to processors may provide them with an asset to compensate them for some of the loss. If processors are given an initial allocation of QS, that allocation may encourage more rapid rationalization of the processing sector by reducing the barrier to exit (making it easier for processors to recover capital losses).

SUMMARY

Compared to an IFQ program with no initial allocation of QS to processors, an initial allocation to processors may:

- strengthen their bargaining position *vis a vis* harvesters in the raw fish market (to the degree that prices are influenced by negotiations rather than going market prices)
    - over the short run (via the initial grant of an asset and ability to hold QS in excess of accumulation limits)
    - over the long run, if they would not otherwise accumulate QS through purchase;
- under certain circumstances compensate for partial losses of returns on investment;[18] [19]
- possibly strengthen large producers relative to small producers (if there is a grandfather clause);
- strengthen small producers relative to large producers (if there is no grandfather clause and depending on relative efficiencies);
- *not likely* affect competitiveness of west coast product in the wholesale markets but may allow individual firms to be more responsive to changes in marketing opportunities (to the degree that processors would not otherwise acquire the QS through purchase); and
- reduce exit barriers by providing compensation for capital losses by those who might seek to leave the fishery.

♦ *Harvester Sector—Permits*

In this section we will focus on the permit owner and the permit as an asset independent of harvesting activities.

[18] If the processing sector is overcapitalized under status quo and unable to exert market power under an IFQ program then it may experience a loss in the value of its capital if either: (1) market power was being exerted under status quo, or (2) market power is not being exerted under status quo but at least some of the competition for raw product was on a basis other than price (e.g. the ability to handle a large volume of product in a timely manner); or. Note that under the latter condition the processors were likely already losing some of their return on investment under status quo (to the degree that price was a factor in the competition for raw product).

[19] Under IFQs, if processors are not able to exert market power, the amount of profit they bid away in the price competition is unlikely to be the full amount of profit related to return on investment.

INVESTMENT DEPENDENCE AND DISRUPTION

Dependence on the groundfish trawl fishery is a function of the degree of investment in the fishery and ability to employ the assets representing those investments in activities outside the groundfish trawl fishery. This is described more fully in the corresponding section above on processors (page A-69).

Under an IFQ Program the limited entry permit values are expected to decline substantially because

- the fleet is expected to consolidate down to a number of vessels that is less than half the current number of permits (Section 4.6);
- the permit by itself will not offer access to any amount of the groundfish trawl allocation; and
- the permit has no alternative use (its value is entirely dependent on the access to groundfish that it allows).

While these permits were issued to qualified vessel owners at relatively low cost (a cost sufficient to cover administrative costs of issuing the permits) up to 65% of these permits have changed ownership since the implementation of the license limitation program. Many of the exchanges are believed to have occurred at prices of several hundreds of thousands of dollars. Therefore, there are many owners who have made a substantial financial investment in the permits.

Table A-16 Estimated Permit values in March 2004 (Based on Dockstreet Broker Report on $/point).

Permit Length Endorsement	Points	Permit Values Based on	
		$6,000/point	$10,000/point
40 feet	6	$36,000	$60,000
50 feet	10	$60,000	$100,000
60 feet	16	$96,000	$150,000
70 feet	23	$138,000	$230,000
80 feet	32	$192,000	$320,000
90 feet	43	$258,000	$430,000
100 feet	56	$336,000	$560,000

All of those who hold the permits, regardless of whether they purchased them or received them as part of the initial allocation, will experience a decrease in the value of that asset. Under status quo, all permits of a similar size class are of similar value in terms of the access they provide to the fishery (note: in the current climate, permits with similar size endorsements may trade at values related to their landing history because of speculation that QS will be given to permit owners). How a particular permit owner fares as a result of the IFQ program will depend on the amount of QS given to permit holders in aggregate, the formula for allocating among permits, and the amount of landing history associated with that particular owners permit. It was estimated that annual resource rents for the nonwhiting fishery (the value of the QP) might run about $18 million per year (after subtracting $350/day for observer costs). QS have been reported to trade for between 3.5 and 10 times the QP price. Therefore, the QS value would be expected to run between $63 million and $180 million. There are up to 163 permits that may qualify for nonwhiting sector QS. Therefore, on average these permit holders would receive between about $0.5 million and $1.5 million of QS per permit.

Table A-17. Estimated value of nonwhiting QS to be issued.

	3.5:1 QS:QP Ratio	10:1 QS:QP Ratio
Annual Value of Non-whiting QP	$18,000,000	$18,000,000
Estimated Value of QS	$63,000,000	$180,000,000
Average QS per Permit	$508,000	$1,452,000

Note: A ratio of 3.5:1 has the same result as a discount rate of about 40 percent applied over 30 years. A ratio of 10:1 has the same result as a discount rate of about 10.5 percent applied over 30 years.

However, the owner of a permit which has relatively low landing history may experience a decrease in the value of their combined permit/QS assets (as compared to value of the permit before adding speculation about the IFQ program effects), even if 100 percent of the QS is given to permit holders. For purposes of illustration, assume an average permit price of $200,000. With a 100 percent allocation to permits and QS valued at $180 million, there are 38 permits that will receive some nonwhiting QS but less than $200,000 worth (22 percent of the 163 permits that will receive some nonwhiting QS) (Table A-18).[20] On the other hand, if only 75 percent of the QS goes to permits and the QS is valued at $63 million, then 69 of 163 permits receiving some landing history would receive less than $200,000 of QS (42 percent of the permits that will receive some landing history) (Table A-19). If the circumstances are similar but equal sharing is included the number receiving nonwhiting QS that may be worth less than $200,000 falls to 54 (Table A-20). Estimates for 100% allocation and equal sharing are provided in Table A-21.

It is likely that some of those permits that would receive smaller amounts of nonwhiting QS would receive larger amounts of whiting QS or a co-op permit. Of the 163 permits with nonwhiting history from 1994-2003, 58 also have some history in the shoreside or mothership whiting fisheries during that period of time. Unfortunately, we do not have a model available to estimate the increased efficiency and hence value of the QS that may be expected in the whiting fishery. However,
Table A-22 and Table A-23 provide the estimated exvessel value that might be taken with QP issued for the shoreside whiting and at-sea whiting fisheries.

[20] The calculation is based on applying the vessels share of all nonwhiting QS to the estimated value of the nonwhiting QS.

Table A-18. Estimated QS value per permit, based on permit landing history, assuming 100% allocation to permits and no equal sharing of buyback history.

QS Value Per Permit	# Permits	% of Permits	% of QS Value
Assuming an Aggregate QS Value of **$63 million**			
0	6	3.6%	0.0%
1-1,000	9	5.3%	0.0%
1,000 - 50,000	19	11.2%	0.6%
50,000 - 100,000	11	6.5%	1.3%
100,000 - 200,000	11	6.5%	2.5%
200,000 - 500,000	55	32.5%	31.1%
500,000 - 1,000,000	53	31.4%	56.1%
> 1,000,000	5	3.0%	8.5%
Total	169	100.0%	100.0%
Total>0	163	96.4%	100.0%
Assuming an Aggregate QS Value of **$180 million**			
0	6	3.6%	0.0%
1-1,000	6	3.6%	0.0%
1,000 - 50,000	13	7.7%	0.1%
50,000 - 100,000	7	4.1%	0.3%
100,000 - 200,000	6	3.6%	0.5%
200,000 - 500,000	16	9.5%	2.8%
500,000 - 1,000,000	28	16.6%	12.2%
1,000,000 – 2,000,000	64	37.9%	52.1%
>2,000,000	23	13.6%	31.9%
Total	169	100.0%	100.0%
Total>0	163	96.4%	100.0%

Table A-19 Estimated QS value per permit, based on permit landing history, assuming 75% allocation to permits and no equal sharing of buyback history.

QS Value Per Permit	# Permits	% of Permits	% of QS Value
Assuming an Aggregate QS Value of **$63 million**			
0	6	3.6%	0.0%
1-1,000	9	5.3%	0.0%
1,000 - 50,000	23	13.6%	0.7%
50,000 - 100,000	12	7.1%	1.4%
100,000 - 200,000	19	11.2%	4.9%
200,000 - 500,000	73	43.2%	40.8%
500,000 - 1,000,000	27	16.0%	27.2%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	75.0%
Total>0	163	96.4%	75.0%
Assuming an Aggregate QS Value of **$180 million**			
0	6	3.6%	0.0%
1-1,000	7	4.1%	0.0%
1,000 - 50,000	13	7.7%	0.1%
50,000 - 100,000	8	4.7%	0.3%
100,000 - 200,000	10	5.9%	0.8%
200,000 - 500,000	14	8.3%	2.5%
500,000 - 1,000,000	48	28.4%	20.0%
1,000,000 – 2,000,000	57	33.7%	43.7%
>2,000,000	6	3.6%	7.5.%
Total	169	100.0%	75.0%
Total>0	163	96.4%	75.0%

Table A-20 Estimated QS value per permit, based on permit landing history, assuming 75% allocation to permits with equal sharing of buyback history.

QS Value Per Permit	# Permits	% of Permits	% of QS Value
Assuming an Aggregate QS Value of **$63 million**			
0	0	0.0%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	0	0.0%	0.0%
50,000 - 100,000	0	0.0%	0.0%
100,000 - 200,000	54	32.0%	12.5%
200,000 - 500,000	109	64.5%	57.3%
500,000 - 1,000,000	6	3.6%	5.2%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	75.0%
Total>0	169	100.0%	75.0%
Assuming an Aggregate QS Value of **$180 million**			
0	0	0.0%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	0	0.0%	0.0%
50,000 - 100,000	0	0.0%	0.0%
100,000 - 200,000	0	0.0%	0.0%
200,000 - 500,000	47	27.8%	10.5%
500,000 - 1,000,000	73	43.2%	31.5%
1,000,000 – 2,000,000	49	29.0%	33.0%
>2,000,000	0.0%	0.0%	7.5.%
Total	169	100.0%	75.0%
Total>0	169	100.0%	75.0%

Table A-21 Estimated QS value per permit, based on permit landing history, assuming 100% allocation to permits with equal sharing of buyback history

QS Value Per Permit	# Permits	% of Permits	% of QS Value
Assuming an Aggregate QS Value of **$63 million**			
0	0	0.0%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	0	0.0%	0.0%
50,000 - 100,000	0	0.0%	0.0%
100,000 - 200,000	36	21.3%	10.2%
200,000 - 500,000	98	58.0%	56.4%
500,000 - 1,000,000	35	20.7%	33.5%
> 1,000,000	0	0.0%	0.0%
TOTAL	169	100.0%	100.0%
Assuming an Aggregate QS Value of **$180 million**			
0	0	0.0%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	0	0.0%	0.0%
50,000 - 100,000	0	0.0%	0.0%
100,000 - 200,000	0	0.0%	0.0%
200,000 - 500,000	19	11.2%	5.2%
500,000 - 1,000,000	58	34.3%	23.0%
1,000,000 – 2,000,000	88	52.1%	67.1%
> 2,000,000	4	2.4%	4.8%
TOTAL	169	100.0%	100.0%

Table A-22. Estimated exvessel value of shoreside whiting per permit, based on QP issued for permit landing history (does not take into account net profits or expected future revenue that would be reflected in QS value) (total annual QP value is assumed to be $13.7 million).

Exvessel Value Per Permit	# Permits	% of Permits	% of QS Value
100% Allocation to Permits, No Equal Sharing of Buyback History*			
0	110	65.1%	0.0%
1-1,000	8	4.7%	0.0%
1,000 - 50,000	11	6.5%	1.4%
50,000 - 100,000	5	3.0%	3.2%
100,000 - 200,000	7	4.1%	7.5%
200,000 - 500,000	16	9.5%	36.5%
500,000 - 1,000,000	12	7.1%	51.4%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	100.0%
Total>0	59	34.9%	100.0%
50% Allocation to Permits, No Equal Sharing of Buyback History			
0	110	65.1%	0.0%
1-1,000	11	6.5%	0.0%
1,000 - 50,000	13	7.7%	2.2%
50,000 - 100,000	7	4.1%	3.8%
100,000 - 200,000	14	8.3%	15.1%
200,000 - 500,000	14	8.3%	28.9%
500,000 - 1,000,000	0	0.0%	0.0%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	50.0%
Total>0	59	34.9%	50.0%

*The amount of whiting that would be distributed under equal sharing is relatively small. See Section A-2.1.3.a (about 7% of the shoreside whiting allocation and 2% of the mothership sector whiting allocation.)

Table A-23 Estimated exvessel value of mothership whiting per permit, based on QP issued for permit landing history (does not take into account net profits or expected future revenue that would be reflected in QS value) (total annual QP value is assumed to be $6.9 million)

Exvessel Value Per Permit	# Permits	% of Permits	% of QS Value
100% Allocation to Permits, No Equal Sharing of Buyback History			
0	137	81.1%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	4	2.4%	1.1%
50,000 - 100,000	6	3.6%	6.6%
100,000 - 200,000	6	3.6%	14.2%
200,000 - 500,000	15	8.9%	67.9%
500,000 - 1,000,000	1	0.6%	10.2%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	100.0%
Total>0	32	18.9%	100.0%
50% Allocation to Permits, No Equal Sharing of Buyback History			
0	137	81.1%	0.0%
1-1,000	0	0.0%	0.0%
1,000 - 50,000	10	5.9%	3.9%
50,000 - 100,000	6	3.6%	7.1%
100,000 - 200,000	15	8.9%	33.9%
200,000 - 500,000	1	0.6%	5.1%
500,000 - 1,000,000	0	0.0%	0.0%
> 1,000,000	0	0.0%	0.0%
Total	169	100.0%	50.0%
Total>0	32	18.9%	50.0%

SUMMARY

- Limited entry permits are highly specific assets, the value of which is likely to decline substantially with the implementation of an IFQ program.
- Owners of permits without much history may experience a decline in the value of their permits that is not fully offset by the value of the QS they receive.
- At most 65% of the permits have changed ownership since the implementation of the program. The remainder of the permits continues to be owned by entities that received them at little cost as part of an initial grant.

♦ *Harvest Sector Vessels*

We will focus on vessels as the main unit around which the harvesting operation is organized. The permit owner and the vessel owner are believed to be the same about 88 percent of the time (based on a matching of permit owner and vessel owner addresses).

Table A-24. Indications of vessels leasing permits.

	Name of Vessel Owner and Permit Holder	**Address of Vessel Owner and Permit Holder**
Same	136 Permits (76%)	155 Permits (87%)
Different	42 Permits (0.24%)	23 Permits (0.13%)
Total	178 Permits*	178 Permits*

* When the initial data sets were drawn there were 179 permits (including 10 catcher-processor permits). More recently one permit has been combined with another. This table was developed from a more recent data draw.

Anecdotal information indicates that in some cases where a vessel owner and permit owner information do not match, the permit is being purchased by the vessel owner and transfer is scheduled to be completed when the final payment is made.

COMPETITIVENESS

Negotiations with Processors. In the sections of Appendix E on market power (summarized starting on page A-56) we focused on focused on the harvesting sector's interactions with processors in the raw fish market. There we found indicators that:

- Harvesters are in a weaker position than processors to exert market power under status quo.
- Access to capital may be more expensive for harvesters than processors because of the smaller size of their businesses and most of their primary assets have fewer alternative uses.
- Over the short term there are more mechanisms through which harvesters may gain efficiency under an IFQ program than processors (over the long-term both sectors will rationalize).
- If harvesters receive all the QS at the time of initial allocation, their bargaining position will be significantly strengthened; competition among harvesters will initially be isolated to the QS/QP market (processors may acquire QS over time), and there will be incentive for harvesters to cooperate in the raw fish market. (Bargaining power is important to the degree that prices are influenced by negotiations rather than going market prices).[21]
- If processors receive an initial allocation, those individual harvesters that would have received QS in excess of accumulation limits (assuming a grandfather clause) will not be able to achieve the level of rationalization that they would have with a 100% allocation to harvesters (because of the accumulation limit restriction).
- See Table A-13 for a list of indicators of factors affecting the flow of QS among groups independent of the initial allocation)

Specifically, as the allocation of QS to processors increases

- the capital infusion to harvesters decreases,
- the exit barriers increase lengthening the IFQ program transition period,
- harvester competition in the raw fish market will increase reducing their bargaining power,
- the cost of harvester access to capital would increase, and
- the likelihood of harvester bankruptcies would increase.

The initial capital infusion may have a long-term effect on the distribution of wealth in the industry.

Competition Within the Sector. The largest harvesters will receive amounts of QS that exceed accumulation limits, assuming there is a grandfather clause (information is provided on amounts that will be allocated to permits, relative to accumulation limits, and under different permit/processor splits is provided in Section A-2.2.3.e on accumulation limits). Over time, as the grandfather clause expires, the scale of the largest producers will be diminished. If processors are given an initial allocation, the amount of QS held by harvesters in excess of accumulation limits when the program starts out will be lower resulting in more immediate disruption (see following section). If vessels receive a 100 percent allocation, there will be more harvesters receiving more QS in excess of accumulation limits. These harvesters will be able to operate at lower costs than new entrants and those below accumulation limits. However, this opportunity for higher profits will not be of value to them in accumulating more QS/QP (they will be unable to accumulate more because of accumulation limits). It is also unlikely that they would have reason to try to undercut the raw fish delivery prices offered by harvesters operating at

[21] If there are enough participants acting independently on both sides of a local market then they sellers and buyers will tend to be price takers and whoever holds the QS will receive the profits related to resource rents.

smaller less efficient scales. Those vessels that have the advantage of receiving QS as part of the initial allocation will be better able than new entrants to compete in the raw fish market for the opportunity to deliver on processor held QP.

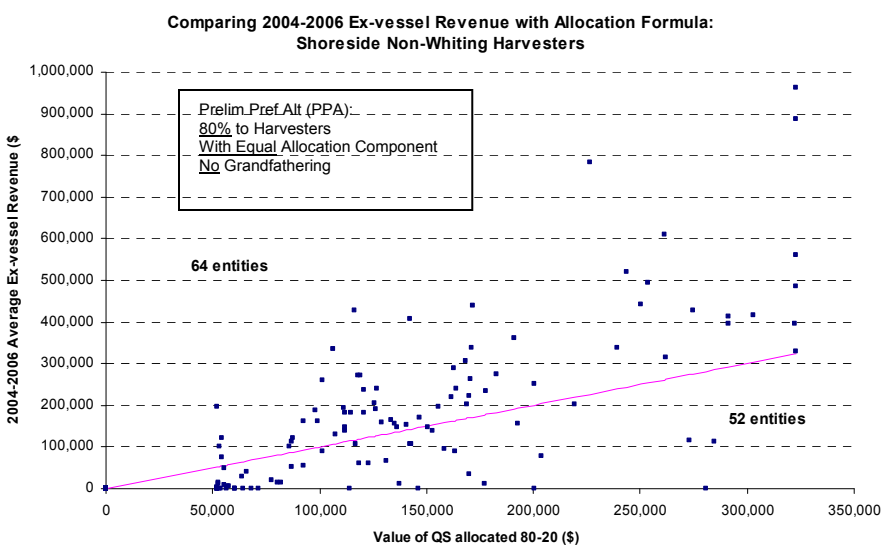
INVESTMENT DEPENDENCE AND DISRUPTION

Dependence on the groundfish trawl fishery is a function of the degree of investment in the fishery and ability to employ the assets representing those investments in activities outside the groundfish trawl fishery. This is described more fully in the corresponding section above on processors (page A-69). The situation for vessels, *vis a vis* QS holders, is similar to the situation of processors, *i.e.*, to the degree that there is overcapitalization and price competition vessel owners will likely give up some (not all) of their return on capital, by way of accepting lower prices for raw fish or paying more for QP (until the point is reached at which there is no longer surplus capacity in the fishery). If over the short term harvesters give up returns on capital to QP holders, it is not expected that the amount given up will be substantially greater under IFQs than what is given up or dissipated under status quo.

As with processors, for vessel owners the effect of the imposition of the IFQ program on returns to capital will depend on the degree to which those returns are already being given up or dissipated under status quo and the cost structure and debt positions of all firms in the sector. However, the new flexibility provided by the IFQ program may afford harvesters with more opportunity/necessity than processors to rapidly modify their operations, decreasing their total and average costs, particularly as compared to nonwhiting processors. If excess capacity leaves the harvesting sector more rapidly (the sector becomes rationalized) the period of time over which returns on investment are dissipated in bidding for QS could be shorter as than that for processors. The illustration provided above for processors (Figure A-5 and Figure A-6) can also be applied to harvesting operations in the nonwhiting and whiting fishery. The difference is that rather than bidding up the price of raw fish the harvesters will increase their costs by bidding up the price of a different key input, the QP. A similar dynamic will ensue in which under an IFQ program there will be opportunities for harvesters to reduce costs as compared to status quo management, and relative cost structures and debt positions will determine how much of the potential profits are bid away to QP owners. The process by which vessels increase their economic efficiency as QS is consolidated and transferred from less efficient to more efficient producers and by which less efficient vessels leave the fishery is described in Section 4.6.2.1.

Harvesters must acquire QS or QP in order to harvest. The more of the QS that is given to harvesters as part of the initial allocation, the less they will continue to dissipate their returns on investment in bidding for a market for their raw fish or QS/QP.

If 100 percent of the QS is given to permit holders, the need for harvesters to give up returns on capital in order to bid more for QS would depend on how the initial allocation matches up with their existing and optimal production levels. As the amount given to processors increases a harvester's need to acquire QS (or access to QP) in order to continue its operations increases. The following figures first compare the Council's preliminary preferred alternative for QS allocation to 2004-2006 average revenues (or purchases) for entities receiving an allocation only from permits (left hand figures) and for those receiving allocations from both permits and processing (right hand figures). After the first page of tables, subsequent pages compare the Council's preliminary preferred alternative to other allocation formulas, varying various central elements. On the bottom portion of each page, the alternative allocation formula is compared to 2004-2006 average revenues to assess how entities would fair compared to their most recent activities.



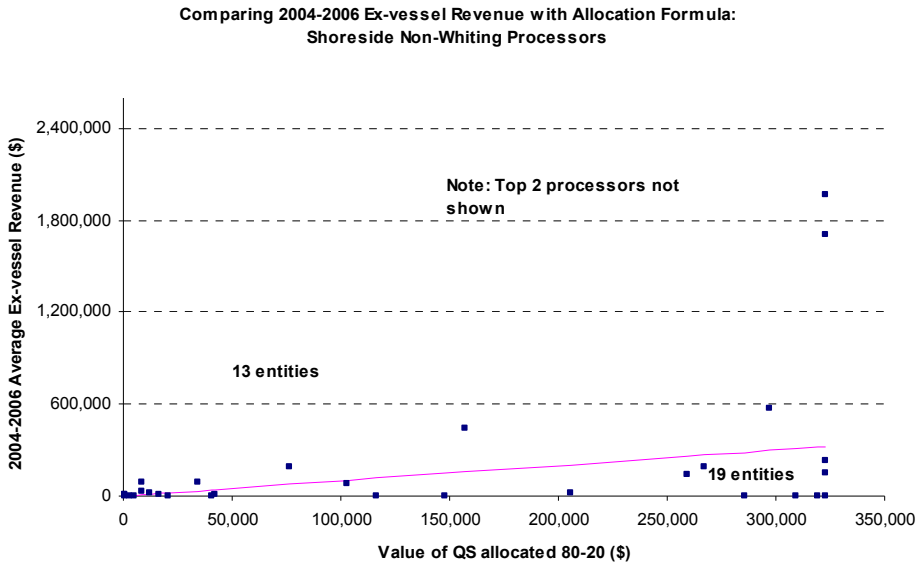
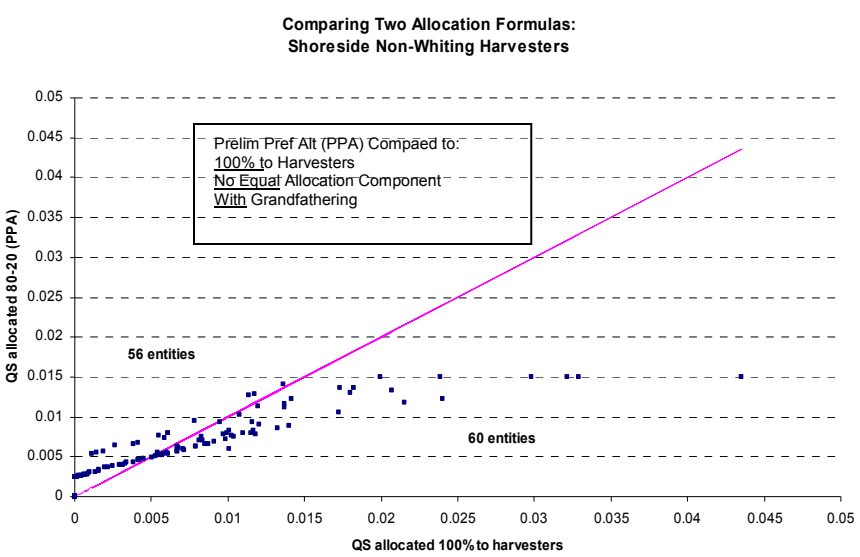
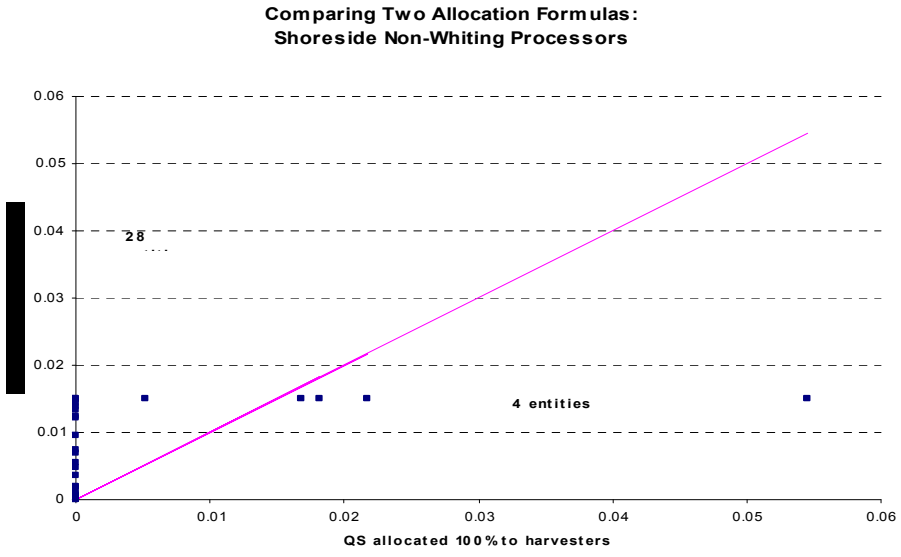
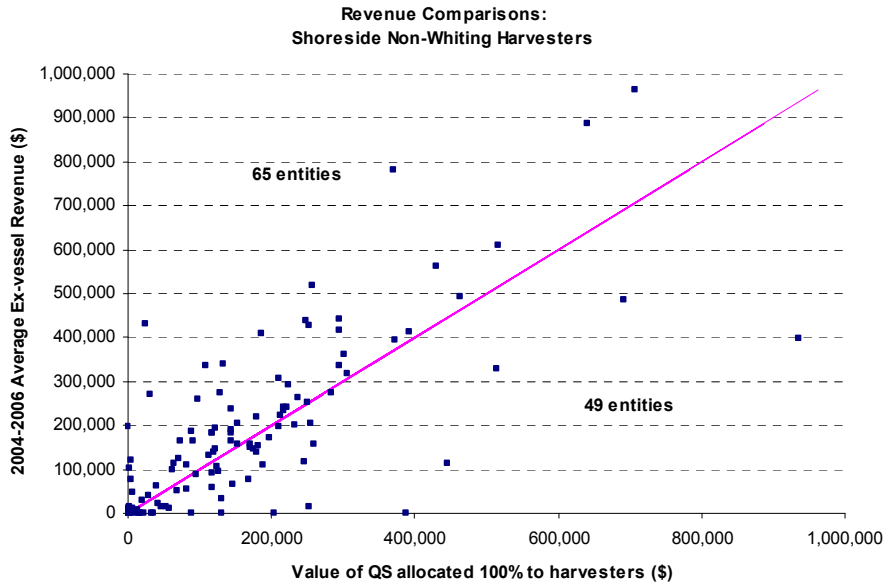


Figure A-7. Annual exvessel value of quota shares allocated to harvesters and processors in the shoreside non-whiting sector under the preliminary preferred alternative allocation formula (PPA: 80% harvester – 20% processor initial allocation of quota shares, equal allocation of buyback shares, and no grandfathering for initial allocations over the accumulation limits) compared to average 2004-2006 exvessel revenue of landings for each entity.







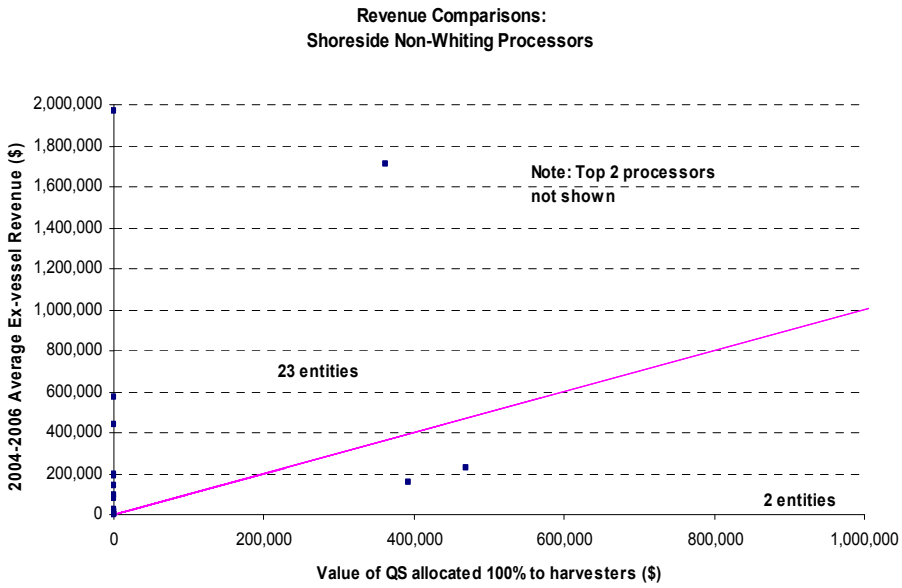
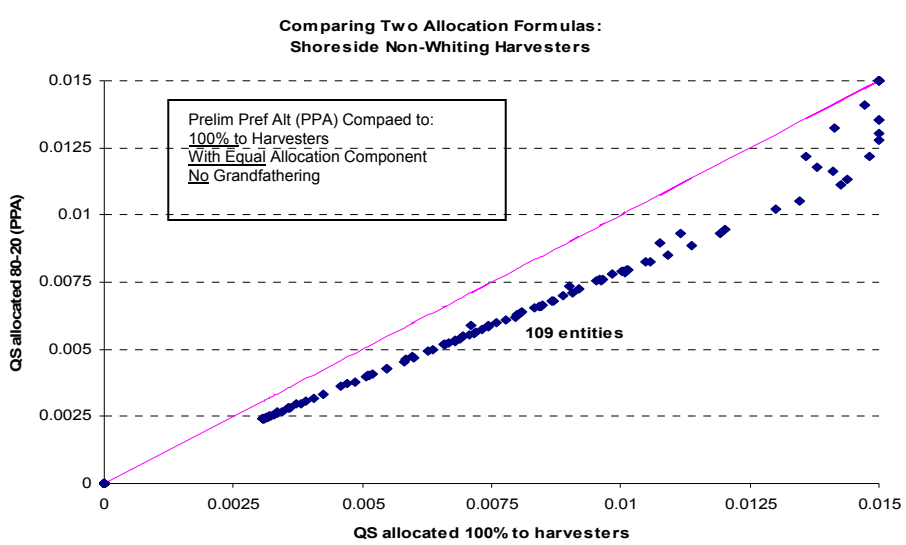
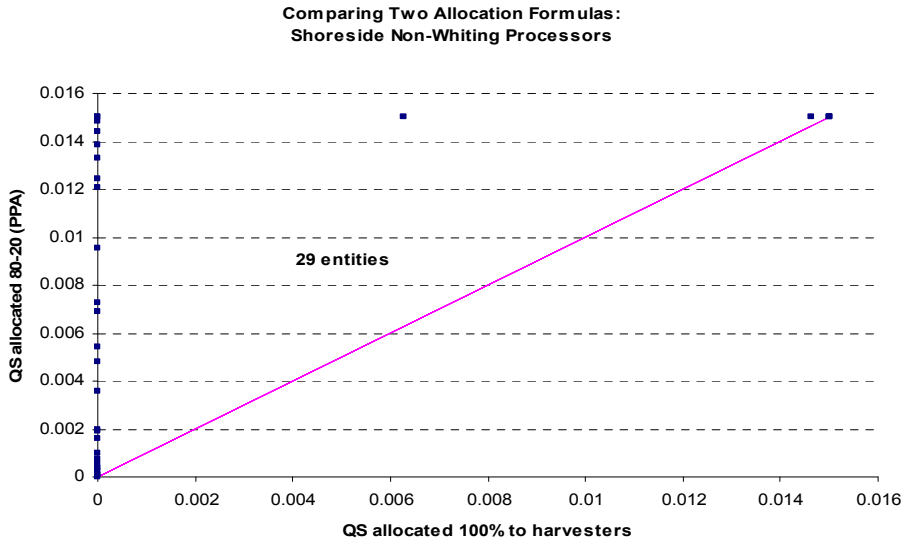
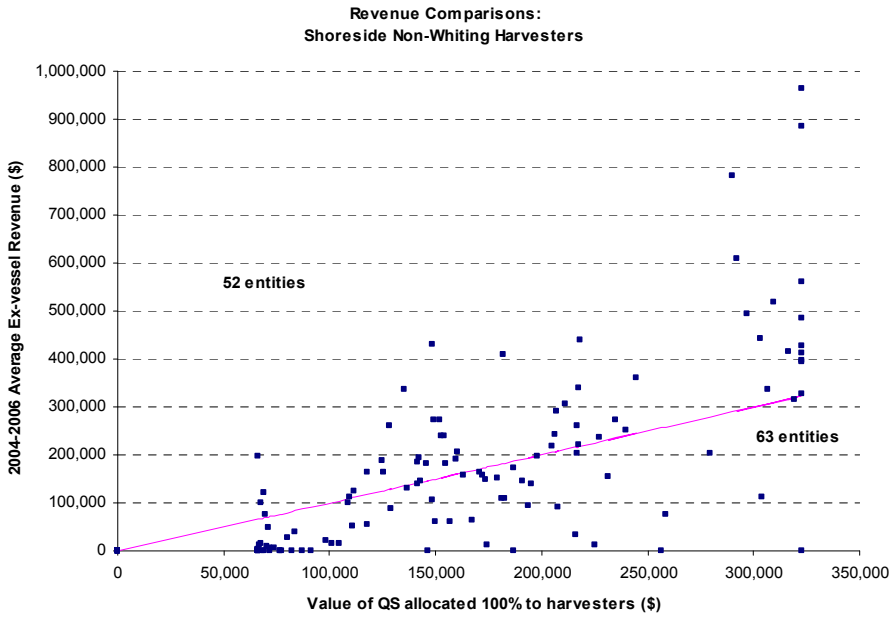


Figure A-8. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 100% initial allocation of quota shares to harvesters, no equal allocation of buyback shares, and with a grandfather clause for QS allocations over the accumulation limits.







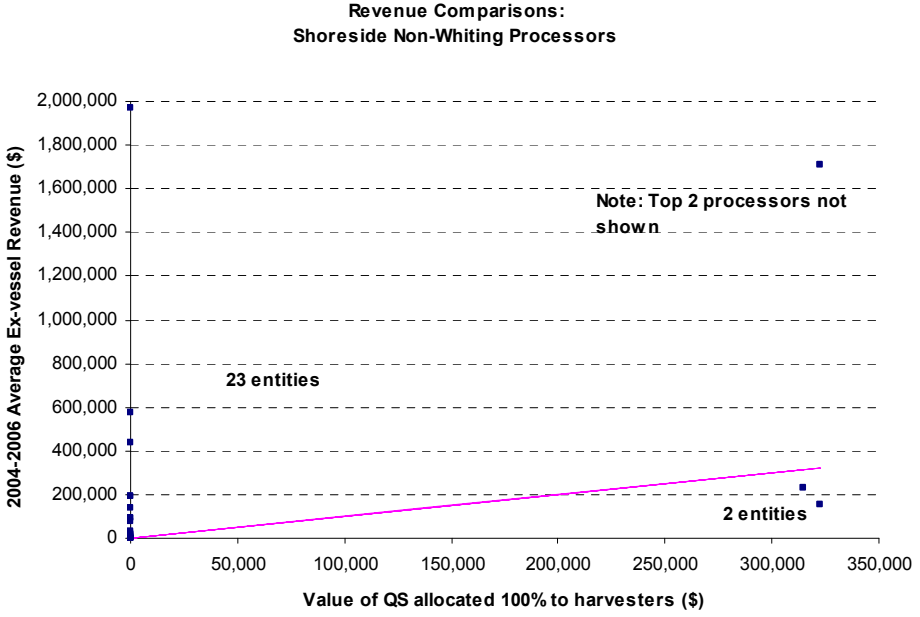


Figure A-9. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 100% initial allocation of quota shares to harvesters, equal allocation of buyback shares, and no grandfather clause for initial allocations over the accumulation limits.

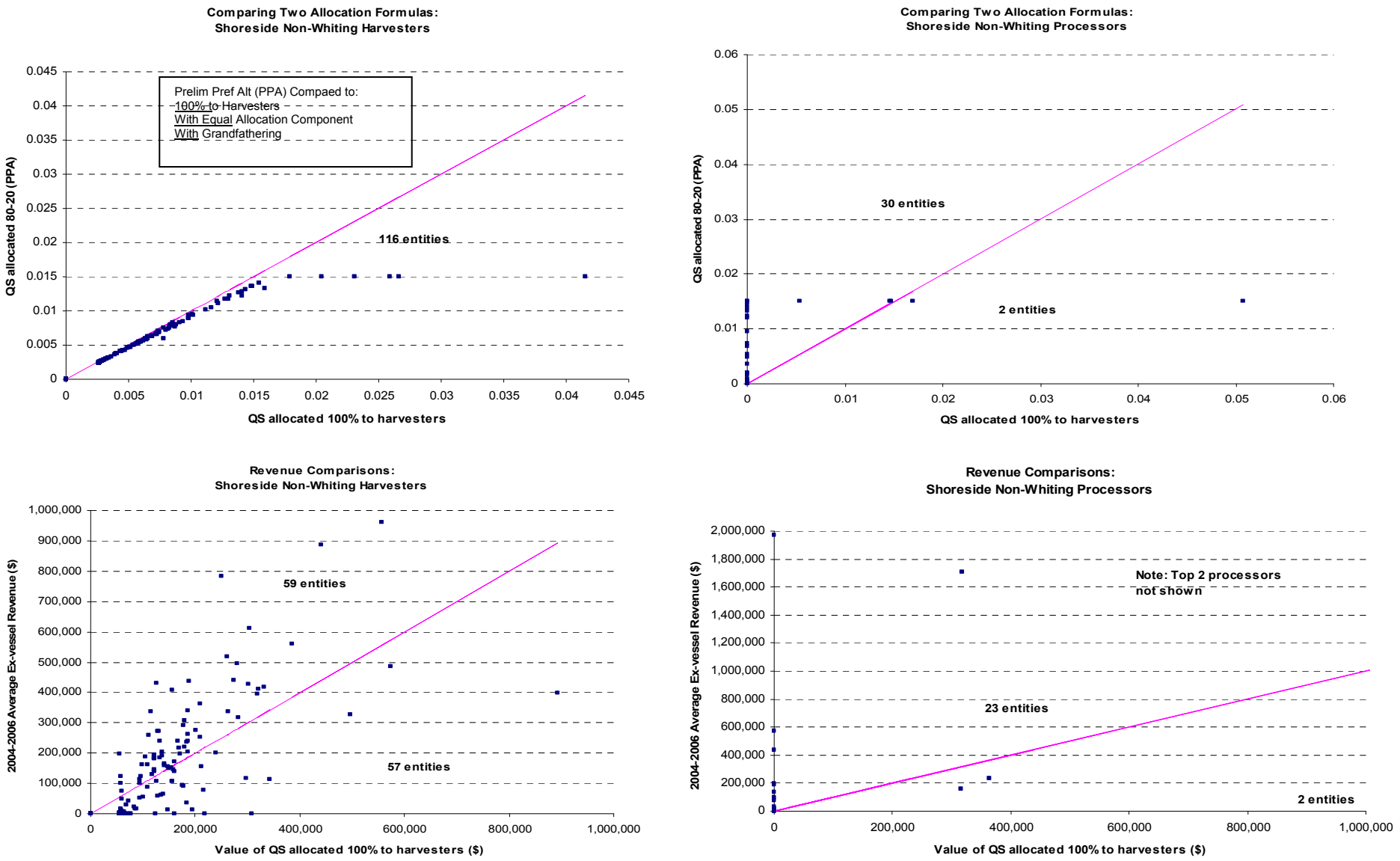
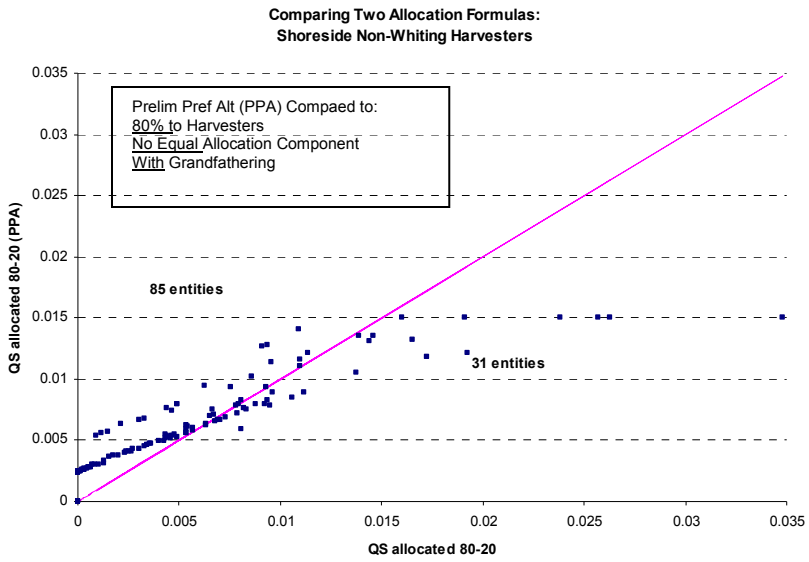
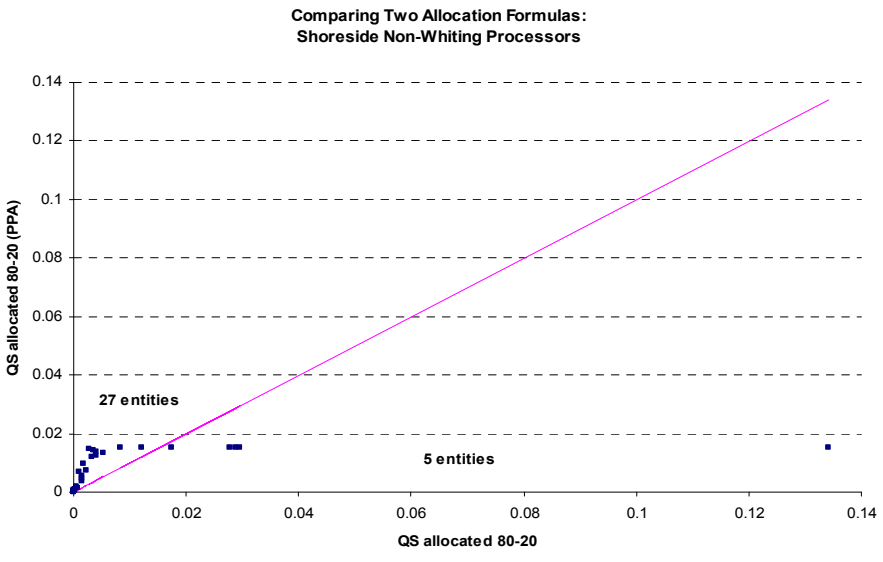
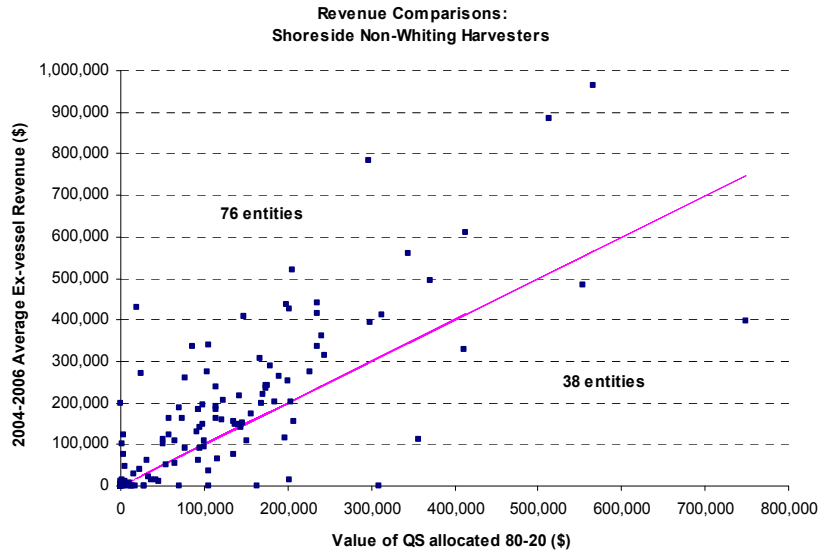


Figure A-10. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 100% initial allocation of quota shares to harvesters, equal allocation of buyback shares, and a grandfather clause for initial allocations over the accumulation limits.







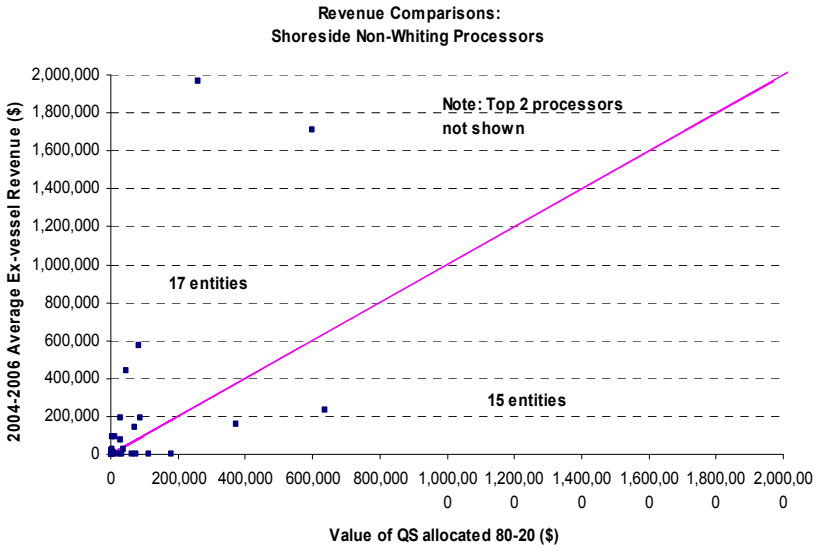
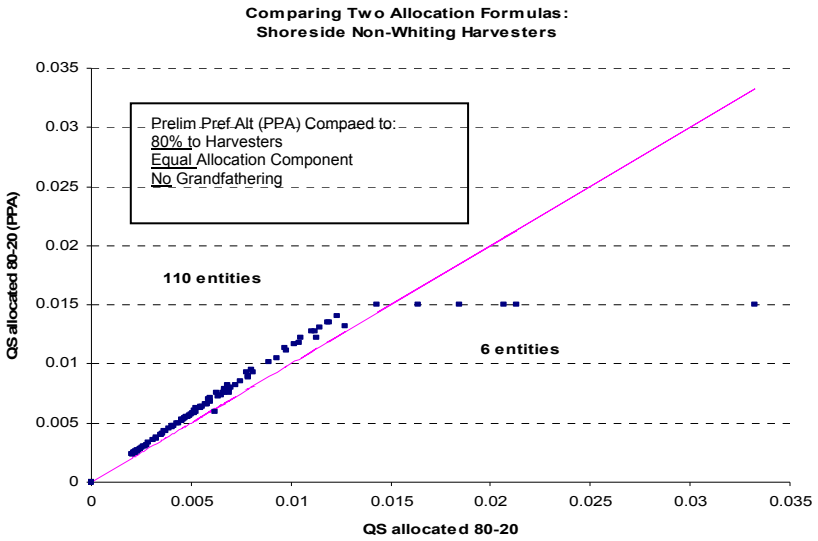
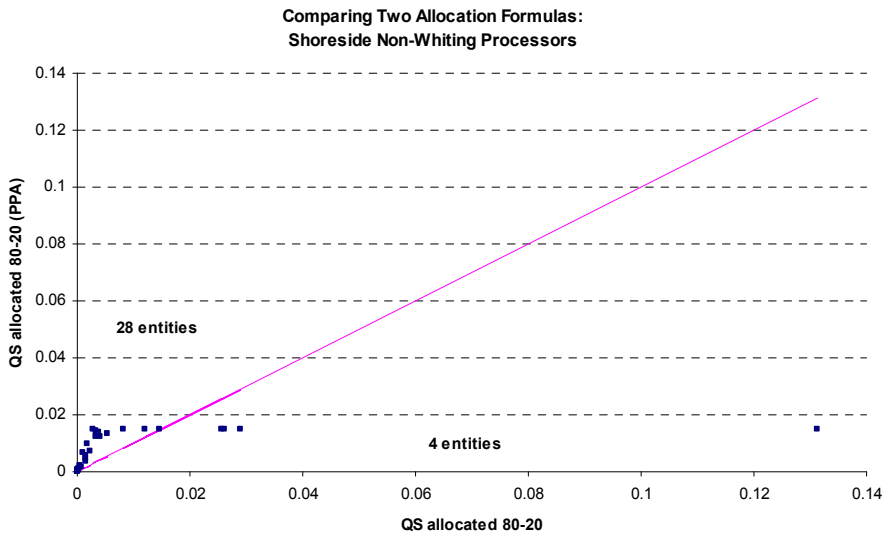
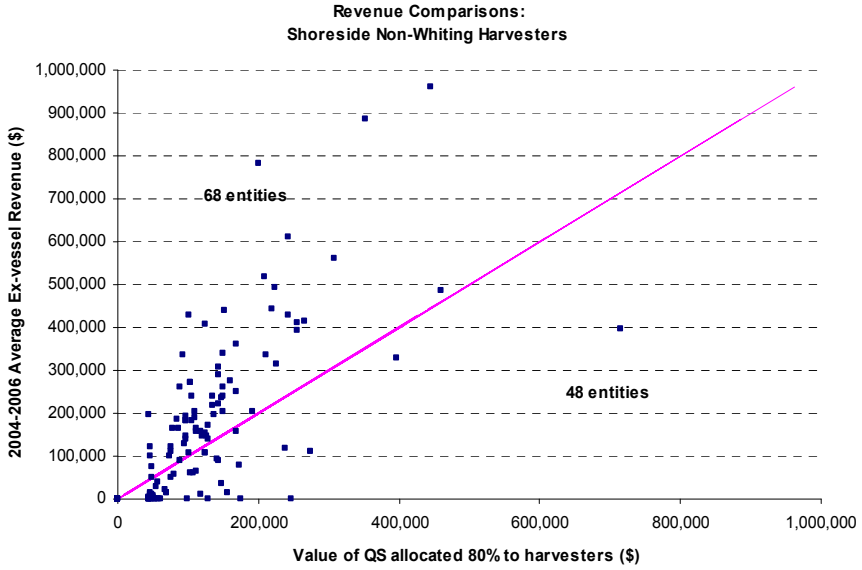


Figure A-11. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with an 80% initial allocation of quota shares to harvesters, no equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.







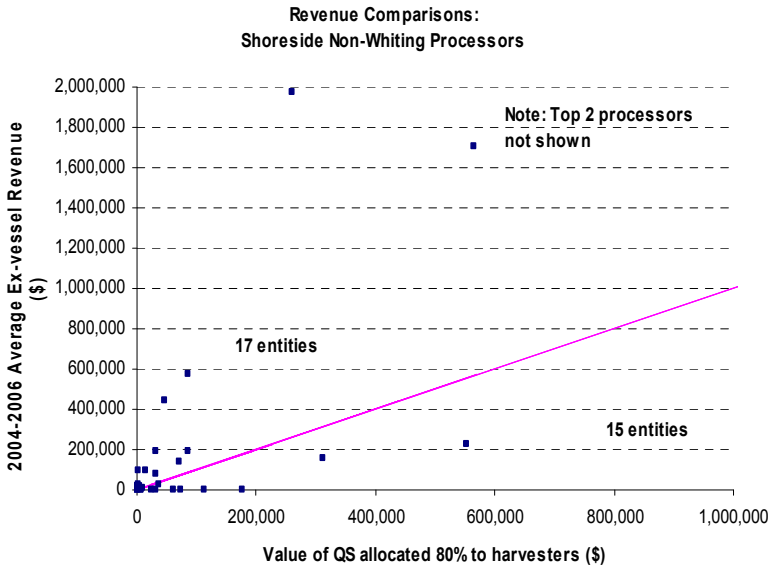
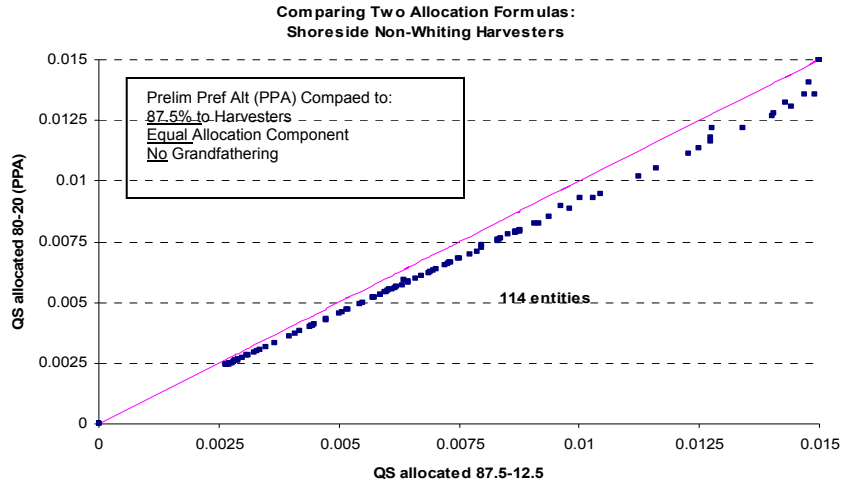


Figure A-12. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with an 80% initial allocation of quota shares to harvesters, equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.



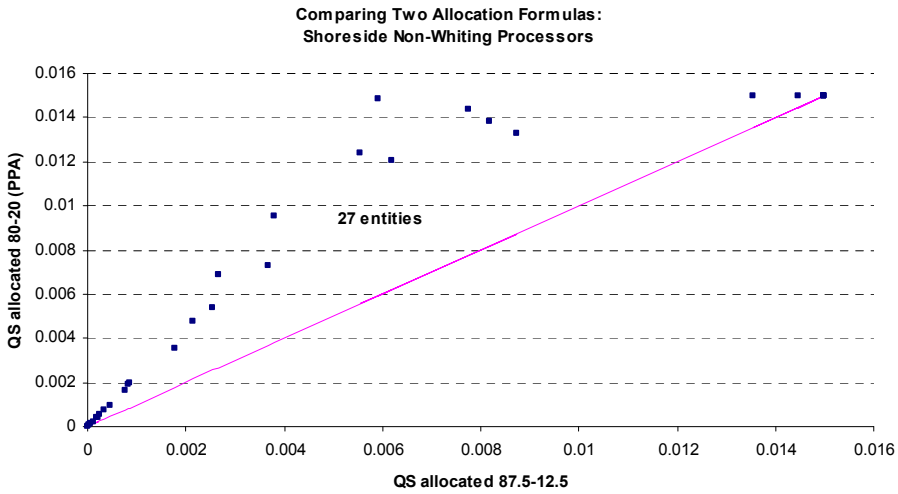
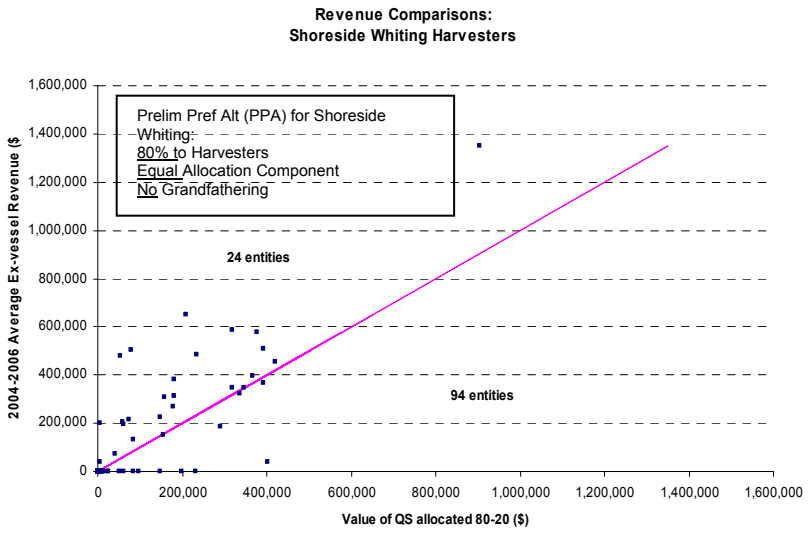


Figure A-13. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with an 87.5% initial allocation of quota shares to harvesters, equal allocation of buyback shares, and no grandfather clause for initial allocations over the accumulation limits.



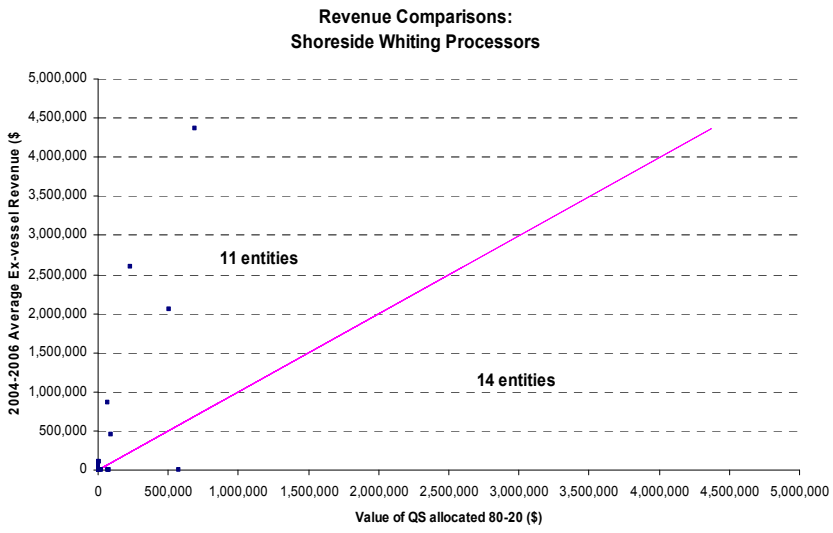


Figure A-14. The annual exvessel value of quota shares allocated to harvesters and processors in the shoreside whiting fishery under the preliminary preferred alternative allocation formula (PPA: 80% harvester – 20% processor initial allocation of quota shares, equal allocation of buyback shares, and no grandfathering for initial allocations over the accumulation limits) compared to average 2004-2006 exvessel revenue of landings for each entity.

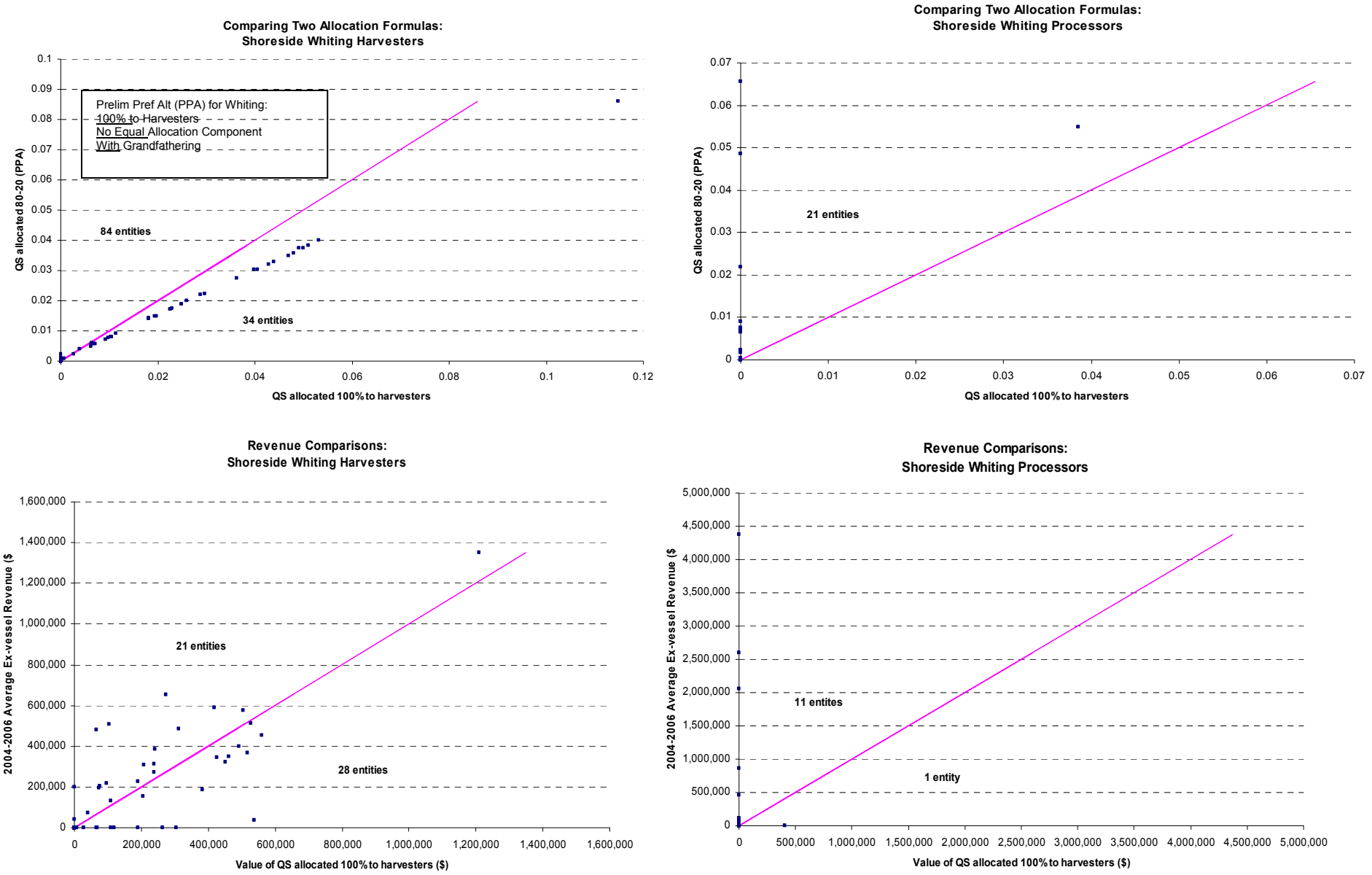
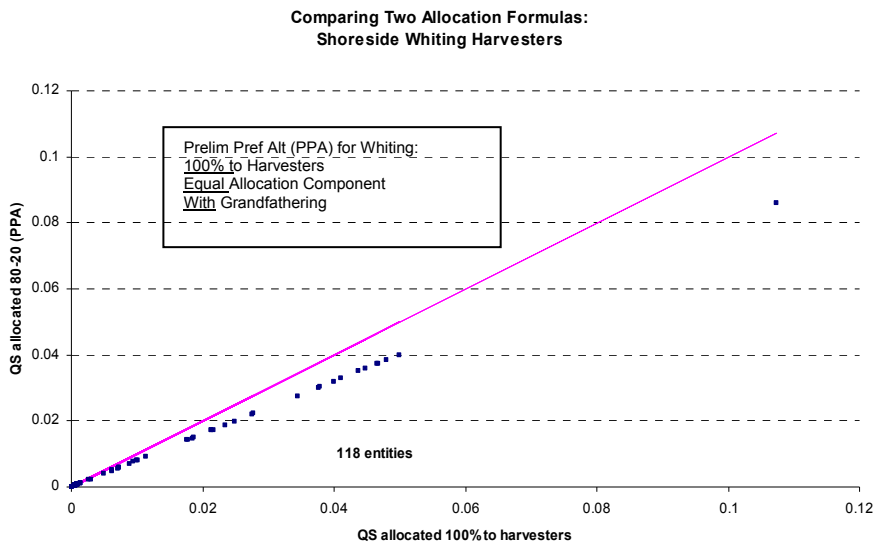
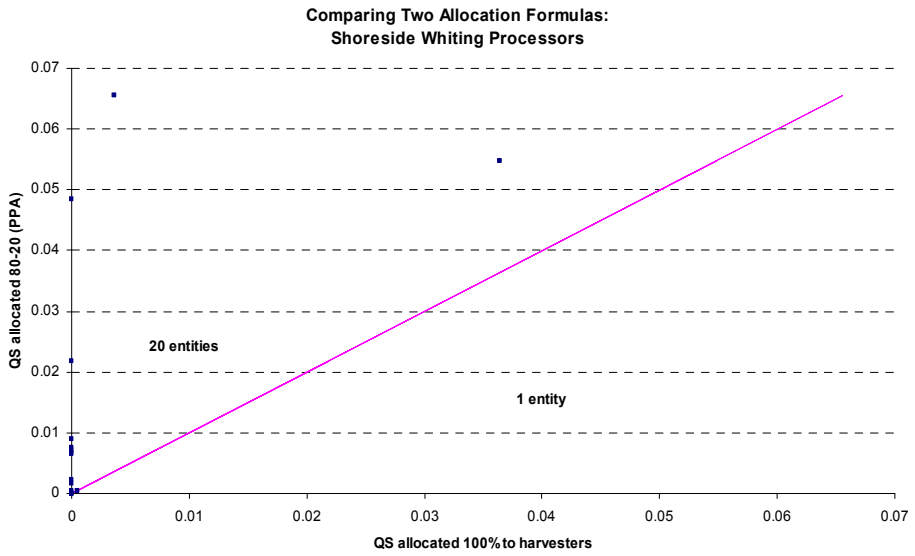
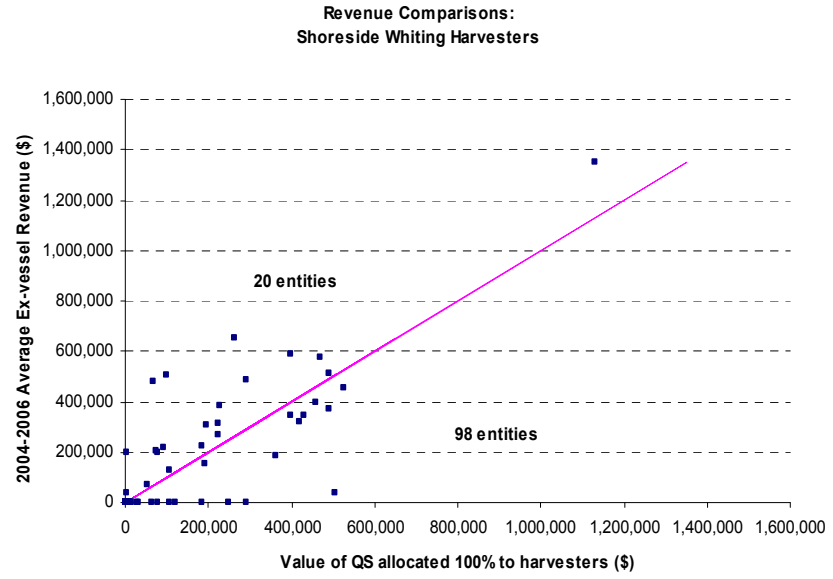


Figure A-15. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 100% initial allocation of quota shares to harvesters, no equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.







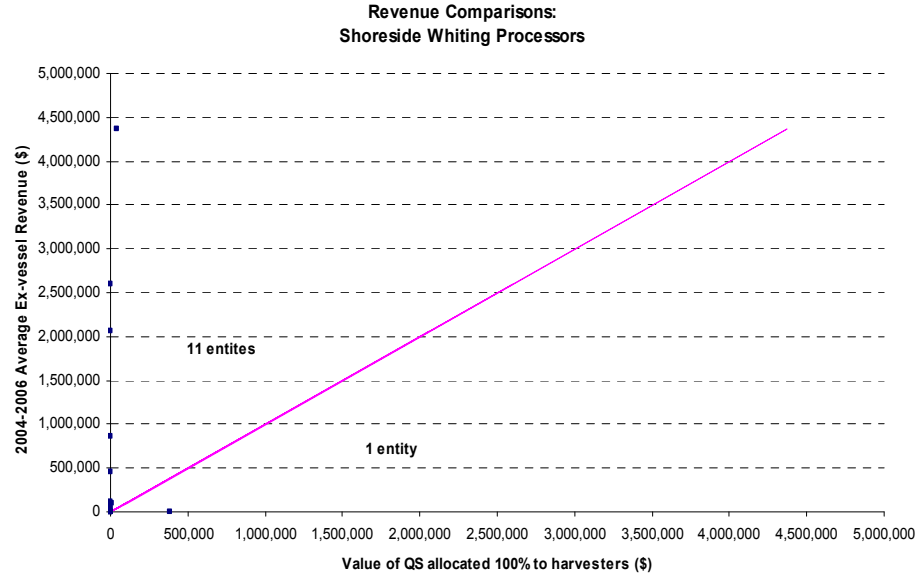


Figure A-16. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 100% initial allocation of quota shares to harvesters, equal allocation of l for initial allocations over the accumulation limits

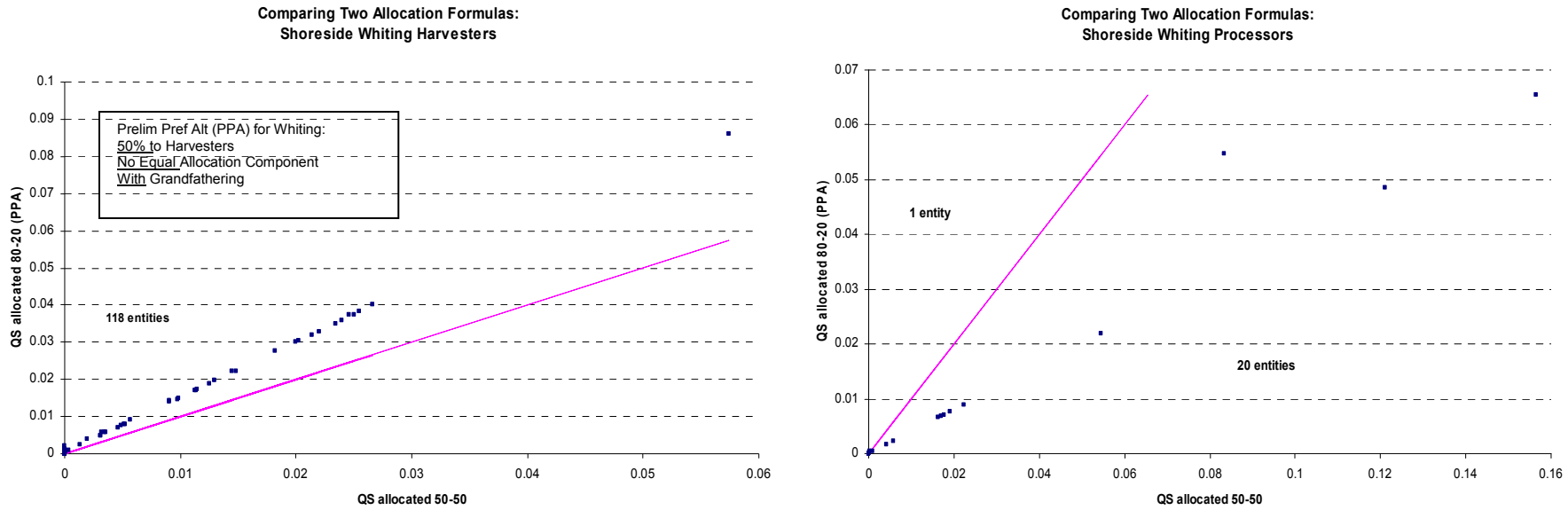


Figure A-17. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with 50% initial allocation of quota shares to harvesters, 50% initial allocation of quota shares to processors, equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.

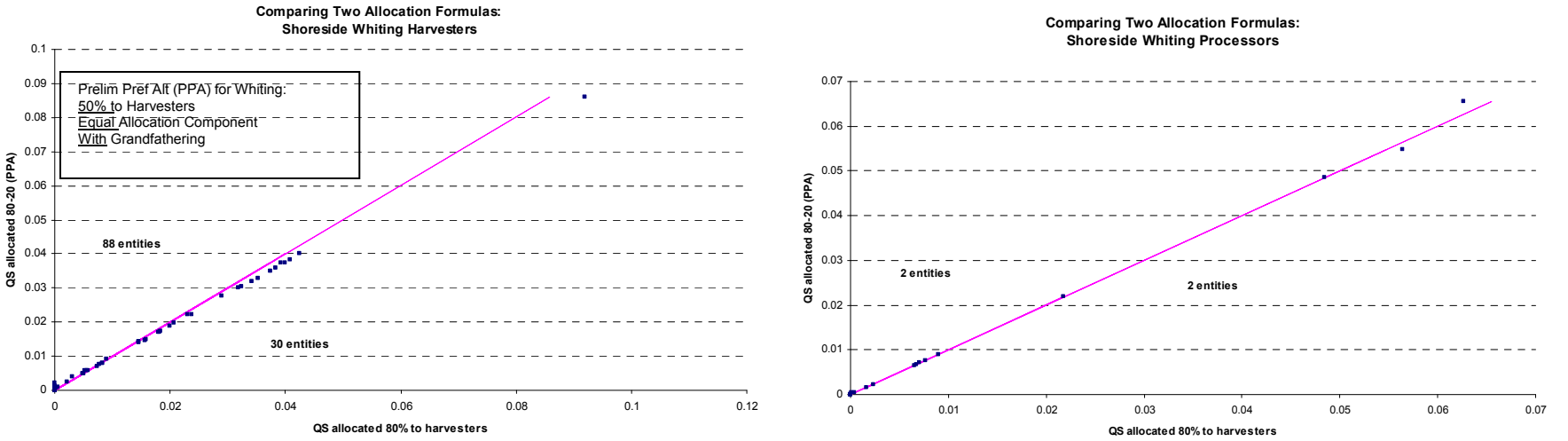


Figure A-18. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with an 80% initial allocation of quota shares to harvesters, no equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.

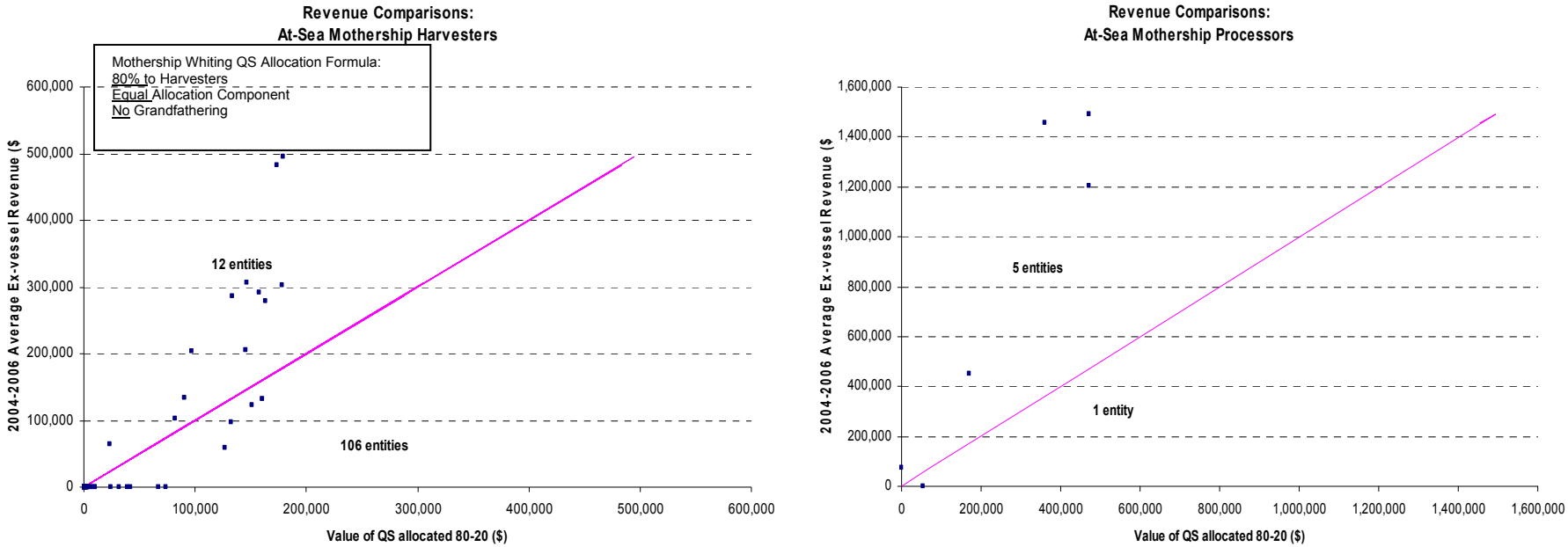
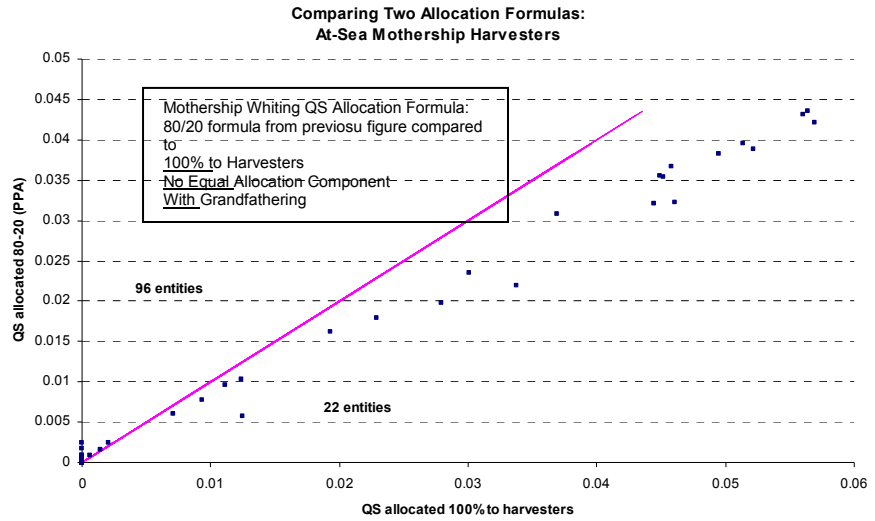
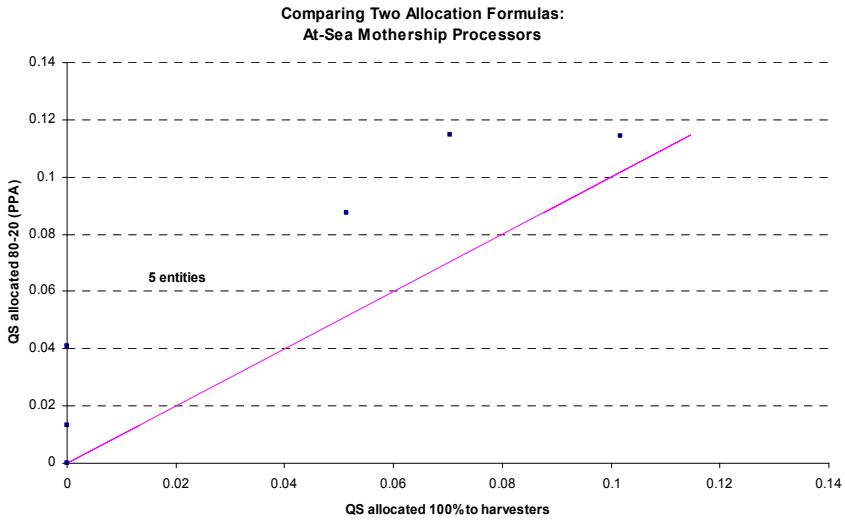
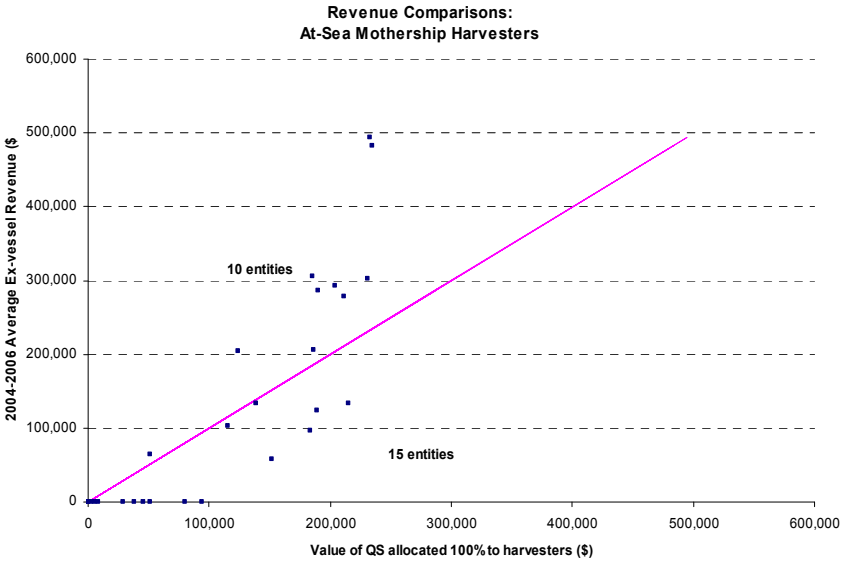


Figure A-19. The annual exvessel value of quota shares allocated to harvesters and processors in the at sea mothership whiting fishery (under an allocation formula using 80% harvester – 20% processor initial allocation of quota shares, equal allocation of buyback shares, and no grandfathering for initial allocations over the accumulation limits) compared to average 2004-2006 exvessel revenue of landings for each entity.







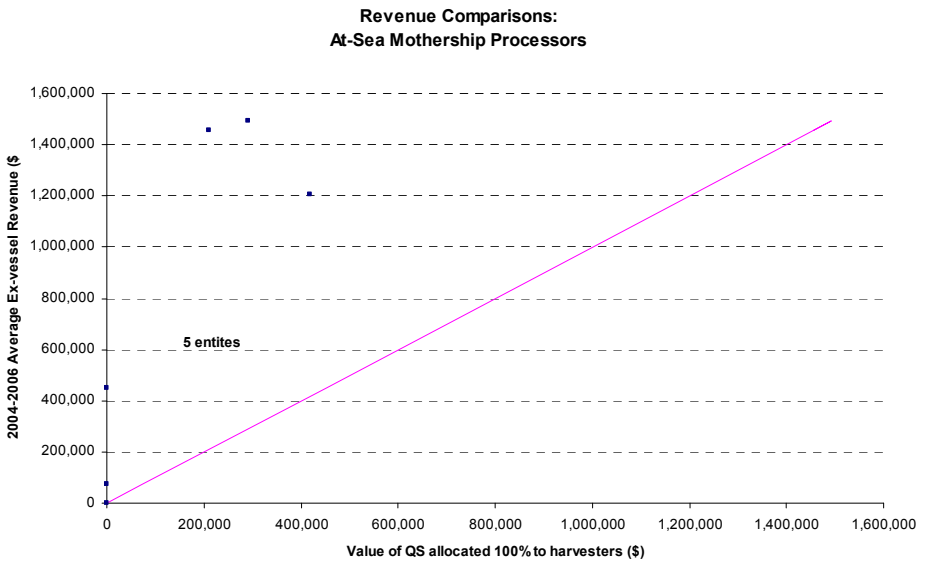


Figure A-20. Comparison of the preliminary preferred alternative allocation formula (PPA) to one with a 100% initial allocation of quota shares to harvesters, no equal allocation of buyback shares, and with a grandfather clause for initial allocations over the accumulation limits.

Vessel owners that are not permit owners (i.e., do not receive an initial allocation of QS) will be in a particularly difficult position with respect acquiring QS in terms of both their need and their ability to borrow money for QS acquisition. However, they will essentially be in the same position as a new entrant (Francis, *et al.* 2007) (except they will have already made substantial capital investments and have some expertise in the fishery). For harvesters already under some financial stress (in particular those which do not have much equity in their capital assets), the need to acquire QS or access to QP combined with limited assets to provide as collateral for QS purchase will put them at a greater risk for bankruptcy or exiting the fishery, as compared to a processor in a similar financial situation that does not receive QS. This risk and the harvesters leaving the fishery is part of the rationalization process. To the degree that harvesters do not receive the QS they need for their operations, firms may leave the fishery more rapidly when the program is first implemented.

The relative position of harvesters receiving QS, *vis a vis* those not receiving an initial allocation will be affected by the price of QS and whether or not the firm has recovered their previous capital investments or is still making payments (Table A-25). When the fishery is fully rationalized the price of the QS will represent the profits associated with resource rent. When it is overcapitalized, the price of the QS may also include some profits that would otherwise have gone to returns for capital investments. A firm may receive the QS free as part of an initial allocation, may be able to purchase QS at a price that represents the rent to the resource, or may have to pay a higher QS price (one that represents rent to the resource and some additional amount associated with the degree of overcapitalization in the fishery). Each of these situations are represented in the rows of Table A-25. The firm may come into this situation from one of two positions with respect to its capital investment, either at a time when it has fully recovered the cost of the capital investment (having repaid any loans taken to make the investment) or at a time when it is still making payments on the original investment (the columns of Table A-25). A firm that has existing debt and needs to acquire QS (or access to QP) before the fishery is completely rationalized, may find it difficult to remain in the fishery (lower right hand cell of Table A-25).

Table A-25. Firm's economic status with respect to capital investment depending on QS price (rows) and whether or not it is still making payments on existing capital investments (columns).

Cost of IFQs	Status the Firm's of Capital Investment	
	Recovered Capital Investment (Little Outstanding Debt)	Still Paying for Capital Investment (Outstanding Debt)
Free Endowment as Part of Initial Allocation	Excellent position for growth and competition. Endowment plus cash flow associated with already paid for capital and greater efficiency.	Increased ability to pay for capital with better efficiency under IFQs.
Purchase: QS Price Represents Resource Rent	Should be able to recover QS cost through profits, plus have some additional cash flow associated with already paid for capital.	Should be able to recover QS cost through profits.
Purchase: QS Price Represents Resource Rents and Some Profits That Would Otherwise Go to Returns to Capital Investment	Should be able to recover QS cost through profits and some of the cash flow associated with already paid for capital.	May need to exit fishery if the increase profits are not enough to compensate for the cost of the QS and make payments on capital investment.

In the section below on Current and Historic Harvests (page A-103), the effect of an allocation of QS to processors on existing permit-processor associations (based on 2004-2006 patterns) is evaluated. In that section, it shows that assuming these associations would otherwise remain stable, an allocation of QS to processors would increase disruption to these associations, in part because some processors would receive allocations that did not receive trawl landings from 2004-2006.

SUMMARY

Greater amounts of QS given to harvesters as part of the initial allocation will;

- Strengthen their bargaining position *vis a vis* processors in the raw fish market (to the degree that prices are influenced by negotiations rather than "going" market prices),
  - over the short run (via the initial grant of an asset and ability to hold QS in excess of accumulation limits), and
  - over the longer run, if they would not otherwise accumulate QS through purchase.
- If there is a grandfather clause, reduce disruption by allowing larger harvesting operations to continue at higher levels of production (levels which they could not achieve if there is a lesser allocation of QS to harvesters because under the accumulation limit rules the only way to acquire QS in excess of the accumulation limits is through the initial allocation).
- Reduce disruption that might result from the immediate departure of firms that receive substantially less than what they need to stay in business and that are unable to finance additional purchases.
- Reduce exit barriers by providing compensation for capital losses by those who seek to leave the fishery.
- Provide harvesters security of an asset that can be used to demonstrate that they have a viable business model when seeking financing for further capital investment (there are indicators under status quo that harvesters are in a weaker position than shoreside processors to acquire access to capital).

♦ *Labor—Harvester*

The following summarizes the findings of Section 4.4.2 on the impacts of the IFQ program on crew members.

> In the harvesting sector, the number of crew and captain jobs is expected to decline, but more of the jobs are expected to be full time. Additionally, crew shares may decline but that decline may be offset by an overall increase in vessel earnings such that total earnings per crew member increases. The nature of compensation may also change. Traditionally, crew members have taken part in the risk and reward of the harvest operations by taking their income as a share of the vessel revenue, and the share earned by a crew member varies with their skill level. Under IFQs there is sometimes a change from share-based compensation to wage-based compensation.

An initial allocation of QS to crew members would not necessarily prevent a shift from share-based to wage-based compensation, but would provide crew members who have some record of participation an opportunity to maintain a share of the harvesting profits. This form of compensation would provide them an award in perpetuity (for the duration of the IFQ program or for as long as they decide to hold the QS, regardless of whether or not they continue to work as a crew member).

As with physical assets, labor also earns a return that will be affected by the creation of an IFQ program. Crew members who earn above-average shares because of their development of particular skills may lose the advantage of those skills if they are forced to move into another occupation. However, humans are more malleable than physical capital in terms of their ability to take on different tasks. Allocation of QS to crew members was discussed but rejected because of the difficulty of identifying eligible crew members and consequently the likely costs that would be associated with such an allocation.

The main source of new entrants to the fishery is captains and crew members. During Council deliberations on the effect of the program on crew members, it has been noted that new entry by crew

members will be facilitated by the liberal eligibility requirements for owning QS (A-2.2.3.a) and the high degree of QS divisibility, which allows for crew members to incrementally acquire capital and speed their accumulation of wealth. The IFQ program will make it more expensive to enter the fishery, but will provide a more stable industry, thereby reducing risk.

The balance of the allocation of QS among harvesters and processors will affect harvester labor through the: speed of adjustment required, geographic distribution of harvest operations, and distribution of activity among vessels. As described for harvesters, as the allocation to processors increases, the speed of rationalization in the fishery is likely to increase. More rapid rationalization of capital will require a more rapid adjustment by labor. In addition to the duration and timing of jobs, locations and vessels on which there are opportunities to harvest will be affected. Over time, QS is expected to flow to ports that are able to support the most efficient complex of harvesting and processing operations, taking into account both travel costs to and from the fishing grounds and to distribution centers for wholesale products. However, due to transaction costs and other ways in which the economic system does not function in the ideal, the initial distribution will likely affect the geographic distribution of activities (and hence employment opportunities) in both the short and long term. The more QS that goes to processors, the more the location of harvest/landing activity will be initially directed by factors related to processing operation costs; and the more likely it is that jobs will be on processor owned vessels as opposed to vessels of independent harvesters.

SUMMARY

1. While crew members are impacted, they are not being considered for an allocation QS because the cost of conducting such an allocation would be high, human capital is more malleable than physical capital, and crew needs were taken into account through other features of the program, which facilitate incremental acquisition of QS by crew members.
2. As allocation to processors increases, the speed of rationalization in the harvesting sector is likely to increase requiring more rapid adjustment by crew members.
3. Geographic distribution is likely to be affected by the initial allocation and the more allocated to processors the more harvest/landing activities will be initially directed by factors relating to processing operations preferences and the more likely that jobs will be on processor-owned vessels as opposed to independent harvesting vessels.

♦ *Labor—Processor*

The main effect of the initial allocation of QS to processors is likely to be the geographic distribution of processing jobs. The types and numbers of jobs may also be affected by the relative size of the processing operations in the industry. The effect on size of processor operations is discussed in the section above on allocation to the processor sector. The effects on labor are discussed in Section 4.12 on processor labor.

● Impact on Net Benefits

The impacts considered in this section are closely related to the overall economic efficiency outcome (i.e., net benefits or social welfare).

We will look the impact of the initial allocation of QS among groups on net benefits as it is affected by:

- price setting in markets,
- transaction costs, and
- implementation costs.

♦ *Price Setting in Markets*

In an efficiently functioning market neither buyers nor sellers are able to influence price because of the existence of competing buyers and sellers. Everyone in the market is a "price taker," accepting the "going" price. Bargaining power is, by definition, limited. Under certain circumstances, such as when there is a limited number of competitors (see Appendix E for additional discussion), the potential for participants in the market to exert market power increases.

If one side or the other in a market is able to influence price away from the market equilibrium, (i.e., exerts market power) there are generally two effects on economic welfare: (1) it redistributes income toward the side of the market with market power and (2) it reduces overall production in the economy (reduces net benefits). Here the concern is net benefits.

The discussion of the effects of the allocation on market power are summarized very generally as follows:

- Under status quo there are more indicators that processors may be able to exert market power than harvesters.
- The creation of an IFQ program will likely increase to some degree the potential for harvesters to exert market power or resist processor market power independent of the amount of QS they are initially granted because the fleet will be rationalized and excess capacity removed.
- Whoever receives an initial allocation of QS is likely to be in a better position to exert market power and accumulate additional QS, unless the creation of the IFQ program changes the system enough that all entities become price takers, for the most part accept the going price.

The IFQ program could potentially break down some of the local market isolation that may currently be limiting the number of effective participants in the market and providing them opportunity to exert market power. It could also both encourage consolidation among processors and encourage or discourage the entrance of new processors with an uncertain net effect. Local market isolation and other factors that may change the nature of price setting as compared to status quo are discussed in Appendix E. If the markets change such that there are many more players on each side, everyone will become price takers and holding QS will not enhance one's negotiating power.

However, even if the IFQ program and initial allocation allows an entity to exert market power, the effect on net benefits is less clear than under classical economic theory because production is constrained by government regulation of a key input (the amount of fish produced). Based on current production levels and demand, and the fact that the only costs for a QS holder to produce QP (release QP onto the market additional QP) are transaction costs, it does not appear likely that even if one side or the other is able to control market prices that total annual production will be diminished. Therefore, market inefficiencies related to reduced production would not be expected.[22] [23] On this basis, if the

[22] NMFS guidelines on LAPPs suggest that excessive control of QS might result in an individual operating as a monopsonist or monopolist in the QS market and that this would lead to a less efficient fleet (NMFS 2007).

[23] Exerting monopoly like control over prices in a QP market has some particular challenges.
1. If a dominant QS holder releases QP in a manner that reduces fleet efficiency, the amount individuals would be willing to pay for QP would be reduced by the reduction in efficiency.
2. QP are nonperishable and highly liquid, any QP released may be held by the buyer reducing the QS holder's market power.
3. While there is an opportunity cost for not using QP, the production cost of QP is almost zero and any QP not release to a vessel by the end of the year expires, therefore it is likely that all will be released.

initial allocation leads to the establishment of market power, the effects appear more likely to impact distribution than net benefits.

♦ *Transaction Costs*

In order for QS to be used, the QP issued to the QS holders will need to be transferred to a vessel account. Transaction costs are those costs associated with the search for an input, the bidding and negotiation process, monitoring performance on the transaction contract, and transaction contract enforcement. The greater the distance in ownership between the QS holder and the vessel and the more dispersed the ownership of the QS, the greater will be the transaction costs. The entity most certainly connected with the vessel is the vessel owner. Allocations to vessel owners are not being considered. The next entity that is most probably linked to the ownership of a particular vessel is the permit owner (87 percent of the permits appear to be owned by the vessel owner). Crew members are also associated with vessels but are probably more mobile between vessels and there are more crew members than vessels. Therefore there would be more transactions to negotiate. Processors also have close connections to vessels (7 percent of permits, or 17 permits in total, are owned by processors). An allocation to processors would require fewer transactions, and likely result in lower transaction costs, than an allocation to crew members. On this basis, it appears that transaction costs will be lower with an allocation to permits than with an allocation to processors, with the exception of those processors that may operate their own vessels.

Another factor affecting transaction costs is how the QS are distributed as compared to the recent distribution of catch among fishery participants. The greater the difference the more transactions required to get the QS/QP into the hands of those who need it to continue their operations. If these transactions do not occur then higher costs will emerge as dislocation costs since those who have been recently catching the fish will no longer be able to do so and those receiving the QS may ramp up to higher levels of production than they have experienced in the recent past. In the section below on equity, a quantitative assessment is provided of the difference between the distribution of QS among participants and the recent participation history of those participants (Current and Historic Harvests on page A-103). In that section (Figure A-21) shows how QS would be distributed among associations of processors and harvesters (based on 2004-2006 landings activities. This figure shows that with a 25% allocation to processors, there is a greater mismatch between recent production by processors-permit associations and the QS distribution to those processor-permit associations

♦ *Administrative Costs*

Each group to which an initial allocation is given will add to the administrative start-up costs of the program. The least expensive way to make an initial allocation would likely be through an auction that

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1. The main profits available through the exertion of market power are those that would otherwise go to the QP holder, unless
    a. profits that would otherwise go to return on investment are captured (i.e. there is some excess capital in the fishery or within a local area),
    b. the power is used to affect prices in a transaction that does not include the QPs being used to establish the market power, or
    c. the dominant QS holder is able to achieve price discrimination (charge each potential buyer the maximum it is willing to pay rather than a market price based on the release of a reduced quantity of QS, the more typical way a monopolist would extract additional rents).

is open to all comers; however, such an option is not among those that have been identified for full analysis. Permit owners are a defined group and therefore an allocation or auction to permit holders would likely be relatively in expensive, as compared to an allocation to crew members. While an allocation to crew members is not impossible, it would be difficult because crew licensing varies by state and data are not kept on the crew members working on each boat. Such an approach could require the development of complex rules for evaluating crew member qualifications or simple rules that either do not allocate to the intended crew members or allocate to substantially more people than the intended crew members. In either case, the costs of the initial allocation would increase substantially. An allocation to crew members is not being considered at this time. The other group for which the Council is considering an allocation is processors. The costs of allocating to processors will depend on the rules developed for the allocation. Information about buyers is included on every fish ticket while there is not information on the ticket about whether the buyer (1) is a processor and (2) processed the fish. The Council's intent is to allocate to processors, but an allocation to buyers is being considered as a lower-cost proxy for the allocation to processors. This is discussed in more detail in section A-2.1.1.d. The administrative costs of the initial allocation will somewhat affect total net benefits, particularly at the start of the program, but the start-up costs will likely have negligible effects on net program benefits over the long run. Direct costs of the initial allocation will be covered by fees collected from the applicants.

SUMMARY

- Even if the initial distribution of QS results in some parties being able to exert market power, the effects are more likely to be distributional than have an adverse impact on net benefits.
- As the amount of QS issued to processors increases, transaction costs will increase as QP issued to processors holding QS will have to transferred to vessels each year in order to be used (unless processors acquire vessels).
- As the amount of QS issued to processors increases, there is a greater mismatch between recent production by processors-permit associations and the QS distribution to those processor-permit associations.
- Program administrative costs increase with each additional group to which an allocation is made.

Impact on Equity

Equity has various definition including "freedom from bias or favoritism" (Merriam-Webster dictionary) and conformity with rules or standards. Unlike net economic benefits, we do not have measures of equity that are commonly accepted standards against which we can evaluate the effects of an action. The best we can do is provide information on effects that are generally believed to have equity implications and rely on decision makers to balance these considerations with conservation and efficiency objectives for which there are more commonly accepted standards. With respect to equity considerations and initial allocation, the MSA directs that consideration be given to (i) current and historical harvests; (ii) employment in the harvesting and processing sectors; (iii) investments in and dependence upon the fishery; and (iv) the current and historical participation of fishing communities (Section 303A(c)(5)). Items (ii) and (iii) are discussed above. Items (i) and (iv) will be discussed in this section. Specifically we will discuss;

- Compensation for harm,
- Excessive shares, and
- Current and historic harvests.

♦ *Compensation for Harm*

"Compensation for harm" is an equity rationale that has been proposed for guiding the initial distribution of QS. The potential adverse impacts of the IFQ program on capital assets and labor assets are discussed in the above section on "Sector Health." Potential adverse affects on communities is discussed in Section 4.14.

♦ *Excessive Shares*

What constitutes **"excessive shares"** may be socially determined or economically determined. On an economic basis, an excessive share would be one that would be expected to result in a sector with market power. This concern is addressed above in the section on net benefit related effects. From a social policy perspective, concentration of ownership affects the social and community structure and the sense of equity that may, in part, be grounded in the history of fishery management which is largely based on common property concepts. The choice of the amounts of the initial allocation that goes to harvesters and processors affects whether or not there may be excessive shares only to the degree that there is a grandfather clause to the accumulation limits. In the section on sector health, graphs are provided that show the expected concentration of QS in comparison to recent harvest levels for permits and processors for various permit/processor splits and for the presence or absence of a grandfather clause. If there is not grandfather clause, then the allocation between permits and processors will not affect excessive shares because no one will be grandfathered in above the accumulation limits that any entity would be eligible to achieve through the acquisition of additional QS. Section A-2.2.3.e on accumulation limits and the grandfather clause includes tables that show the amounts of QS that would be allocated in excess of the accumulation limits, depending on the split of the allocation among harvesters and processors.

♦ *Current and Historic Harvests*

With respect to the question of the distribution of initial allocation between permits and processors, it is apparent that the distribution of more or less to permits and processors will proportionally affect the difference between what they receive and what they need to continue at production levels of the recent past. In the section on sector health, we compared the QS permits would receive to their 2004-2006 landings and the QS that processors would receive to their 2004-2006 landings (with the caveat that processors do not "need" QS to maintain their production levels). Here we will examine the effect of this decision on trading relationships.

The question to be evaluated is, "If permits and processors wish to maintain their historic practices with respect to the amounts of fish each permit delivers to each processor, how will the decision on the split of QS between these groups affect their ability to do so?" For the purpose of this evaluation we looked at the pattern of deliveries among vessels and processors for 2004 through 2006. In Figure A-21 we plot the amounts of QS allocated to these trading relationships from the processor's perspective in contrast to the amount each relationship traded in the 2004-2006 period. The figure on the left shows the results if 100 percent of the nonwhiting QS allocation goes to permits and the figures on the right shows the results if 75 percent of the nonwhiting allocation goes to permits and 25 percent to processors. The top figures show the general distribution without showing the units. At any point along the diagonal line from the origin the trading relationship will receive an amount of QS that is comparable to its 2004–06 harvest. The bottom figures show the distribution among those trading relationships with less than $200,000 of QS and less than $200,000 of 2004–06 landings history. The left-hand panel shows that with a 100 percent allocation to permits there are some processor-permit associations that will receive little or no QS history relative to their 2004–06 activities. For example,

for a QS allocation based 100 percent on permit history (the top and bottom left hand panel combined) there are four processor-permit associations with more than $20,000 of history for 2004–06 that will receive QS less than what would be needed to maintain their 2004-06 average. If a 25 percent allocation is given to processors, the right hand panel shows six or seven trading relationships in this category. The right-hand panel also shows that if there is a 25 percent allocation to processors eight trading relationships that had less than about $25,000 of 2004–06 history will receive more than about $60,000 of QS. Figure A-22 shows a comparison of the allocations with 75 percent going to harvesters (vertical axis and 100 percent going to harvesters (horizontal axis). In this figure it is seen that trading partnerships which involved more than $40,000 in exvessel value faired better under the 100 percent allocation to permits. To better understand these results Table A-26 is provided. This table displays the number of permits delivering to processors based on the 2004-2006 deliveries. Most processors with less than $20,000 of 2004-06 history received deliveries from only one or two permits. Of the total of 42 processors falling in this category six received from between three and five permits and two from seven or eight permits. It should be noted that some permits deliver to more than one processor and so will be counted more than once in the table. Figure A-23 shows comparisons similar to those in Figure A-21 but using the Council's preliminary preferred alternative with and without an accumulation limit grandfather clause on the vertical axis of the diagram.

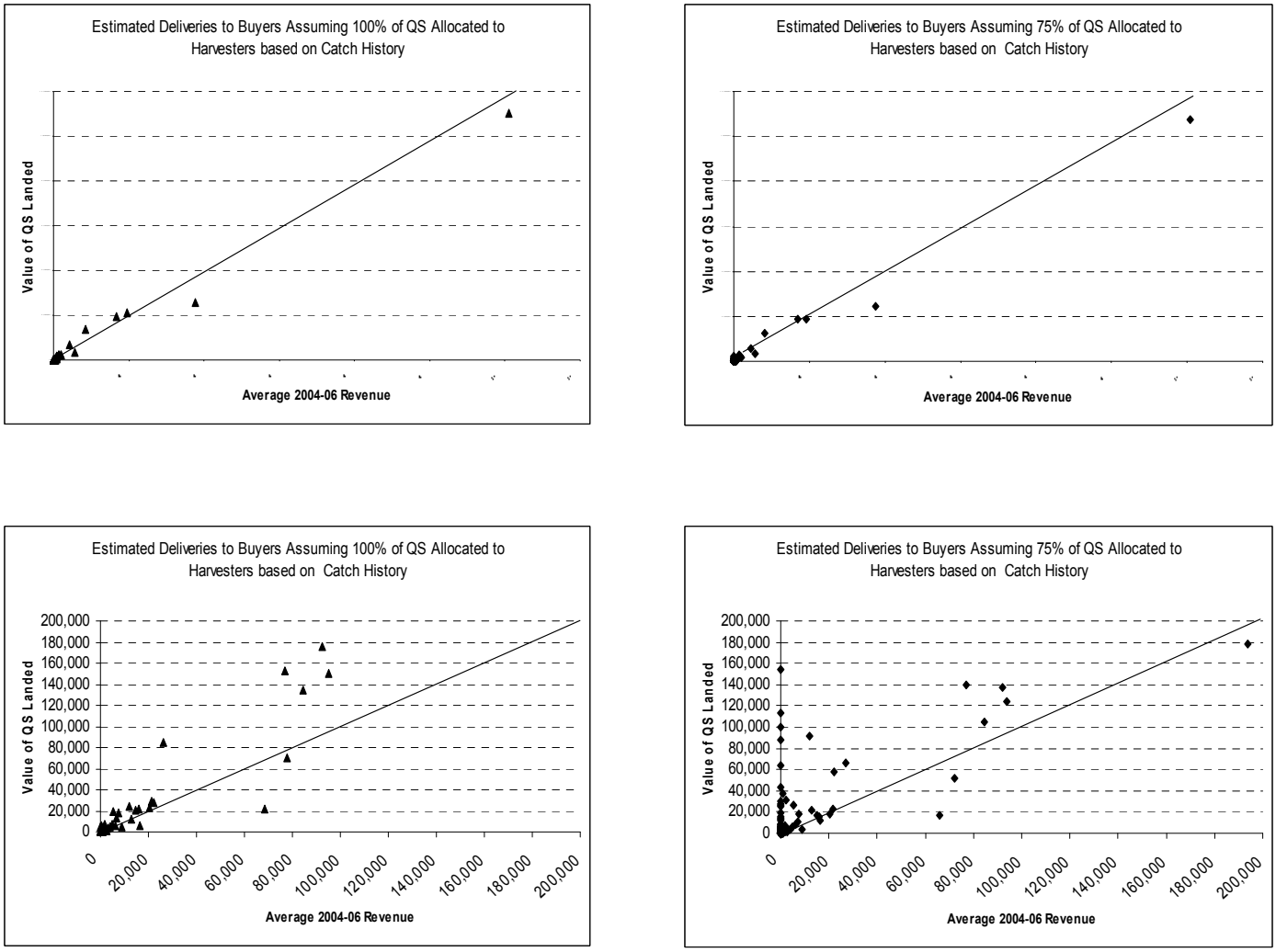

Figure A-21. Value of nonwhiting QP going to processor-permit relationships compared to 2004–2006 exvessel revenue for those relationships. (Note: Lower panels are a magnification of the upper panels).

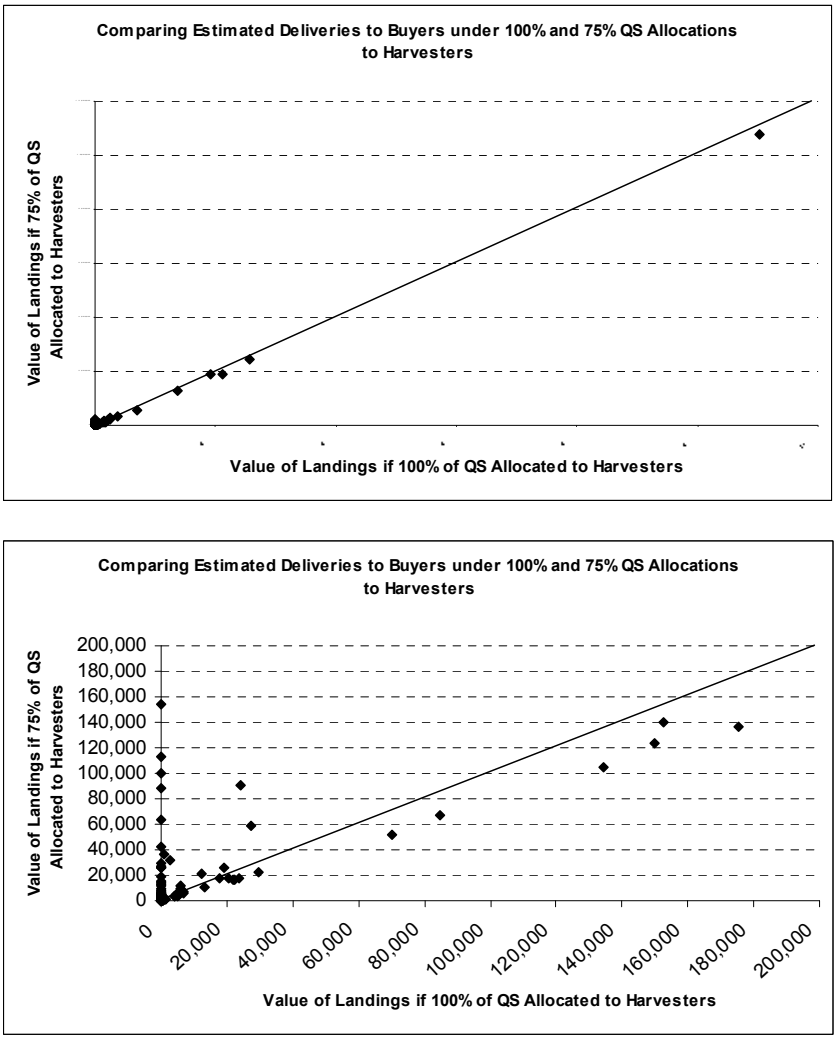

Figure A-22. Value of nonwhiting QP going to processor-permit relationships under a 100 percent allocation to permits as compared to a 75 percent allocation to permits. (Note: Lower panel is a magnification of the upper panel).

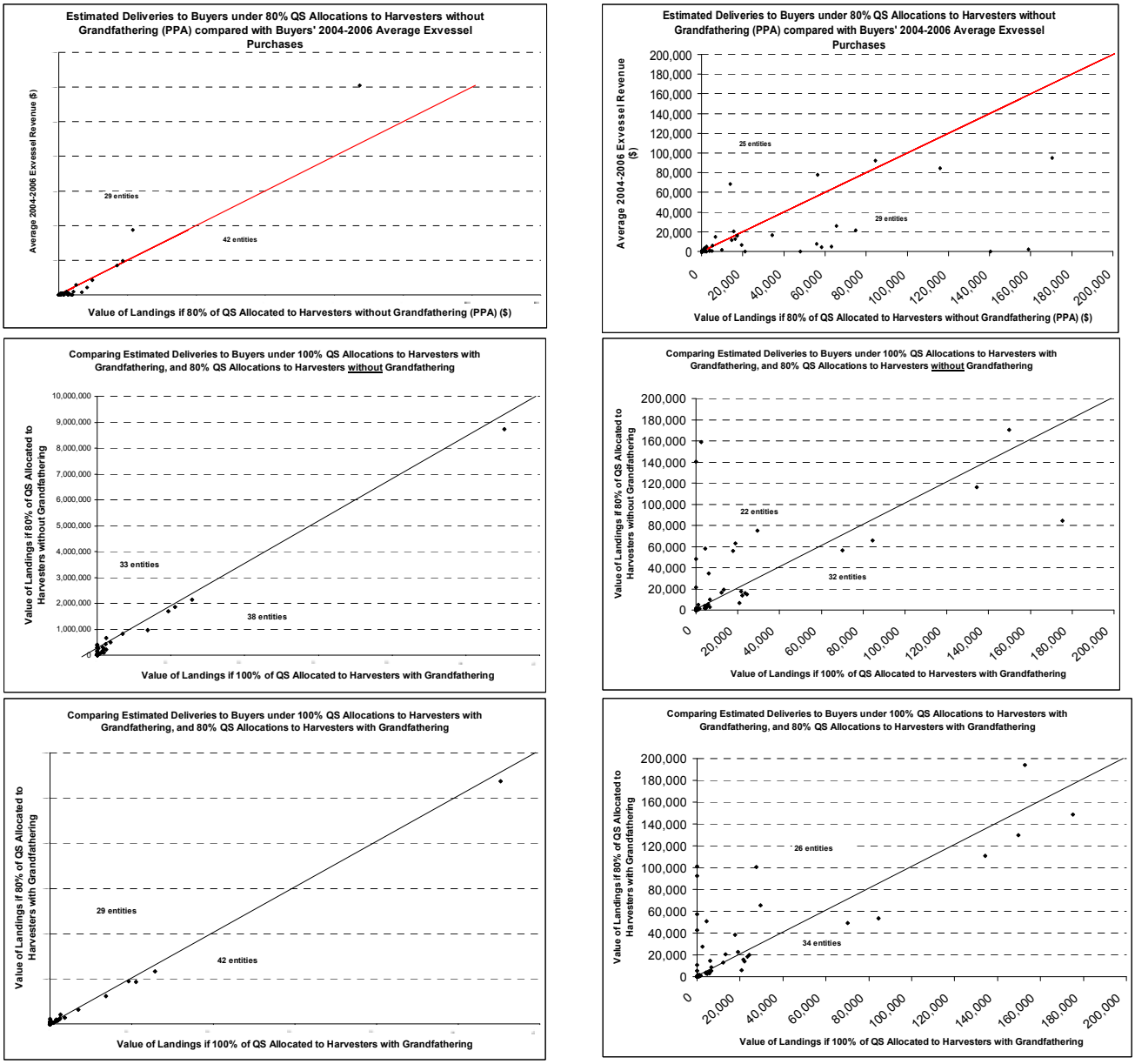

Figure A-23. Value of nonwhiting QP going to processor-permit relationships comparing an allocation of 80% to harvesters / 20% to processors and equal sharing without grandfathering (PPA) to projected exvessel values associated with those QS (uppermost panels) and comparing the PPA and PPA without grandfathering to an allocation of 100% of the QS to harvesters based entirely on landing history with grandfathering (Note: Right hand panels are a magnification of the left hand panels).

Table A-26. Number of processors categorized by number of permits delivering to different classes of processors based on average annual 2004-2006 exvessel value of deliveries received by the processor.

	2004–06 average buyer purchases ($ ex-vessel payments)						
Number of Permits Delivering	<10,000	10,000-20,000	20,000-100,000	100,000-250,000	240,000–1 Million	>1 Million	Total
1	22	1	2	1	0	0	26
2	11	0	1	0	1	0	13
3	1	1	3	1	0	0	6
4-5	2	2	2	0	1	0	7
6-8	1	1	2	1	0	0	5
9-20	0	0	0	1	1	1	3
21-100	0	0	0	0	0	3	3
Total	37	5	10	4	3	4	63

One way to take into account current harvests up to the date of the allocation is to attach the allocation criteria to an asset that is transferable as participants enter and exit the fishery (as opposed to the entity, which may no longer be a participant in the fishery). On the harvester side, the vessel (under Amendment 6) and the permits (under Amendment 8, which was tabled and Amendment 9) and the sablefish tier system have been used as the asset against which qualification criteria are measured. Anecdotal information suggests that fishermen have been relying on the permit to be the most likely vehicle that the Council would use for the allocation of QS. Allocation based on criteria related to other assets, such as the vessel or a processing facility, would be viewed as a change from past practices. For processors, to this point it has not been necessary to identify such a key asset. In section A-2.1.1.d consideration will be given to how historic participation criteria might be specified so as to take into account exit and new entry during the period of time that this program has been under deliberation.

SUMMARY

- **Compensation for Harm:** QS may be issued to those with assets that will be adversely affected by the IFQ program (see sections above on sector health). Rather than allocating QS to communities, the Council has ensured that communities can purchase QS if they desire, and is considering an adaptive management program (Section A-3).
- **Excessive Shares**. If there is no grandfather clause the amount of QS that goes to any one entity increases as the allocation to processors increases. The effect of excessive shares on efficiency is discussed in the net benefits section. With respect to equity issues, determination of what constitutes an excessive shares is a value judgment made by the Council.
- **Current and Historic Harvests.** Figures are provided comparing how processor-permit trading partnerships fair with and without an allocation to processors. In general, partnerships to which more than $40,000 would be allocated (QS translated to QP using 2004-2006 landings and prices) fare better with a 100 percent allocation to harvesters than with a 75/25 permit/processor split.

Impact on Communities

This issue of allocating to communities, is discussed above in the section providing a rationale for not allocating to communities and the section on equity and compensation for harm. Here we focus on the effect of the choice of allocating among permits and processors on communities.

Recognizing the QS can easily be moved between communities we can look at the locations of the home offices for permits and processors receiving an initial allocation and how the distributions among these locations would vary depending on choices made with respect to the amount allocated to processors and harvesters. This also tells us where the owners of QS most likely reside the individuals who will be collecting and spending the profits from QS ownership. Table A-27 provides information on how nonwhiting QS shifts among communities as the balance of the initial allocation shifts between processors and permits. In this table it can be seen that certain communities serve as the home office for buyers but not for harvesters (they go to -100% with a 100% allocation to harvesters). Looking at a larger port, like Astoria, it appears to gain as the allocation to processors decreases. This is likely because one of the major buyers in Astoria does not have its home office there.

Table A-27. Distribution of non-whiting QS allocations by QS owners' residence and/or head office (note the allocation formulas provided as examples here do not include a processor recent participation screen, the recent participation screen would substantially reduce the number of communities listed).

QS Owner's Home Office	Landing history-Based Allocation + No Equal Sharing and Grandfather Clause			Landing history-Based Allocation + Equal Allocation of Buyback History and Grandfather Clause			Difference Between Landing history-Based Allocation and Equal Allocation (%)		
		Difference Relative to 75% Allocation to Harvesters (%)			Difference Relative to 75% Allocation to Harvesters (%)				
	Annual Value of Non-whiting QP Allocation ($ thousands exvessel)	87.5% Allocation to Harvesters	100% Allocation to Harvesters	Annual Value of Non-whiting QP Allocation ($ thousands exvessel)	87.5% Allocation to Harvesters	100% Allocation to Harvesters	75% Allocation to Harvesters	87.5% Allocation to Harvesters	100% Allocation to Harvesters
Blaine	$84	-0.50	-1.00	$83	-0.50	-1.00	0.01	0.01	
Bellingham	$971	-0.19	-0.39	$843	-0.25	-0.49	0.15	0.23	0.40
ANACORTES	$212	0.17	0.33	$211	0.17	0.33	0.01	0.01	0.01
Seattle	$2,020	0.05	0.09	$2,128	0.05	0.11	-0.05	-0.06	-0.06
Port Townsend	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Port Angeles	$63	-0.50	-1.00	$63	-0.50	-1.00	0.00	0.00	
Neah Bay	$1	-0.50	-1.00	$49	0.15	0.30	-0.98	-0.99	-1.00
La Push	$2	-0.50	-1.00	$2	-0.50	-1.00	0.00	0.00	
Aberdeen	$287	0.17	0.33	$297	0.17	0.33	-0.03	-0.03	-0.03
WESTPORT	$4	-0.50	-1.00	$4	-0.50	-1.00	0.00	0.00	
Willapa Bay	$315	0.11	0.23	$367	0.12	0.24	-0.14	-0.15	-0.15
Illwaco	$38	-0.50	-1.00	$86	-0.13	-0.26	-0.56	-0.75	-1.00
Astoria	$2,472	0.16	0.31	$2,165	0.16	0.31	0.14	0.14	0.14
Garibaldi	$532	0.13	0.26	$489	0.13	0.26	0.09	0.09	0.09
Newport	$1,561	0.15	0.31	$2,002	0.16	0.31	-0.22	-0.22	-0.22
Waldport	$0	-0.50	-1.00	$0	-0.50	-1.00	0.07	0.07	
Florence	$94	0.13	0.25	$101	0.13	0.26	-0.07	-0.07	-0.07
Winchester Bay	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Charleston	$2,107	0.16	0.32	$1,872	0.16	0.32	0.13	0.13	0.13
BANDON	$153	0.17	0.33	$179	0.17	0.33	-0.14	-0.14	-0.14
PORT ORFORD	$150	0.17	0.33	$129	0.17	0.33	0.16	0.16	0.16
Brookings	$978	0.16	0.33	$956	0.16	0.33	0.02	0.02	0.02
Gold Beach	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Crescent City	$477	0.12	0.24	$466	0.12	0.24	0.02	0.02	0.02
Trinidad	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Eureka	$202	0.13	0.25	$355	0.14	0.29	-0.43	-0.44	-0.45
Fields Landing	$630	-0.09	-0.19	$597	-0.11	-0.22	0.06	0.07	0.10
Ukiah	$1,606	0.03	0.06	$1,415	0.01	0.02	0.14	0.16	0.18
Bodega Bay	$196	-0.10	-0.20	$333	0.01	0.02	-0.41	-0.47	-0.54

Table A-27. Distribution of non-whiting QS allocations by QS owners' residence and/or head office (note the allocation formulas provided as examples here do not include a processor recent participation screen, the recent participation screen would substantially reduce the number of communities listed).

	Landing history-Based Allocation + No Equal Sharing and Grandfather Clause			Landing history-Based Allocation + Equal Allocation of Buyback History and Grandfather Clause			Difference Between Landing history-Based Allocation and Equal Allocation (%)		
		Difference Relative to 75% Allocation to Harvesters (%)			Difference Relative to 75% Allocation to Harvesters (%)				
QS Owner's Home Office	Annual Value of Non-whiting QP Allocation ($ thousands exvessel)	87.5% Allocation to Harvesters	100% Allocation to Harvesters	Annual Value of Non-whiting QP Allocation ($ thousands exvessel)	87.5% Allocation to Harvesters	100% Allocation to Harvesters	75% Allocation to Harvesters	87.5% Allocation to Harvesters	100% Allocation to Harvesters
San Francisco	$1,881	-0.06	-0.11	$1,802	-0.07	-0.13	0.04	0.05	0.07
Half Moon Bay	$636	0.07	0.13	$792	0.09	0.17	-0.20	-0.21	-0.22
Oakland	$1	-0.50	-1.00	$1	-0.50	-1.00	0.00	0.00	
Alameda	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Gilroy	$11	-0.50	-1.00	$11	-0.50	-1.00	0.00	0.00	
Santa Cruz	$137	0.16	0.32	$175	0.16	0.32	-0.22	-0.22	-0.22
Moss Landing	$293	0.13	0.26	$271	0.13	0.26	0.08	0.08	0.09
MONTEREY	$1,053	-0.09	-0.18	$963	-0.12	-0.23	0.09	0.12	0.16
Morro Bay	$213	-0.24	-0.47	$224	-0.22	-0.43	-0.05	-0.07	-0.11
Avila Beach	$20	-0.50	-1.00	$20	-0.50	-1.00	0.00	0.00	
Goleta	$0	-0.51	-1.00	$0	-0.51	-1.00	0.00	0.00	
Ventura	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Port Hueneme	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Camarillo	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Los Angeles area	$11	-0.50	-1.00	$11	-0.50	-1.00	0.00	0.00	
San Pedro	$0	-0.49	-1.00	$0	-0.49	-1.00	0.00	0.00	
San Diego	$0	-0.50	-1.00	$0	-0.50	-1.00	-0.02	-0.02	
Bakersfield	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Clackamas	$3,663	-0.30	-0.60	$3,578	-0.31	-0.62	0.02	0.04	0.08
OREGON CITY	$96	0.17	0.33	$100	0.17	0.33	-0.04	-0.04	-0.04
CENTRALIA	$175	0.17	0.33	$140	0.17	0.33	0.25	0.25	0.25
DALLAS, OR	$66	0.17	0.33	$83	0.17	0.33	-0.21	-0.21	-0.21
Arizona	$0	-0.50	-1.00	$0	-0.50	-1.00	0.00	0.00	
Hawaii	$0	0.16	0.32	$48	0.17	0.33	-1.00	-1.00	-1.00
Unknown	$61	-0.50	-1.00	$61	-0.50	-1.00	0.00	0.00	
	$23,471			$23,471					

- Option 6a for Whiting

Option 6a would allocation 20 percent of the whiting QS to processors but none of the QS for bycatch species associated with whiting. While the allocation of QS without bycatch species would create some initial disadvantages, the impact of this option is primarily one of wealth distribution. After the program is implemented, QS will be traded and processors or harvesters will be free to acquire more QS or divest themselves of their initial allocation. Processors wanting the QS for bycatch species will be able to acquire it through QS trading. Any business that does not receive an initial allocation will be in a situation similar to any other entity that enters the fishery at a later time, they can access more QS by purchasing them.

The effect of this option will likely depend on whether the bycatch species is constraining and whether there is a single shoreside sector or separate shoreside whiting sector.

If bycatch species QP are constraining, then a major portion of the resource rents that would otherwise be associated with the whiting QS would be expected to flow to the bycatch species Assume the processors stayed at their initial allocation level and held no more than 20 percent of the whiting QS and none of the bycatch species QS. If the bycatch rates were such that taking 80 percent of the whiting QS used up all of the available bycatch species QP, then the remaining whiting QP held by processors would have little if any value.[24] The market place would not distinguish between whiting QS issued to processors and whiting QS issued to harvesters so there would not be a direct impact on the value of the processor held whiting QS, but there a number of ways the situation could play itself out in the market. One possibility that illustrates the situation is that whiting QS might tend to be traded in bundles with bycatch species. Under such circumstances processors could find that they would not be able to sell their 20 percent of the whiting QS for an amount that was proportional to 20 percent of the value of the whiting fishery, unless they first acquired and bundled it with bycatch species QS. If the bycatch species are not tend to be constraining, then the value of the whiting QS issued processors would likely be close to proportional to the value of the whiting that the QS represents.

The bycatch species is more likely to be constraining if there are two shoreside sectors. Under the single sector approach, whiting bycatch species QS will be allocated proportionally to the whiting QS, and an adjustment made to combine the QS issued for the whiting and nonwhiting sectors into a single pool.[25] After the issuance process is completed then the QS needed to cover bycatch in the whiting fishery would be the same type as that needed to cover catch in the nonwhiting fishery. Under such circumstances, the QS for species taken as bycatch in the whiting fishery would be less likely to be limiting than if there is are separate shoreside sectors.

If there is a two year moratorium on QS trading (Section A-2.2.3.c) then processors wishing to balance their whiting QS with bycatch species QS or divest themselves of whiting QS will not be able to do so until the moratorium is over.

[24] To avoid this situation, processors might try to negotiate preseason agreements with vessels to harvest all of the processor held QP first or in proportion to the amount of whiting delivered under vessel held QP.

[25] To make this adjustment, the QS issued for nonwhiting trips and the QS issued for bycatch for whiting trips would be scaled proportionally to the allocation of the bycatch species between the whiting and nonwhiting sectors that is made through the intersector allocation process so that the allocation is initially preserved but the quota share totals sum to 100%. Once the QS is issued the distinction between whiting bycatch QS and nonwhiting QS would be eliminated and the market place would determine the allocation of QS between these two targeting strategies in the shoreside fishery.

A-2.1.1.b Permits

❖ Provisions and Options

Landing[26] history will accrue to the permit under which the landing was made. The owner of a groundfish limited entry permit at the time of initial allocation will receive the QS issued based on the permit. (See section A-2.1.4 on permit combinations and other exceptional situations.)

❖ Rationale and Options Considered But Not Included

Under Section A-2.1.1.a allocating to entities other than the current groundfish permit owner is considered. The provision of this section (A-2.1.1.b) simply specifies that the landings history over the entire life of the permit will accrue to the permit, including history prior to the time it was held by the current owner and explicitly states that it is the current owner that will receive the allocation. An alternative approach, assigning permit history to the owner of the permit at the time the landing was made, would be akin to assigning the landings to a specific person. As mentioned in the previous section, assignment of landing history to a person has been avoided in the Council's groundfish limited entry system, in order to facilitate entry and exit during deliberations on the program and to take into account current participation and dependence in the fishery rather than historic activity. Another approach might be to only count the history of the permit while it is owned by the person who owns it at the time of implementation. While this would take into account current participation it would not account for the investment and dependence on the fishery that is represented by the current owner's investment in the acquisition of the permit.

❖ Interlinked Elements

Assignment of the entire landing history of the permit to the permit's current owner is a key provision of this program. Change in this provision would require substantial re-evaluation of many other provisions of the program.

❖ Analysis

Assignment of all of a permit's landing history to the current owner results in less disruption of capital investment and dependence than if, for example, the only landing history that counted was that of the current owner during the time he/she owned the permit. Allocation based only on recent history would put new entrants at a disadvantage and substantially redistribute current fishing activities affecting vessels, processors, workers, and communities. Thus this provision addresses both the Council objective of achieving change with minimum disruption (Objective 14 of the groundfish FMP) and section 303A(c)(5)(A) of the MSA which requires that the Council establish procedures to ensure fair and equitable initial allocations, including consideration of (i) current and historical harvests, and (iii) investments in, and dependence upon, the fishery. Indirectly, the approach provides business stability that supports existing employment and community involvement in the fisheries (items (ii) and (iv) of MSA 303A(c)(5)(A)). Stability for investment also promotes objectives related to net benefits and efficiency.

[26] The term "landing," as defined in the regulations, includes both shoreside and at-sea deliveries.

A-2.1.1.c Processors and Processing Definition

❖ Provisions and Options

A special definition of "processor" and "processing" will be used for initial QS allocation. A main intent of the definition is to specify that, if QS is issued for processing, only the first processor of the fish receives an initial allocation of QS. See footnote for definition. *However, due to limitations on available documentation, fish "receivers" may be used as a proxy for "processors," as per the following section.*

Definition from footnote:

"**Processors"**

At-sea processors are those vessels that operate as motherships in the at-sea whiting fishery and those permitted vessels operating as catcher-processors in the at-sea whiting fishery.

A shoreside processor is an operation, working on US soil, that takes delivery of trawl-caught groundfish that has not been "processed at-sea" and that has not been "processed shoreside"; and that thereafter engages that particular fish in "shoreside processing." Entities that received fish that have not undergone "at-sea processing" or "shoreside processing" (as defined in this paragraph) and sell that fish directly to consumers shall not be considered a "processor" for purposes of QS allocations.

"Shoreside Processing" is defined as either of the following:

1. Any activity that takes place shoreside; and that involves:
   cutting groundfish into smaller portions; OR
   freezing, cooking, smoking, drying groundfish; OR
   packaging that groundfish for resale into 100 pound units or smaller for sale or distribution into a wholesale or retail market.
   OR
2. The purchase and redistribution into a wholesale or retail market of live groundfish from a harvesting vessel.

❖ Rationale and Options Considered But Not Included

A special definition of processor and processing will be used for initial QS allocation. For the purpose of applying the initial allocation formula for processing, only the first processing counts as processing. If processors are affected by the rationalization of the fleet it is likely that those effects fall on only the first processor of the groundfish, the processing entity most likely to have capital that is excessive in proportion to a fishery managed under a rationalization program. This definition is designed, in part, to address the focus of the initial allocation on first processors. Differences in impacts between buyers and processors will be discussed in the following section.

Under the groundfish FMP, the definition of "processor" is as follows:

> The "processor" is a "person, vessel, or facility that engages in processing; or receives live groundfish directly from a fishing vessel for retail sale without further processing."

The special definition used for initial allocation of shoreside sector QS eliminates from consideration processors that

- do not take delivery (e.g. a harvesting company that does some processing but is not listed as the fish receiver on the fish ticket)

- have only received groundfish caught with gears other than trawl or have not received any groundfish
- have only received groundfish that has already undergone some processing
- have only received and sold raw unprocessed groundfish

However, the definition of processing is broadened in some areas and more restricted in others. This definition has important implications for who qualifies as a processor.

Under the groundfish FMP, the definition of "processing" is as follows

> "Processing" means the preparation or packaging of groundfish to render it suitable for human consumption, retail sale, industrial uses, or long-term storage, including, but not limited to, cooking, canning, smoking, salting, drying, filleting, freezing, or rendering into meal or oil, but does not mean heading or gutting unless additional preparation is done."

The FMP definition excludes heading and gutting alone while the special definition used for initial allocation criteria includes heading and gutting (cutting groundfish into smaller portions). And, the FMP definition is open ended in that the possible methods of handling the fish are not limited to those on the list. The key part of the FMP definition is that the fish are prepared or packaged for human consumption, retail sale (which might include uses other than eating, e.g. fertilizer) industrial use, or long-term storage (which could go to any other use, e.g. meal for feed lots). Thus the restrictive parts of the FMP definition appear to be the words "preparation or packaging," and the exclusion of heading and gutting alone.

- The special definition is not open ended. It does not mention canning, salting, or rendering into meal or oil, therefore these might be excluded, unless they fall under the category of "packaging that groundfish for resale into 100 pound units or smaller for sale or distribution into a wholesale or retail market." Canning may well come under this definition, as might the production of meal or oil, depending on how it is packaged. The "100 pound units or smaller" implies that any resale of raw fish, regardless of what is done to it, qualifies as processing so long as the unit of sale is less than 100 pounds. This brings into question what might be considered the "unit of sale." For example, if there is a business that buys groundfish and does nothing to it other than transport it and sell it to a processor and the invoice lists out a number of species, some of which are in quantities of less than 100 pounds, would those transferred in quantities of 100 pound units or smaller count toward history for the selling or buying entity? This question is most important if a threshold is applied that indicates simply that some amount of processing must have been done, without a statement as to the amount (Option 2 of A-2.1.1.d).

❖ Interlinked Elements

The definition of processing and processor has important implications in determining who qualifies as a processor for the initial allocation and who processed the fish coming in on a particular delivery (Section A-2.1.1.d). These definitions and the choices made in Section A-2.1.1.d will in turn affect the types and difficulty of issues which may need to be dealt with in the appeals process (Section A-2.1.5).

If an allocation is not given to processors (Section A-2.1.1.a) then the provisions of sections A-2.1.1.c and A-2.1.1.d will not be needed.

❖ Analysis

The definitions of processor and processing for purpose of initial allocation come into play in Section A-2.1.1.d where they are used to determine whether or not an entity is a shoreside processor (Option 2) and whether or not the history of a particular landing should be attributed to a particular shoreside processor (Option 3). Under Option 1, the entity registered as the receiver of the fish is used as a proxy for shoreside processing and receives credit for all deliveries shown on its tickets; therefore, the special definitions of processor do not come into play if this option is selected.

The primary objectives affected by this definition relate to questions of fairness and equity and administrative costs.

With respect to fairness and equity, there may be an issue of comparable treatment that should be considered by the Council. Conditions under which a processor may qualify for QS based on harvesting history are determined by whether or not the processor has a permit with landing history. The criteria are the same for processors or for entities that only harvest. The conditions under which a harvester may qualify for processing history are contingent not just on the nature of the activity on its face but also on the nature of the economic transactions which have lead to that activity. In the definition of processing, the use of the terms "resale" and "purchase and redistribution" have important implications with respect to the intent of this provision. Under the proposed definition, harvesters in the shoreside nonwhiting fishery which are also listed as fish receivers receive credit as processors if their processing was done shoreside and it includes the cutting of groundfish into smaller portions; or freezing, cooking, smoking, and drying groundfish. These criteria apply equally to an entity that only processes or one that also harvests regardless of the nature of the economic transaction that lead to that activity. However, a harvester which is listed as the receiver on a fish ticket and merely packages the fish into smaller units for sale or sells live fish would not qualify for processing history, whereas the same activity would qualify as processing if it were carried out by an entity which buys the fish from a vessel. For these processing criteria, the way the fish are handled is the same, the difference is one of whether the fish were purchased before they were caught or were caught by the entity selling them. This might be considered analogous to saying that a processor only receives harvesting history for those deliveries made by the permit to some other processor (i.e. those deliveries in which the vessel sold the fish to the receiver). We do not have information to tell us whether, and if so, the degree to which trawl harvesters which acted as fish receivers may have repackaged fish or sold live fish, therefore we cannot estimate the magnitude of this issue. There also may be additional rationale and other perspectives associated with the potential fairness and equity issue identified here which may be articulated during the public comment and decision process. The purpose of this analysis is to highlight a potential concern so the Council can fully consider it and make a fairness and equity determination during its deliberations.

The possible need for some additional guidance with respect to the intent of the provision that defines processing as the resale of groundfish in "100 pound units or smaller" is identified in the section on rationale. Such guidance is particularly important if Option 3 of A-2.1.1.d is selected. Under that section, if disputes arise between the first buyer and second buyer about who was actually the first processor of a particular landing, argument with respect to some of the landing history may hinge on whether the fish was in units that are smaller than 100 pounds. It may also be important for Option 2 in which an entity simply has to be able to demonstrate that it has done some processing. Once that is demonstrated then all of the deliveries it receives would qualify it for processing history. To the degree that there is uncertainty about this or other criteria, administrative decisions will be more difficult, there may be more appeals, and more of a call for Council involvement in the appeals process. All of these would elevate the administrative costs of the program.

A-2.1.1.d Attributing and Accruing Processing History

❖ Provisions and Options

Use at-sea fishery observer data and weekly processing reports to document history for allocations to **at-sea processors**. [27]

For an allocation to **catcher-processors**, see A-2.1.1-b.

For an allocation to **mothership processors,** history accrues to the vessel on which the at-sea processing occurs.

MS Option 1: The owner of the vessel at the time of the initial allocation will receive the initial allocation.
MS Option 2: If a bareboat charter exists, the bareboat charterer will receive the initial allocation.

For an allocation for **shoreside processors:**

►**Option 1:** attribute history to the receiver reported on the landing receipt (i.e. the entity responsible for filling out the state fish ticket). *The fish receiver would serve as a proxy for processor because of limited availability of official documentation on actual processing history.*

Option 2: attribute history to the receiver reported on the landing receipt, if that entity meets the definition of a processor with respect to trawl-caught groundfish. *The option is similar to Option 1 except that the fish receiver would have to demonstrate at least some processing of trawl-caught groundfish.*

►**Option 3:** same as Option 1, except history may be reassigned to an entity not on the landings receipt, if parties agree or through *an agency* appeals process. *The intent of this option is to provide an opportunity for landing history to be assigned to the entity that actually processed the fish.*

For shoreside processors, allocations go to the processing business. For all three of the options for accruing history, successor-in-interest will be recognized. NMFS will develop criteria for use in determining the successor in interest with respect to the entities listed on the landings receipts or otherwise covered in one of these options.[28]

❖ Rationale and Options Considered But Not Included

This section defines the types of activities that will be considered processing and part of the criteria used to identify entities that are eligible for a portion of the initial allocation of QS going to processors. Objectives related to fairness and equity will likely be affected as well as maximizing net benefits. The effect on net benefits will be primarily through the effect of this choice on the costs of program administration.

For catcher-processors, the entities identified as catcher-processors are well defined and no issues have been raised indicating that there is any difference between those who own those permits and vessels and

[27] Note: The Council's preliminary preferred alternative does not include IFQs for the at-sea sectors (catcher-processors and motherships). Options related to those sectors will only be relevant if the Council changes the management approach as part of final action.

[28] Transfer of physical assets alone should not be considered a basis for successor in interest. Business relationships such as transfer of the company name and customer base might be reasonable evidence of successor in interest.

those who operate them. Because this fleet operates under the trawl license limitation program the same rules used for the catcher vessel history are used for the catcher-processors.

For the purpose of applying a QS initial allocation formula to processors, the allocation formula is applied to the processing business rather than any particular physical asset. This approach is used for both the mothership and shoreside sector. The mothership vessel is the primary unit for which data is available. Therefore in the mothership allocation we first determine the vessel history and then attribute that history to a processing business. For mothership processors, there is at least one vessel for which there is a difference between the business that runs the processing operation and the one that owns the vessel. On that basis, two options have been identified. These options capture the range between allocating all of the QS to the vessel owner and allocating all of it to the vessel charterer.

If the Council makes an allocation to shoreside processors, the stated intent is that the allocation go to the entities that first process the fishery. It has been the Council view that it is these entities that have the greatest amount of capital assets that may be affected by the IFQ program. The focus on processors rather than first buyers may also be supported by MSA section 303A(c)(5)(A) which identifies the need to consider processing labor in the development of the initial allocation but makes no mention of fish buyers. However, the Council's ability to carry out the intent to allocate to first processors is affected by the quality of the data available. Government data bases that track history to entities at the needed species and species group level are available only for landings (the fish tickets data base) and not for other shoreside transactions. While an allocation to the first processors might possibly be carried out using information not in government databases it may not be economically or administratively practical. The difficulty of developing standardized criteria for evidence of processing (particularly at the species level), the costs of data collection, and the likely need for extensive dispute resolution led the Council to develop a set of options that, to varying degrees, approximates the ideal result.

The first option allocates only to those entities that are on the fish ticket, no attempt is made to differentiate between those buyers that transfer the fish to first processors and those buyers that process themselves. This option relies solely on information in the fish ticket database. It is generally believed that the large majority of the trawl groundfish landings are delivered to buyers that process their own fish.

- The second option allocates to the same set of entities but requires that they demonstrate engagement in at least some processing of trawl-caught groundfish. Once that threshold is met, all limited entry trawl landings received by that entity would qualify. This may screen out those entities that never acted as a processor but would not attempt to differentiate between the fish those entities received and processed and the fish those entities received and transferred on to another for first processing. It would require some additional administrative costs but a relatively small amount in comparison to the task of determining of processing history for every landing. If the second option is considered, the Council may wish to consider adding a timeframe. As currently worded, an entity that does not presently qualify could qualify by arranging to process some trawl-caught groundfish between now and when the applications for an initial allocation are due.

The third option provides an opportunity to base the entire allocation to processors on the history of the entity that first carries out that processing. The default position would be the same as Option 1, that the history goes to the buying entity. However, that landing history could be reassigned to a second receiver of the fish either if both companies came forward and agreeed to the reassignment, or an appeal were granted resolving a dispute between two claimants. If it is correct that the large majority of the catch is in fact processed by the first receiver the number of potential disputes may be small relative to the total number of landings in the landing history database.

Another issue that had to be decided for shoreside processors is which entity associated with any shoreside activity should be considered the business entitled to the allocation. For the license limitation program, it was decided that the initial permit allocation would follow the hull and go to the current owner of the fishing vessel because since the vessel was the primary asset needed to operate a fishing business, the value of that asset would be affected by the initial allocation. This provision allowed for entry and exit during the deliberations. In that program a provision was also made to allow for the substitution of one vessel for another due to certain hardship conditions.

For the at-sea processing allocation, following the vessel works as the primary basis for the allocation though there is some question about it with respect to the motherships, as discussed above. For shoreside processors, the physical assets associated with the shoreside business are varied and it is difficult to identify one asset that might be said to define a processing operation. For example, a processor could own its land and all its buildings and equipment or it may lease some or all of its primary assets. If an allocation were based on the current ownership of a key physical asset, fisheries managers might need to choose between owners of a number of primary assets (land, building, processing equipment). Furthermore, over time some of these assets may have been moved between fishery and nonfishery-related activities.

On this basis, the Council decided that with respect to processing history the allocation should go to the processing business itself (the entity running the processing operation) and hence not necessarily to the owner of the physical assets used in processing. However, this raises questions about the means by which historic and recent participation are considered. For vessels, by following the vessels (the Amendment 6 license limitation program) or the permit (the IFQ program allocation to harvesters), changes during the Council deliberations process and historic dependence and involvement are accommodated. If for processors current and historic participation are to be tracked in a manner similar to what is done for harvesters, then some means are needed for the determining who is the successor in interest for shoreside processing operations. Consistent with the determination of which business entity associated with a processing operation should receive the initial allocation (i.e. the operator of the processing business rather than the owner of the processing capital) the Council determined that transfer of physical assets alone should not be considered a basis for determining successor in interest and identified that the transfer of business relationships, such as transfer of the company name and customer base might be the most important evidence of successor in interest. This is another area where a judgment call will be left to NMFS both in terms of further development of criteria for identifying successor in interest and the application of those criteria.

Consideration was given to an option that would give processing history to the first entity to receive the groundfish but only for that groundfish which was processed. This option would have entailed most of the administrative costs of Option 3 but not have provided an opportunity for the first processor to qualify for history associated with fish acquired from a fish buyer. This option lies within the range between options 1 and 3.

An option proposed by the TIQC, tying the transfer of processing history to the transfer of a facility, was rejected from further analysis:

> The entity credited for processor history [accruing history] would be the current owner of the processing facility, unless leased, in which case it would be the lease holder.

GAC members noted that the TIQC approach to accrual might be supported based on the numerous changes in ownership within the processing industry that has occurred in recent years. The underlying concepts are that if one company acquires another, it acquires both its assets and liabilities and, with respect to the leasing provision, it is the lease holder who is really operating the processing business.

This option would attribute the history to the current owner rather than past owners, reducing the dislocation that would occur through the allocation of IFQ to business entities no longer associated with the facility. However, during later deliberations it was decided that customer lists and the business name are more closely associated with the processing company and therefore should be a primary consideration if a determination is required with respect to successor in interest to a shoreside processing operation.

❖ Interlinked Elements

The shoreside processing Option 1 would generate fewer reasons for appeal relative to options 2 and 3. This may influence whether the Council feels there is a need for Council involvement in the appeals process (Section A-2.1.5).

The recent participation requirements for shoreside processors (Section A-2.1.2.c) will determine the degree to which there is a significant difference between the allocation results and potential number of appeals for options 1 and 2, but not with respect to Option 3.

❖ Analysis

- Mothership Entity Options

The issue of whether to give an initial allocation to the owners of motherships or the charterer (where there is a charter) comes up in both the IFQ program and the co-op program. The implications of this decision for the IFQ program are quite different than for the co-op program. For the co-op program, the entity who receives the mothership permit will control whether or not the vessel is able to participate in the fishery. For the IFQ program, the mothership would not need QS to operate. If the charterer is given the initial allocation of QS, it will be in a stronger position to negotiate prices with the vessel owner. If the vessel owners are given the initial allocation, they can negotiate for some additional compensation from the charterer in return for the QS, or can sell the QS or QP elsewhere, in which case the charterer can acquire that QS on the market if needed.

An allocation of QS is a distribution of new wealth, and one rationale for its allocation may be to offset losses that might be anticipated to result from the IFQ program. Since program performance will not be affected by the choice of whether to allocate to the vessel owner or charterer, the issue is primarily one of fairness and equity. To the degree that the mothership processors have been engaged in a race-for-fish and therefore there have been more participants than necessary, the value of the vessel owner's assets may decline with implementation of an IFQ program. An allocation of QS might then offset some of that reduced asset value. On the other hand, the market value of the charterer's business may change depending on the effect of the IFQ program on projected profits for the mothership charter operation and whether the assets of the company include QS. The mothership charterer's profits may increase if it is able to reduce costs in a rationalized fishery but may decrease if it has to pay higher exvessel prices. The net effect is uncertain but a reduction or increase in the charterer's profits will also change what is available to pay the vessel owner. However, assuming there is a surplus of mothership processors, the charterer may be less willing to increase what it actually pays for the charter.

- Shoreside Processing Entity Options

The allocation to the first entities that process is premised on the idea that these shoreside entities have more capital at risk than those who just operate buying stations. Implementation of the IFQ program may put returns to capital at risk, primarily to the degree that there is overcapitalization. If there is not processor overcapitalization, then processors are expected to earn normal returns on the investments (technically termed "zero economic profit") under an IFQ program regardless of whether or not they receive an initial allocation of QS (see Appendix E). One of the primary arguments given for allocating to processors is the need to maintain a balance of negotiating power between processors and harvesters. While the Council's desire to allocate QS to the first processor may not be fully realized through an allocation to buyers (Option 1) it is presumably the buyers who are in negotiation with the harvesters rather than the processors acquiring fish from the buyers. On that basis, the allocation to buyers (Option 1), while rough in its attempt to compensate those who may experience the most loss in capital value, may be more precise with respect to allocation objectives related to the effective balance of market power between harvesters and those they sell to. Thus the result under Option 1 is different with respect to the determination of those entities that are most substantially engaged in the fishery.

Table A-28. Description of categories of buying and processing activities and whether they would be included or excluded under each option for attributing history.

		Status of Landings Under the Option		
Category	Description of Activity and Risk	Option 1	Option 2	Option 3
1. Buy and Process	All purchases from harvesters that an entity bought and processed (reflecting activity which may be associated with entities having both bargaining power and the most capital at risk)	Included	Included	Included
2. Buy Only	All purchases from harvesters that an entity bought whether or not they processed (reflecting activity which may be associated with entities having both bargaining power but may or may not have the most capital at risk)	Included	Included only if at some time the receiving entity processed some trawl caught groundfish	Excluded
3. Process Only	All purchases from fish buyers made by those who only processed (reflecting activity which may be associated with entities having only capital at risk)	Excluded	Excluded	Included

Option 1 is also the option with the lowest administrative cost because the allocation would be based entirely on information already in a government database.

It should be recognized that in some transactions a processor that normally buys and processes may serve as a buyer for the business that first processes the fish (i.e. processing businesses are known to buy and process some fish while other fish they buy and pass on to another company). Option 2 would screen out all of those entities that only act as buyers and never process (those entities that only fall in Category 2 of Table A-28). There would be some additional administrative costs associated with determining whether a threshold processing criteria is met and that cost would likely be higher to the degree that there are uncertainties about the measures of those criteria (see Section A-2.1.1.c). This evaluation would be required for every applicant though the determination would likely be relatively simple for many. As a result of applying this screen a greater portion of the processor allocation would go to those entities in Category 1. We do not have information available to tell us in advance the amount of QS that would be redistributed as a result of applying the screening criteria, nor the number of entities that might apply. We do know that if the recent participation criteria (Section A-2.1.2.c) of the Council's preliminary preferred alternative are applied, out of 208 buying companies with some buying

history from 1994-2003 there would only be about 42 eligible for an initial allocation of QS. It is likely that most of these did some processing of limited entry trawl groundfish and would have substantial evidence of that, therefore the number of cases that might require more difficult individual evaluation would be small. If instead of the preliminary preferred recent participation alternative (6 mt of limited entry trawl-caught groundfish in each of three years from 1998-2003), only one delivery is required, then there would be 124 potential qualifiers. This may result in a greater administrative burden.

Under Option 3 every landing would be initially assumed to have been delivered to a processor but every landing would also be open to question. Option 3 provides the opportunity to allocate only to those that fall under categories 1 and 3 identified in Table A-28. It most closely matches the intent of an allocation to processors and, if every landing that falls in the third category is identified and any disputes resolved, would match it exactly. For the large majority of the landings it is likely that there would be no difference between the first receiver and the processor; however, because of the many landings occurring from 1994-2003 there is a potential for landings to be split in the processing plant with some of the fish being processed by the buyer and others being passed on to another entity for first processing. It is not possible to know for this analysis the number of landings that were not processed by the buyer, and even if we did it would not be possible to know the number for which a dispute might arise. Unlike for Option 2, the recent participation requirement will have little effect on the potential administrative costs. Under the preliminary preferred alternative 88.9 percent of the landings would qualify the first processor for an initial allocation, and if receipt of only one delivery is required then 96.2 percent of the landings would qualify. As with Option 2, clarity of the definition of processing activity will help reduce administrative costs.

The provisions related to successor in interest affects objectives related to fairness, equity and net benefits. These provisions were developed with the intent of allocating to the entity that is currently active in the processing sector and most closely associated with the historic buying and/or processing activity. To the degree that the past history reflects ongoing dependence and business activity, this approach is expected to minimize the number of transactions needed to get the QS into the hands of those who can use it. Processors can use the QS/QP on their own vessels or as leverage in negotiations with vessels delivering to them. Disputes and fairness and equity concerns are most likely to arise in situations where some assets of one processing entity have been transferred to another but both remain active in the industry. For example, a portion of the customer base was transferred, or one trademark or name under which a business operates was conferred but not another. Resolution of these issues in a fair and equitable manner that also minimizes disruption will depend in part on criteria that are being left to NMFS to develop.

A-2.1.2 Recent Participation

The recent participation requirement is evaluated in the following sections. Refer to Section A-2.1.3.a, "Allocation Periods" for additional discussion of the rationale for the time periods used for the recent participation requirements.

A-2.1.2.a Permits (including catcher-processor permits)

❖ Provisions and Options

Recent participation is not required in order for a permit to qualify for an initial allocation of QS.

❖ Rationale and Options Considered But Not Included

By allocating to permits, the Council ensures that the allocation will go to those that currently own assets in the fishery (the permit). A recent participation requirement would screen out permits that have been latent in recent years. A number of recent participation options were considered. Most looked at using 1998-2003 as the recent participation qualifying period, but no specifics were determined before this option was rejected. After reviewing the preliminary data it was determined that the harvest history of the vessels that would be screened out by a recent participation requirement was not significant enough to warrant the costs of developing and implementing the provision and the resistance likely to be encountered by those screened out.

When the recent participation requirement was being considered, an option was proposed under which the requirement could be met for all catcher vessel sectors with participation in any one sector. Thus a permit that participated in the nonwhiting fishery in the early 1990s but only the mothership fishery during the recent participation period would be eligible for an allocation related to its nonwhiting history by virtue of its recent participation in the mothership sector.

❖ Interlinked Elements

The main provisions with which a recent participation requirement would interact are the initial allocation formulas of Section A-2.1.3. For recent participation requirements set at what would likely be considered reasonable levels, the effects of having or not having the requirement would be minimal.

❖ Analysis

The choice to have or not have a recent participation requirement primarily affects objectives related to fairness and equity and program costs. While a recent participation requirement might be considered reasonable and responsive to the MSA direction to consider current and historic participation and to consider investment and dependence, the likely impacts on the initial QS allocation appeared to be minimal with respect to their impact on the landing history based portion of the allocation but possibly more substantial if a portion of the QS is equally divided (Section A-2.1.3..a) and recent participation were to be required to be eligible for the equal allocation portion.

The following sections identify the effects of potential recent participation criteria for each catcher vessel sector. Table A-29 provides an overview of the cross participation among sectors by permits from 1994 through 2003. The total number of permits participating at any time during the period is in italics.

Table A-29. Count of permits by sector combinations.

History from 1994-2003	Number of Permits
Mothership Sector History Only	2
Mothership Sector and Shoreside Whiting (no shoreside nonwhiting participation)	3
Mothership and Shoreside Nonwhiting (no shoreside whiting)	2
Participation in All Three Sectors	25
Total Mothership Sector Catcher Vessels	*32*
Shoreside Whiting Only Catcher Vessels	0
Shoreside Whiting and Nonwhiting Catcher Vessels (no mothership whiting)	31
Total Shoreside Whiting Catcher Vessels	*59*
Nonwhiting Only Catcher Vessels	105
Total Nonwhiting Catcher Vessels	*163*
None (no qualifying whiting or nonwhiting history)	1
Total Catcher Vessels Permits	**169***

* As of the summer of 2008 there are 168 permits: Two permits were combined together.

- Shoreside Nonwhiting Catcher Vessels

The number of shoreside nonwhiting permits that would be excluded by the requirement that a permit participate for a certain number of years in a recent period would be expected to exclude between 12 percent and 48 percent of the permits from an initial allocation depending on the time period and level of participation required (Table A-30 and
Table A-31). A moderately stringent recent participation requirement (requiring participation in 3 out of 6 years from 1998 through 2003) would exclude only 8 percent of the landings (
Table A-32). Levels of participation more likely to be selected would exclude even fewer landings from the initial allocation. A level which would exclude less than 25 permits would raise the allocation of everyone remaining by about no more than 5 percent, assuming the allocation is based entirely on landings history.

If recent participation is combined with the equal allocation of buyback permit-related QS history (Section A-2.1.3.a) recent participation might have somewhat more of an impact. For the portion of the QS allocation based on permit landing history, the recent participation requirement screening out 26 permits would only increase total allocation by about 2.7 percent on average instead of 5 percent (because only about 56 percent of the initial QS allocation would be based on landings history, with the remainder being distributed equally among all permits). However, the change would be greater with respect to the portion of the QS that is equally allocated. If nonwhiting participation is required to be eligible for the equal allocation portion of the nonwhiting QS, 26 permits would be eliminated from a pool of 163 permits, increasing the amount each permit receives from the equal allocation portion formula by about 18 percent. Since the equal allocation portion is only 44 percent of the total, on average the permit allocations would increase by 7.9 percent. Combined with the 2.7 percent change for the history-based portion of the formula, the change for the average permit would be 11.6 percent.

If recent participation can be met through either a nonwhiting or whiting landings, even fewer permits would be screened out, reducing the effect on the allocation. A requirement for 2 years of participation from 1998-2003 in any catcher vessel sector would screen out 10 permits (
Table A-33). The net effect on the equal allocation portion of the analysis would be to increase the average allocation for each of the remaining vessels by an average of 2.8 percent. The effect on the history-based portion of the allocation would be four-tenths of one percent and if only 55 percent of the allocation is based on history, then the recent participation requirement for the nonwhiting QS would increase everyone's allocation by about one-tenth of a percent (
Table A-33).

Table A-30. Number of permits having zero shoreside nonwhiting landings during the 1998-2003 qualifying period in the indicated number of years (buyback permits not included).

	Shoreside Non-Whiting					
Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	34	42	55	75		
1999-2003	23	35	45	57	76	
1998-2003	19	25	39	48	61	79

Table A-31. Percent of permits with some shoreside nonwhiting landings during 1994-2003 (N=163) that did not have shoreside nonwhiting landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	21%	26%	34%	46%		
1999-2003	14%	21%	28%	35%	47%	
1998-2003	12%	15%	24%	29%	37%	48%

Table A-32. Percent of 1994-2003 shoreside nonwhiting landings by vessels that did not have landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	7%	11%	15%	23%		
1999-2003	4%	7%	11%	15%	23%	
1998-2003	1%	5%	8%	12%	15%	24%

Table A-33. Effect of a recent participation requirement on the amount of equal share-based allocation of QS a permit receives (assuming on average 44 percent of the QS is allocated equally among permits and 80 percent of the QS goes to permits).

Requirement : 2 Years of Activity in 1998-2003 Sectors of Activity	Permits In The Sector(s)	Permits Screened Out	Permits Remaining	Permit Share of Equal Allocation	Percent Change in the Equal Allocation Portion	Average Percent Change in Total Permit Allocation
Nonwhiting	163	26	137	0.26%	18%	8.4%
Nonwhiting or Shoreside Whiting	166	18	148	0.24%	12%	5.4%
Nonwhiting, Shoreside or Mothership Whiting	168*	10	158	0.22%	6%	2.8%

* Of the 169 total permits one permit does not have any history from 1994-2003.

Table A-34. Permits and history screened out by not meeting a 1998-2003 recent participation requirement with nonwhiting or shoreside whiting or mothership whiting deliveries.

Screened Out	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years
Number of Permits	7	10	18	29	42	62
Percent of Permits	4%	6%	11%	17%	25%	4%
Sector of Deliveries	Percent of 1994-2003 the Sector's Deliveries Screened Out					
NonWhiting	0.3%	0.4%	2.0%	5.9%	10.3%	20.0%
Shoreside	0.0%	0.0%	0.0%	10.1%	14.3%	25.1%
Mothership	0.0%	0.6%	0.6%	4.3%	12.8%	16.7%

- Shoreside Whiting Catcher Permits

As with the shoreside nonwhiting permits, the impact from screening shoreside whiting with a recent participation requirement would do little to shift the landing history-based portion of the allocation. For the permits with some shoreside whiting landings (59) the number and proportion affected by recent participation requirements would be somewhat higher than for the nonwhiting vessels, 31 percent for a requirement of two years in 1998-2003 (Table A-35 and Table A-36) as opposed to 15 percent of permits for the same requirement for nonwhiting. As compared to the nonwhiting vessels, the amount of landing history affected by recent participation would be somewhat higher; 6 percent of the landings for a requirement of two years in 1998-2003 (Table A-37) as compared to 5 percent for a similar requirement the nonwhiting fleet. If the shoreside whiting and nonwhiting requirements are combined into a single recent participation requirement, as was proposed early on, the impacts would be even less (11 percent of the shoreside whiting permits and 2 percent of the shoreside whiting landings would be affected by a requirement of two years in 1998-2003;

Table A-38). The amount of whiting affected by the equal allocation portion of the formula is very small (about 7 percent of all of the shoreside whiting QS would be equally allocated, as compared to 44 percent of the nonwhiting QS). Therefore the effect of the recent participation requirement decision has a minimal effect on each individual permit's total allocation with respect to the equally shared portion.

Table A-35. Number of permits with some shoreside whiting landings during 1994-2003 that did not have shoreside whiting landings during the 1998-2003 qualifying period in the indicated number of years (buyback permits not included).

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	15	27	35	39		
1999-2003	13	22	30	38	42	
1998-2003	9	18	26	34	38	42

Table A-36. Percent of permits with some shoreside whiting landings during 1994-2003 (N=59) that did not have shoreside whiting landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	25%	46%	59%	66%		
1999-2003	22%	37%	51%	64%	71%	
1998-2003	15%	31%	44%	58%	64%	71%

Table A-37. Percent of 1994-2003 shoreside whiting landings by vessels that did not have landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	6%	19%	27%	33%		
1999-2003	3%	6%	11%	23%	31%	
1998-2003	3%	6%	11%	23%	31%	38%

Table A-38. Permits and history screened out by not meeting a 1998-2003 recent participation requirement with nonwhiting or shoreside whiting deliveries.

Screened Out	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years
Number of Permits	14	18	27	40	50	69
Percent of Permits	8%	11%	16%	24%	30%	41%
	Percent of 1994-2003 Landings					
Shoreside Whiting	0%	2%	2%	15%	19%	29%

- Mothership Whiting Catcher Vessels

A recent participation screen of two years from 1998-2003 would screen out fewer permits (8) and a somewhat smaller proportion of the mothership catcher vessel fleet (25 percent), as compared to the shoreside whiting fishery (Table A-39 and

Table A-40). The amount of landing history screened out would be comparable to the nonwhiting fishery (6 percent, Table A-43). If the recent participation requirement could be met through any catcher vessel sector, the impacts would be even less with only six-tenths of a percent of the mothership whiting landings affected,
Table A-34. Only 1 vessel delivering to the mothership sector would be screened out. The amount of whiting affected by the equal allocation portion of the formula is very small (about 3 percent of all of the mothership whiting QS would be equally allocated, as compared to 44 percent of the nonwhiting QS). Therefore the effect of the recent participation requirement decision will have minimal effect on each individual permits total allocation with respect to the equally shared portion.

Table A-39. Number of permits with some mothership whiting landings during 1994-2003 that did not have mothership whiting landings during the 1998-2003 qualifying period in the indicated number of years (buyback permits not included).

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	9	14	20	22		
1999-2003	5	8	11	14	21	
1998-2003	5	8	11	14	21	23

Table A-40. Percent of permits with some mothership whiting landings during 1994-2003 (N=32) that did not have mothership whiting landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	28%	44%	63%	69%		
1999-2003	16%	25%	34%	44%	66%	
1998-2003	16%	25%	34%	44%	66%	72%

Table A-41. Percent of 1994-2003 mothership whiting landings by vessels that did not have landings during the 1998-2003 qualifying period in the indicated number of years.

Period	1 year	2 years	3 years	4 years	5 years	6 years
2000-2003	7%	19%	39%	48%		
1999-2003	2%	6%	11%	19%	43%	
1998-2003	2%	6%	11%	19%	43%	51%

- Catcher Processor Vessels

Beginning in 1998, the catcher-processors operated under a voluntary co-op. Under the co-op structure, costs were reduced as fewer vessels participated but revenues were shared among permit holders, as is reflected in Table 15. Because of this voluntary agreement under which some vessels sat out of the fishery, it would be unfair at this point to impose a recent participation requirement. The voluntary co-op has been beneficial for the fishery and the economy. Imposition of a recent participation requirement would discourage the future formation of such voluntary co-ops if similar opportunities were to arrive in other sectors or fisheries.

Table A-42. Catcher–processor permits with some activity during 1994-2006.

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
CP01	■	■	■	■	■	■	■	■	■	■	■	■	■
CP02	■	■	■	■	■	■	■	■	■	■	■	■	■
CP03	■	■	■	■	■	■	⊠	⊠	⊠	⊠	⊠	⊠	■
CP04	■	■	■	■	⊠	■	⊠	■	⊠	■	■	■	■
CP05	■	■	■	■	■	⊠	■	■	■	■	■	■	■
CP06	■	■	■	■	■	■	■	■	■	■	■	■	■
CP07	■	■	■	■	■	⊠	■	■	■	■	■	■	■
CP08	■	■	■	■	■	■	■	⊠	⊠	⊠	⊠	⊠	■
CP09	■	■	■	■	⊠	⊠	■	■	⊠	⊠	⊠	⊠	■
CP10	■	■	■	■	⊠	⊠	⊠	⊠	⊠	⊠	⊠	⊠	⊠
Total number active in the period	10	10	10	10	7	6	7	7	5	6	6	6	9
Minimum annual mt for the period	2,087	1,932	4,577	3,459	4,618	3,815	673	1,510	3,626	3,471	5,288	6,492	4,028

A-2.1.2.b Processors (Mothership)

❖ Provisions and Options

Recent participation is required to qualify for QS:
1,000 mt or more of groundfish in each of any two years from 1997-2003.

❖ Rationale and Options Considered But Not Included

Recent participation was considered for mothership processors for the same reasons identified for catcher vessels. Recent IFQs for the mothership sector is not part of the preferred alternative, therefore the Council made no determination as to whether or not recent participation would be part of the program if IFQs were adopted for the mothership sector and an allocation give to processors. Other periods considered were 1998–2003 and 1998–2004. A period ending in 2004 was rejected because it went beyond the November 6, 2003 control date. A starting date of 1997 was preferred because it was the first year in which there was a three-way allocation between the whiting sectors.

❖ Interlinked Elements

The main interaction would be between this provision and the effects of the initial allocation. For recent participation requirements set at what would likely be considered reasonable levels, the effects of having or not having the requirement would be minimal.

❖ Analysis

The choice to have or not have a recent participation requirement primarily affects objectives related to fairness and equity and program costs. While a recent participation might be considered reasonable and responsive to the MSA direction to consider current and historic participation and to consider investment and dependence, reasonable levels for such requirements would have little effect.

The recent participation period selected for the mothership option coincides with the allocation period (Section A-2.1.4.c). This would make the recent participation criteria more of a minimum threshold than a screen that increases the emphasis on more recent years of the allocation period. Most mothership companies have consistent participation in the fishery. There are two that have not participated since 1995 and would not receive an initial allocation for an allocation period that runs from 1997-2003. There is one company that only entered the fishery after the allocation period. There is only one company that was absent for a number of years during the allocation period and might therefore be affected by requirement for a certain number of years of activity. To screen out any companies the minimum participation requirement would have to require more than four years of activity, and to screen out more than one company, the amount of landings required in each of those years would have to exceed 7,000 mt. The mothership recent participation option (1,000 mt in 2 years from 1997-2003) would not screen out any companies that would be eligible for an initial allocation and therefore imposes some minor administrative costs with respect to promulgation of the regulations with no effect on the allocation.

Table A-43. Mothership companies with some activity during 1994-2006.

	= Active			= Not Active								
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MS Company 1	■	■	■	■	■	■	■	■	■	■	■	■	■
MS Company 2	■	■	■	■	■	■	■	■	■	■	■	■	■
MS Company 3	■	■	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
MS Company 4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	■
MS Company 5	■	■	■	■	■	■	■	■	☒	☒	☒	■	■
MS Company 6	■	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
MS Company 7	■	■	■	■	■	■	■	■	■	■	■	■	■
Total number active in the period	6	5	4	4	4	4	4	4	3	3	3	4	5
Minimum annual mt for the period	2,832	1,507	5,552	6,938	7,892	6,619	6,103	6,571	7,945	7,069	7,237	5,607	1,751
Average annual mt for the period	9,534	6,196	11,749	12,313	12,593	12,032	10,772	8,939	8,875	8,676	8,052	12,150	11,106

A-2.1.2.c Processors (Shoreside)

❖ Provisions and Options

Recent participation is required to qualify for an initial allocation of QS:

Nonwhiting Option 1: 1 nonwhiting groundfish trip delivery from 1998-2003.

►**Nonwhiting Option 2:** 6 mt or more of deliveries from nonwhiting groundfish trips in each of any three years from 1998-2003.

Whiting Option 1: 1 whiting trip delivery from 1998-2003.

►**Whiting Option 2:** 1 mt or more of deliveries from whiting trips in each of any two years from 1998-2003.

❖ Rationale and Options Considered But Not Included

Businesses formed around permits or vessels provide a fairly good set of initial recipients to which an initial allocation of QS can be made, each of which has a significant investment in the fishery. The shoreside receipt of a trawl delivery from a vessel requires substantially less long-term commitment to the fishery. There is more transient participation. Because of these issues related to dependency and involvement, the Council is considering a recent participation requirement for the shoreside processing sector. Initial information indicated that a recent participation requirement might substantially reduce the number of applicants, reducing administrative costs with a relatively minor effect on the allocation to those remaining eligible.

❖ Interlinked Elements

This provision most strongly interacts with the initial allocation option, affecting the distribution of the QS initial allocation. The fewer the buyers to allocate to, the more QS for those receiving an initial allocation. If there is no accumulation limit grandfather clause, the distribution of the initial allocation among processors will be strongly affected by the accumulation limit, causing a significant portion of the allocation to be redistributed away from those that would otherwise receive shares in excess of the

accumulation limit. With the imposition of a recent participation requirement, the number of entities among whom the redistribution is shared declines, increasing the amount of the redistribution received by any one entity.

❖ Analysis

As with harvesters and at-sea processors, the choice to have or not have a recent participation requirement primarily affects objectives related to fairness and equity and program costs.

A recent participation requirement will screen out some buyers and their associated history. The percent of landing history screened out affects the amount by which all other allocations would increase. For example, screening out 4 percent of the landing history would increase the allocation of all those remaining by approximately 4 percent. Those screened out would experience a loss (relative to their not being a recent participation requirement). Assuming total nonwhiting exvessel revenue of $24 million, a processor share of 20 percent and that 124 firms were screened out, the exvessel revenue associated with the QP that might be issued annually to the firms eliminated by the recent participation requirement would be about $1,500. If the total Federal cost of the initial issuance of the QS is $400,000, the application fees may exceed $1,500. If the QS were to trade at a value equal to the annual exvessel revenue associated with the QP, then, on average, those screened out would not experience an economic loss (i.e. on average their application fee would have been more than the value of the QS they received). However, QS often trade at multiples of the expected exvessel revenue and lease QP price, such that at the hypothesized application cost would only partially offset the value lost from being screened out of the initial allocation.[29] Section A-2.3.3 includes estimates of the expected program costs that can be compared to the values hypothesized here.

Using the hypothetical assumption that the processing cost associated with each application is $1,500, a recent participation requirement that screens out 124 companies with 4 percent of the landing history would save the economy $186,000 and reallocate among processors QS with an annual exvessel revenue equivalent of about $200,000.

The following sections contain information on the effect of the recent participation requirements on the number of buyers that would be potentially eligible for an initial in aggregate and for each state and the amount of landing history that would be screened out by application of the criteria.

- Nonwhiting

As shown in Table A-44, a total of 124 companies received at least one delivery of non-whiting groundfish and 84 did not, during the years of 1998-2003. The deliveries to these companies represent 96.2 percent of all allocation period deliveries. The option limiting participation to 1 mt in a year will reduce the companies to 84 that qualify and 124 that do not; however, the change in shares of the allocation period is also nearly imperceptible. There is a large proportion of companies that received very small amounts of groundfish, often in just one year during the period.

[29] QS often trade at a price that is between 3 and 10 times the QP lease price (Asche 2001). The QP lease price will be less than the annual exvessel revenue generated by the QP because the lease price will reflect profits related to the resource, after deducting for harvest costs. In 2004, total costs equaled revenue, including 5 percent return on capital (Lian, et. al, 2008). Under IFQs, a cost savings is expected of 50 percent-60 percent. If QP prices are based on average vessel profits, they might be one half of exvessel revenue such that QS for $1,500 worth of fish might be expected to trade for about $3,750 (assuming a 5:1 QP:QP ratio).

Table A-44. Number of shoreside non-whiting buying firms that meet different recent participation standards during the 1998-2003 period (minimum deliveries and number of years of activity) and those firms' share of the total 1994-2003 history (gray cells indicate firms do not meet the standard).

	Standard					
	1 delivery (>0 MT) (Option 1 requires 1 year >0 MT)		At Least 1 MT		At Least 6 MT (Option 2 requires 3 years >6 MT each)	
No. of Yrs	Number of Firms	Share of '94-'03	Number of Firms	Share of '94-'03	Number of Firms	Share of '94-'03
0	84	3.7%	124	3.7%	139	4.0%
1	41	4.8%	26	4.9%	25	4.9%
2	31	2.3%	16	2.3%	12	3.7%
3	17	6.8%	15	8.3%	12	6.8%
4	6	3.6%	5	3.6%	5	4.2%
5	8	3.6%	7	2.0%	2	1.4%
6	21	75.1%	15	75.0%	13	75.0%
Totals Meeting Standard	124	96.20%	84	96.10%	32	87.40%

The third option is most restrictive, requiring at least 6 mt in each of three years during 1998-2003. As shown above in Table A-44, although fewer companies qualify (just 32 participated in three or more years with at least 6 mt), these companies represent 87.4 percent of the groundfish received during the allocation period.

The geographic distribution of the three options is summarized in Table A-45. In each case, the number of companies that would qualify under the option is displayed below the dotted line, and those that would not qualify are displayed above the dotted line. Because most of the companies involved with receipt of nonwhiting are located in California, so too are the effects in terms of number of companies affected when moving from the least to most restrictive option.

Table A-45. Number of shoreside nonwhiting buyers operating within each state, by years of activity during the period recent participation period (1998-2003) and the entire allocation period (1994-2003).

	California		Oregon		Washington	
Criteria (met or not)	**1994-2003**	**1998- 2003**	**1994-2003**	**1998- 2003**	**1994- 2003**	**1998- 2003**
	Number of Firms					
Option 1:	Criteria: >0 MT in any year					
Not Met	0	48	0	10	0	8
Met	134	86	38	28	28	20
Analytical Option	>1 MT in 1 yr					
Not Met	54	77	12	19	3	11
Met	80	57	26	19	25	17
Option 2:	>6 MT in each of at least 3 years					
Not Met	107	114	22	28	14	19
Met	27	20	16	10	14	9

The differences between states in the level of impacts are less dramatic when the proportional changes are considered rather than the totals. This is illustrated in Table A-46, which summarizes the effects on number of entities and quantity and raw product cost of the three options. The three options are compared for illustration purposes to the totals of quantity and raw product cost for all companies

receiving nonwhiting within the allocation period. For the Option 1 requirement, there is less difference in the proportion of the impacts between Oregon and Washington than there is between either of those states and California. As the recent participation requirement is increased, the proportion of the number of entities affected within the state increases more for California and Oregon than it does for Washington, but the amount of landing history affected for Washington increases more than for California or Oregon,

Table A-46. Quantity (in mt) and raw product cost (RPC) by state, 1994-2003 receipts, for shoreside nonwhiting buyers screened out by three 1998-2003 qualifying period recent participation criteria.

Recent Participation Requirement	California		Oregon		Washington	
	Quantity (MT)	RPC ($MM)	Quantity (MT)	RPC ($MM)	Quantity (MT)	RPC ($MM)
	Data for Companies Not Meeting the Requirement (percentages are proportion relative to all companies in the state).					
Option 1 Any Activity (>0 MT)	7,062.9	$7.83	4,538.4	$4.35	1,904.0	$1.63
	5%	5%	3%	2%	3%	3%
	48 companies 37%		10 companies 26%		8 companies 29%	
Analytical Option >1 MT in any year	7,080.5	$7.87	4,542.6	$4.36	1,910.0	$1.64
	5%	5%	3%	2%	3%	3%
	77 companies 57%		19 companies 50%		11 companies 39%	
Option 2 > 6 MT in three years	17,639.3	$19.64	17,894.5	$17.26	10,225.5	$9.17
	13%	14%	10%	10%	17%	19%
	114 companies 85%		28 companies 74%		19 companies 68%	
	Data for All Companies					
ALL COMPANIES	133,998.6	$144.78	170,424.8	$178.31	61,366.1	$49.44
	134 companies		38 companies		28 companies	

- Whiting

As shown in Table A-47, 17 companies received at least one delivery of whiting and 9 did not, during the years of 1998-2003. The deliveries to these companies represent 94.3 percent of all allocation period deliveries. The option limiting participation to 1 mt in any two years will reduce the companies to nine that qualify; however, the change in shares of the allocation period is nearly imperceptible. This is because the six companies with one year of activity received about 67 mt combined, compared to nearly 750 thousand mt for all participants.

Table A-47. Number of shoreside whiting buying firms that meet different recent participation standards during the 1998-2003 period (minimum deliveries and number of years of activity) and those firms' share of the total 1994-2003 history (gray cells indicate firms do not meet the standard).

	Standard			
	1 delivery (>0 mt)		At Least 1 mt	
No. of Yrs	Number of Firms	Share of '94-'03	Number of Firms	Share of '94-'03
0	9	5.7%	11	5.7%
1	8	0.0%	6	0.0%
2	0	0.0%	0	0.0%
3	1	3.5%	1	3.5%
4	2	3.8%	2	3.8%
5	1	4.5%	1	4.5%
6	5	82.5%	5	82.5%
Total Meeting the Criteria	17	94.3%	9	94.3%

Note: The values in the zero row indicate the number of entities active only before or after 1998-2003.

The geographic distribution of companies that received whiting are shown in Table 5 (for a requirement of at least one landing in a year) and Table 6 (for a requirement of at least 1 mt in a year). As shown, the companies that would not qualify (zero years at the indicated level) are located primarily in California and Oregon.

Table A-48. Number of firms buying whiting shoreside in each state, by years of activity during the period, (any receipts >0 mt in the year) (Option 1 requires at least 1 year >0).

	California		Oregon		Washington	
No. of Yrs	1994-2003	1998-2003	1994-2003	1998-2003	1994-2003	1998-2003
	Number of Firms with 1 Delivery For the Indicated Number of Years					
0	0	1	0	2	0	1
1	4	4	2	1	4	3
2	0	0	0	0	0	0
3	0	0	1	1	0	0
4	1	2	1	1	0	0
5	0	0	0	1	0	0
6 or more	3	1	5	3	3	3
Total Meeting the Criteria	8	7	9	7	7	6

Table A-49. Quantity (in mt) by state and share of state total, 1994-2003 receipts, for shoreside whiting buyers screened out by whether or not they received 1 mt of whiting or more during a 1998-2003 recent participation period recent participation criteria.

MT and Share of 1994-2003 history (1998-2003 participation period)						
	California		Oregon		Washington	
Years:	MT	Share	MT	Share	MT	Share
0	8,600.6	24.2%	27,264.8	4.5%	6,552.7	6.5%
1 or More	26,927.5	75.8%	584,306.4	95.5%	94,032.4	93.5%
TOTAL MT	35,528.1		611,571.3		100,585.1	

Table A-50. Number of companies buying shoreside whiting in each state, by number of years of activity during the period, (at least 1 mt in the year) (Note: Option 2 requires at least 2 years >1 mt each).

	California		**Oregon**		**Washington**	
No. of Yrs	**1994-2003**	**1998-2003**	**1994-2003**	**1998-2003**	**1994- 2003**	**1998- 2003**
	Number of Firms with 1 mt In Each Year For the Indicated Number of Years					
0	2	3	0	2	0	1
1	2	2	2	1	4	3
2	0	0	0	0	0	0
3	0	0	1	1	0	0
4	1	2	1	1	0	0
5	0	0	0	1	0	0
6 or more	3	1	5	3	3	3
Total Meeting the Criteria	8	3	9	4	7	3

Table A-51. Quantity (in mt) by state and share (%) of state total buying history (1994-2003) for shoreside whiting buyers screened by the number of years they received at least 1 mt of whiting during the 1998-2003 recent participation period.

MT and Share of 1994-2003 history (1998-2003 participation period)						
	California		Oregon		Washington	
Years:	MT	Share	MT	Share	MT	Share
0	8,601.2	24.2%	27,264.8	4.5%	6,552.7	6.5%
1	55.1	0.2%	5.0	0.0%	190.9	0.2%
2 or More	26,871.7	75.6%	584,301.4	95.5%	93,841.5	93.3%
TOTAL MT	35,528.1		611,571.3		100,585.1	

A-2.1.3 Allocation Formula

A-2.1.3.a Permits with Catcher Vessel History

❖ Provisions and Options

For all fish management units, as specified in Section A-1.2:

Option 1: All QS allocated based on permit history (see following formulas).

► **Option 2**: An equal division of the buy-back permits' pool of QS among all qualifying permits plus allocation of the remaining QS based on each permit's history (see following formulas). (The QS pool associated with the buyback permits will be the buyback permit history as a percent of the total fleet history for the allocation period. The calculation will be based on total absolute pounds with no other adjustments and no dropped years.)

Permit history based allocation suboptions

For **non-whiting** trips, permit history used for QS allocation will be calculated:

For non-overfished species: using an allocation period of 1994-2003. Within that period use relative history and drop the three worst years.[30]

For overfished species taken incidentally:[31]

Overfished Species Option 1: as it is calculated for non-overfished species.

► **Overfished Species Option 2:** use target species QS as a proxy based on the following approach: Apply fleet average bycatch rates to each permit's depth and latitude distributions and target species QS allocations. Fleet average bycatch rates for the areas shoreward and seaward of the RCA and north and south of 40° 10' N will be developed from West Coast Observer Program data for 2003-06. For the purposes of the allocation, a permit's QS for each target species will be distributed shoreward and seaward of the RCA and latitudinally based on the permit's logbook information for 2003-06. If a permit does not have any logbooks for 2003-06, fleetwide averages will be used.[32]

For **whiting** trips, permit history used for QS allocation will be calculated as follows:

For whiting, use an allocation period of 1994-2003. Within that period, use relative history and drop the two worst years. If a permit participated in both the shoreside and mothership whiting sectors, the same two years must be dropped for calculation of the permit's QS for each sector.[33]

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: use history for that species, as it is calculated for whiting

► **Bycatch Option 2:** use the whiting history as a proxy (i.e., allocation will be pro rata based on the whiting allocation).

Area Assignments: Landings history will be assigned to catch areas based on port of landing.[34]

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[30] State landings receipts (fish tickets) will be used to assess landings history for shoreside deliveries and observer data will be used for deliveries to motherships.

[31] The intent is to consider an alternative allocation method QS for overfished species which, at reduced harvest levels, are needed primarily to cover incidental catch in fisheries that target healthy stocks. The alternative method (Option 2) would attempt to allocate the species to those who will be receiving QS for related target species. By allocating overfished species QS to those most in need of it, such an allocation would be expected to reduce transition costs. Currently, the list of overfished species that fall into this category is as follows: canary rockfish, darkblotched rockfish, Pacific Ocean perch, widow rockfish, yelloweye rockfish. This list may change by the time the program is ready to be implemented. If a major target species became overfished, it would not be intended that such a species would be allocated via an alternative method (for example species such as Dover sole, sablefish, or Pacific whiting).

[32] In order to determine an amount of aggregate target species to which bycatch rates will be applied, each vessel's QS will be multiplied by the trawl allocation at the time of implementation.

[33] State landings receipts (fish tickets) will be used to assess landings history for shoreside deliveries and observer data will be used for deliveries to motherships.

[34] Catch area data on fish tickets are not considered appropriate for this purpose. It is often filled out by fish receivers that assume the vessel has been fishing in nearby ocean areas. Therefore it will be assumed that all catch comes from ocean areas near the port of landing.

Relative history (%). For each sector, the permit history for each year is measured as a percent of the sector's total for the year.

❖ Organization of the Analysis

The analysis will evaluate each of the elements of the allocation formula for permits, then the allocation formula as a whole in the following sections.

- Equal Allocation
- Allocation Period for History Based Allocation
- Drop Years Provision
- Incidental Catch Species Allocation
- Area Assignments
- Relative History
- Allocation Formula Results

The allocation formula results will be strongly influenced by the grandfather clause option selected in Section A-2.2.3.e. Not having a grandfather clause will result in the reallocation of QS away from those who would have otherwise qualified for the shares, expanding the shares of all other recipients in proportion to their allocations.

The first choice is whether or not a portion of the QS will be equally divided among permits. All other decisions relate to the method used to allocate the portion of the QS that will be allocated based on history.

Early on in the program, the quality of the vessel landings data set (fish tickets) was evaluated and the amount of fish landed in species groups was compared to the current allocation categories. Landings are sometimes reported in nominal categories and species composition proportions developed from port sampler data is applied to those categories to estimate the actual catch composition. Estimation of catch composition in this manner provides statistically valid results for the fleet as a whole, but may not reflect the actual catch composition of a particular vessel on a particular day (for a particular landing). Despite this, it was decided that the species composition proportions applied to individual landings would be used for the initial allocation because it would yield a QS allocation that more closely parallels the actual catch composition than an approach that used landings information aggregated at a higher level to then allocate individual QS for each species category.

❖ Equal Allocation

● Rationale and Options Considered But Not Included

Equal allocation among all catcher vessels is intended to address equity concerns. During deliberations on allocation, it is often argued that past harvest does not create a prior right to future harvest, that those with the history have "already been paid for those fish" and therefore their history should not entitle them to a greater allocation. Lotteries and equal allocation are two ways in which this concern can be addressed (NRC, 1999). Lotteries might be used if the amount to be equally allocated among all potential recipients would not be enough to make the allocation worthwhile. QS transferability will make small amounts received through equal allocation worthwhile to the recipient, so long as its value is enough to cover payment for the direct administrative costs of issuing the QS and transaction costs for selling it. Development of the IFQ program started just as the limited entry permit buyback program

was being completed. The removal of permits representing approximately 40 percent to 50 percent of the landing history provided an opportunity to provide an element of equal allocation without substantially reducing the amounts that a permit would have received through a straight landing history allocation implemented prior to the buyback.

Under the equal allocation provision all catcher vessel permits would receive an equal share of the allocation attributable to the buyback permit-related QS, including those that participate in the nonwhiting, shoreside whiting and mothership whiting sectors. The QS issued will still be tied to the sector in which the landing history was generated. For example, a catcher vessel permit that delivers to motherships will receive some shoreside nonwhiting QS and that QS will have to be delivered shoreside. The vessel receiving that QS might either decide to sell the QS or start making some shoreside deliveries but it cannot use the QS to cover deliveries made to motherships. Similarly, a shoreside whiting vessel would not be able to use nonwhiting QS in a delivery that was composed of more than 50 percent whiting, unless the shoreside whiting and nonwhiting sectors is managed as a single sector under IFQs.

The Council's preliminary preferred alternative would use co-ops to rationalize the mothership whiting fishery. The Council should indicate whether or not they would still provide these permits with a share of the equal allocation distribution of IFQ. On the one hand, the fact that some permits participate primarily in the mothership fishery would not prevent them from using shoreside QS in the same way they would have been able to use it if the mothership sector were managed with IFQ. On the other hand, the other sectors will not gain the benefit of an equal share of the mothership sector allocation. However, the share of mothership history that would be equally allocated is relatively small, 2.3 percent compared to an average of about 44 percent for nonwhiting species. If consideration is given to excluding mothership permits from the equal allocation component there are 2 permits that have only mothership sector history, Table A-29. If it is required that a permit have some nonwhiting history in order to qualify for the nonwhiting equal allocation component, 5 permits would be affected. Of the 32 permits with mothership catcher vessel history 27 have some shoreside nonwhiting participation. If not all catcher vessel permits are to be given an equal share, there is one permit with no history over that period for which a decision would be needed on the appropriate equitable treatment.

- Interlinked Elements

Number of Trawl Sectors (Section A-1.3). If there is a single shoreside sector, vessels making whiting deliveries will be able to cover nonwhiting bycatch using nonwhiting QS received as part of their initial QS allocation under the equal sharing provision.

Transfer Moratorium (Section A-2.2.3.c). Equal allocation redistributes QS to smaller harvesters in quantities in excess of what they have taken historically. If this is the case and those smaller harvesters wish to divest themselves of the QS, rather than using it themselves, the two year moratorium on the transfer of QS will prevent them from making a permanent transfer. However, during that period they will be able to transfer their QP.

Accumulation Limit Grandfather Clause (Section A-2.2.3.e). Incorporation of an equal allocation provision will change the impacts of the accumulation limit grandfather clause. If there is an equal allocation provision and a grandfather clause, harvesters will be grandfathered in at lower levels than if there were not an equal allocation. This is probably a more important effect with respect to the control limits than the vessel limits since it is expected that most permit allocations will be below the vessel limits. If there is no equal allocation and a grandfather clause, those receiving QS in excess of limits will be able to harvest at levels closer to their historic shares.

- Analysis

The following are the categories of goals and objectives affected by the equal allocation decision.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Fairness and Equity and Disruption			X	X	X						
Net Benefits and Sector Health		X				X			X		
Communities								X			

♦ *Fairness, Equity and Disruption*

One of the rationales for the initial allocation relates to the compensation of the holders of physical assets for the loss in value of assets they have purchased (such as limited entry permits) and another relates to the provision of QS so as not to adversely affect the balance of negotiating power between harvesters and processors. Permits of similar size are likely to be of similar value (assuming there is no speculation on permits based the associated landings history and the anticipation of an IFQ program). This would tend to support some equal distribution of QS among permits since holders of permits of similar size would be similarly affected. On the other hand, long-term landing history relates to the amount of investment and dependence on the fishery, a factor identified by Congress as important in considering the fairness and equity of the initial distribution (MSA 303A(c)(5)(A)(ii)). This tends to support a landings history based allocation. Additionally, a landings history based allocation will tend to reduce disruption of capital by allocating the QS to the owners of the harvesting assets, reducing the need to transfer QS after the initial allocation.

Part of the original rationale for the equal allocation of the buyback portion of the landing history was that since those permits were removed from the fishery, no one would miss the QS that might be associated with that landing history and therefore it could be equally distributed among all participants with little objection. However, the removal of those permits allowed fishing opportunities to improve starting in 2004. Harvesters have now had four years to adapt to their new harvest levels and will have had a number of additional years before the program is implemented, making it more likely that an initial allocation that deviates from historic allocation will disrupt recent practices in the fishery. At the same time, during that period harvesters were on notice that landings occurring after the control date would not count toward the initial allocation.

A closely related issue is excessive shares. Accumulation limits are intended to prevent individuals from acquiring excessive shares, however, there may be a grandfather clause that allows those that qualify for an initial allocation greater than the accumulation limit to retain that allocation. If there is a grandfather clause, an equal allocation component will reduce the amount by which individual allocations exceed accumulation limits.

Table A-52 shows the share of OY species aggregate landing history during 1994-2003 that was recorded by permits that were bought back in December 2003. The table shows that 91 buyback permits

participating in the nonwhiting sector landed 43.62 percent of total groundfish round-weight during 1994-2003. This total includes more than half of certain groundfish species, such as arrowtooth flounder, spiny dogfish, and chilipepper. By contrast, the 20 buyback permits participating in the shoreside whiting fishery landed only about 7 percent of total groundfish in that sector, and the 3 at-sea catcher vessel buyback permits accounted for only about 2 percent of total groundfish delivered in that sector. Table A-53 shows aggregate landing history (mt) during 1994-2003 of OY species recorded by all non-CP limited entry trawl permits (i.e., permits that were bought back in December 2003, plus remaining permits).

Translating the buyback permit related QS to pounds, assuming 2004-2006 average landings and prices, and dividing by the 169 catcher vessel permits eligible to receive some of the initial allocation shows an average exvessel value per permit of $68,383 attributable to the equal sharing portion of the allocation.

Table A-52. 1994 - 2003 Aggregate Landing history Shares (%) for *Buyback Permits.*

Species Group	Shoreside Nonwhiting	Shoreside Whiting	At-Sea (Mothership) Whiting CVs	Total non-CP Groundfish CVs
Lingcod - coastwide	44.16%	5.74%	0.14%	44.11%
N. of 42° (OR & WA)	45.93%	3.99%	0.14%	45.87%
S. of 42° (CA)	39.27%	28.53%	-	39.27%
Pacific Cod	51.06%	7.23%	2.70%	51.03%
Pacific Whiting (Coastwide)	64.48%	7.20%	2.28%	5.51%
Sablefish (Coastwide)	45.87%	4.51%	1.32%	45.29%
N. of 36° (Monterey north)	46.23%	4.51%	1.32%	45.62%
S. of 36° (Conception area)	36.77%	-	-	36.77%
PACIFIC OCEAN PERCH	44.40%	2.59%	1.71%	43.08%
Shortbelly Rockfish	46.92%	12.02%	0.00%	39.77%
WIDOW ROCKFISH	36.03%	7.54%	3.43%	33.92%
CANARY ROCKFISH	44.61%	5.59%	2.54%	44.46%
Chilipepper Rockfish	19.98%	-	-	19.98%
BOCACCIO	18.30%	-	-	18.30%
Splitnose Rockfish	24.90%	-	-	24.90%
Yellowtail Rockfish	42.77%	11.36%	4.39%	36.48%
Shortspine Thornyhead - coastwide	45.00%	27.62%	0.00%	44.99%
N. of 34°27'	49.71%	27.62%	0.00%	49.70%
S. of 34°27'	33.61%	-	-	33.61%
Longspine Thornyhead - coastwide	46.23%	69.91%	0.00%	46.24%
N. of 34°27'	46.23%	69.91%	0.00%	46.24%
S. of 34°27'	35.64%	-	-	35.64%
COWCOD	55.88%	-	-	55.88%
DARKBLOTCHED	48.44%	30.10%	1.82%	48.06%
YELLOWEYE	34.13%	0.21%	0.00%	34.06%
Black Rockfish - coastwide	21.40%	0.33%	0.00%	21.27%
Black Rockfish (WA)	59.88%	0.00%	-	57.87%
Black Rockfish (OR-CA)	16.00%	1.18%	0.00%	15.98%
Minor Rockfish North	45.51%	11.79%	2.12%	44.47%
Nearshore Species	59.46%	0.00%	0.00%	58.78%
Shelf Species	45.64%	3.34%	0.65%	44.17%
Slope Species	45.31%	38.31%	4.36%	44.84%
Minor Rockfish South	31.29%	-	-	31.29%
Nearshore Species	28.69%	-	-	28.69%
Shelf Species	24.95%	-	-	24.95%
Slope Species	33.27%	-	-	33.27%
California scorpionfish	3.74%	-	-	3.74%
Cabezon (off CA only)	4.11%	-	-	4.11%
Dover sole (total)	45.85%	56.27%	0.00%	45.85%
English Sole	38.79%	37.19%	0.07%	38.79%
Petrale Sole (coastwide)	47.51%	47.35%	0.00%	47.51%
Arrowtooth Flounder	53.41%	17.24%	1.06%	53.38%
Starry Flounder	12.36%	0.00%	-	12.35%
Other Flatfish	33.52%	62.08%	0.02%	33.53%
Kelp Greenling	10.13%	-	-	10.13%
Spiny Dogfish	69.43%	8.04%	3.73%	58.82%
Other Fish	40.98%	81.01%	0.00%	41.02%
Nearshore species	41.39%	4.72%	0.13%	41.35%
Shelf species	44.40%	10.98%	4.16%	42.89%
Slope species	43.71%	8.60%	3.22%	42.99%
Dover Sole, Thornyhead, Sablefish (DTS)	45.83%	7.27%	1.21%	45.73%
Total Groundfish	43.62%	7.22%	2.29%	14.39%
Number of Buyback Permits	91	20	3	91

Table A-53. 1994 - 2003 Aggregate Landing history (mt) for *All non-CP Limited Entry Trawl Permits (Buyback + Remaining).*

Species Group	Shoreside Nonwhiting	Shoreside Whiting	At-Sea Whiting CVs	Total non-CP Groundfish CVs
Lingcod - coastwide	5,534.7	4.9	1.4	5,540.9
N. of 42° (OR & WA)	4,062.2	4.5	1.4	4,068.1
S. of 42° (CA)	1,472.4	0.3	0.0	1,472.8
Pacific Cod	5,341.2	2.9	0.2	5,344.2
Pacific Whiting (Coastwide)	922.2	745,047.3	408,768.2	1,154,737.6
Sablefish (Coastwide)	29,327.6	408.9	6.8	29,743.3
N. of 36° (Monterey north)	28,212.0	408.9	6.8	28,627.7
S. of 36° (Conception area)	1,115.6	0.0	0.0	1,115.6
PACIFIC OCEAN PERCH	4,936.9	105.0	54.2	5,096.1
Shortbelly Rockfish	221.9	9.9	33.0	264.8
WIDOW ROCKFISH	36,264.4	1,901.2	863.2	39,028.8
CANARY ROCKFISH	4,806.3	9.4	8.3	4,824.0
Chilipepper Rockfish	8,188.1	0.0	0.0	8,188.1
BOCACCIO	1,428.0	0.0	0.0	1,428.0
Splitnose Rockfish	3,286.3	0.0	0.0	3,286.3
Yellowtail Rockfish	21,897.9	2,616.1	2,244.6	26,758.5
Shortspine Thornyhead - coastwide	12,228.5	6.0	0.6	12,235.1
N. of 34°27'	8,647.5	6.0	0.6	8,654.1
S. of 34°27'	3,581.1	0.0	0.0	3,581.1
Longspine Thornyhead - coastwide	27,992.6	7.2	0.0	27,999.8
N. of 34°27'	27,992.2	7.2	0.0	27,999.4
S. of 34°27'	0.5	0.0	0.0	0.5
COWCOD	0.0	0.0	0.0	0.0
DARKBLOTCHED	4,847.5	21.3	31.0	4,899.8
YELLOWEYE	462.6	0.6	0.3	463.4
Black Rockfish - coastwide	187.8	1.1	0.0	188.9
Black Rockfish (WA)	23.1	0.8	0.0	23.9
Black Rockfish (OR-CA)	164.7	0.3	0.0	165.0
Minor Rockfish North	10,261.5	184.4	110.4	10,556.4
Nearshore Species	8.2	0.0	0.1	8.3
Shelf Species	5,840.7	139.8	66.3	6,046.9
Slope Species	4,412.5	44.6	44.0	4,501.1
Minor Rockfish South	5,123.0	0.0	0.0	5,123.0
Nearshore Species	60.5	0.0	0.0	60.5
Shelf Species	1,186.7	0.0	0.0	1,186.7
Slope Species	3,875.8	0.0	0.0	3,875.8
California scorpionfish	6.1	0.0	0.0	6.1
Cabezon (off CA only)	2.9	0.0	0.0	2.9
Dover sole	87,944.2	11.3	0.0	87,955.5
English Sole	10,435.8	6.3	0.2	10,442.3
Petrale Sole	16,836.0	5.4	0.0	16,841.4
Arrowtooth Flounder (total)	28,536.5	10.1	7.5	28,554.1
Starry Flounder	362.9	0.0	0.0	363.0
Other Flatfish	17,839.8	12.1	2.7	17,854.6
Kelp Greenling	1.8	0.0	0.0	1.8
Spiny Dogfish	4,006.2	191.7	594.8	4,792.6
Other Fish	4,847.0	5.9	0.9	4,853.8
Nearshore species	6,164.9	6.0	1.5	6,172.3
Shelf species	138,670.5	2,988.9	2,920.6	144,580.0
Slope species	156,870.8	2,099.9	1,027.6	159,998.3
DTS species	158,057.5	433.4	7.4	158,498.4
Total Groundfish	354,642.8	750,569.0	412,728.2	1,517,940.0
Number of Buyback Permits	91	20	3	91

Table A-54. Annual exvessel revenue equivalent per permit for QP received through equal allocation (assuming 2004-2006 average prices and landing levels and 169 permits receiving an initial allocation).

Species Group	Shoreside Nonwhiting	Shoreside Whiting	At-Sea Whiting CVs	Nonwhiting	
				Pounds/ Permit	Dollars/ Permit
Lingcod - coastwide					
N. of 42° (OR & WA)	45,161			435	267
S. of 42° (CA)	14,641			114	87
Pacific Cod	391,058			4,828	2,314
Pacific Whiting (Coastwide)	1,020	782,207	106,674	101	6
Sablefish (Coastwide)					
N. of 36° (Monterey north)	2,935,361			15,037	17,369
S. of 36° (Conception area)	34,453			237	204
PACIFIC OCEAN PERCH	39,514			503	234
Shortbelly Rockfish	83			29	0
WIDOW ROCKFISH	44,638			615	264
CANARY ROCKFISH	5,530			65	33
Chilipepper Rockfish	7,664			81	45
BOCACCIO	842			8	5
Splitnose Rockfish	20,817			385	123
Yellowtail Rockfish	92,698			1,283	549
Shortspine Thornyhead - coastwide					
N. of 34°27'	347,822			2,714	2,058
S. of 34°27'	117,416			719	695
Longspine Thornyhead - coastwide					
N. of 34°27'	361,400			4,189	2,138
S. of 34°27'					
COWCOD					
DARKBLOTCHED	63,468			824	376
YELLOWEYE	166			2	1
Black Rockfish - coastwide					
Black Rockfish (WA)	18			0	0
Black Rockfish (OR-CA)	320			4	2
Minor Rockfish North					
Nearshore Species	478			6	3
Shelf Species	14,557			219	86
Slope Species	69,029			878	408
Minor Rockfish South					
Nearshore Species	140			0	1
Shelf Species	1,538			14	9
Slope Species	55,624			647	329
California scorpionfish					
Cabezon (off CA only)	0			0	0
Dover sole (total)	2,528,160			40,000	14,960
English Sole	258,162			4,502	1,528
Petrale Sole (coastwide)	2,496,597			15,093	14,773
Arrowtooth Flounder	271,719			14,701	1,608
Starry Flounder	8,717			124	52
Other Flatfish	370,650			5,184	2,193
Kelp Greenling				0	
Spiny Dogfish	55,856			1,821	331
Other Fish	13,349			553	79
Total	10,668,668	782,207	106,674	115,915	63,128
Average Per Vessel	63,128	4,628	631		68,388

♦ *Net Benefits and Sector Health*

Equal allocation may require the redistribution of either capital assets or the QS following the initial allocation. The need for the redistribution would depend on the desire and ability of those receiving QS in excess of their typical usage to use the QS themselves on their existing vessels (assuming the vessels have adequate capacity) and efficiency of those vessels relative to other vessels which will be looking to acquire additional QS to increase production. Equal allocation may result in more transfers after initial implementation will increase both private transaction costs and administrative costs. Additionally, if

there is a correlation between historic size of harvest operations and efficiency (with smaller operations being less efficient) then QS will be initially allocated to less efficient operations. Transaction costs will always present a hurdle slowing the transfer of QS to more efficient operators. Thus benefits will be somewhat greater whenever the initial allocation can be made to those who will use the QS most efficiently.

Usually when there is an initial allocation of QS, few operators receive shares in amounts that are sufficient for them to purse their recent landings levels. One of the reasons for this is that allocations are made based on averages while under status quo vessel shares vary from one year to the next. Every year there are some vessels that experience lower than their normal harvests or are absent from the fishery for the year. This creates greater opportunity for the remaining vessels but makes it impossible to allocate all vessels an amount of QS that might reflect their operating level in "normal years."[35] This dynamic leads to lower average allocations for the larger producers, however, the same kind of dynamic also diminishes the amounts the smaller producers receive relative to their landing history. Even if a particular smaller operator has efficiency that is comparable to a larger operator, if smaller operators are less well capitalized they may have a lesser ability to compete to purchase the additional QS needed to restore their operations to normal harvest levels. Under such circumstance, equal allocation may help preserve the economic health of smaller operators while larger operators are able to weather the additional capital demands on their own. On the other hand, if there is no difference between smaller and larger operators in their ability to access capital, or if for some reason larger operators tend to have more debt (or less equity) when the program goes into place, the equal allocation component could diminish overall sector health.

The figure below illustrates expected shares of non-whiting harvest allocated to each permit as compared (vertical axis) to the 2004-2006 average share of nonwhiting harvest for each permit (horizontal axis). The top graph shows this comparison using a QS allocation formula based entirely on landing history and the bottom graph shows the comparison using a QS allocation formula that includes equal sharing of the landing history related to buyback permits. Permits along the diagonal line would be expected to receive an allocation comparable to their 2004-2006 catch. The graphs show that with an allocation formula based only on landing history 93 permits would receive more than their 2004-2006 average, but with a formula that includes an equal allocation component 103 permits would receive more than their 2004-2006 average. At the same time, with an allocation formula based on landing history the maximum share of total QS revenue by any permit would be about 0.025 while with an equal allocation the maximum share would be about 0.016. Under equal allocation, the minimum share would be about 0.002.

[35] For example, if every vessel in a fleet had a pattern in which it harvested 100 mt for three successive years and 60 mt in the fourth (with that pattern rotating randomly through the fleet) then when a catch history based allocation is made each vessel would only receive 90 mt, not enough to sustain its "normal" harvest level. Additionally, other factors in allocation formulas tend to reduce the peak amounts of harvest, for example being able to drop worst years. Using the previous numeric example, if every vessel drops its 60 mt year and takes credit for the 3 100 mt years, the result is the same, 90 mt, because everyone's catch history would increase by the same amount (i.e. their share of catch history would be constant).

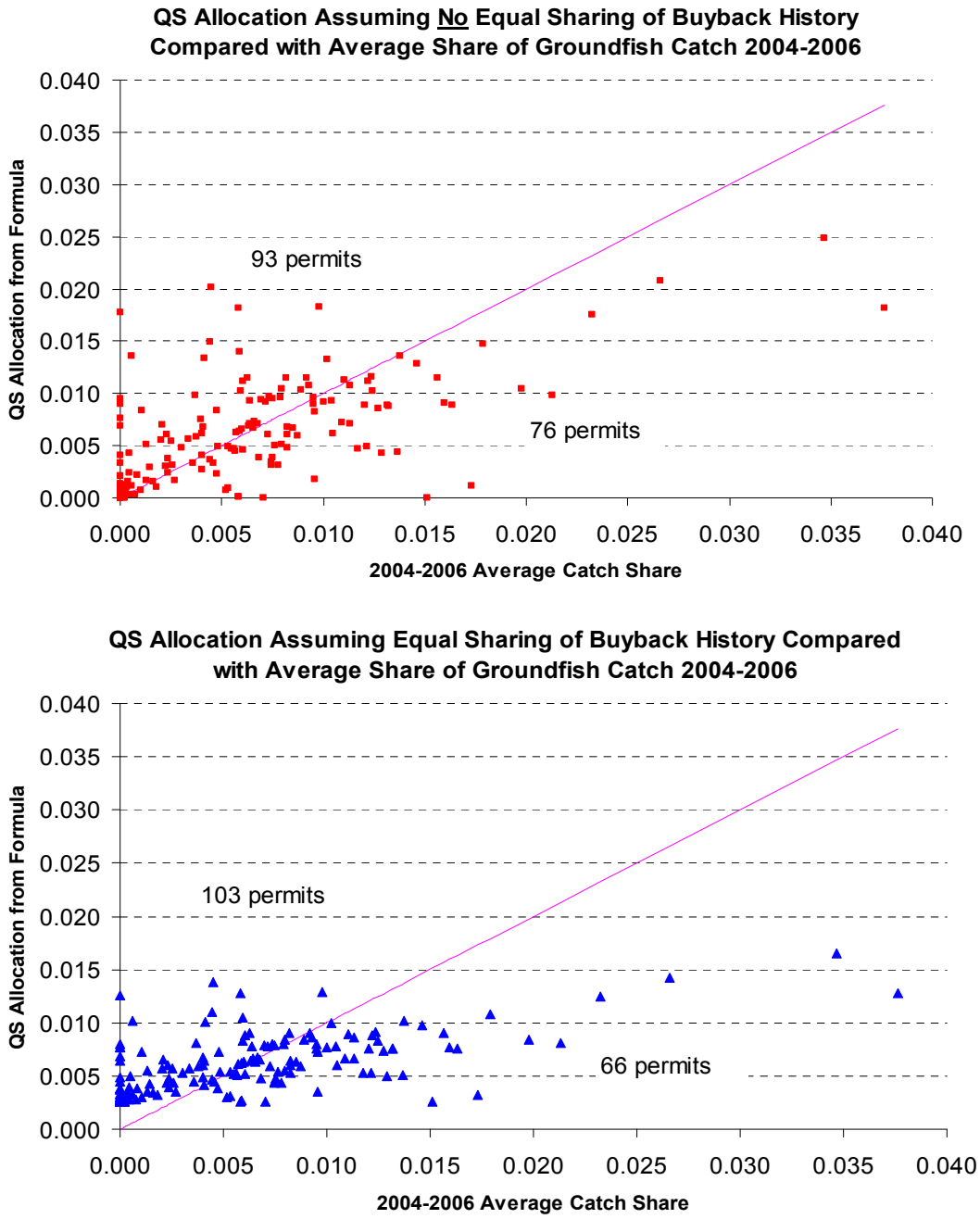

Figure A-24. Effects of equal sharing on the nonwhiting QS allocation given to permits depending on whether or not there is an equal allocation component and relative to the 2004-2006 catch share for each permit (assumes a grandfather clause and 100 percent allocation to permits).

♦ *Communities*

Assuming that past patterns are maintained after the initial allocation, equal allocation would cause a geographic redistribution among communities, primarily benefiting Newport, Brookings, Eureka, and

Princeton/Half Moon Bay as compared to an allocation based entirely on landing history (Section 4.14.5.4).

❖ Allocation Periods

● Rationale and Options Considered But Not Included

The Council's preliminary preferred alternative specifies 1994-2003 as the period for allocating QS based on landings history. This allocation runs from the inception of the license limitation program (1994) through the year of the Council's control date (2003). The 10 year span for the IFQ allocation is similar to the fixed gear sablefish tier program which used 1984-1994, an 11 year period.

The allocation period that would most likely minimize dislocation and the attendant costs would be the few years just prior to the initial allocation. That period is not used, in part, because of issues related to the need to establish credible control dates in order to effectively mange the fishery while deliberations on new limited entry programs are underway.

A number of different periods are being used for different parts of the trawl rationalization program and different sectors. These are detailed in Table A-55. For many sectors there is a qualifying period to determine eligibility for the initial allocation or receipt of a permit or endorsement, and a period on which the allocation will be based. During the course of development of this program numerous time periods have been considered (Table A-56). The purpose of this section is to focus on the period used for the allocation of QS for the trawl IFQ program, however, the remainder of the discussion in this section also covers the rationale for each year considered as a start date or end date for all of the periods considered for the trawl rationalization program.

Table A-55. Time periods used in various qualifying and allocation provisions that remain as options in the trawl rationalization program alternatives.

	Qualifying for Participation		Allocation	
Sector	IFQ Recent Participation	Co-op Alt Endorsement/ Permit	IFQ Allocation	Co-op Landing history
Catcher Vessel Permit Owners				
o Nonwhiting Shoreside Catcher Vessels	None	N/A	'94-'03 (drop 3 worst years)	N/A
o Whiting Shoreside Catcher Vessels	None	'97-'03 (>500 mt)	'94-'03 (drop 2 worst years)*	97-'03 (drop worst year)*
o Whiting Mothership Catcher Vessels	None	Options: 1) 94-'03 (>500 mt) (PPA)* 2) 97-'03 (>500 mt)	'94-'03 (drop 2 worst years)*	Options: 1) 97-'03 (drop worst year)* 2) 94-'03 (PPA) (drop 2 worst years)*
Catcher-Processor Permit Owners	None	97-'03 (at least 1 delivery)	'94-'03 (drop no years)	N/A
Mothership	'97-'03 (>1,000 mt in 2 yrs)	97-'03 (more than 1,000 mt in each of 2 years)	97-'03 (drop no years)	N/A
Shoreside Processing Companies	'98-'03 Options for shoreside non-whiting: 1) 1 delivery option, and 2) 6 mt in each of 3 years (PPA), Options for shoreside whiting 1) 1 delivery of any size 2) 1 mt of whiting in any 2 of years (PPA).	98-'03 (more than 1,000 mt in each of 2 years)	94-'03 (drop 2 worst years)	N/A

N/A = Not Applicable

*For the whiting catcher vessels that participated in both the shoreside and mothership sectors, the years dropped should be the same categories.

PPA = Council preliminary preferred alternative.

Table A-56. Time periods considered for various qualifying and allocation period provisions during development of the IFQ and co-op alternatives.

Time Period	Sector and Provisions (permit qualification/recent participation and allocation)	Summary of Justification
1994-1999	IFQ – QS allocation, all sectors.	Emphasizes status of fishery prior to constraints to protect overfished species.
1994-2003	IFQ - QS allocation, all sectors. Co-op – Shoreside and mothership CV permits and allocations.	From the beginning of limited entry (1994) to the control date (2003).
1994-2004	IFQ – Shoreside processor QS allocations. Co-op – Shoreside CV permits and allocations. Mothership CV allocations.	From the beginning of limited entry (1994) to a year that includes more recent participation, as compared to a period ending in 2003.
1997-2003	IFQ – Mothership processor recent participation and QS allocation. Co-op – Shoreside and mothership CV permits and allocations. Mothership processor permits. Catcher-processor endorsements.	A block of years that starts with the period in which there was a 3-way split of the whiting allocation and ends with the control date.
1997-2004	Co-op – C/P endorsement.	A block of years that starts with the period in which there was a 3-way split of the whiting allocation and adds a year beyond the control date to include more recent participation.
1998-2003	IFQ – Recent participation, all sectors. Co-op – Shoreside CV permits and allocations. Mothership CV allocations.	A block of years that reflects the fishery before and after changes, and acknowledges the control date (2003).
1998-2004	IFQ – Mothership recent participation qualification. Co-op – Shoreside and mothership CV permits and allocations. And Mothership processor permits. Shoreside processor permits.	A block of years that reflects the fishery before and after changes, and adds a year beyond the control date to include more recent participation.
1999-2004	IFQ – Recent participation, all sectors.	A start date that emphasizes the fishery using small footropes, and an end date that includes more recent participation.
2000-2003	IFQ – Recent participation, all sectors. QS allocation, all sectors.	Period starting with the year of groundfish disaster declaration and covering four years (similar to limited entry permit allocation period).
2001-2003	IFQ – Allocation period, all sectors. Co-op – Shoreside CV permit.	A period of time that most closely reflects the current conditions for the fishery and acknowledges the control date (2003).

CV = Catcher Vessel.

1994. The earliest year for the allocation period options was set at 1994, because this was the first year of the license limitation program, which substantially changed participation in the fishery and altered delivery patterns. If the program is to allocate based on permit history, there would be no permit history before 1994 unless it is determined that permit history includes vessel history prior to that time. However, given the complexities of the qualification requirements for the original license limitation program, history prior to 1994 may be difficult to track and treat in an equitable fashion.[36] An initial

[36] For example, LE permits were issued to vessels that replaced qualifying vessels prior to the start of the license limitation program. Additionally, LE permits were granted to vessels under construction or conversion on a

year of 1994 implies a long allocation period. An allocation period from 1994-2003, 10 years, would not be unprecedented. The fixed-gear sablefish tier program used 1984-1994 as the allocation period, an 11 year period. An initial allocation covering this long period may give more weight to those who have long-term investment and participation in the fishery (and their successors in interest) as compared to those who may have made their investment in more recent years.

1997. The first year in which there was a fixed allocation among the three whiting sectors was 1997. The co-op portion of the rationalization program initially used 1997-2004 as the qualifying allocation period for catcher-processors, and the co-op options all currently use an allocation start date of 1997. For the nonwhiting vessels, the choice of 1997 as the start of an allocation period would decrease the emphasis on conditions prior to the declaration of a groundfish disaster in 2000, as compared to an allocation period which started in 1994. A start date of 1997 and an end date of 2003 would include 3 years prior to declaration of disaster conditions in the groundfish fishery and 4 years after that declaration.

1998. This year is used to start an allocation period that would run from 1998 to 2003 or 2004. In considering 1998 as the start for an allocation period, the Council would have to determine whether six or seven years is a period of sufficient length to allow vessels to demonstrate their level of activity in the fishery and landings mix without needing to include special hardship provisions. Excluding 1994-1997 puts more emphasis on more recent participation patterns. The six-year period starting in 1998 includes landings history two years prior to the 2000 disaster declaration and four years from 2000 and after. Using 1998 as a start date for the allocation period covers a greater variety of fishing strategy opportunities than a period that starts in 1999 landings, but not as much as one going back to 1997 or earlier.

1999. While a disaster was not declared until 2000, the first reductions in response to the discovery that some groundfish species were overfished began in 1999. An allocation period starting in 1999 would include the period after the disaster declaration as well as the one-year prelude to those more severe restrictions.

2000. Using 2000 as the start of an allocation period would base the allocation entirely on fishermen's opportunities and choices under conditions present after the disaster declaration. In response to the discovery that a number of groundfish species were overfished, a disaster was declared for the 2000 fishery and a number of severely constraining management measures were imposed. Regulations prior to 2000 allowed extensive use of large footropes on trawl gear. In 2000, restrictions on the use of large footropes were used to shift trawl effort away from reef and rocky bottom substrates. Additionally, large closures on the shelf (rockfish conservation area closures) were imposed at that time. This substantially changed fishing opportunities and the mix of species landed. The year 2000 was used to start a four year allocation period option that was considered (2000-2003). Four years is the period of time used to qualify vessels for the license limitation program. The use of the shorter qualifying period puts more emphasis on more recent conditions in the fishery but also increases the need to take into account short-term hardships.

2003. In order to prevent speculative effort and the consequent exacerbated management problems, a control date of November 6, 2003 was announced. This announcement put fishery participants on notice

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par with vessels that qualified based on 1984-1988 landings history. The use of vessel landings history prior to 1994 may be viewed as inequitable for those that qualified for permits in 1994 based on having a vessel construction or conversion as compared to those that qualified for permits based on 1984-1988 landings history, the former having had no opportunity to establish landings history prior to the completion of work on their vessels.

that fishing after 2003 would not be counted toward qualifying for IFQ. Since there was little fishing opportunity in the last two months of 2003, all of 2003 is being included in the allocation period.

2004. Using 2004 instead of 2003 as the final year for the qualification period would allow permits with more recent participation and less longevity in the fishery to have one additional qualifying year. It would include in the allocation period one year of fishing after the buyback program implementation, a year in which all remaining vessels had greater fishing opportunity. It would also violate the Council's 2003 control date and may adversely affect the Council's future ability to credibly use control dates to prevent vessels from racing for participation status if the Council begins deliberation on new limited entry actions in the future.

● Interlinked Elements

This element does not directly interact with provisions other than the allocation formula (it is not dependent on nor is it depended on by provisions outside of the allocation formula). While it may somewhat modify the impacts of other provisions, the indirect interactions are not believed to be strong enough to make a substantial change to the analytical results for other provisions.

● Analysis

The following are the categories of goals and objectives affected by the equal allocation decision.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Fairness, Equity, and Disruption			X	X	X		X	X			
Net Benefits and Sector Health		X	X			X			X		

♦ *Fairness, Equity and Disruption*

This section will focus on the relevance of history during the allocation period to the current needs of participants in the fishery and customary standards for establishing resource allocations. To the degree that the QS allocation deviates from the current needs of participants there is likely to be more disruption, which may also affect the distribution of job opportunities on vessels and possibly the distribution of activity among communities. Greater disruption decreases the likelihood that the allocation will be considered fair and equitable. At the same time, longtime participants in the fishery may view it as appropriately fair and equitable that they should receive recognition for the seniority of their participation and thus claim the right to use the resource. Seniority of use is often a factor considered in deliberation over who should have claim to future use of a resource (e.g. issues of "beneficial use" and "first-in-time" related to how surface and ground water use rights are assigned) (NRC 1999: 49}.[37] Additionally, the MSA requires consideration of both current and historic harvests in determining the initial allocation of QS (MSA 303A(c)(5)(A)(i) & (iv).

[37] The allocation period may also affect communities if there have been geographic shifts in harvests while the distribution of vessels and permits have remained in the fishery. To the degree that permits have not moved

Longer allocation periods take more account of seniority and reduce the need for consideration of hardship provisions. At the same time, use of a longer allocation period implies reliance on an average. If there has been a trend in the change from the start to the end of the allocation period, then the average will not reflect recent conditions in the fishery as well as would a shorter period of more recent years. Additionally, in a changing fishery, the amount of change that the initial allocation will induce will increase as the time between the allocation period and the actual allocation increases. Certain features of the IFQ program will mitigate some of these concerns. They include dropping worst years to address hardship (Section A-2.1.3.a, "Drop Years Provision"), using relative history to address changing fishery conditions across time (Section A-2.1.3.a, Relative History"), and the attribution of landing history to a permit to facilitate entry and exit and reduce the disruption that might otherwise occur through the initial allocation (Section A-2.1.1.b).

Temporary circumstances may interfere with a particular vessel's operations such that its harvests over a certain period do not reflect its level of investment and dependence on the fishery. There a number of ways to deal with such hardship circumstances. One is to provide hardship exceptions and an appeals process, another is to allow vessels to drop their worst years, and a third is to provide a longer period of time over which level of involvement and dependence is determined. The Council's preliminary preferred alternative relies on a combination of the latter two mechanisms (the opportunity to drop worst performance years and a long period across which to demonstrate performance).

When a longer allocation period is used it is more likely that it will encompass changes in the fishery such that conditions at the end of the period may vary substantially from those at the start as well as from average over the period. The use of "relative history" is intended to adjust for changes in the fleet harvest opportunity by measuring each year's landing history for a permit as a percent of the total for the fleet rather than in pounds caught. This compensates for changing opportunity across time but does not address changes in who the participants are.

By attributing and accruing landing history to a permit, those who have made investments to enter the fishery more recently do not necessarily lose out to those who made their investments earlier in time. This allows longtime participants to receive more value for the business that they have built, if they choose to leave the fishery before a privilege system such as IFQs has been developed. Thus, the long allocation period and associating the allocation with the permit provides for "seniority" of use, while at the same time new entrants receive an allocation which helps protect their more recent investment. This result is, however, only an approximation since these permit transactions have taken place without specific knowledge about the future IFQ program and permit prices may not have reflected the landing history associated with the permit. Anecdotal evidence indicates that in more recent years, while it has been apparent that an IFQ program may be implemented, the value placed on permits may have been influenced by the amount of landing history associated with the permit.

A shorter allocation period would provide less credit for seniority in use while still allocating to those who have invested more recently, according to their level of participation. It would potentially bring up more issues of hardship and allowing permits to drop any more than their one worse year from a four year allocation period would tend to dampen the amount of QS received by those with a consistent participation history (evening out the allocation) more than dropping the worst 2 or 3 years from an 11-year allocation period.

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out of an area, an allocation that includes older years may at least temporarily reverse a previous geographic trend that has shifted harvest from north to south (see Section A-1.2).

One of the major factors that will result in a difference between how the initial allocation is distributed and the patterns of fishery harvest just prior to that allocation will be the effects of the buyback program. The buyback program occurred just after the 2003 control date. It substantially expanded fishing opportunity for all vessels, as reflected by higher trip limits, and initially resulted in a change in the proportional distribution of permits along the coast. The most effective way to address these changes would be to include years after 2003. However, doing so would reward those who disregarded the control date announcement, create perceptions of inequity, and encourage fishermen to ignore such dates in the future, negatively affecting the Council's ability to credibly use control dates.

To indicate the degree to which certain conditions in the fishery have changed we will look at three pieces of quantitative information. The first is the length of time a vessel has been associated with its current permit, the second is the length of time the permit has been under the same ownership, and the third is the expected distribution of QS among communities in comparison to the recent distribution of harvest.

The longer the permit and vessel have been together, the more likely it is that the initial allocation of QS will reflect the needs of the current operation. If many permits and vessels have been together a relatively short period of time, it is more likely that a shorter allocation period would better reflect the level of involvement and dependence on the fishery. Fifty-seven percent of all permits are with the vessel for which they were originally issued.

The longer the permit and owner have been together, the more likely it is that a longer allocation period will reflect a seniority or first-in-time allocation approach. At least 35 percent of the permits have not changed ownership since the implementation of the license limitation program.[38]

The expected initial redistribution among communities resulting from the initial allocation, as compared to the 2004-2006 harvest patterns are shown in Table A-60 on page A-166. This table assumes that all individuals receiving QS will distribute their activity proportionally to their 2004-2006 averages and does not take into account any additional shifts that may occur as a result of the move to the new IFQ program. Since an allocation formula was not developed based on a shorter more recent period, we do not have any results available to show how a more recent but pre-2003 period might or might not come closer to the 2004-2006 geographic distribution. We do know that there has been a northward shift in the groundfish harvest in more recent years (see Section A-1.2 discussion of area management). However, geographic distribution is only one of a number of factors to be considered in choosing the allocation period, as described above. A determination that the deviation from recent patterns associated with an allocation based on a long period is more than offset by the benefits of using a longer period makes it unnecessary to further explore of the geographic effects of a shorter allocation period.

♦ *Net Benefits and Sector Health*

Under a system in which ownership and harvest patterns are relatively stable, an allocation based on a long period that ends a number of years before the initial allocation would likely generate a good match between investment in the fishery and result in relatively low dislocation and transactions costs. Where there is not a good match between the initial QS allocation and the distribution of capital and labor, dislocation and transaction costs would be incurred as a result of the need for realignment, adversely affecting net benefits and sector health. Under changing conditions, an allocation period of shorter but adequate length puts more emphasis on recent years and may result in a better match between the initial

[38] The 35 percent estimate is based on an examination of name and address changes. It is possible that even more permits have remained under the same ownership if changes in name and address occurred without there being a true ownership change.

allocation and current conditions. Adequacy of the length used for a history-based allocation is dependent on the length of time needed to demonstrate the fishing levels and patterns on which a business relies relative to other participants. A longer demonstration period may also be required depending on how much the Council wants to rely on the length of the allocation period to address hardship situations.

❖ Drop Years Provision

● Rationale and Options Considered But Not Included

Allowing applicants to drop their worst years is intended to minimize the need for hardship provisions, reducing administrative costs.

● Interlinked Elements

This element reduces the need for hardship provisions and Council involvement in an appeals process (see Section A-2.1.5).

● Analysis

Temporary circumstances outside of the control of the harvester may interfere with a particular vessel's operations, raising fairness and equity questions with respect to history-based allocation formulas and often leading to calls for special consideration of hardships and the need for an appeals process. Allowing permits to drop their worst years is intended as an alternative means of addressing hardship that will reduce program costs. At the same time, the general effect will be that those with a consistent history will lose QS to those which had at least some years of harvest significantly lower than other years. The use of a long allocation period complements the drop year provision in terms of reducing the need for hardship considerations and an appeals process.

As an example of the effects on those who lose and gain from a drop year provision, the aggregate effect for Dover sole, thornyhead and sablefish shows that if landing history is measured in relative pounds (as it would be under the Council's preliminary preferred alternative) the number of gainers is between 118 and 132, while the number of lowers is between 39 and 53 depending on the number of years a permit is allowed to drop (Table A-57). As the number of drop years increases from one to three the number of gainers diminishes somewhat, from 132 to 118 permits but the average amount gained by each permit increases over three fold from $732 to $2,565 (annual exvessel revenue assuming 2005 exvessel prices and levels of harvest. Results are shown for a number of other species, all of which show similar trends. At the top of the table a comparison is provided for the effect of combining the drop year provision with absolute pounds instead of relative history (the choice between absolute and relative history is discussed in a following section). The effect is to slightly diminish both the number of winners and the amount of their gain. While not displayed in this table, the difference in impacts between drop years using relative history and using absolute pounds was consistent across species. Table A-57 also shows the number of permits for which a particular year was the lowest. Years after the fishery disaster was declared (2000) have the most permits showing those as their lowest years. The first two years of the program also tended to have higher counts for low years with the middle years, 1996-1999, tending to show up less often as low years for permits. When absolute pounds are counted rather than relative history, the fishery disaster years show up even more frequently as the lowest years.

Table A-57. Shoreside non-whiting sector: comparison of 2005 ex-vessel revenue from selected groundfish species under different drop-year allocation options using allocation based on relative history (Council's preliminary preferred alternative) and absolute pounds).

	Drop 1 yr	Drop 2 yrs	Drop 3 yrs	Number of permits that recorded relatively low landing history each year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Absolute pounds analysis														
Species: Dover sole thornyhead and sablefish (DTS)		**$39,859**	starting avg per permit											
# Winners	130	125	117	Lowest *	24	13	5	9	20	13	20	37	43	31
$ average gain	+ 600	+ 1,320	+ 2,216	2nd Lowest	8	5	3	4	9	7	12	15	15	8
Percent change	+1.5%	+3.3%	+5.6%	3rd Lowest	7	5	4	4	9	8	12	22	10	14
# Losers	41	46	54											
$ average loss	- 1,903	- 3,587	- 4,801											
Percent change	-4.8%	-9.0%	-12.0%											
Relative history analysis														
Species: DTS														
# Winners	132	125	118	Lowest *	25	17	8	13	19	12	19	33	30	30
$ average gain	+ 732	+ 1,551	+ 2,565	2nd Lowest	12	10	11	9	7	9	7	3	11	7
Percent change	+1.8%	+3.9%	+6.4%	3rd Lowest	10	11	10	10	11	9	14	10	8	2
# Losers	39	46	53											
$ average loss	- 2,479	- 4,216	- 5,710											
Percent change	-6.2%	-10.6%	-14.3%											
Species: Petrale		**$17,184**	starting avg per permit											
# Winners	139	133	132	Lowest *	26	18	15	13	14	21	33	36	40	38
$ average gain	+ 141	+ 371	+ 668	2nd Lowest	11	9	8	5	10	6	4	9	9	10
Percent change	+0.8%	+2.2%	+3.9%	3rd Lowest	8	13	8	10	10	10	5	8	8	11
# Losers	33	39	40											
$ average loss	- 593	- 1,267	- 2,204											
Percent change	-3.4%	-7.4%	-12.8%											
Species: Arrowtooth		**$1,657**	starting avg per permit											
# Winners	125	121	115	Lowest *	17	16	15	12	19	15	17	17	23	28
$ average gain	+ 13	+ 29	+ 52	2nd Lowest	6	4	2	1	2	2	6	1	8	3
Percent change	+0.8%	+1.7%	+3.1%	3rd Lowest	3	5	6	5	5	3	2	5	6	2

Table A-57. Shoreside non-whiting sector: comparison of 2005 ex-vessel revenue from selected groundfish species under different drop-year allocation options using allocation based on relative history (Council's preliminary preferred alternative) and absolute pounds).

					Number of permits that recorded relatively low landing history each year									
	Drop 1 yr	**Drop 2 yrs**	**Drop 3 yrs**		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
# Losers	16	20	26											
$ average loss	- 102	- 175	- 230											
Percent change	-6.1%	-10.6%	-13.9%											
Species: Other Flatfish		**$3,932**	starting avg per permit											
# Winners	132	136	130	Lowest *	31	18	10	7	16	15	23	23	34	31
$ average gain	+ 36	+ 78	+ 149	2nd Lowest	7	13	2	8	9	4	9	14	12	4
Percent change	+0.9%	+2.0%	+3.8%	3rd Lowest	11	8	9	8	7	9	14	12	7	8
# Losers	40	36	42											
$ average loss	- 120	- 294	- 460											
Percent change	-3.1%	-7.5%	-11.7%											
Species: Lingcod		**$361**	starting avg per permit											
# Winners	148	144	137	Lowest *	19	14	16	16	18	19	40	54	49	62
$ average gain	+ 1	+ 5	+ 9	2nd Lowest	14	4	8	11	2	1	3	5	9	3
Percent change	+0.4%	+1.3%	+2.6%	3rd Lowest	5	15	11	13	8	3	5	7	5	5
# Losers	24	28	35											
$ average loss	- 9	- 24	- 36											
Percent change	-2.5%	-6.7%	-10.1%											

* Permits with more than one zero year are counted multiple times in the lowest row. When this occurs they do not show up in the 3rd lowest or 2nd lowest rows (depending on whether they had two or three zero years).

❖ Incidental Catch Species Allocation

● Rationale and Options Considered But Not Included

Incidentally caught overfished species would be allocated based on a bycatch rate applied to nonwhiting target species QS. For whiting, all bycatch would be allocated in proportion to the whiting allocation. The alternative approach considered was to allocate based on landings history.

Allocating certain incidentally caught species in proportion to target species is intended to accommodate the current and recent spatial fishing patterns in the fishery, to the extent possible. For the whiting fishery, a homogeneous bycatch rate is assumed and therefore bycatch species will be allocated proportionally to the allocation of whiting. For the nonwhiting fishery, the bycatch rate of overfished species exhibits clear patterns across depth and latitude, and matching those patterns in the bycatch rate against relevant target fishing patterns can result in allocations that better accommodate recent fishing practices.

The other approach would be to base the allocation on landings history. This approach would allocate overfished species to those who targeted on those species in the 1990s rather than those who need it to prosecute current target fisheries. With respect to more recent years of the allocation period (2000-2003) there was minimal retention of many of the overfished species.

Numerous other methods were considered that are not reflected in the current options. One of these was the use of a constant fixed ratio applied to target species QS to determine the amount of bycatch species QS that would be issued for each permit. This approach, while better than allocating by landings history, would not be as precise in allocating based on current need as an approach based on each individual permit's logbooks. However, because there are some permits that do not have logbook records for 2004-2006, fixed ratios based on fleet averages will be used for those permits.

● Interlinked Elements

An approach that allocates incidentally caught overfished species by transforming target species QS allocations using bycatch rates eliminates some of the problems that would result from application of the relative weights approach to measuring landing history. For example, using a relative weights approach a pound of canary caught in 2003 gives the same credit toward quota pounds as would 100 pounds caught in 1998 (rewarding the retention of overfished species during rebuilding).

● Analysis

The following are the categories of goals and objectives affected by the decision on how to allocate incidentally caught species.

	Related Category of Goals and Objectives										
	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
		X	X		X	X	X	X			X

Empirical evidence from other quota programs throughout the world has shown that initial allocations of IFQ that differ substantially from current or recent fishing practices result in some negative consequences during the initial years of the program (dislocation of fishermen, high discard rates). Over time these consequences are fixed through QS trading and adjustments by capital and labor, but a more refined initial allocation may still be able to avoid such negative consequence, reducing costs associated with the transactions necessary to realign the QS allocation and fishery participation patterns. Additionally, while the market is likely to end up making necessary adjustments to the ownership of quota, overfished species quota is likely to be extremely costly because it will constrain access to target species. This means that those permits not receiving enough overfished species quota would be forced to essentially buy-in to the fishery again at a high cost, or leave the fishery all together.

Preliminary analysis of initial allocation options has shown that, in general, if allocations of overfished species are made based on landings history, the distribution of overfished species quota would be heavily weighted toward a relatively few number of permits. This is because those were the permits that had previously targeted those species when they were abundant and because under more recent regulations catch of overfished species in the shoreside non-whiting fishery has been largely discarded rather than landed.

For the foreseeable future, overfished species will be a constraint to the access of target species, so an argument can be made for a more refined and equitable distribution of overfished species in order to allow permits to gain access to target species. Allocating overfished species based on a bycatch rate is an attempt at making the initial allocation more equitable and avoiding such negative consequences. For all species except darkblotched and yelloweye, more permits will receive a greater allocation under the bycatch rate approach than under a history approach for allocating QS. By definition, the allocations will be in closer proportion to the target species QS than with a straight history approach. With the exception of canary rockfish, the amounts going to the recipients who would receive the most are greater with the landing history approach than with the bycatch rate approach. For cowcod the extreme is greatest. One permit would receive all of the cowcod using a landing history approach (assuming there is a grandfather clause.

Under the bycatch rate method, the allocations to processors are determined by the geographic strata of the permits delivering to them.

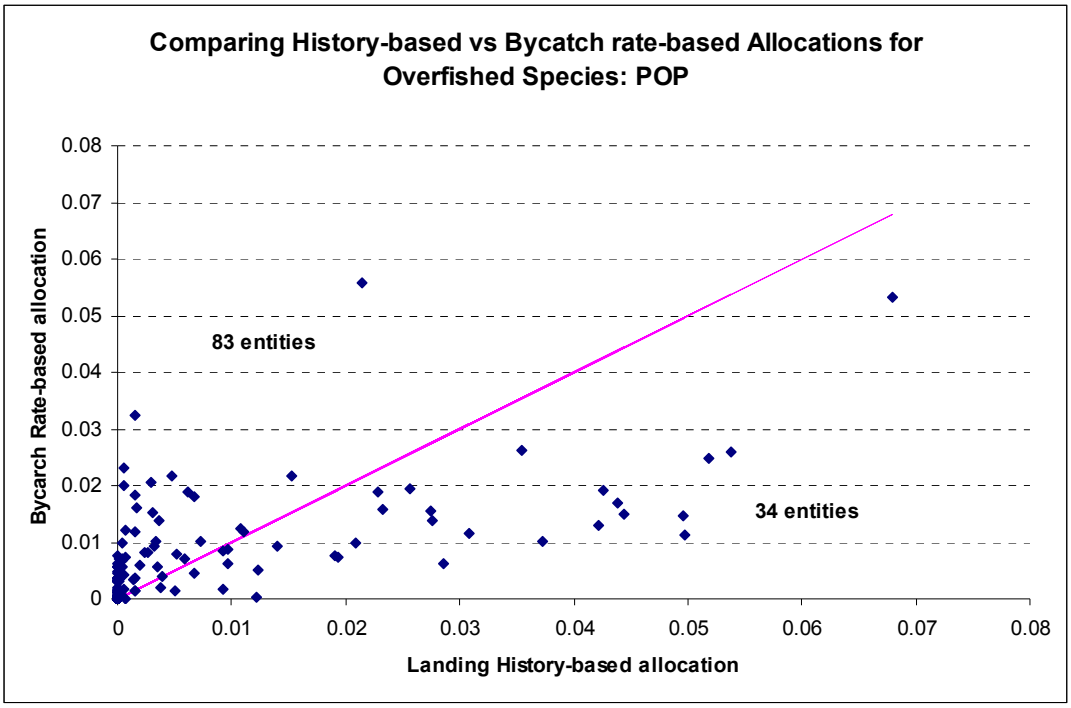

Figure A-25. Allocation of POP QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

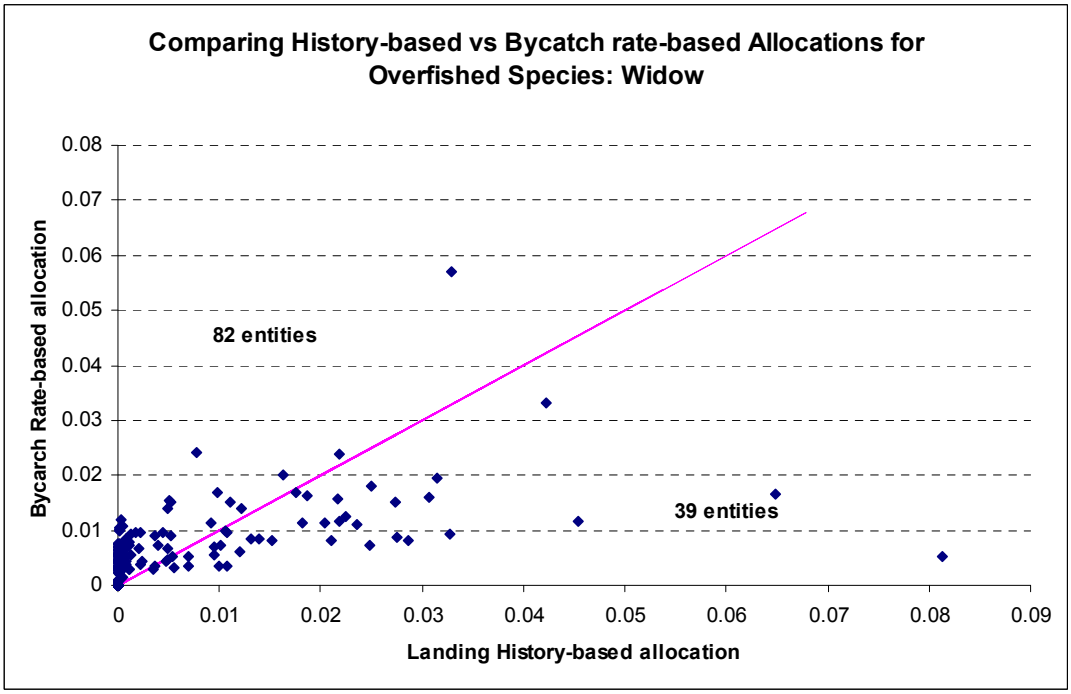

Figure A-26. Allocation of widow rockfish QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

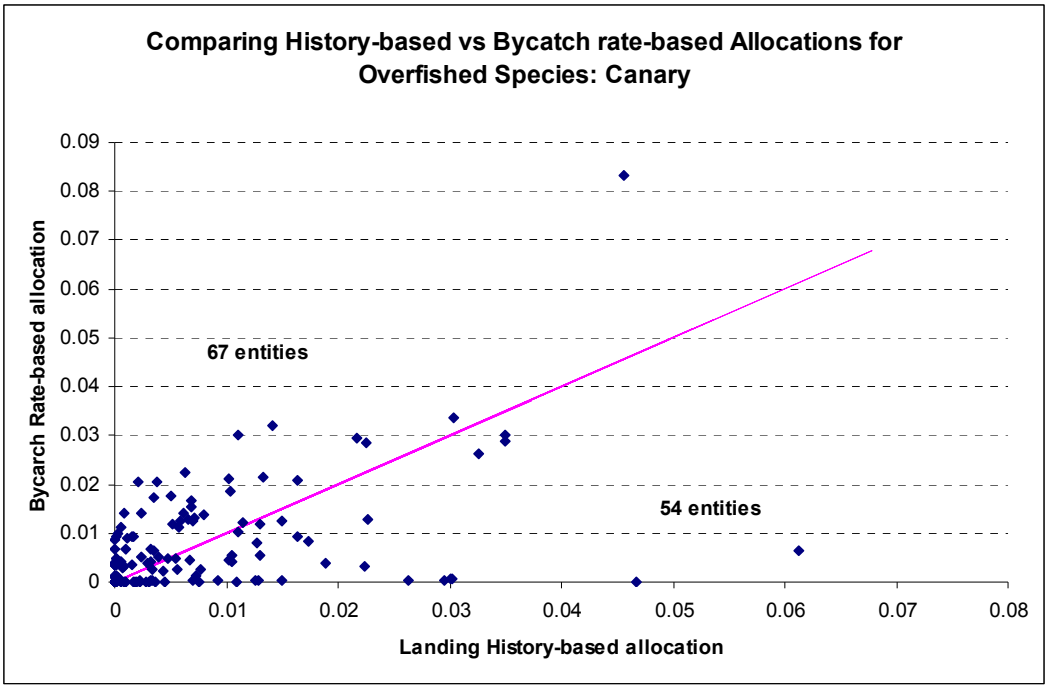

Figure A-27. Allocation of canary rockfish QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

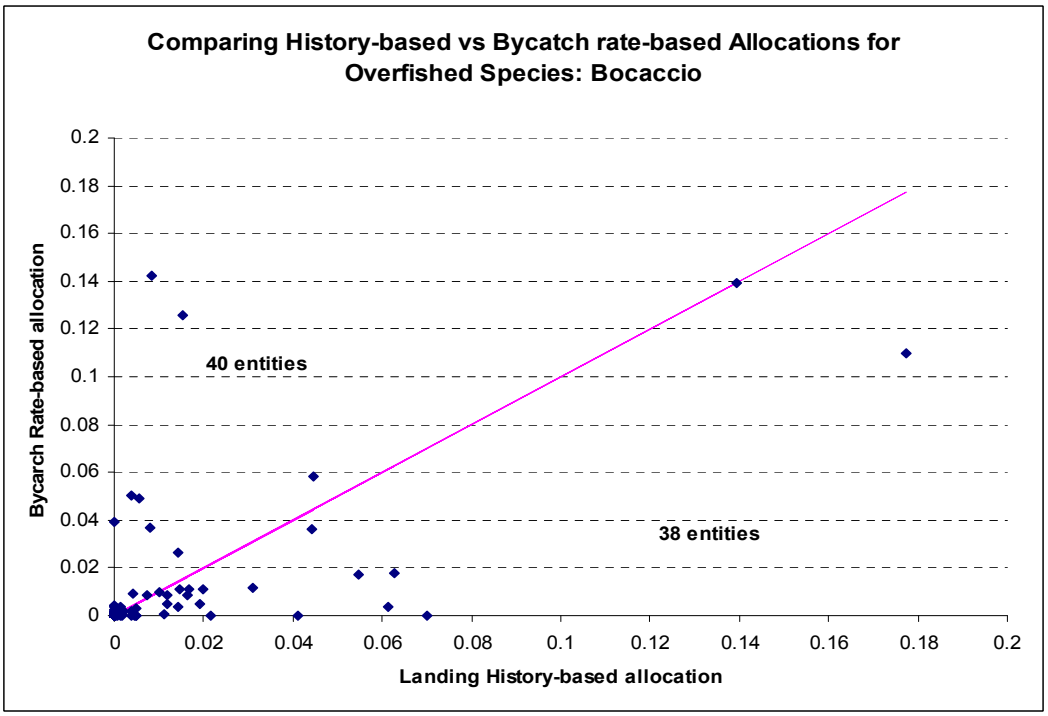

Figure A-28. Allocation of bocaccio QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

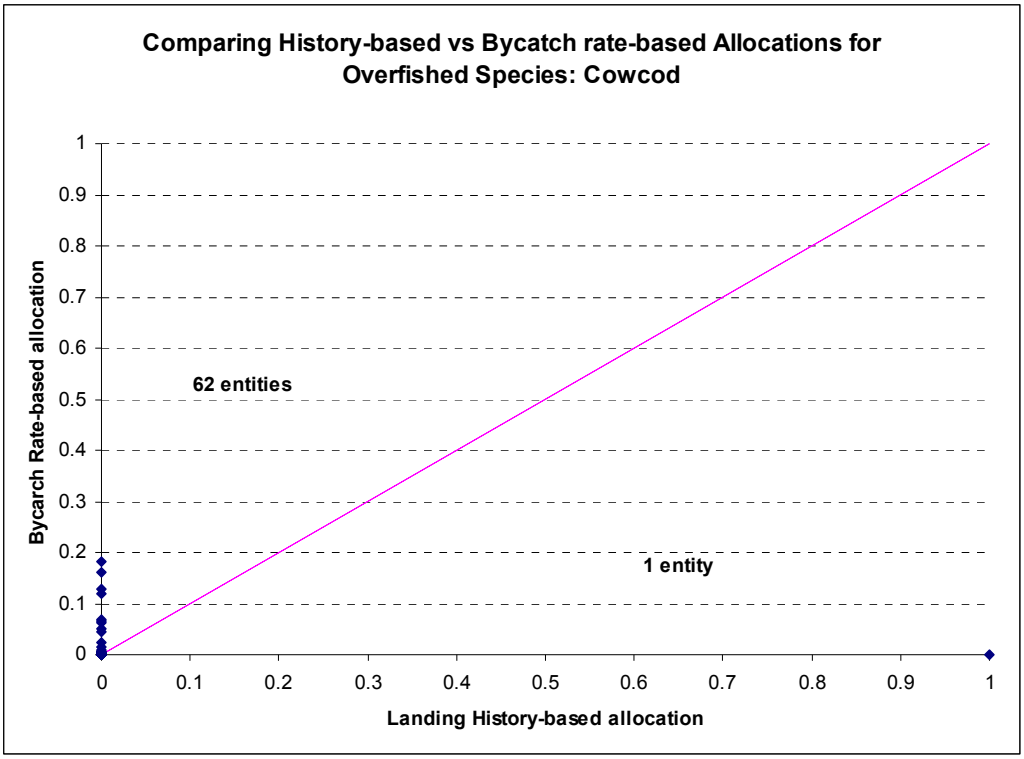

Figure A-29. Allocation of cowcod QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

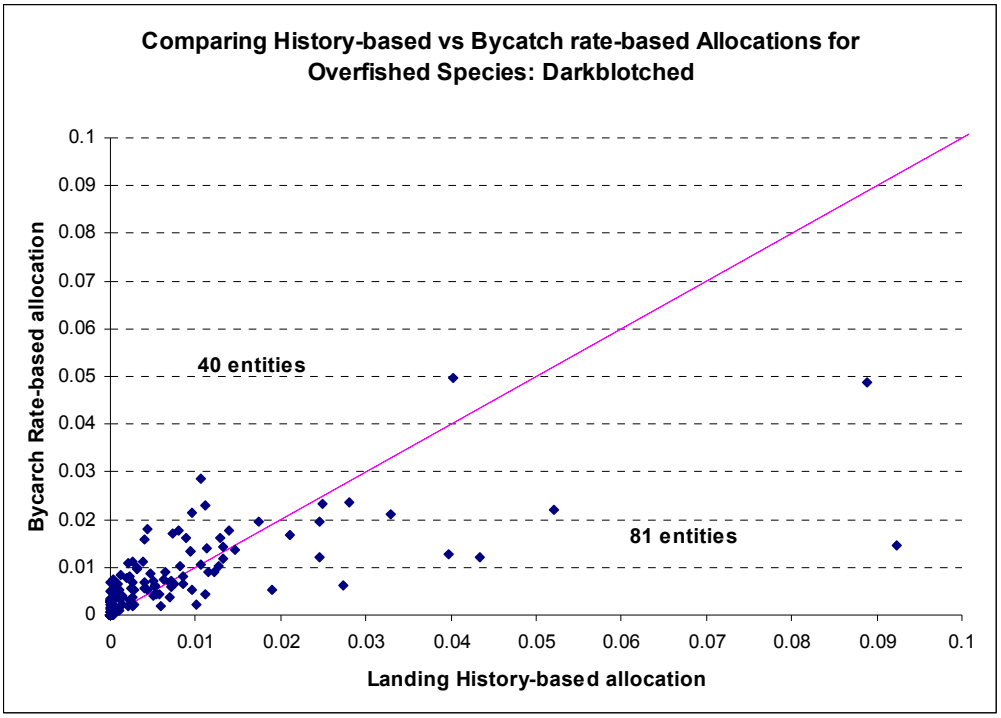

Figure A-30. Allocation of darkblotched rockfsh QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

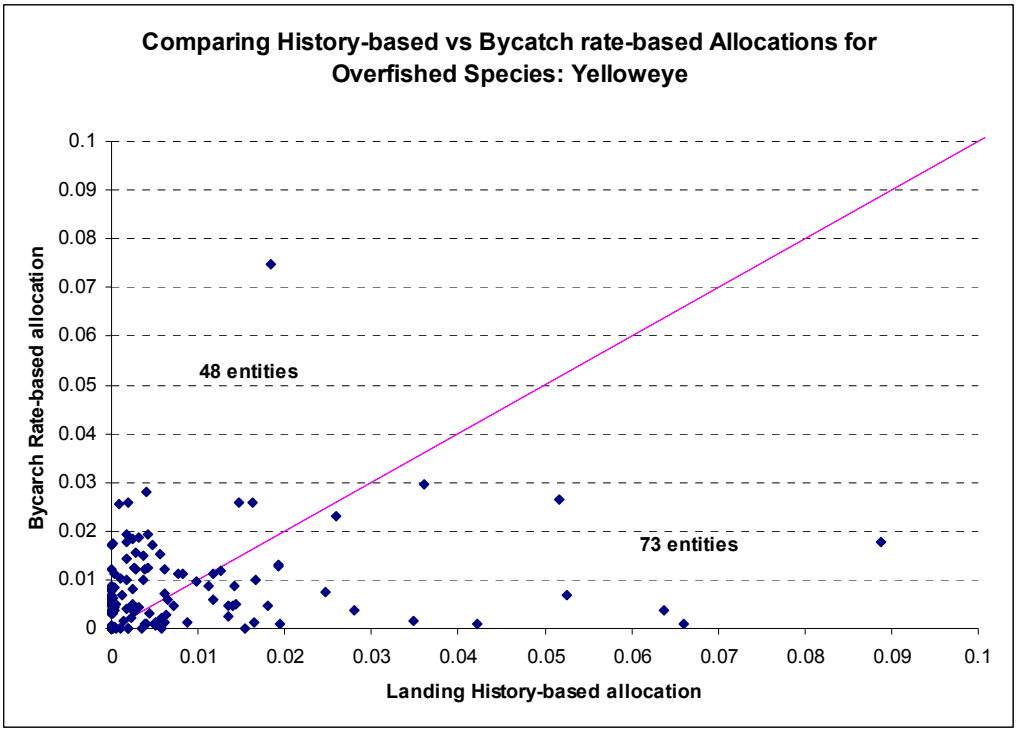

Figure A-31. Allocation of yelloweye rockfsh QS for the nonwhiting fishery to entities based on landing history as compared to allocation based on individual permit logbook information on area strata and fleet average bycatch rates applied to target species QS (both approaches use 100% landing history for allocating targets species QS).

There are 16 permits that do not have shoreside nonwhiting landings history for 2004-2006 but would receive a total of 6% of the nonwhiting QS. For these permits, logbook information would not be available to determine the appropriate bycatch rates to apply to their target species QS. Fleet averages would be used for those permits.

Program costs will be increased by the need to determine the allocation for each permit based on that permit's 2004-2206 logbooks. Not all logbook data can be matched to fish ticket data and visa versa. The use of both of these data sets in the allocation formula could increase the likelihood of appeals. However, using only each permit's catch ratios by depth and area strata will result in fewer problems than if the method relied on log book records for total pounds by species.

❖ Area Assignments

- Rationale and Options Considered But Not Included

The assignment of catch area for landings is important with respect to the allocation of QS for management units that have geographic subdivisions. Catch area will be assumed to be the same as the area of landing. This approach is used because in the past the catch area has often not been filed out, or when it is filled out, is not believed to be filled out reliably. The catch area is filled out by the buyer rather than vessel and it is believed that they often assume that the catch area is the same as the area of

the port. Catch area data quality will be a concern on tickets going back as far as 1994, the start of the allocation period.

- Interlinked Elements

Area assignment decisions will be more important if all management units have geographic subdivisions. Providing such geographic subdivisions is an option in Section A-1.2.

- Analysis

There is unevenness in the data quality for area of catch information across geographic areas, across time, and between buyers. Landing area provides a reasonable approximation to catch area, resolves missing data issues and ensures that everyone is treated the same in the assignment of their landing history to an area. Logbook data shows that while vessels tend to center their activity around their port of landing they will sometimes travel relatively moderate distances to fishing grounds. For example, vessels out of Astoria will sometimes fish as far north as Neah Bay. Appendix C provides maps showing the distances that vessels tend to travel from their ports of landing. Section A-1.2 includes an option that would establish a geographic subdivision at $40^{o}10'$ north latitude for any OY that is not already subdivided. A latitudinal division at $40^{o}10'$ north latitude with landing history assigned based on port of landing does not appear to deviate substantially from catch area assignments (maps provided in Appendix C). There is very little overlap of fishing grounds for vessels coming out of ports to the north and south of $40^{o}10'$ north latitude, so for this particular purpose assigning area of catch based on port of landing provides a reasonable approach for resolving catch areas. For those species for which a north-south subdivision already exists, a new division would not be created at $40^{o}10'$ north latitude, see Section A-1.2 for a list of those species and the geographic dividing lines.

❖ Relative History

- Rationale and Options Considered But Not Included

Relative history is used instead of absolute pounds as a way of adjusting for changes in fishing opportunity between years. Under relative history, each permit's history for each year is measured as a percent of the fleet total for that year rather than in absolute pounds. Using this approach harvesters who put in "highliner" effort in a year in which total harvests are lower will receive the same credit as a harvester who put in "highliner" effort when total available harvests were greater. Because of the declining trend in the fishery, use of relative history increases the emphasis on history occurring in the later part of the allocation period, (i.e. increases the emphasis on more recent participation).

- Interlinked Elements

The weighting formula results in some very high weighting for some years for rarely caught species (e.g. Kelp greenling and overfished species). Additional attention may be needed for the weightings of some of these species depending on whether or not they are included within the scope of the program (Section A-1.1) or an alternative allocation approach is used (application of bycatch rates to target species QS to allocate overfished species).

- Analysis

The following are the categories of goals and objectives affected by the decision on whether to use relative weights or absolute pounds.

	Related Category of Goals and Objectives										
	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
		X	X		X	X	X	X			

The relative history allocation approach bases each permit's quota share on its landings history for each year of the allocation period, measured as a proportion relative to the catch of the fleet. The permit's quota share is then determined by summing the annual ratios of a permit's catch of a given species in a given year and dividing by the sum of the ratios for all vessels across all years. The effect of this calculation is to weight each year's catch by the ratios displayed in Table A-58. For example, sablefish caught in 1996 would give a permit about half as much credit toward an allocation as a pound caught in 2003. The ratios between years for overfished species are very high, more than a hundred to one (2003:1994), however, for these species allocations will likely be based on bycatch rates applied to target species QS rather than actual landing history for the overfished species. Similarly, there are some very large ratios for species like kelp greenling. Some of these species might not be included in the alternative scope for the program (see Section A-1.1). (Note: While 2003 is the base year used in Table A-58, the choice of which year in the period to use as the base year does not make a difference with respect to illustrating the implicit relative weights).

Relative history may be considered more fair and equitable because it weights each vessel's performance each year based on how it did in its competition with the rest of the fleet given the opportunities present that year (its relative effort level). Under a relative weighting scheme, catch histories that diverge from the pattern exhibited by the entire fleet tend to be rewarded when determining quota shares using a relative weight scheme compared to an absolute weight scheme. However, because landings of most, if not all, groundfish species and complexes during 1994-2003 have declined, the relative weight scheme results in a higher quota share than the absolute weight scheme for vessels with a relatively more recent landing history (Table A-59). For selected species, Table A-59 provides the relative weight given for a pound of catch each year, examples of three actual catch histories and the differences in allocation that result depending on whether a relative or absolute approach is used. Also, shown for each species (grey box) is the difference in weighting between the year given the greatest weight and that given the least weight. For example, for nearshore rockfish a pound caught in 2003 would be the equivalent of 50 pounds caught in 1998.

Alignment of the initial allocation to existing patterns of investment and participation in the fishery reduces disruption to labor, capital, the fishing sector and communities. Reduced disruption implies greater net benefits because there will be less need for transactions to bring the distribution of capital and labor into line with the distribution of QS.

On the one hand, increasing the emphasis on more recent years through the mechanism of relative weighting might better reflect the distribution of capital and labor in the fishery. On the other hand,

where the harvest in recent years has diminished, recent year harvest may be less of a driver of the current distributions of capital than older history. The amount and distribution of private and community capital involved in the fishery is may be more related to total harvests than the proportion of harvest each year, depending on how long the capital persists after the investment is made and its alternative uses. Because capital is generally a long lived asset, harvests during years of higher production may drive the current distribution of capital in the fishery more than years of lower harvest, even if those higher years of harvest were in the more distant past.

Table A-58. Illustration of relative lb "weights" (sector catch in year 2003 divided by annual catch): 1994 to 2004.

Stocks or Stock Complex	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Lingcod - coastwide	0.04	0.06	0.05	0.05	0.28	0.28	0.91	1.04	0.59	1.00	1.04
N. of 42° (OR & WA)	0.05	0.06	0.05	0.06	0.34	0.36	1.26	1.54	0.73	1.00	1.14
S. of 42° (CA)	0.04	0.04	0.04	0.04	0.16	0.15	0.43	0.46	0.33	1.00	0.78
Pacific Cod	1.26	2.12	2.40	1.77	2.57	3.76	3.80	3.30	1.51	1.00	0.94
Pacific Whiting											
Shoreside Non-whiting	0.60	0.43	0.46	0.26	0.27	1.17	0.84	1.20	0.77	1.00	2.06
Shoreside Whiting	0.70	0.68	0.62	0.59	0.58	0.61	0.60	0.70	1.12	1.00	0.55
At-Sea Whiting (MS)	0.46	0.79	0.58	0.53	0.52	0.55	0.61	0.73	0.98	1.00	1.08
At-Sea Whiting (CP)	0.48	0.67	0.63	0.58	0.59	0.61	0.61	0.70	1.13	1.00	0.56
Sablefish (Coastwide)	0.66	0.63	0.56	0.63	1.08	0.74	0.86	0.92	1.61	1.00	0.95
N. of 36° (Monterey north)	0.67	0.64	0.57	0.63	1.11	0.73	0.85	0.90	1.61	1.00	0.95
S. of 36° (Conception area)	0.51	0.38	0.36	0.51	0.68	0.94	2.15	2.74	1.59	1.00	0.97
PACIFIC OCEAN PERCH	0.15	0.16	0.16	0.20	0.22	0.25	0.97	0.70	0.89	1.00	1.01
Shortbelly Rockfish	0.01	0.01	0.01	0.00	0.01	0.10	0.01	0.05	3.08	1.00	2.65
WIDOW ROCKFISH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	1.00	0.46
CANARY ROCKFISH	0.01	0.01	0.01	0.01	0.01	0.01	0.21	0.32	0.18	1.00	1.17
Chilipepper Rockfish	0.01	0.01	0.01	0.00	0.01	0.01	0.02	0.02	0.05	1.00	0.19
BOCACCIO	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	1.00	0.02
Splitnose Rockfish	0.52	0.55	0.37	0.35	0.12	0.73	1.80	1.67	2.70	1.00	0.92
Yellowtail Rockfish	0.02	0.03	0.02	0.08	0.06	0.06	0.04	0.07	0.14	1.00	1.08
Shortspine Thornyhead - coastwide	0.22	0.36	0.44	0.48	0.56	0.93	0.87	1.41	1.00	1.00	1.00
N. of 34°27'	0.21	0.38	0.43	0.46	0.54	0.88	0.96	1.32	1.08	1.00	1.06
S. of 34°27'	0.27	0.32	0.47	0.50	0.62	1.09	0.72	1.67	0.85	1.00	0.90
Longspine Thornyhead - coastwide	0.38	0.29	0.33	0.40	0.70	0.88	1.09	1.37	0.82	1.00	2.15
N. of 34°27'	0.38	0.29	0.33	0.40	0.70	0.88	1.09	1.37	0.82	1.00	2.15
S. of 34°27'	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E	0.00	0.00
COWCOD	0.00	0.00	E	0.00	0.00	0.00	0.00	0.00	E	0.00	0.00
DARKBLOTCHED	0.10	0.11	0.11	0.10	0.09	0.23	0.33	0.52	0.74	1.00	0.42
YELLOWEYE	0.01	0.01	0.01	0.01	0.03	0.04	0.79	0.49	1.02	1.00	2.93
Black Rockfish - coastwide	0.02	0.10	0.05	0.04	0.01	0.19	0.48	0.93	0.27	1.00	0.37
Black Rockfish (WA)	E	E	0.00	E	E	0.00	0.00	0.00	E	0.00	0.00
Black Rockfish (OR-CA)	0.02	0.15	0.05	0.04	0.01	0.19	0.48	0.93	0.30	1.00	0.37
Minor Rockfish North	0.07	0.09	0.09	0.10	0.10	0.20	0.43	0.45	1.20	1.00	0.69
Nearshore Species	0.40	0.30	12.02	0.94	0.05	1.73	0.76	0.47	0.36	1.00	0.20
Shelf Species	0.02	0.02	0.02	0.02	0.02	0.05	0.36	0.10	0.43	1.00	1.61
Slope Species	0.13	0.18	0.20	0.19	0.29	0.41	0.44	0.94	1.63	1.00	0.64
Minor Rockfish South	0.29	0.27	0.20	0.21	0.23	1.54	1.08	0.88	0.48	1.00	0.79
Nearshore Species	0.11	0.05	0.02	0.03	0.54	0.03	0.98	1.54	0.54	1.00	3.26
Shelf Species	0.02	0.01	0.01	0.01	0.01	0.08	0.09	0.12	0.19	1.00	1.52
Slope Species	0.41	0.37	0.26	0.29	0.33	2.49	1.28	0.97	0.50	1.00	0.78
California scorpionfish	E	0.00	0.00	E	0.00	0.00	0.00	E	E	0.00	0.00
Cabezon (off CA only)	E	0.00	E	0.00	0.00	E	E	E	E	0.00	0.00
Dover Sole	0.86	0.72	0.61	0.74	0.93	0.82	0.85	1.09	1.18	1.00	1.05
English Sole	0.79	0.77	0.76	0.60	0.76	0.96	1.15	0.89	0.76	1.00	0.96
Petrale Sole (coastwide)	1.49	1.22	1.08	1.04	1.33	1.32	1.05	1.09	1.09	1.00	1.02
Arrowtooth Flounder	0.74	1.00	1.06	0.99	0.72	0.43	0.70	0.94	1.11	1.00	0.97
Starry Flounder	0.40	0.58	1.04	0.49	0.55	1.31	1.15	3.96	1.58	1.00	0.24
Other Flatfish	0.68	0.62	0.79	0.81	0.96	0.78	0.97	0.92	0.91	1.00	1.16
Kelp Greenling	0.13	0.01	0.33	0.00	0.35	0.00	0.00	0.85	34.00	1.00	0.00
Spiny Dogfish	0.19	0.55	1.01	0.59	0.49	0.46	0.72	0.59	0.44	1.00	1.65
Other Fish	0.26	0.26	0.30	0.40	0.36	0.70	0.95	0.96	1.22	1.00	2.04

Table A-59. Relative weight of landing history for each year of the allocation period using 2003 as the base year (2003 value = 1.0), and comparative histories and QS allocations using pounds (Abs) and relative history (Rel).

	Year										QS Allocations		
	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	Abs	Rel	% Change
Sablefish													
Weight	.66	.63	.56	.63	1.08	.74	.86	.92	1.61	1.00			
Greatest Difference: Relative Credit - 2002 vs. 1995 ==>>									2.44				
Strong Early	24,065	41,773	60,763	49,192	35,528	56,317	43,925	32,718	0	0	0.49	0.45	0.08
Strong Late	0	0	0	30	0	1,318	1,872	20,897	15,124	18,694	0.10	.13	0.36
Consistent	2,992	2,344	9,913	8,631	12,169	15,392	7,997	33,450	16,335	19,848	.20	.24	0.18
Lingcod													
Weight	.04	.06	.05	.05	.28	.28	.91	1.04	.05	1.00			
Greatest Difference: Relative Credit - 2001 vs. 1994 ==>>								**26**					
Strong Early	2,162	2,969	31,230	72,004	3,143	1,810	715	38	0	0	0.93	0.52	-0.44
Strong Late	109	146	102	94	85	129	134	386	466	2,152	0.06	0.44	6.66
Consistent	5,020	2,789	2,195	3,029	2,321	2,817	1,332	1,011	1,128	2,234	0.21	0.68	2.16
Canary													
Weight	.01	.01	.01	.01	.01	.01	.21	.32	.18	1.00			
Greatest Difference: Relative Credit - 2003 vs. 1994 ==>>										**100**			
Strong Early	12,542	10,277	82,980	31,806	33,781	18,020	0	61	-	-	1.79	0.95	-0.47
Strong Late	21	0	0	4	54	164	402	106	398	11	0.01	0.15	1182
Consistent	2,077	2,104	1,957	1,639	3,296	3,659	903	771	479	299	0.16	0.53	228
Kelp Greenling													
Weight	.13	.01	.33	.00	.35	.00	.00	.85	34.00	1.00			
Greatest Difference: Relative Credit - 2002 vs. 1995 ==>>									**261.54**				
Consistent	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.00	0.03	9.09	35,240
Nearshore Shelf Rockfish													
Weight	0.02	0.02	0.02	0.02	0.02	0.05	0.36	0.1	0.43	1			
Greatest Difference: Relative Credit - 2003 vs. 1995 ==>>										50			
Strong Early	3,792	11,305	27,646	12,575	10,657	7,486	327	4	-	-	0.57	0.37	-35
Strong Late	51	1	0	3	11	102	181	121	384	105	0.01	0.08	36
Const	4,682	172	315	208	323	585	143	161	764	17	0.06	0.15	18

❖ Allocation Formula Results

In Section A-2.1.1, figures are provided illustrating a number of comparisons of the Council's preliminary preferred alternative to a variety of allocation formulas and to the distribution of landings among permits in 2004-2006 (Figure A-7 through Figure A-20). This information is provided for both processors and harvesters. Additionally, in the section on accumulation limits there are additional tables and figures showing the effect of the grandfather clause on the distributions. The following two table show the effects of the expected geographic distribution of QS in comparison to the distribution of 2004 through 2006 landings, as measured by home office location.

Table A-60 Distribution of nonwhiting exvessel value in 2004-2006 compared to distribution of QP value, based on zip codes reported for the businesses that would receive the QS allocations assuming an 80/20 permit/processor split, equal allocation of buyback landing history, and a grandfather clause for initial allocations over the control limits ($ thousands).

	Exvessel Value (thousands of dollars)		
	2004-2006 Landings	QP Distribution	Change
Blain	299	67	-233
Bellingham	2,405	759	-1,646
Anacortes	265	225	-40
Port Townsend	-	0	0
Port Angeles	225	50	-175
Neah Bay	10	52	42
La Push	-	1	1
Grays Harbor	153	317	164
Westport	0	3	3
Willapa bay	339	385	47
Ilwaco	12	82	70
Other Washington and Oregon Inside	7,759	5,653	-2,106
Astoria	2,219	2,300	80
Tillamook	391	514	123
Newport	1,204	2,127	923
Waldport	0	0	0
Florence	28	107	78
Winchester Bay	-	0	0
Coos Bay	1,242	1,990	748
Bandon	93	191	98
Port Orford	81	138	57
Brookings	593	1,019	426
Gold Beach	-	0	0
Crescent City	378	488	110
Tinidad	-	0	0
Eureka	447	375	-72
Fields Landing	297	571	274
Fort Bragg	1,715	1,421	-294
Bodega Bay	180	334	154
San Francisco	1,485	1,755	270
Half Moon Bay	361	819	458
Oakland	0	1	0
Alameda	-	0	0
San Jose	0	9	9

	Exvessel Value (thousands of dollars)		
	2004-2006 Landings	QP Distribution	Change
Santa Cruz	162	186	24
Moss Landing	209	285	76
Monterey	795	919	123
Morro Bay	116	204	88
Avila	-	16	16
Other California	-	9	9
Other	6	100	
Total	23,471	23,471	

A-2.1.3.b Permits with Catcher-processor History

❖ Provisions and Options

Allocate whiting QS based on permit history[39] for 1994-2003 (do not drop worst years) and using relative history as defined for catcher vessel permits.

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: use history for that species, as it is calculated for whiting

►**Bycatch Option 2:** use the whiting history as a proxy (i.e., allocation will be pro rata based on the whiting allocation).[40]

❖ Rationale and Options Considered But Not Included

The allocation methods proposed for catcher-processors differ from that for catcher vessels in that it does not include an equal allocation component or a drop year provision. The rationales for aspects that are in common with the catcher vessel sector are provided in that section (Section A-2.1.3.a). The drop year provision was not included because of the absence of a perceived need for consideration of possible hardship circumstances with respect to any of the initial recipients and because of the co-operative arrangements under which the fleet has been managed. The equal allocation component was not included mainly because there was not a convenient source for the equal allocation QS. For the catcher vessels that source was the buyback permits. However, the Council's preliminary preferred alternative ofr catcher processors (a system that helps preserve the voluntary co-op) would default to an IFQ program if the current voluntary co-op system came to an end. Under such circumstances, IFQ would be allocated equally to all permits.

❖ Interlinked Elements

One of the main interlinked elements identified for catcher vessels and shoreside processors is the accumulation limit grandfather clause. The allocations to catcher-processors would not approach the accumulation limit levels for whiting and therefore there is not an interaction with the accumulation limit grandfather clause.

[39] Permit history from observer data.

[40] The Council's preliminary preferred alternative included the allocation of bycatch species in the mothership and catcher processor sectors pro rata based on the whiting allocation. These options could come into play if the Council does not go with its preliminary preferred alternative to adopt the co-op alternatives for these two sectors.

❖ Analysis

The allocation of QS to catcher processors would run from 3% to 23% with six of the 10 permits receiving between seven and thirteen percent of the QS allocation. For five of the permits, the allocation would be within 1% of their recent 2004-2006 average harvest. For the one permit that would receive the most QS, the amount of the allocation would be just over half of its recent year average. For those permits for which there is a substantial change, there could be some potential disruption unless the voluntary co-op is able to continue to operate as a co-op under the IFQ program. Continuation of the co-op could be a challenge, however there may be some cost saving and co-operation dynamics that might preserve the voluntary co-op program, even under an IFQ system.

Table A-61. Allocation to catcher processor permits using 1997-2003 landing history (relative history) and no drop years.

	Catcher Processor Permits									
	CP-1	CP-2	CP-3	CP-4	CP-5	CP-6	CP-7	CP-8	CP-9	CP-10
Quota Share	13%	11%	11%	5%	23%	10%	7%	11%	5%	3%
Hvst Share 2004-2006	12%	11%	4%	10%	40%	9%	7%	2%	4%	0%

A-2.1.3.c Processors (Mothership)

❖ Provisions and Options

Allocate whiting QS based on a vessel's processing history for 1997-2003 (do not drop worst years) and using relative history as defined for catcher vessel permits.

For bycatch species (if IFQ is used for bycatch species):

Bycatch Option 1: use history for that species, as it is calculated for whiting

►**Bycatch Option 2:** use the whiting history as a proxy (i.e. allocation will be pro rata based on the whiting allocation). [41]

❖ Rationale and Options Considered But Not Included

The allocation methods proposed for motherships differ from that for catcher vessel and catcher-processor permits in the time period used for the allocation. Additionally, the mothership formula differs from that for catcher vessels and is similar to that for catcher-processors in that it does not include an equal allocation component or a drop year provision. The rationales for aspects that are in common with the catcher vessel sector are provided in that section (Section A-2.1.3.a). The rationale for starting in 1997 rather than 1994 is that the allocation among the three whiting sectors did not start until 1997. The drop year provision was not included because of the absence of a perception of the need for consideration of possible hardship circumstances with respect to any of the four initial recipients. The equal allocation component was not included mainly because there was not a convenient source for the equal allocaiton QS. For the catcher vessels that source was the buyback permits.

[41] The Council's preliminary preferred alternative included the allocation of bycatch species in the mothership and catcher processor sectors pro rata based on the whiting allocation. These options could come into play if the Council does not go with its preliminary preferred alternative to adopt the co-op alternatives for these two sectors.

❖ Interlinked Elements

One of the main interlinked elements identified for catcher vessels and shoreside processors is the accumulation limit grandfather clause. The allocations to motherships would not approach the accumulation limit levels for whiting and therefore there is not an interaction with the accumulation limit grandfather clause.

❖ Analysis

For harvesters, the degree to which the QS deviates from the recent landings levels is an indicator of the potential disruption that may occur as a result of the initial allocation. For processors, this is less of an indicator of disruption since processors do not need the QS to purchase groundfish. However, the receipt of QS will affect the profit per pound of fish landed, either through the leverage it provides for processor negotiation with harvesters or through the additional revenue from the resource rents collected by the QS holder. The degree to which one processor receives more of an allocation relative to its 2004-2006 delivery history than another may indicate relative differences in the advantage processors may have *vis a vis* one another with respect the collection of rents per unit of product delivered and their relative bargaining advantages.

The allocation to mothership companies would be relatively evenly distributed, running between 4 percent and 6 percent (Table A-62). MS Company 06 and 03 were active in the early 1990s but do not have any activity during the allocation period. They are effectively screened out by the chosen allocation period; however, their landings only covered 1 or two years and were substantially less than for all other motherships during those years and since. Therefore, had the allocation period gone back to 1994 the allocation that would have been received by those entities would have been relatively small. One new mothership entered the fishery after the allocation period and took a very small percentage of the total harvest in one year (MS Company 04). That mothership was included as a participant under the Amendment 15 action that limited participation for motherships. That action provided notice that the trawl rationalization program would supersede the limitations on participation provided in Amendment 15.

With respect to the absence of a drop year provision in the allocation formula for motherships, the allocation to one out of the four companies receiving an allocation would have benefited by the inclusion of a drop year provision (i.e., the company was absent from the fishery two years).

Table A-62. Allocation to mothership companies using 1997-2003 processing history weighted (relative history) and no drop years.

	Mothership Companies						
	MS Comp 01	MS Comp 02	MS Comp 03	MS Comp 04	MS Comp 05	MS Comp 06	MS Comp 07
Share of QS Allocation to Processors	19%	30%	-	-	21%	-	31%
QS Allocation (20% of all MS Sector QS)	4%	6%	-	-	4%	-	6%
Share of 2004-2006 Average Whiting	32%	29%	-	1%	10%	-	28%
MT (2004-2006 average)	1,626	2,560	-	-	1,757	-	2,610
Average 2004-2006 Harvest	13,526	12,589	-	450	4,258	-	11,939

A-2.1.3.d Processors (Shoreside)

❖ Provisions and Options

For non-whiting trips:

- Allocate QS for all species *other than* incidentally-caught overfished species based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history.
- Allocate QS for incidentally-caught overfished species by considering the same **overfished species** allocation options identified for permits in Section A-2.1.3.a. (*Note: the preliminary preferred option under A-2.1.3.a is **Overfished Species Option 2***.)

For whiting trips:

- Allocate whiting QS based on the entity's history for the allocation period of 1994-2003 (drop two worst years) and use relative history.
- If allocated to shoreside processors, allocate all species other than whiting by considering the same **bycatch species** allocation options identified for permits in Section A-2.1.3.a (*the preliminary preferred option under A-2.1.3.a is **Bycatch Option 2***). *Note: Under A-2.1.1.a, Options 6a and 6b, the Council will decide the allocation of species other than whiting to processors.*

❖ Rationale and Options Considered But Not Included

The allocation methods proposed for shoreside processors mimic those that would be used for the catcher vessel permits delivering shoreside, with the exception of the equal allocation element of the allocation to catcher vessel permits. The rationale for these methods mirrors that identified for the catcher vessel permits in Section A-2.1.3.a. For shoreside processors the method of allocating bycatch species would have to be applied somewhat differently than for permits, since processors do not have log books. The approach would be to apply the average logbook distributions used for the permits delivering to a particular processor, weighted by the amount of catch the processor receives from each of the permits.

❖ Interlinked Elements

Accumulation Limit and Grandfather Clause (Section A-2.2.3.e). Whether or not there is a grandfather clause and if not the option chosen for the accumulation limits will result in dramatically different distributions of the allocations to processors.

❖ Analysis

See the section on motherships for a discussion of the relationship of the allocation to processors to disruption and potential relative advantages within the sector.

The results of the allocation formula for processors in comparison to shares of recent landings are displayed in figures in Section 2.1.1. Comparisons are provided to alternative allocation formulas the 2004-2006 revenues.

Another indicator of disruption resulting from the initial allocation is the number of entities that have entered the fishery since the allocation period and their levels of participation. The following table shows that there have been 84 new nonwhiting buyers that have entered the fishery since 2003 and that these buyers have purchased less than 1% of the total nonwhiting landings. Similarly there have been 9 new whiting buyers that have entered the fishery since 2003 but these buyers have purchased nearly 3%

of the shoreside whiting landings and 27% of the landings in California (which are much smaller than for Oregon and Washington). With the possible exception of California it does not appear that there are many post 2003 entrants with significant amounts of landings that will not receive an initial allocation of QS under the IFQ program.

Table A-63. Comparison of shoreside non-whiting receivers, 2004-2006: all receivers versus new entrants with zero history during 1994-2003 (mt)

	All Receivers (MT)	New Entrants (Number)	New Entrants (MT)	Share of Total
California	16,383.08	10	46.96	0.29%
Oregon	32,100.75	6	1.49	0.00%
Washington	7,936.47	2	42.58	0.54%
Grand Total	56,420.31	18	91.03	0.16%

Table A-64. Comparison of shoreside non-whiting receivers, 2004-2006: all receivers versus new entrants with zero history during 1994-2003 (revenue)

	All Receivers (MT)	New Entrants (Number)	New Entrants (MT)	Share of Total
California	$20,690,595	10	$85,890	0.42%
Oregon	$39,741,747	6	$3,870	0.01%
Washington	$8,118,285	2	$50,612	0.62%
Grand Total	$68,550,627	18	$140,372	0.20%

Table A-65. Comparison of shoreside whiting receivers, 2004-2006: all receivers versus new entrants with zero history during 1994-2003 (mt)

	All Receivers (MT)	New Entrants (Number)	New Entrants (MT)	Share of Total
California	14,041.92	4	3,859.50	27.49%
Oregon	181,841.52	2	4,124.02	2.27%
Washington	91,819.81	0	0.00	0.00%
Grand Total	287,703.25	5*	7,983.52	2.77%

* One new entrant operates in both California and Oregon.

Another important effect of the initial allocation formula with respect to processors is its impact on vertical integration. Figure A-32 shows that under a formula that allocates 100% of the QS to permits, processors owning permits would receive allocations that exceed their permit(s)' share of the 2004-2006 harvest. Assuming there is no grandfather clause that restricts their allocations, the initial allocation would allow them to increase their vertical integration beyond that reflected by the permits they own over the 2004 to 2006 period. Figure A-33 shows that an allocation with an 80/20 split equal sharing and a grandfather clause. Looking at just the share of the QS issued based on permit history, for most processors their permits would still give them a QS allocation QS that is more than the share of harvest by those permits for 2004 to 2006. There is one exception.

The amount of allocations received by processors would be substantially greater when the QS for each of these harvesters would gain from the allocation to processors is considered. In Section A-2.4, there is a measure that would not allow processors to qualify for QS through their processing history for any amount in excess of the accumulation limits. Additionally, the Council's preliminary preferred alternative would not allocation QS in excess of accumulation limits. With an Option 1 aggregate accumulation limit of 1.5% (Section A-2.2.3.e) under either of these restrictions these vertically integrated processors would receive a maximum additional QS from the allocation to processors of between 0.5% and 1%. Additional discussion of the impacts of the grandfather clause and accumulation limits on processors is proved in Section A-2.2.3.e).

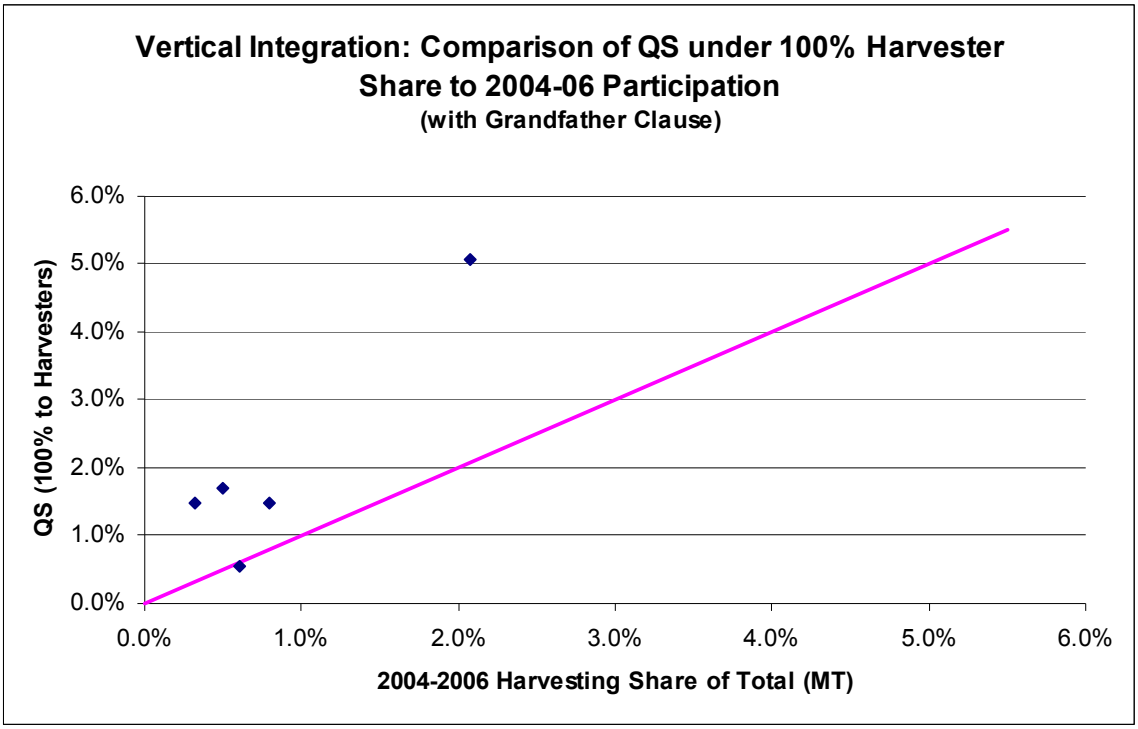

Figure A-32. Vertical integration and comparison of QS allocations to 2004-2006 history (% of total mt) assuming 100% harvester allocation of QS (no equal allocation element).

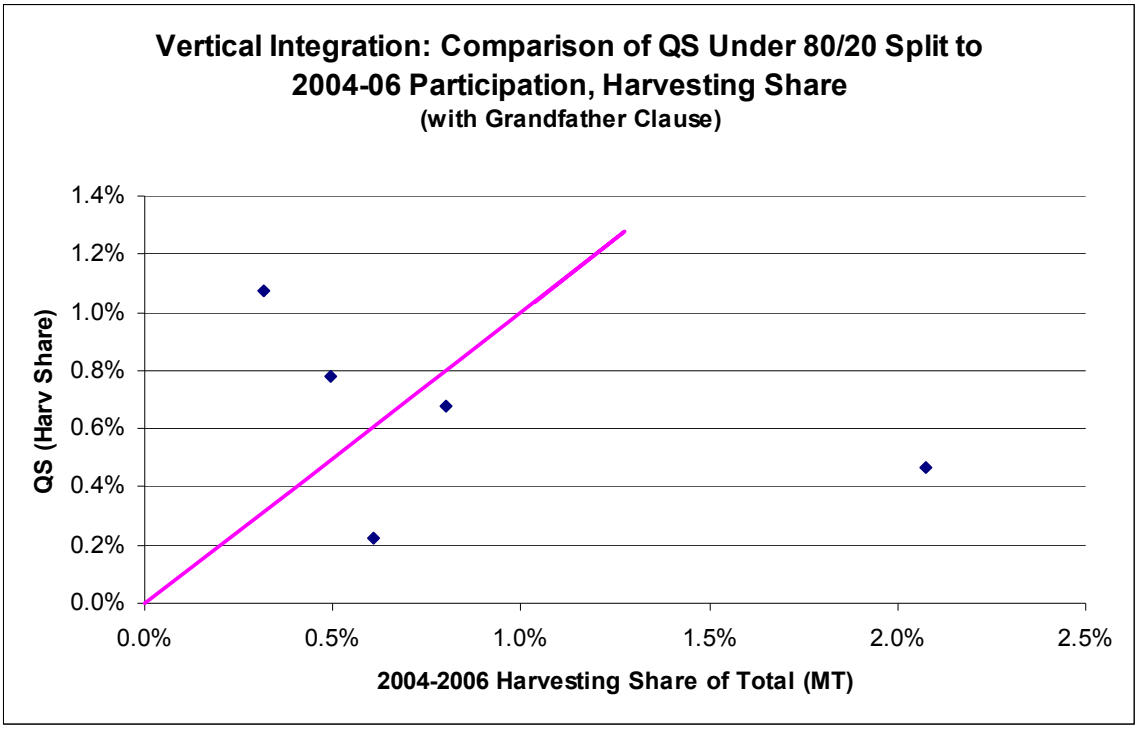

Figure A-33. Vertical integration and comparison of QS allocations (harvesting share) to 2004-2006 harvesting history (% of total mt) assuming 80/20 permit/processor split of QS and an equal allocation element for permits.

A-2.1.4 History for Combined Permits and Other Exceptional Situations

Provisions and Options

Permit history for combined permits will include the history for all the permits that have been combined. For history occurring when two or more trawl permits were stacked, split the history evenly between the stacked permits. History for illegal landings will not count toward an allocation of QS. Landings made under nonwhiting EFPs that are in excess of the cumulative limits in place for the non-EFP fishery will not count toward an allocation of QS. Compensation fish[42] will not count toward an allocation of QS.

Rationale and Options Considered But Not Included

Permit Stacking – Trawl vessels for which there were two permits registered for a period of time received no advantages over trawl vessels with only one permit. Nevertheless, while permit stacking was rare, it did occur and some means is needed to allocate the landing history for the stacking period. There are a few different approaches including, associating the landings with the first permit that was on the vessel until such time as the first permit is removed. Associating the landings with the second

[42] According to Federal regulations "*Compensation fishing* means fishing conducted for the purpose of recovering costs associated with resource surveys and scientific studies that support the conservation of species in a fishery, or to provide incentive for participation in such studies. Compensation fishing may include fishing prior to, during, or following such surveys or studies. Compensation fishing shall be conducted under an EFP if the activity would otherwise be prohibited by regulation. [draft FR notice on proposed rule for EFP regs. One published can cite.]

permit starting from the time it was put on the vessel, if at some time the first permit is removed; but associating it with the first permit if it continues to stay with the vessel after the second permit is removed. Unfortunately, it is difficult to know the reasons and circumstances under which two permits were associated with a trawl vessel at the same time. Therefore, an equitable approach appears to be to split the history between the two permits.

Illegal Landings – Rewarding illegal landings with allocation of IFQ is inequitable, on its face.

Landings Under EFPs in Excess of Cumulative Limits and Compensation Fish – In both of these situations, the rest of the fleet did not have the same opportunity to make landings as the EFP and compensation fish vessels. It is proposed that the landings made because of those special opportunities not count toward IFQ as a matter of equity.

Interlinked Elements

The decision on how to count landings under these special circumstances will affect the quantities allocated changes in these provisions or changes would not likely necessitate the need for changes in other parts of the program and visa versa.

Analysis

Permit Stacking – There was a total of thirteen permit stacking events. An event is defined here as permit stacking occurring sometime during a single year. Two permits stacked on the same vessel across two years would count as two events. There is only one occurrence of the same permits being stacked on the same vessel for more than one year. Of these events most were of less than one month in duration (Table A-66). Eleven of the events are depicted in Figure A-34. Of these four involved more than 100,000 pounds of history (the three depicted in Figure A-34 and the one not included in the figure for confidentiality reasons). If permits were stacked and then combined (as occurred in one instance) all of the permit history during the stacked period goes with the permit that resulted from the combination.

Table A-66. Number and duration of stacking events.

Number of Months	Number of Events
1	7
2	1
>5	5

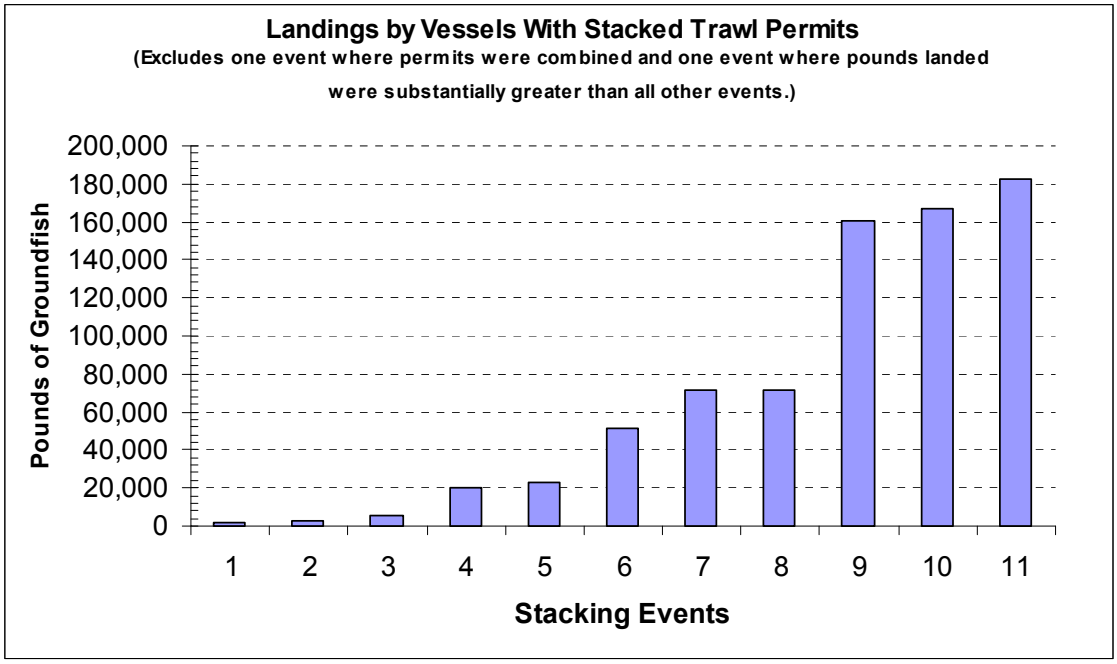

Figure A-34. Amount of landings occurring during periods of trawl permit stacking.

Illegal Landings – Not counting illegal landings is an equity concern about which there is little disagreement. No additional analysis is available. We do not have information about the number or amount of landings that might fall in this category over the allocation period.

Landings Under EFPs in Excess of Cumulative Limits and Compensation Fish – The issue argued here is one of equity. Those who say that credit should not be given for EFP landings, including compensation fish, argue that these vessels had opportunities that were not available to other vessels and should not receive additional compensation in the form of an initial allocation of QS. Others argue that had the vessels not been taking part on these special activities they would have put more effort into other fisheries or targeting strategies and have built up additional history there.

A-2.1.5 Initial Issuance Appeals

Provisions and Options

There will be no Council appeals process on the initial issuance of IFQ. NMFS will develop a proposal for an internal appeals process and bring it to the Council for consideration. Only revisions to fish tickets accepted will be those approved by the state. Any proposed revisions to fishtickets should undergo review by state enforcement personnel prior to finalization of the revisions.

Rationale and Options Considered But Not Included

While an administrative appeals process will be provided by NMFS, as required by law and Section 303A(c)(1)(I), the Council has not identified any areas of potential which would warrant Council advice. The license limitation program included numerous such grounds for appeal related to hardship and other circumstances and specified that there be an appeals board and Council involvement in the appeals process. Most of these related to initial allocation. The fixed gear sablefish IFQ program (permit stacking) did not include explicit consideration of

hardship provisions, most decisions were based on relatively easily determinable facts. This IFQ program does not include hardship provisions. The need for such provisions is avoided, in part, through the use of allocation rules which allow a vessel to drop its two worst years for the initial allocation formula and the long periods covered by such a formula.

Probably the most significant judgment call that may come up on appeal pertains to the attribution of shoreside processing history under Option 3 of Section A-2.1.1.d and the determination of successor in interest where one processing company is acquired by another. The issue to be decided there will be determining who processed the fish from a particular landing, for those situations in which there is a dispute between the parties.

The precautionary note regarding changing fish tickets is included in response to rumors that during the license limitation program implementation state agency personnel were changing fish tickets at fishermen's requests without realizing the implications with respect to the license limitation permit issuance process.

Interlinked Elements

The lack of special hardship provisions and a clear allocation formula (A-2.1.3) which takes into account hardships by allowing applicants to drop worst years reduce the need for an appeals process that involves the Council. If those provisions are changed, the Council might want to revisit the appeals process provision.

Clarity in the definition of processors and processing (Section A-2.1.1.c) will affect controversy over administrative decisions and possibly the perception of need for Council involvement in appeals.

Analysis

The primary objectives affected by the decision on whether or not to involve the Council in the appeals process are those related to equity and program costs.

Exclusion of the Council from any appeals process will not deprive program participants of the opportunity for appeal but only exclude the Council from being an advisor in that process. This will reduce program costs. The main reason for involving the Council in the license limitation program process was that there were numerous hardship provisions requiring judgment calls for which industry and agency expertise were of value in fact finding and evaluation. As an example, a member of the Council appeals panel was able to identify that an aluminum pole that at been purchased and for which a receipt was presented was of no value as fishing gear but rather was the kind of pole that would be used for a street light. Panel also had a good understanding of a complex program and aided fishermen who had been denied permits in identifying and articulating the provisions which would allow them to qualify. For the IFQ program, there appears to be little need for such judgment calls or assistance with respect to initial allocations for vessels. With respect to processors, the issue of who in the marketing chain gets credit for processing history may come up for appeal if Option 3 of A-2.1.1.d is chosen and if a determination is required for who is the successor in interest with respect to ownership of a processing operation. Under Option 3 option the second entity to receive the fish may be credited with the history if the first entity did not process the fish. Clarity in the definition of processors and processing (Section A-2.1.1.c) and successor in interest will likely reduce the difficulty of the initial decisions, the number of appeals and controversy over decisions, and hence reduce administrative costs. These decisions may be difficult because there are a number of different criteria to consider (e.g. primarily business name and customer based, but potentially consideration of the transfer of physical assets as well). The Council leaves further development of these criteria to the discretion of NMFS.

- After initial allocation, an area of the program in which considerable judgment may be required is the determination of whether or not control exists for the purpose of applying control limits. These determinations will likely be based on fact finding and legal criteria for which the Council and its

advisors may not have special expertise, though the Council may want to deliberate further on this point This section, and requirements for appeal listed under the LAP provision of the MSA, address only the need for appeals with respect to initial allocation (MSA 303A(c)(1)(I)).

A-2.1.6 Direct Reallocation after Initial Issuance

Provisions and Options

Reallocation With Change in Overfished Status. When an overfished species is rebuilt or a species becomes overfished there may be a change in the QS allocation within a sector (allocation between sectors is addressed in the intersector allocation process). When a stock becomes rebuilt, the reallocation will be to facilitate the re-establishment of historic target fishing opportunities. When a stock becomes overfished, QS may be reallocated to maintain target fisheries to the degree possible. That change may be based on a person's holding of QS for target species associated with the rebuilt species or other approaches deemed appropriate by the Council.

Reallocation With Changes in Area Management (Changes in management lines are expected to be rare, however, when the occur the following provides for the reallocation of QS in a manner that will give individual QS holders with the same amounts of total QP before and after the line changes.)

Area Subdivision: If at any time after the initial allocation an IFQ management unit is geographically subdivided, those holding QS for the unit being subdivided will receive equal amounts of shares for each of the newly created IFQ management units.

Area Recombination: When two areas are combined, the QS held by individuals in each area will be adjusted proportionally such that (1) the total QS for the area sums to 100 percent, and (2) a person holding QS in the newly created area will receive the same amount of total QP as they would if the areas had not been combined.

Area Line Movement: When a management boundary line is moved, the QS held by individuals in each area will be adjusted proportionally such that they each maintain their same share of the trawl allocation on a coastwide basis (the fishing area may expand or decrease, but the individual's QP for both areas combined wouldn't change because of the change in areas). In order to achieve this end, the holders of QS in the area being reduced will receive QS for the area being expanded, such that the total QP they would be issued will not be reduced as a result of the area reduction.[43] Those holding QS in the area being expanded will have their QS reduced such that the QP they receive in the year of the line movement will not increase as a result of the expansion (nor will it be reduced).

Reallocation With Subdivision of a Species Group: If at any time after the initial allocation an IFQ management unit for a species group is subdivided, those holding QS for the unit being subdivided will receive equal amounts of shares for each of the newly created IFQ management units. For example, if a person holds 1 percent of a species group before the subdivision, that person will hold 1 percent of the QS for each of the groups resulting from the subdivision.

[43] Unless there is a change in the total OY or other factors affecting trawl allocation for the areas involved, in which case their change in quota pounds would be proportional to the change in the trawl allocation.

Rationale and Options Considered But Not Included

❖ Overview

The main reason for these provisions is to plan for future changes in the management units that may be needed for conservation of the resource. Reallocation may be appropriate

- if there is a broad swing in the amount of a stock that is available for harvest (as may occur when a stock is rebuilt or becomes over fished),
- when a latitudinal management line is added to subdivide a stock, subtracted to combine separate stocks into a larger geographic unit, or changed to better reflect the stock's population biology.
- when species that have been grouped together for management are separated out

Consideration of provisions to address situations that may be encountered in the future is in line with National Standard 8, which required the Council to provide for variations and contingencies in the fishery resources.

❖ Reallocation with Change in Overfished Status

Situation. As a species moves out of (or into) overfished status, the opportunities for targeting the species may change significantly. A number of overfished species are not currently targeted, but are caught incidentally in other trawl target strategies. When an overfished species is rebuilt, there will often be a sudden and substantial increase in the OY. As these opportunities change, it may be appropriate to consider reallocation of QS within a trawl sector to accommodate directed fishing on the rebuilt species. If it could be developed, a predetermined approach for such reallocation would provide desired regulatory consistency and predictability for industry and government.

Need. One of the primary concerns behind the reallocation of QS when a species is rebuilt relates to equity. Those who relied on fisheries targeted on the now overfished species (and who took their harvest in line with what were believed to be sustainable levels at the time) have had their fishing opportunities (and their share of the catch) reduced in order to allow for the continuation of fisheries which needed relatively small amounts to cover bycatch taken as part of fisheries targeted on other species. Under the Council's preliminary preferred alternative, the initial allocation of QS for these overfished species will be based on the bycatch rate in the target fisheries for which QS are issued. Those who had their target fisheries cut back feel that they have sacrificed for the rebuilding of the stock and should therefore receive a greater share of the harvest once it is rebuilt. Further, because they were targeting on the stocks that are being rebuilt, they do not have as much history for some of the other stocks for which QS will be issued. If no adjustment to the allocation is not made when a stock is rebuilt, those who hold the stock primarily to cover bycatch will start receiving QS in sufficient quantities to support a targeted fishery.

Challenge. The main challenge in reallocating an overfished species QS after implementation of the program will be the movement of the QS that occurs before the species is rebuilt. Initial issuance of QS will be to permits and possibly processors. Through the rationalization process, new entry and exit, there is likely to be substantial reshuffling of the QS. If the intent is to reallocate the QS to those who prosecuted the directed fisheries in the mid-1990s there will need to be a historic link between those individuals and those who are present when the stock becomes rebuilt. The main vehicles available are personal identity, the vessel and the permit. Personal identity (an individual's personal history) has not

been used an allocation basis in part because the information would be difficult to get out of the data system and it does not take into account changes in the fishery that occur prior to achievement of rebuilt status (new entry and exit). The vessel and permit are the other two vehicles available and the permit is the primary one on which the Council has relied for these allocation decisions. Again, by the time of rebuilding, there may be little relationship between the individuals and types of fisheries in which the permit is employed at that time and the target fisheries in which the permit participated in the mid-1990s, making it difficult to make a future reallocation to achieve the desired equity outcome.

Considered but Rejected.

Allowing reallocation through market mechanisms. Under this approach there would be no direct reallocation. The concern motivating consideration of direct reallocation would not be addressed.

Auction. Under this approach there would be a direct reallocation through an auction (e.g. upon rebuilding adjust everyone's QS holdings downward and auction off the remainder or allow QS holders to trade the existing QS among themselves). This would prevent those who received their allocation of overfished species QS to cover bycatch from benefiting from the rebuilding that was facilitated through the reduction of target fisheries but would not direct the benefits to those who participated in the target fisheries (or to the current holders of their permits).

Issuance of Shadow QS. In anticipation of the difficulties that would be entailed in reallocating QS at a future time based on past history, some strawman provisions for reallocation upon rebuilding were presented to the GAC at its September 2007 meeting. These provisions were based on the concept of issuing shadow QS for overfished species based on the 1994-2003 history of the initial QS recipients. Shadow QS would be held but be dormant (no QP would be issued for shadow QS) until the species is rebuilt. At the same time at the start of the program incidental catch QS would be issued for the same species based on bycatch rates and the amount of target species QS an entity receives, as is specified in the Council's preliminary preferred alternative. These incidental species QS would become inactive or expire when the species is rebuilt and the shadow QS become in active. A similar strawman proposal was provided for situations in which a currently healthy stock is declared overfished. Under such circumstances the existing QS would become inactive (shadow QS) and new incidental species QS would be issued to those needing the QS to cover incidental catch in fisheries targeted on other species. This approach would add some cost and complexity to the start of the program, including the need to track the transfers of shadow QS.

Preliminary Preferred Provision. The approach of the preliminary preferred alternative is to develop the rules for reallocation when a species is rebuilt or becomes overfished at the time they are needed. Provisions for reallocation with change in overfished status have not been developed because of the high degree of circumstance specific information that will be important in determining an appropriate reallocation. Therefore, at this time notice is provided that the Council intends to make a reallocation upon rebuilding but the specific means for reallocation have not been identified.

❖ Reallocation with Changes in Area Management And Subdivision of a Species Group

The provisions for reallocation with changes in latitudinal management areas and subdivisions of species groups were initially developed simply as a check to determine the feasibility and impacts of making adjustments to the management units once the IFQ program is in place. They have been

proposed to avoid the need for separate action later and so that all participants are on notice as to the potential changes that may occur to the specification of the QS units that they hold. These changes may affect QS value and therefore it is helpful to provide advance information about how adjustments will be carried out if they become necessary.

The basic philosophy behind the geographic and species subdivision provisions is that the change should be carried out in such a manner that no one who holds QS will receive fewer pounds after a change than they would have before. The provisions may however, result in the redesignation of an individuals QS such that they end up with some QS for an area in which they do not fish or for species that are of less interest to them.

Interlinked Elements

There are no other provisions in the program which are specifically dependent on these provisions and the specification of these provisions is not dependent on other provisions (other than key provisions that would require significant program revision if they were changed, e.g. the issuance of IFQ as QS and annual QP and the transferability of QS/QP).

Analysis

❖ Reallocation with Change in Overfished Status

The primary objectives affected with respect to reallocation upon rebuilding relate to equity, net benefits (market certainty, transaction costs), disruption, administrative costs and complexity. The provisions for reallocation upon rebuilding identify an equity concern but do not identify the means by which that concern will be addressed at some future time. Notice is given that a reallocation will occur. This advance notice will make some contribution to the perception of equity when the adjustment is made but without knowing the mechanism by which it is carried out there will be considerable market uncertainty. Making no reallocation would reduce uncertainty in the market and potential future disruptions, but not address the equity concern. Reallocating through an auction would address the equity concern of those who would view the QS holders as receiving an unearned benefit but would not provide compensation to those who argue that they sacrificed their fisheries to facilitate the rebuilding. The shadow QS approach would address equity concerns and provide market certainty but result in the trading of shares that have no immediate purpose with respect to management of the fishery, thereby causing an increase in management costs. The approach also increases costs by adding to program complexity.

With respect to reallocation when a species becomes overfished, there is some guidance provided for how the reallocation would be carried out (i.e. as needed to facilitate target fisheries). The concern with respect to conditions that occur when a stock becomes overfished are that targeting be allowed (objectives related to net benefits, efficiency, sector health, labor, communities and the general public), and that individuals not take unfair advantage of those who may desperately need QS to cover their incidental take in other fisheries targeted on other groundfish stocks (equity related objectives). The guidance that is provided for action when a stock becomes overfished implies that there may be a reduction in QS for the newly overfished species for those holding QS for that species that do not also hold QS for a target species with which the overfished species is taken incidentally. Those whose QS is revoked will likely request, as an equity issue, that such QS be reinstated when the stock is rebuilt (essentially the same argument that is made now by those who previously lost directed fishing opportunities for overfished species). A concern has also been voiced that if those who target the overfished species are allowed to keep their QS they might take their small amounts of QS as target rather than providing it for the incidental catch needs of others. While it might occur, such an action

(using the overfished species QS as a target) would likely result in a lower profit than if they had sold it to those who need it to cover their incidental catch.

❖ Reallocation with Changes in Area Management And Subdivision of a Species Group

The primary purpose of these provisions is to allow the achievement of conservation objectives while minimizing any adverse effects on net benefits, disruption, equity, sector health or communities. The primary reason for changing the area or species composition of the management units would be to enhance achievement of conservation objectives. The specification of the exact means by which these benefits would be achieved reduces uncertainty and allows the market to function more efficiently and for businesses to plan for changes in advance. The provisions have been specified in a way that ensures that an entity holding QS will experience the minimum possible change in total fishing opportunities.[44] [45] It may, however, result in some temporary dislocation as QS holders could end up with QS for management units outside of their normal fishing area or species which they do not normally catch. Under such circumstances some QS trading may be required which will result in some increase in transaction and administrative costs. Nevertheless, the approach specified here will likely result in the least disruption and most equity possible while still achieving the conservation objectives. Alternative approaches would either require a data intense exercise to develop formulas for requalification and

[44] Line Movement Example: first assume that 50% of the trawl allocation for a species is for north of the 40°10' line and 50% is for south (i.e. the coastwide trawl allocation is evenly distributed between these two areas). Now assume that a decision is made to move the management line to 38° and that as a result of this movement 70% of the QP for the species would be for north of 38° and 30% would be for south of 38°. The QS holdings would be adjusted as follows:

> Those persons holding QS for the southern area, would continue to hold QS for the new southern area (their QS which previously represented 50% of the coastwide OY would be scaled back such that it represents only 30% of the coastwide OY).
>
> In addition those persons would be allocated QS for the new northern area representing 20% of the coastwide trawl allocation (they would receive 28.6% of the QS for the new northern area (20%/70%=28.6%)). Thus, those holding QS for the south would still hold 50% of the coastwide QS (all of the southern 30% and 20% represented in northern QS). The allocation of northern QS would be made in proportion to their holdings of southern area QS. Those with QS for the expanded northern area would each have their QS reduced by 28.6% such that their total QP remain unchanged.
>
> On an individual basis, if a person holds 1.5% of the coastwide trawl allocation through a 3% holding of the southern QS, when the adjustment in the latitude line is made, they continue to hold 3% of the southern area QS but it represents only 0.9% of the coastwide trawl allocation (3% times 30%). So they would receive an amount of the northern QS that is equivalent to 0.6% of the coast wide allocation. This would bring them back to a total of 1.5% of the coastwide allocation. The amount of northern area QS necessary to achieve this would be a little less than 0.9% of northern QS (0.9% times 70% equals about 0.6%).

[45] Recombination Example: 50 mt (5%) of the trawl allocation is for the Conception area and 950 mt (95%) of the trawl allocation is for latitudinal line 40°10' to the Conception area. An individual who holds 50% of the allocation in the Conception area would get 25 mt. Should these areas be combined, that person would receive 2.5% of the new 1,000 mt south of 40°10' trawl allocation (50% multiplied by 5%, i.e. the individual's allocation for the conception area multiplied by the Conception area portion of the new south of 40°10' area)). Similarly the QS allocation for an individual to the north would be their percent of QS times 95%.

reissuance of QS based on recent practices or relatively arbitrary increases or decreases of entities' QS holdings, which would entail equity issues.

A-2.2 Permit/Holding Requirements and Acquisition

A-2.2.1 Permit/IFQ Holding Requirement

Provisions and Options

1. Only vessels with limited entry trawl permits are allowed to fish in the trawl IFQ fishery.
2. For a vessel to use QP, the QP must be in the vessel's QP account.
3. All catch taken on a trip must be covered with QP within 30 days of the landing for that trip unless the overage is within the limits of the carryover provision (Section A-2.2.2.b), in which case the vessel has 30 days or a reasonable time (to be determined) after the QP are issued for the following year, whichever is greater. [46]
4. For any vessel with an overage (catch not covered by QP), fishing that is within the scope of the IFQ program will be prohibited until the overage is covered, regardless of the amount of the overage .Vessels which have not adequately covered their overage within the time limits specified in paragraph 3, must still cover the overage before resuming fishing, using QP from the following year(s), if necessary. If a vessel covers it overage, but coverage occurs outside the specified time limit (paragraph 3), the vessel may still be cited for a program violation.

   ►**Exception Prohibition Suboption:** There may be exceptions and additions to the activities which will be prohibited when a vessel has an overage. A vessel with a deficit in its quota pound account would not be prohibited from participating in any of the following fisheries, even if they fall within the scope of the program: salmon troll; HMS troll/surface hook-and-line; Dungeness crab; all other HMS gears, except small mesh gillnet; and CPS purse seine. Additionally, vessels with a QP deficit would be prohibited from participating in state trawl fisheries such as pink shrimp, California halibut, ridgeback prawn, sea cucumber, and small mesh gillnet.
5. For vessels with an overage, the limited entry permit may not be sold or transferred until the deficit is cleared.
6. **"Alternative Compliance Options:"**

   Option 1: After two years in deficit, a vessel may resume fishing .

► **Option 2:** A sliding scale exception would allow a vessel that does not cover its deficit to resume fishing after a period of time. The period of time the vessel would be prohibited from participating in certain fisheries would vary depending on the degree of the uncovered overage. The scale that would be used is still to be developed.[47]

Option 3: No exceptions to Element 4 of this provision.

Rationale and Options Considered But Not Included

The MSA requires that any LAPP

> (I) Include an effective system for enforcement, monitoring, and management of the program, including the use of observers or electronic monitoring systems .... MSA 303A(c)(1)(I)

While the enforcement and monitoring system elements are covered in Section A-2.3, the permit and IFQ holding requirements will have a substantial bearing on the organization and costs of such a system.

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[46] QP from a subsequent year may not be accessed until such QP have been issued by NMFS.

[47] Example: a minimum of 4 months (120 days) for 100 lbs plus an additional month for every additional 50 pounds of overage (1 mt overage = 44 months)

Therefore, much of the rationale provided here relates to the provision of an effective enforcement and monitoring system.

❖ Element 1 –Trawl Limited Entry Permit Required to Participate

Requiring a limited entry permit for participation is expected to control costs by limiting the number of platforms which must be monitored.

Element 1option considered but not included for detailed analysis:

Allowing vessels without trawl permits to participate in the fishery.

This option was rejected from consideration because it could dramatically increase the number of vessels in the fishery that would need to be monitored and the number of accounts that would need to be managed, increasing program costs.

❖ Element 2 –Vessels Required to Acquire QP

Requiring that QP be placed in a vessel account prior to use is expected to control costs and assist in assigning responsibility for covering a landing by linking each landing to one and only one account and responsible party. The holder of that account, the harvesting business managing the vessel, would be responsible for ensuring that a landing is covered with QP.

Element 2 option considered but not included for detailed analysis:

Allowing QP to be used for a vessel's landings that are not in the vessel's QP account.

This option was rejected because it would add to the complexity of the data entry and tracking tasks. Rather than just counting all catch of the vessel against a particular QP account, a landing might need to be subdivided and counted against a variety of accounts.

❖ Element 3 – Time Allowed to Cover a Landing (and Minimum Holding Requirement)

The extremes of this provision run from requiring QP to cover a landing (or some minimum amount) be held prior to departure to allowing 30 days to cover a landing with QP. The Council's preliminary preferred alternative provides a vessel up to 30 days to cover a landing and is intended to provide substantial flexibility (addressing objectives related to efficiency and sector health), as may be needed in a multispecies fishery in which the availability of QP for some species may be relatively limited. Key to the effectiveness of this provision is that the vessel is prohibited from participating in certain fisheries if it has a negative balance in its QP account (see Element 4).

Element 3 options considered but not included for detailed analysis:

Requiring a vessel to cover its landing with QP

within 24 hours of the landing.

at the time of landing

Requiring a vessel to have the needed QP when it brings the fish on board

Requiring a vessel to have some minimum amount of QP (particularly overfished species) if it is fishing in certain depth strata or hotspots;[48] *including a suboption that would allow the vessel to fulfill that option by participating in a risk sharing pool.*[49]

Requiring a vessel to have some minimum amount of QP before it leaves on a trip.

The first two of these options were rejected because of the consequences of the time pressure that it would place on the vessel, potentially encouraging attempts to under report or put pressure on observers, or forcing the vessel to pay unnecessarily high prices for the QP. The minimum holding requirements were rejected as unnecessary because not covering a landing with QP will be difficult due to a very strong monitoring program, the difficulty of appropriately specifying the mix of species a vessel would be required to hold, and the need for there to be maximum availability of overfished species for which the amount of QP available may be quite limited. With respect to this last point, the concern was that QP could end up being unnecessarily tied up by vessels needing it to meet a minimum holding requirement and therefore be unavailable to vessels which had encountered the species and needed the QP to cover their catch.

❖ Element 4 – Fishing Restriction While In Deficit

Element 4 prohibits a vessel from engaging in certain fishing activities if it has a deficit in its account (even if that deficit is within the carryover provision, A-2.2.2-c). It is the vessel's responsibility to avoid fishing with a deficit. Therefore, a vessel would not be required to refrain from additional fishing while it waited for an official determination of its QP account balance. Allowing a vessel to take responsibility for ensuring it is not fishing in deficit reduces the pressure to implement a system with extremely rapid account resolution turn around times. This will allow the development of a lower cost tracking system while at the same time ensuring full monitoring and detection of violations.

- One decision required with respect to this element of the program is the scope of the fisheries the vessel would not be able to participate in if it has a deficit. The primary legal concern in specifying the restriction is that any limitations placed on the vessel be necessarily reasonable for effective program design and not an action which would be considered punitive and therefore require due process (e.g. an opportunity for a hearing and appeal). A central element to the effective functioning of the program is that a vessel covers its landing with QP. Therefore, prohibiting a vessel that has not met that condition from participating in the program is a necessary and reasonable result required for an effective program. In contrast, prohibiting participation in fisheries for which QP is not required may more likely be considered punitive. On this basis, it is likely that the Council will need to modify the fisheries in which vessels in deficit are allowed to continue to participate so that participation is prohibited and exceptions

[48] The GMT recommended consideration of a mechanism which would establish a minimum holding requirement to access a certain area. These areas would be defined based on the presence of overfished species and the probability that a trawler would catch them during a fishing trip. This would require that trawlers declare their intent to fish in either the area that requires a minimum holding requirement or outside that area. For example, if trawlers intend to fish in depths less than 200 fathoms, a minimum holding requirement for canary and yelloweye rockfish could be required. Vessels could fish deeper without meeting the minimum holding requirement for canary and yelloweye, but would need to meet those minimum holding requirement provisions if they desire to fish shallower than 200 fathoms.

[49] The GMT also recommended consideration of a minimum holding requirement that would allow vessels to enter into voluntary pooling agreements in order to reach that minimum holding requirement. This would require that trawlers forming voluntary risk pools register with, or notify the National Marine Fisheries Service (NMFS) that they are in a voluntary quota sharing pool for a year. This would provide verification that vessels in that pool collectively meet the minimum holding requirement of a given overfished species.

made only for those fisheries outside the scope of the program. Alternatively, if there are fisheries that are outside the scope of the program specified in A-1.1, but from which the Council believes vessels with a deficit should be excluded, the Council could explore modification of the program scope to incorporate those fisheries.

There are some fisheries for which a decision may be needed as to whether or not it is considered part of or outside of the trawl groundfish IFQ program. In particular, the situation of the California halibut fishery has not been clear. Participants in this fishery are considered to be participating in the groundfish trawl fishery if they (1) have a limited entry permit and (2) retain groundfish. Excluding those who do not retain groundfish from the bimonthly cumulative limit rules of the trawl groundfish fishery was feasible when the regulations primarily pertained to landings rather than total catch. The IFQ program requires that all groundfish trawl permitted vessels acquire QP to cover their catch taken with directed commercial groundfish gear. Thus there is no opportunity to avoid the harvest control regulations by discarding groundfish. On this basis the Council included as part of the preliminary preferred alternative an option that would consider the California halibut fishing by limited entry trawl vessels within the scope of the program (i.e., prohibit California halibut fishing by trawl limited entry permitted vessels that have a deficit in the QP account). The Council also included in this option all other state water trawl fisheries such as pink shrimp, ridgeback prawn, and sea cucumber trawl, as well as small mesh gillnet.

The option that prohibits participation in state managed trawl fisheries and small mesh gillnet also explicitly allows participation in some other fisheries, some of which might be considered to fall within the scope of the program. Specifically the option allows for continued participation in salmon troll, HMS troll/surface hook-and-line, Dungeness crab, all other HMS gears, except small mesh gillnet, and CPS purse seine. The intent of this provision was to ensure that participation in fisheries which only have very small impacts on groundfish, not be prohibited as a result of a groundfish QP account overage. If the approach is taken that only those fisheries which are within the scope of the program need to be included in the exception list, then fisheries such as Dungeness crab can be dropped from the list without changing the impacts. Some confusion might be generated if some fisheries outside the scope of the program are named and others are not. If that is the case, the Council might want to modify the list of exceptions so that they include only fisheries that might otherwise fall under the scope of the program.

Element 4 options considered but not included for detailed analysis:

Prohibiting all fishing by a vessel with a deficit in its QP account.

This option was rejected because it was viewed to be punitive and, therefore, did not include adequate provisions for due process.

❖ Element 5 – Transfer of Permits Prohibited While In Deficit.

Element 5 is intended to support accountability by ensuring that an individual not be able to dispose of its limited entry permit if it is not in compliance with the program. This provision implies that the processing of any applications for transfers would have to be delayed until a sufficient time has passed since the vessels last landing to allow for full resolution of the vessels QP account balance.

Element 5 options considered but not included for detailed analysis:

Prohibiting the sale or transfer of the QS and/or QP in the vessel account.

Prohibition of the sale of the QS or QP was rejected because the QS is not assigned to a vessel and the vessel may need to sell its QP in order to acquire the funds needed to buy the QP to cover the species for which it has a deficit.

❖ Element 6 – Alternative Compliance Options

Element 6 is intended to provide some alternative avenues for compliance with the program to ensure that the program does not become overly restrictive. Vessels may face a fishery situation in which overfished species are sometimes encountered at very high incidental catch rates on a very random and infrequent basis ("disaster tows") and that the amount of QP available to the fishery may be very limited. Under such circumstances there is a concern that it may take several years for a vessel to acquire the QP needed to cover an overage. If a vessel is in deficit, even after if it is cited for going beyond the maximum length of time allowed for resolving the deficit (see Element 2), it still must cover the deficit before it resumes participation in the program. Some perceive this as potentially victimizing the fisherman; therefore these alternative compliance options were developed.

Element 6 options considered but not included for detailed analysis:

Vessel can continue fishing by voluntarily surrendering QS of other species.

Vessel can continue fishing by voluntarily posting a bond.

Vessel can continue fishing by voluntarily making a payment based on the amount of target species typically associated with the amount of overage species taken (using incidental catch rates) (variation on the deemed value system in New Zealand).

Vessel can continue fishing by voluntarily paying an amount based on the fish on board (similar to the deemed value system in New Zealand).

The payment and surrender options were rejected because they appeared to be punitive (required an action at the vessel's expense that would not be required in the normal course of meeting the objectives of the program). The option of a bond was rejected because it was not apparent that under the MSA the Federal government would have the authority to impose such a requirement.
Related to this element was an option the Council considered for auctioning off QP for overfished species. This option will be discussed at the end of the analysis of Element 6.

Interlinked Elements

❖ Element 1 –Trawl Limited Entry Permit Required to Participate

The potential for nontrawl vessels to harvest the trawl QS will be constrained by the number of trawl permits not needed by the consolidated trawl fleet. Thus if this provision is changed to allow participation without a trawl permit there may be a substantial change in the impacts of the gear switching provision.

❖ Element 2 –Vessels Required to Acquire QP

By requiring all QP be deposited to a vessel account in order to be used, this element interacts with the control accumulation limit. Vessel limits are twice the control limits and accumulation limits count both the QS and QP. A vessels account would generally be considered under the control of the vessel owner/operator.

Requiring that the QP be transferred to the vessel account in order to be used could reduce the ability of crew members or others who hold their QS/QP independently of the others to take advantage of the carry-over provision. However, the carry-over provision only applies to QP held in vessel accounts. The carry-over provision is limited in this way to address use-or-lose concerns (see discussion in the section A-2.2.1-c, on the use-or-lose provisions) and to reduce administrative costs. If this were changed and a carry-over is allowed for QP that are not in vessel accounts, then the balance of impacts of this provision might shift and there may be reason to revisit and confirm or change this element.

❖ Element 3 – Time Allowed to Cover a Landing (and Minimum Holding Requirement)

The 30 day period a vessel is allowed to cover its landings increases the possibility that the fleet could exceed its annual allocation (but not the multiyear average). The carryover provision reduces the incentive for vessels to fish up to their limits, increasing the probability that there may be some QP on the market at the end of the year and available for vessels that leave on a trip without QP, planning to acquire the needed QP in the 30 days after their landing. To the degree that the 30 day settle-up period risks a fleet overage, the carryover provision provides some mitigation.

❖ Element 4 – Fishing Restriction While In Deficit

If vessels with a QP deficit can only be restricted from participating in those fisheries which fall within the scope of the program, then there is an interaction between the scope of the program (Section A-1.1) and scope of the prohibition that can be implemented under this element.

❖ Element 5 – Transfer of Permits Prohibited While In Deficit.

There are no other provisions in the program that are strongly interlinked with this element.

❖ Element 6 – Alternative Compliance Option

Element 6 itself does not interact with other provisions of the program, except indirectly through its impacts on other elements of the permit/IFQ holding requirement provision. Element 6 may have implications for the effectiveness of those other elements, particularly with respect to meeting conservation objectives over the long-term and the strength of the incentives that vessels have to ensure they are able to acquire the QP they need to cover their landings.

Analysis

❖ Element 1 –Trawl Limited Entry Permit Required to Participate

Requiring that a limited entry trawl permit be held in order for a vessel to participate in the IFQ program has implications for objectives related to conservation; net benefits, program costs, and complexity; and fairness and equity.

By limiting the number of vessels involved in the fishery this requirement may limit the amount of gear switching that may occur and therefore have conservation implications, particularly with respect to habitat impacts. The impacts of gear switching are covered in Section A-1.1 and Section A-7.

If a greater number of vessels were allowed to participate in the fishery, program costs and complexity would increase and net benefits decrease.

An unlimited number of vessels would increase the number of accounts to track and balance and could increase the diversity of alternative strategies in which the trawl IFQ is used, requiring the specification of more regulations for how opportunities for the use of trawl IFQs would be mixed with the opportunities provided under the general regulations for those other gears. Most likely this would require a declaration procedure and vessels would either have to be fishing under the trawl IFQ regulations or the regulations for the gear they use but not both. If fishing under the trawl regulations, they would likely need to be in full compliance with those regulations, including requirements to carry observers and make deliveries to the locations and times specified in the tracking and monitoring program. The high costs of complying with the program alone might keep the number of participants low even without a cap. The number of vessels that participate in the fishery would not be a concern if all costs were privatized and born by the users in proportion to their responsibility for those costs. Under such circumstances a larger fleet would occur only if that were the most efficient result. The market would allocate the QS out to the most efficient number of participants with the best mix of activities (from an efficiency perspective). However, it is unlikely that all costs will be fully born by the users. On the basis of the expected compliance and administrative costs, it is expected that restricting the number of vessels to the number of trawl permits will result in a program with lower total costs.

The limited entry trawl permit requirement is also viewed to preserve equity with respect to one fleet's ability to access the allocation of another. On the one hand, members of the trawl fleet felt that it would be unfair for others to have access to their allocation while they would not be able to access/purchase allocation given to other sectors. On the other hand, if an individual member of the trawl fleet gives its QS to a member of a different fleet, other members of the trawl fleet are not directly harmed so long as all QS holders participate and are responsive to the market for QS/QP (e.g. do not hold on to QS for strategic reasons unrelated to its most efficient use). Even with the limited entry permit requirement, gear switching is allowed and some nontrawl vessels will likely be able to participate in the trawl sector IFQ program by acquiring permits not needed by the trawl fleet. However, the ability of other fleets to participate will be limited by the number of surplus permits available after rationalization and accumulation limits.

❖ Element 2 –Vessels Required to Acquire QP

Requiring that QP be placed in a vessel account prior to use affects objectives related to conservation, net benefits, program costs, and fairness and equity.

To control costs, it is intended that the data system will not track the source of QS for the QP but only the balance of QP in each account. If QP was to be tracked to its source QS as it is used or if the QP did not need to be transferred to a vessel account in order to be used, then the data tracking system would have to be set up to allow each landing to be subdivided and counted against a variety of different accounts, increasing the costs of the program. Therefore after QP is transferred to a vessel account the entity contributing that QP will lose control over it, except as they may be able to otherwise provide through private contract.

Because the QS holder is not held accountable for how the QP is fished and whether or not an overage is incurred, there is no incentive for the QS holder to ensure that it sells QP to a responsible vessel. A vessel could knowingly harvest an amount of fish that far exceeds the QP it holds in its account and then that vessel could be taken out of the trawl fishery and never cover the overage with QP and the QS holder which transferred its QP to that vessel would be considered harmless. Holding the QS liable for overages could increase self policing within the fishery, but might also raise questions about fairness and equity with respect to the QS holder's responsibility for the vessel's actions.

Not allowing QS holder's to maintain control over their QP while it is in the vessel's account may also be viewed as inequitable by some. However, as long as the provider of the QP has been fully compensated for the QP there appears to be little reason that they should maintain some claim to those QP. If a QS holder, a crew member for example, wants to retain control of the QP it receives until they are needed, Element 3 provides 30 days for the vessel to cover its landing. On this basis, the vessel could contract with the crew member for the QP to be provided as needed after a landing is made and the crew member would maintain control over the QP.

One of the consequences of requiring that QP be transferred to the vessel account prior to use is the need for a judgment call in the application of the control accumulation limits. The accumulation limits apply to both the QS and QP. The vessel limits are set at twice the control limits in order to leave room for others to use their QP on a vessel, for example, for crew members to use their QP on the vessel on which they fish or for harvester operations to team up and use the same vessel. However, when the QP is transferred to the vessel account it would be counted against the vessel owner's control cap. At this time it is not clear how the rule will be applied to allow a vessel limit to be higher than the control limit without counting the vessel's QP as under the control of the person controlling the vessel. One possibility might be to assume that QP is not under the control of a vessel owner/operator if it is transferred to a vessel account after a landing is made and from an account that the vessel owner/operator does not control or have an ownership interest in. On the one hand this might add some administrative cost and complexity. On the other hand, if all ownership data is already recorded for the purpose of monitoring the control limits, the additional cross-check on QP transferred during the 30 day grace period may not be a substantial burden.

❖ Element 3 – Time Allowed to Cover a Landing (and Minimum Holding Requirement)

The provision allowing 30 days to cover a landing has a bearing on objectives related to conservation, net benefits (including program costs), sector health and program performance. The BC groundfish trawl fishery allows 30 days, in New Zealand 15 days are provided, and in Nova Scotia 45 days are provided (Sanchirico, *et al.* 2005). The Icelandic system provides 3 days from the time vessels are notified they have an overage. After three days, the vessel's permit is suspended. Under our proposed program, the vessel would be held responsible for ensuring that it never fishes with an overage (deficit in its account). If it is detected that a vessel has fished with a deficit, the vessel would be subject to a notice of violation. Thus, in a sense it is more restrictive than the Icelandic system which provides a 3-day grace period. However, the vessel may carry a deficit for up to 30 days without being in violation of the program so long as during that period it does not take part in any fishing that falls under the scope of the program.

Ability to monitor and enforce this provision will have a major effect on its impacts. Therefore, we will first discuss the relationship between this provision and monitoring and enforcement with respect to program performance and then look at different requirements and their impacts on other objectives.

♦ *Monitoring and Enforcement*

The IFQ program will require 100% at-sea monitoring (see Section A-2.3.1). Complete monitoring is required because the QP is required to cover catch, including discards, and QP for some species is likely to be quite expensive (overfished species) while the per pound value of those species is relatively low; there will be a significant incentive for vessels to discard those species if there is not full monitoring.

A program that requires QP be held at some time prior to offloading would allow a greater opportunity for enforcement activity during fishing or offloading activities. Enforcement officers in the field (USCG at-sea, or state or NMFS agents on the dock) could determine at the time of interception whether the vessel has sufficient QP to cover a particular landing. When violators can be detected and cited in the field, or shortly after a landing, enforcement actions can be taken more efficiently (e.g., the collection of needed evidence) and deterrence is created as information about potential violators being cited gets out to the fleet more rapidly. However, given the tight monitoring system, field enforcement will not likely increase the frequency with which violations are detected.

With a coverage requirement that provides little or no time after a landing for vessels to acquire the needed QP, if the consequences of the overage are economically significant (as might be the case for an overfished species) the vessel will have incentive to seek to under report catch. For example they might interfere with the observers activities (e.g., discarding fish before the observer has a chance to identify and weigh them), put excessive pressure on observers by questioning the observers measurements, or by other means. Allowing for delayed resolution of accounts (e.g. 30 days) will somewhat reduce incentives to underreport by providing vessels a longer opportunity to find QP at the lowest available price.

A program that requires some amount of QP be held prior to departing from port would add another rule which would have to be monitored and enforced. Under such a rule it is likely that the species for which QP must be held would depend on where the vessel is intending to fish. This would be enforced either during at-sea boardings or after-the-fact matching of the vessel's fishing locations to the balances in its account before it departed. Such a requirement would add to program administration and enforcement costs.

♦ *Conservation*

The conservation concern is whether this provision will increase the likelihood that the fleet might exceed its allocation of a particular stock and as a consequence exceed the overall OY. Assuming that vessels fish without QP, providing a 30 day period to balance the QP account will create a lag time between when the last of the trawl allocation for the year is taken and when the last of the QP disappears from the market. The prohibition on fishing for vessels with a deficit and the high cost of QP when they are in short supply provide substantial disincentives for risky behavior, such as delaying until the last moment the acquisition of needed QP. Additionally, not allowing a vessel with a deficit to fish ensures that on average over the longer term of a few years the fleet will not exceed its allocation (this may be changed if Option 1 or 2 of Element 6 is adopted). The overage and underage carryover provision will increase the probability that the fleet as a whole does not go over its allocation in a particular year since vessels will not face losing QP (up to 10%) if they do not fish to the maximum in the current year. The Canadian system allows 30 days to cover an overage and has a carryover provision. There, total allowable catches are only occasionally taken and rarely exceeded. If that experience holds true for this program there would appear to be little risk that optimum yield (OY) would be exceeded due to vessels catching fish for which they do not have QP and then not being able to acquire the needed QP after landing. However, based on their experience, the greatest risk in this regard will be for constraining

species. If on an annual basis the trawl fishery approaches harvest levels that exceed their allocation, the Council will need to ensure that the provisions of the MSA are met with respect to annual catch limits. To do this the Council may take action in advance or inseason. For example, in advance of the season buffers might be established (see discussion of this issue in the section on carry-overs (Section A-2.2.2-b)). During the season, if fleet catch for a particular species starts approaching the total trawl allocation and significant amounts of target species QP for the year remain there may be restrictions on fishing areas (Section A-1.3).

A minimum holding requirement was considered. In Nova Scotia a vessel is required to have 1 mt of IFQ before fishing. Here the minimum holding requirement was considered as a possible way to ensure a vessel had at least some QP to cover its landing, and in particular for overfished species. While helpful in ensuring that a vessel could cover its landing of an overfished species, it would not be possible to set such a requirement at a level that would ensure a vessel could cover a disaster tow. If the minimum holding requirement were based on fishing areas or hot spots, it would encourage fishermen to stay out of those areas if they were unable to acquire the needed QP, as might be the case particularly toward the end of the season.

♦ *Economic Effects*

Providing a significant period of time after a landing to cover the catch will

- decrease the average price paid for the QP
- provide greater business flexibility and increase the availability of QP on the market
- improve the market function

The less time a vessel has between when it knows the exact composition of its trip and when it has to have the QP to cover that catch, the less time a vessel will have to search for QP at the cheapest price. Vessels in that situation are more likely to pay a higher "spot price" for the QP they need. To avoid paying those higher prices a vessel is more likely to hold a large QP inventory on the chance it might need it. This would reduce the amount of QP available on the market and result in even higher spot prices. Conversely, providing a longer time to acquire QP will allow vessels to get the word out about the QP they need, search for the lowest available price, and reduce their need to carry an inventory of QP. This will improve market function, particularly if markets for some species are relatively thin (meaning the amount of QP available for trade at any time is relatively limited).

In the extreme, a minimum holding requirement would require that a vessel have certain QP in its account before departing on a trip or entering into certain fishing areas (hot spots or depth zones). The species for which a vessel would be required to hold QP would likely be those for which there are the fewest QP available and the greatest conservation concern (overfished species). Requiring vessels to hold those QP on the chance they are needed would reduce their availability to those who have already encountered those species and need them to cover their catch. This would increase the QP price for the already expensive overfished species and may hamper the fleet's ability to take target species. If this provision were structured such that a vessel could meet this minimum holding requirement by entering into a risk pool with other vessels, the minimum holding requirement would likely drive more vessels into such pools. Given that these pools would be voluntary associations, those who had a reputation for encountering high amounts of bycatch or otherwise were not welcome in an association would likely face higher risks and higher costs if they encountered a disaster tow of overfished species. Thus, it is likely that these individuals would be forced out of the fishery more rapidly with a minimum holding requirement. The incorporation of voluntary risk pools as a formal part of the program would require establishment of standards and rules for such pools and add to program administrative costs.

❖ Element 4 – Fishing Restriction While In Deficit

Prohibiting a vessel from fishing while in deficit may have an impact on objectives related to conservation, net benefits, efficiency and program performance. In this section we will first evaluate the fisheries in which participation may be restricted and then discuss effects on goals and objectives.

- Fishing Restrictions

Section A-1.1 identifies the *directed* groundfish gears covered by the program as follows:

> all *legal* commercial groundfish gear including limited entry gear and commercial vertical hook and line, troll and dinglebar gear.

- Impacts

The prohibition of fishing while in deficit is expected to provide an incentive to vessels to cover their QP in a timely manner, including minimizing their risk of being caught in a situation in which they are unable to acquire QP. This strong incentive is expected to mitigate the potential negative effect of the 30 day time lag provided in Element 3 and thereby expected to promote conservation objectives. Even though under Element 3 a vessel would be allowed to continue to fish immediately upon completion of a landing, without waiting for an official resolution of its QP account balance, if after the account balance is resolved it turns out the vessel went fishing with a deficit, the vessel would be subject to a notice of violation. The two concerns in this regard would be the potential for an accounting error on the vessel's part, or flagrant violation by a vessel which had determined that it no longer wished to continue to participate in the fishery, or at least not any sooner than might be allowed by an exception under Element 6. Under the latter circumstance, a vessel might knowingly make as many trips as possible before the overage balance is detected. However, because of the VMS system requirements and the requirements to carry an observer, it is virtually certain that once the vessel's negative balance became known, illegal fishing occurring during the period of that negative balance would be flagged and a notice of violation issued. Therefore it is expected that the fishing restriction provision can be effectively implemented even with the 30 day accounting lag of Element 3 and the allowance for vessels to continue fishing prior to an official determination of their account balance.

Efficiency and net benefits are expected to be promoted by allowing a vessel to estimate QP balances on their own and continue fishing directly after completion of an offload. Such flexibility is expected to reduce vessel operating costs and allow for the development of a catch-QP tracking system that is less costly and has a somewhat slower turn around, but still performs well enough to meet industry needs.

❖ Element 5 – Transfer of Permits Prohibited While In Deficit

This provision provides a disincentive for activities that might otherwise compromise conservation objectives. The purpose of prohibiting a vessel with a deficit from transferring its permit is to provide further incentives for a vessel to avoid the deficit and reduces opportunity to abuse the system. In particular, it puts additional assets at risk for a vessel that might decide to flaunt the system and maximize its catch before overages are detected. Thus it increases the vessels risk exposure if it were to decide to engage in an illegal action. To administratively complement this requirement, no permit transfers would be allowed between the time of a vessel's landing and the time its QP account has been debited for that landing. Because permit values are expected to decline substantially with the imposition

of an IFQ program, the disincentive provided by the potential loss of ability to transfer a permit will be lower than might be expected based on current permit values.

The impounding of QS and QP transfers while a vessel is in deficit was also considered. QS are not associated with a vessel so there is not an opportunity to freeze QS account transfers while account balances are being resolved; and the vessel may need its QP to generate revenue to acquire the QP it needs to cover the species for which it has a deficit. Freezing QP would also penalize other vessels by eliminating that QP from availability on the market, potentially increasing market prices.

❖ Element 6 – Alternative Compliance Options

This provision is intended to address objectives related to fairness and equity, efficiency and net benefits, and sector health, but may also affect conservation objectives.

- Conservation

With respect to the conservation objectives, a potential negative impact of this provision is that a vessel, knowing there is a limit to the time it is off the water, might take advantage of this provision by intentionally fishing into a deficit and planning to rely on other fishing activities until such time as the Element 6 exception allows it to resume fishing (e.g., a vessel might fish its QP account into a large deficit, go to Alaska for two years then return or sell off its permits after the fishing restriction has expired). When a vessel resumes fishing without having ever covered its deficit then the conservation objectives will not have been met, unless there has been a buffer or some other measure that has kept total harvest within the OY.

The sliding scale option (Option 2) would provide a variable way for determining the amount of time that a vessel would be off the water and may provide some additional equity by being more responsive to particular circumstances but would not avoid the possibility that fishermen will determine in advance the amount of time they would be off the water and accept that as part of the cost of their overage.

- Fairness, Efficiency, and Sector Health

The fairness and sector health concern is related to the relatively random nature of the encounters with overfished species. The amount of several overfished species available to the fishery is very small and there is some uncertainty associated with catch when a vessel deploys it's net. While for many tows there will be no encounters with a particular overfished species, there is a possibility that on a single tow one trawl vessel could exceed it's holding of QP and have a substantial inability to cover that overage by purchasing QP. This could be because the overfished species QP is extremely costly and the vessel owner/operator may not have access to sufficient funds, and/or the amount of overfished species QP available on the market may not be sufficient to cover that overage. Given the uncertainty surrounding potential catch of overfished species, individuals may withhold QP from the market. Vessels holding QP as insurance against a low probability event may create even more of a market shortage and higher prices for vessels that need it to cover a deficit.

Available information shows that there are more trawl tows that result in zero encounters of relatively rare overfished species (such as yelloweye, Figure A-35) than there are tows where there are substantial quantities. Given that targeting of overfished species has been eliminated and avoiding overfished species is encouraged in all sectors, this information suggests that encounters of such species are relatively uncommon, but the magnitude of those encounters can be relatively large. This creates a case

where the encounters of overfished species may not affect the entire fishery by a large degree since more vessels are avoiding them than not, but the implication to the individual catching those fish may be quite large if that individual is held individually accountable.

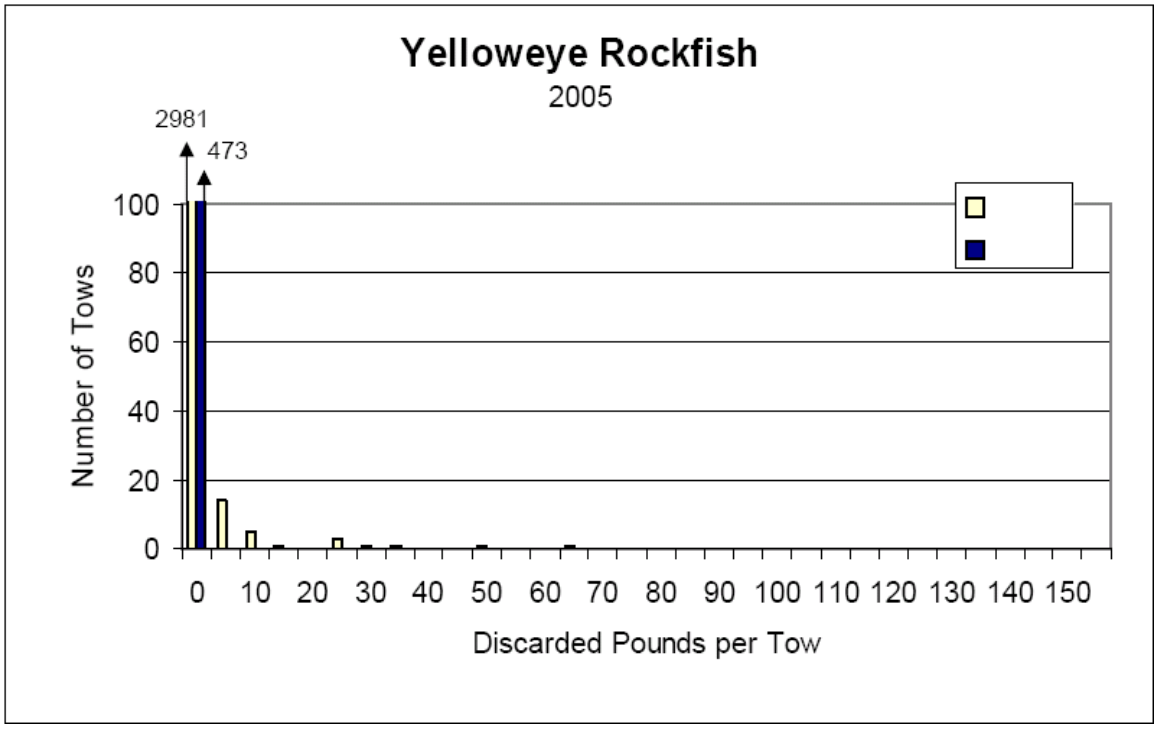

Figure A-35. Observed Discard of Yelloweye Rockfish in the Non-whiting Trawl Fishery (note: at least one tow occurred in 2004 with > 100 lbs)

The potential for unexpected overages will likely be exacerbated by the rebuilding paradox. The rebuilding paradox has to do with the lag time between when fish become more available to the fishery (more abundant in the catch) and when the increased abundance is detected and OYs appropriately increased. It results in harvests greater than expected. Under an IFQ program, it would mean less QP would be available than might be appropriate given the true stock abundances and encounter rates.

To outline the magnitude of the problem, the following scenario was developed. This scenario assumes that the non-whiting trawl sector will be allocated 0.5 metric tons of yelloweye rockfish, and that the number of participants in that fishery consolidates to 60 vessels. This means that there would be approximately 3 yelloweye rockfish available to each vessel. If each of those vessels intends to hedge against uncertainty by holding on to only 1 fish, the effect is that approximately 40% of the sector allocation is not available for purchase on the market. This reduces the chance that vessels with deficits can cover their catch by purchasing quota pounds and increases the cost of purchasing quota pounds because the supply on the market is less.

	Available Quantity of Yelloweye under Initial Allocation	Quantity Available on the Market if Hedging Occurs
Lbs available to the sector	1,102	682
Lbs per vessel	18	11
No. of Fish per Vessel	3	2

Under status quo management, the effect of harvest in excess of what is expected falls to the individual, but also across the entire fleet in the form of inseason reductions in cumulative limits. Additionally, the duration of the direct impact of the unexpected high harvests on vessels and the fleet is limited in that the cumulative limits start over every two months and the fishery starts over each year with a new OY and fleet allocation. Under the IFQ program, the effect of random occurrences of high bycatch "disaster" tows may fall on a few vessels at a time; and, absent the exceptions provided in this element, the burden of making up for the random occurrences is not relieved at the end of a year. If the occurrence of high bycatch tows is truly random, there could be fairness concerns as well as concerns about sector health and efficiency of the fishery. A few vessels could end up bearing the burden for a situation that is faced by the fleet as a whole. Further, if a certain number of vessels are sitting out every year waiting to accumulate enough QP for a particular species in order to re-enter, a larger fleet may result (as an example, if the optimal fleet size is 70 and on average 7 vessels sit out every year, something close to 10% more capital might be dedicated to the fishery than is optimal).

The primary equity and conservation concerns of this provision apply to overfished species that are taken incidentally along with target species. The provision, as currently worded covers all species. It therefore may provide more of an exception than is necessary to address the identified objectives related to fairness and sector health.

To address this concern with respect to overfished species the Council also considered but rejected the release of overfished species through an IFQ auction. Concern was expressed about the administrative cost and complexity, whether it would ultimately relieve price concerns about overfished species QP, and how vessels would be able to access QP as needed (before auctions occurred).

A-2.2.2 IFQ Annual Issuance

A-2.2.2.a Annual QP Issuance

❖ Provisions and Options

QP will be issued annually to QS holders based on the amount of QS held.
As specified above, QS holders will have to transfer their QP to a vessel account in order for those QP to be used.

❖ Rationale and Policy Issues

Annual issuance of QP is in line with the annual setting of the OYs. Providing the IFQ as shares (QS) rather than absolute poundage provides flexibility so that reallocation is not needed as the optimum yields or trawl allocations change.

❖ Interlinked Elements

Numerous features of the program rely on this structure of the IFQ privilege (the issuance of QS with QP issued annually to QS holders). Any change in this basic provision would require substantial reconsideration of numerous provisions and the redevelopment of the IFQ alternative.

❖ Analysis

Issuing IFQ as shares which then entitle the holder to annual harvest privileges (QP) is a means by which the Council "take[s] into account and allow[s] for variations among, and contingencies in, fisheries, fishery resources, and catches" as required by National Standard 6 of the MSA. Alternatives are to issue QP anew each year (eliminating the benefits from long-term planning, increasing program complexity, reducing the opportunity to rationalize the fishery, and substantially increasing program costs) or issue QP that are valid across a number of years (increasing program costs and creating equity and reverse allocation issues, if some QP need to be recalled because of declines in the amounts of fish available to trawlers for harvest).

A-2.2.2.b Carryover (Surplus or Deficit)

❖ Provisions and Options

A carryover allowance will allow **surplus** QP in a vessel's QP account to be carried over from one year to the next or allow a **deficit** in a vessel's QP account for one year to be carried over and covered with QP from a subsequent year. QP may not be carried over for more than one year.

A vessel with a QP **surplus** at the end of the current year will be able to use that QP in the immediately following year, up to the limit of the carryover allowance (see below).

A vessel with a QP **deficit** in the current year will be able to cover that deficit with QP from the following year without incurring a violation if

(1) the amount of QP it needs from the following year is within the carryover allowance (see below), and

(2) the QP are acquired within the time limits specified in A-2.2.1.[50]

Carryover Allowance: There is a limit of up to 10 percent carryover for each species. This applies to both non-overfished species and overfished species. The percentage is calculated based on the total pounds (used and unused) in a vessel's QP account for the current year.[51]
Note: This provision relates only to carry-over of what is in the vessel's account.

❖ Rationale and Options Considered but not Analyzed Further

In order to understand how the carryover provision would work, it helps to revisit how the practical distribution and use of quota pounds (QP) will work. Before the start of the fishing season and after the

[50] Carryover of deficits provides some flexibility to use pounds from a year to cover a deficit from a previous year. Without a carryover provision, a vessel would still need to use pounds in a subsequent year to cover an overage but would incur a violation.

[51] There has been some GMT discussion of a possible need for the QP surpluses carried over to a following year be adjusted proportionally in the following year if the trawl allocation for the following year changes.

OY has been established, the trawl sectors will be allotted apportionments of the OY for each quota managed species. The trawl sector portion of the OY will be distributed to quota share (QS) holders. Each quota share will be equivalent to a certain poundage for that year for each quota species (it will change from year to year if the OY changes). The quota pounds must then be transferred from the quota share holder to a vessel. The transfer could be a sale, a lease, or a contract agreement. The quota pounds are then associated with a vessel: the vessel is responsible for any QP overage or underage incurred, because it is at the vessel level where the catch accounting will occur. Any overage or underage is not linked back to the QS, and the QS holder the next year will be allocated 100 percent of the QP associated with the QS. In other words, a QP overage will not be deducted from the original QS holder's future QP. The responsibility for the overage stops with the vessel. The 10 percent allowable carryover for a vessel would be calculated based on all the QP the vessel held (used or unused) in its account for the entire season.

The term "carryover" in this analysis refers to the vessel's quota pounds that are either in surplus or deficit from one year to the next. A carryover provision would allow a vessel to keep a percentage of un-fished quota pounds (a surplus of quota pounds) for use the following year. If 90 percent of an individual's quota pounds are harvested in the first year, then in the second year that remaining 10 percent could be harvested in addition to 100 percent of the second year's quota pounds. Conversely, the carryover provision would allow up to 10 percent over-harvest in one year to be deducted from the following year's QP allotment. If the harvest in a year was equal to 110 percent of the QP in the vessel account, that 10 percent QP overage would be deducted from the following year's quota pounds acquired by that vessel. QP surpluses could not be carried over for more than one year.

The Council could choose to allow carryover of surplus QP, but not deficit. An asymmetrical carryover provision is one where the carryover percentages would be different from each other. For example, Iceland allows a 20 percent carryover and 5 percent carry back (Sanchirico, *et al.* 2005). Additionally, carryover allowances need not be set at a constant level indefinitely. The carry over provision could be specified to allow the Council to recommend changes in the overage and underage allowances from year to year based on stock conditions and previous years' experiences.

Carryover provisions may 1) decrease the incentive to take the maximum harvest within a year by fishing as close as possible to individual annual limits and, in a multi-species fishery, provide more flexibility for fishermen to fully take the allowable catch on average across years, 2) decrease the incentive to attempt to underreport when an individual does not have enough quota pounds to cover catch, and 3) reduce the need to penalize fishermen for overages (if that overage is within the 10 percent carryover window). Additionally, the carryover provision imbues the asset (quota pounds) with usefulness over a longer time frame than a single season.

This type of flexibility would be particularly useful in multispecies fisheries in which some species have OYs that are very low relative to others and relative to their occurrence in the catch, and in fisheries where avoiding catch of unwanted species is not entirely possible. In a multi-species fishery it is highly likely that not all species will be fully exploited, because the catch ratio of species to other species is imperfect. With no carryover provision, vessels would attempt to fully utilize QP by transferring QP among themselves. Full utilization of their QP portfolio would likely be achieved through a combination of their own harvest and the sale of QP to vessels needing them to fill out a trip. However, unless the quota pound market is highly liquid and the transfer costs are low, it is likely that not all quota pounds for all species will be harvested. The carryover provision provides the harvester with some flexibility to more fully utilize their QP allocation without transferring QP to others. This provision is most likely to be utilized at the end of the fishing season when there may not be enough quota to cover the catch of the various mix of species either in an individual's account or on the quota market. The same advantage

that vessels gain from being able to hold QP over from one year to the next will be a disadvantage to vessels looking to acquire QP to cover their catch.

Not linking the QP back to the QS holder will reduce administrative costs of the carry-over provision. For example, a single vessel could harvest quota pounds that have come from several different quota share holders. Under this scenario, it is far easier administratively to apply overages and underages to a single vessel's QP account than back to multiple share holders' QS. To link the QP back to the QS holder account would require the harvester to declare at the time of landing the catch which QS holder's QP were caught. This tracking would add a layer of complexity to the tracking and monitoring component of the trawl rationalization program. For this reason, the carryover provision would apply only to quota pounds held in a vessel account, and the owner of the QP would be responsible for any overage occurring on that vessel.

The following options for the carryover allowance were considered but rejected:

- For all species (of which the carryover could be different percentages for overfished than for non-overfished species): 5 percent or 30 percent
- For overfished species only: No carryover
- For quota pounds that were never transferred to a vessel account: carryover would apply

The range above and below 10% were rejected because of too little benefit (5%) or too much risk of overharvesting the fleet's annual limits (30%). The option of not having a carry-over for overfished species was rejected because it is the overfished species for which the greatest flexibility may be needed. Applying the carryover to QP that were never transferred to a vessel account was rejected to encourage the use of the QP by increasing the incentive to transfer the QP to a vessel account.

The GMT has recommended that to meet conservation objectives for a stock with a declining ABC that the Council should reserve the opportunity to proportionally reduce carryover QP. For example, if an ABC/OY declines by 50 percent, all carryover QP would be reduced by 50 percent. If someone had 100 QP carried over to the coming year, they would instead have 50 pounds to carryover.

The carryover provision is anticipated to increase individual flexibility for harvesters/vessels and improve sector health. Therefore the carryover provision affects the achievement of objectives related to MSA National Standard 5 (consider efficiency), Groundfish FMP Goal 2 (maximize the value of the groundfish resource as a whole), and Objective 2 of Amendment 20 (provide for an efficient groundfish fishery).

Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
	X				X					

❖ Interlinked Elements

Permit/IFQ Holding Requirement – The carryover provision will affect the timeframes in which the enforcement provisions are carried out.

Tracking and Monitoring – The total amount of QP held in a vessel account overall and also at the end of the fishing season will determine how many QP will carryover as surplus or deficit. Those amounts must be tracked and connected with a vessel.

Accumulation limits – QP that are carried over from a previous year may put a vessel over any possible accumulation limits that would be established. Carryover QP could be exempted from the accumulation limits, and that may or may not add to the tracking and monitoring complexity.

Individual Bycatch Quota – The carryover provision would not apply to IBQ species (Pacific halibut).

❖ Analysis

This section will focus primarily on the impacts to individual harvesters, links to enforcement issues, collective impacts at a sector level, and market and conservation implications. The carryover provision is related to the sector health goals and objectives. Those effects will be reviewed here in the context of impacts on harvesters (vessels) and sectors.

● Impacts on Individual Harvesters (Vessels) and Enforcement

Carryover a deficit

At the start of a season, quota pounds of varying amounts for various species would be registered to a particular vessel. Once that vessel harvests more pounds of a certain species than the poundage held in the account, the vessel is anticipated to buy quota pounds from another vessel or QP holder to cover the catch. While midseason quota purchases/transfers can facilitate coverage of catch, as the season progresses there would be fewer QP available for transfer. Near the end of the fishing season, there may be little or no quota available for purchase or lease to cover overages.

The carryover provision would allow a vessel to avoid a penalty when it has an overage. The carryover provision may be utilized if the overage is not more than 10 percent of the total quota poundage held for that species by the vessel during that season. A deficit could not be covered with future quota pounds until the following years' quota pounds are calculated, issued to a QS holder, acquired by the vessel, and placed in a vessel account.

Counting the catch against the following year's QP provides flexibility while still holding the vessel accountable for exceeding its quota pound holdings. This accountability measure does not create large incentives for the vessel to discard its excess harvest (NRC 1999), and is therefore a useful provision for both management and enforcement. Rules regarding not going fishing when a vessel's account is in deficit would still apply (Section A-2.2.1).

Some vessels may choose to view the base quota poundage plus the 10 percent overage allowance (carryover of a deficit) as their target harvest amount. However, this would require fishing close to the point where penalties would be incurred for overages and would risk going beyond the 10 percent carryover. For those wishing to avoid such penalties, the carryover provision provides the vessel with a cushion – to attempt to fully harvest each year's quota pounds without incurring penalties from small

overages or business losses from leaving fish "on the table." Additionally, any overage one year reduces the QP available to the vessel in the following year. Thus the advantage a vessel might gain if it fished at the 110 percent the first year would be at the cost of lost flexibility in all future years until such time as the vessel had an underage. Table A-67 shows an example for a series of years of harvest for a vessel that acquires 100 pounds of QP each year and makes use of the overage provision. In the first year of the series (2010) a 10% overage is shown and the vessel harvests 110 pounds. In the following year it acquired 100 ponds but 10 pounds must go to pay back the 2010 debt, so it can only harvest 90 pounds. In 2012 it repeats the 2010 season with a 10 pound overage, taking a total of 110 pounds. However, in 2013 it pays back the 2012 overage but also incurs a 10% overage for the second year in a row. In 2013, the vessel's harvest is limited to 100 pounds. The vessel can continue to acquire 100 pounds a year and fish 100 pounds a year indefinitely making use of the carryover provision, but it will not be able harvest more than 100 pounds until such time as it has a year in which it harvests less than 100 pounds (assuming it is restricted to acquiring 100 pounds a year).

Table A-67. Example—carryover of QP overage.

	2010	**2011**	**2012**	**2013**
ABC	100%	100%	100%	100%
TAC (OY)	100%	100%	100%	100%
QP	100 lbs.	100 lbs – 10 lbs..	100 lbs.	100 lbs.-10 lbs.
Overage	10%	0%	10%	10%
QP used for year	110 lbs.	90 lbs.	110 lbs.	100 lbs.

Carryover a surplus

Vessels with unused quota pounds from one year would be able to use up to 10 percent of those quota pounds in the following year. The 10 percent unused QP are applied to the vessel account, and would not go to the QS holder.

In a multispecies fishery, it is likely that several species would be underutilized and would carry over a surplus of QP. Allowing a vessel to carryover some portion of its unused quota pounds from one year to the next would decrease the incentive for the vessel to attempt to take its full quota pound holdings and hence decrease the risk of exceeding those QP holdings.

The carryover provision would not allow pounds to be carried over for more than one year. Underages could not be allowed to accumulate across many years, such that potential harvest might far exceed the target in some future year. For example, the most that a vessel's harvest could be is 110 percent of their Year 2 QP holdings plus 10 percent of their Year 1's QP holdings. Like Table A-67, Table A-68 provides an example for a vessel that acquires 100 pounds of QP every year, however, in this case the vessel is making use of the provision that allows it to carry-over an underage. In the first year the vessel takes only 90 pounds and therefore has 10 pounds left over. In the second year it also makes use of the carryover provision, acquires 100 pounds, taking 10 pounds of QP from the previous year, and leaving 10 pounds unused. Its total harvest in the second year is 100 pounds. Assuming it acquires 100 pounds every year and uses the 10% carryover of an underage every year, it will never be able to take more than 110 pounds (in the year that it fully harvests the 100 pounds it acquires that year and makes use of the 10 pounds carried over from the previous year, 2013 in this example).

Table A-68. Example—carryover of unused QP.

	2010	2011	2012	2013
ABC	100%	100%	100%	100%
TAC (OY)	100%	100%	100%	100%
QP	100 lbs.	100 lbs. + 10 lbs.	100 lbs. + 10 lbs.	100 lbs. + 10 lbs
Unused QP	10%	10%	10%	0%
QP used for year	90 lbs.	100 lbs.	100 lbs.	110 lbs.

Quota pounds not associated with a vessel would be zeroed out at the end of the year (e.g., QP held by a crew member, processor or community that have not been transferred to a vessel would not be carried over). In order for a surplus to be eligible to carryover to the following year, the quota pounds have to be transferred to a vessel's account.

- Impacts on Trawl Sectors

Effect on Total Harvest

The trawl sector could collectively harvest either more or less than its sector allocation for a species if many vessels use the carryover provision in the same way. If the collective result is that the sector as a whole carries over a surplus QP, this could result in underharvest of the ABC/OY in the first year and a carryover of a surplus can become an amount in excess of the sector allocation in the following year, if the fleet takes its full allocation plus the carryover. However, it may also develop as a one time deferal of harvest, as has occurred to a certain degree for some species in the BC trawl fishery. In the B.C. trawl fishery, harvesters consistently carryover quota pounds for many speices from one year to the next. Often, it is as much as 30 percent. This means that for those species about 70 percent of the current year's groundfish are harvested (rather than the full allocation) and 30 percent of the previous year's allocation (the surplus carried over) is also harvested. If the same behavior occurs in the west coast trawl fishery, as much as 10 percent of some species may go unharvested in the first year only, and in each subsequent year that 10 percent would be harvested in the next year along with 90 percent of the current year's quota shares. In other words, 100 percent of the ABC/OY trawl allocation would be taken over two years, rather than in one year.

Effect on Flexibility

MSA specifies an annual catch limit that cannot be exceeded in any given year without invoking the "overfishing." Any carryover amount would either have to be under the annual catch limit to keep the fishery in compliance with the MSA, or the FMP amended to show how the carryover of any underage or overage met the conservation and rebuilding _____ without causing overfishing. Those species that have an OY set equal to the ABC might be especially problematic and include the following.

Species with OY set to ABC
Yellowtail rockfish
Shortbelly rockfish
Blackrockfish (WA and OR/CA)
English sole
Arrowtooth flounder

For overfished species harvest in excess of the OY might be allowed in a single year but not on average, so long as the rebuilding plans are revised to take into account the potential overage and ensure that rebuilding targets are not compromised.

- Impacts on Market Conditions

Market implications of a carryover provision may include an increased variability in the short term supply or short term price fluctuations. The rebuilding paradox (as a species rebuilds fishermen encounter it more frequently) may exacerbate that fluctuation. A carryover provision would provide the flexibility to cover catch in the current year with QP from the following year. This between year redistribution of harvest opportunity is not currently available to deal with the rebuilding paradox. However, if the OYs are not increased in the following year the shortage of QP and price increases in the following year may be exacerbated by the carryover.[52]

As an example, the opportunity to cover quota pound overages with QP from a following year increases the total quota pounds available in the first year. However, at the same time, the carryover provision changes an important characteristic of the QP commodity. Without a carryover, the value of the QP goes to zero at the end of the year. Thus at the end of the year there would be no incentive to hold on to unused QP and all QP would likely be released into the market. With a carryover, up to 10 percent of the QP will have some value for use in the following year. In particular, for overfished species which may be high priced and relatively unavailable, even if the end of year prices are very high vessels may hold on to overfished species QP as insurance against the consequences of a disaster tow in the following year (see the analysis on Element 6 in Section A-2.2.1, for additional discussion of this issue). Thus while the quantity potentially available in the first year of the program may be greater with a carryover provision those in a position to sell QP will have more to lose than if the QP expired at the end of the year (the lost opportunity from selling the QP will be higher). Whether the price increases or decreases will depend on the balance between these two factors but any increase in the amount consumed in one year will result in a decreased availability the following year (across all years there is not a net increase in the total supply).

- Impacts on Conservation of the Resource

Carryover provisions could have biological benefits and risks. One benefit is that vessels may choose to avoid harvesting 10 percent of certain species, thereby giving themselves a buffer in the following year against accidental or unanticipated catch. This insurance value of the carryover QP creates an additional incentive for vessels to avoid the low yield species so that there would be quota left at the end of the year to either carryover or to sell to others to carryover as surplus.

A biological risk of the carryover provision is the risk of a fleet total overage that could occur if many individuals choose to carryover a deficit. With severe constraints on the harvest of overfished species expected to continue, it is possible that many vessels could exceed the quota pounds (i.e., carryover in deficit) for those species. The rebuilding paradox (i.e., as a species rebuilds fishermen encounter it more frequently, however, due to an information lag the higher encounter rates precede any upward adjustments to stock assessments and management targets) would add to the possibility that harvesters might carry over a deficit. However; to comply with the MSA, overages in one year would be balanced out (deducted) in the next year, on average the trawl allocation would be taken, and the ABC would not be exceeded in any one year.

[52] Under the biennial management process, ABCs and OYs are set for two years at a time.

This concept of hitting the target harvest amounts "on average" is complimentary to the Optimum Yield (OY) concept. The OY is a target to be achieved over the long-term. One exception is for rebuilding species, where the OY is a hard cap that should not be exceeded in a given year, unless accounted for in the rebuilding plan. If the carryover provision is applied to rebuilding species QP, rebuilding plans may need to be amended. For healthier groundfish stocks (where OY is set below ABC), there may be more management flexibility to allow OY overages so long as the OY is achieved on average. Whether or not the carryover provision is appropriate for a particular stock will depend on whether or not the OY is set below the ABC, and, for overfished species, on whether the carryover provision is accounted for in the rebuilding plan.

Managing the trawl fishery by achieving the OY "on average" could also be facilitated by creating a buffer for the trawl sector, a general buffer to cover overage by any sector (including trawl), or a two-year or a multi-year OY/ABC. At one extreme, to achieve the needed buffer, the OY could be set far enough below the ABC to accommodate the possibility of all vessels harvesting in a single year the 10 percent carryover from the prior year, plus all the QP for the current year, plus the 10 percent overage to be deducted from the following year.

Should a multiyear OY period be utilized, the stock life history characteristics[53] should be considered, as well as a strategy for incorporating new stock assessment information in the middle of a management period. While an OY could be set for a multiyear period, quota pounds would be issued annually. The GMT suggested that the carryover QP could be reduced by the same percentage which the OY is reduced to address the concern that the carryover has the potential to be detrimental to stock management if there is a substantial reduction in OY from one year to the next. In the British Columbia program, managers reserve the right to retract or alter the carryover QP if necessary for conservation purposes.

- Other IFQ Programs with a Carryover Provision

Several international and national individual fishing quota (IFQ) programs utilize a carryover tool to provide increased flexibility to individual harvesters and allow for various fishing strategies. Typically, quota pounds carryover for only one year due to administrative/tracking burdens and biological risks of extending carried over quota pounds for several years.

Some carryover provisions are symmetrical where the percentage that can be carried over or carried back is the same. For example, the Southeast Australia trawl fishery has a symmetrical carryover provision, which started at 10 percent and later increased to 20 percent.

Iceland has an asymmetrical provision where a 20 percent underage can be carried over but only a 5 percent overage carried forward. In the Icelandic management program, about 60 percent of harvesters carryover a surplus while only about 10 percent carryover a deficit (Sanchirico, *et al.* 2005). A general pattern in quota share management programs is that the carryover provision for a surplus is used to a greater degree and to a larger volume than the carryover provision for a deficit.

Nova Scotia had a graduated carryover schedule that depended on the total overage amount. As the total overage amount grew, the greater the number of next year's quota pounds it would take to cover one

[53] Faster growing stocks with shorter mean generation times and fewer age classes should probably be managed with shorter OY periods. The most constraining rockfish stocks on the West Coast (i.e., cowcod, canary, and yelloweye rockfish) have many age classes in their populations and might be better managed with longer OY periods. Factors such as mean generation time and recruitment variability may be important considerations in selecting a risk-averse multiyear OY period.

pound of overage. For example, if the overage was in excess of 20 tons, three quota pounds from the next season would be carried back to cover 1 quota pound of overage. However, due to a court case that deemed those graduated ratios as overly punitive, the Nova Scotia program has since reverted to a one-to-one ratio.

New Zealand no longer has a 10 percent carry back provision, and now overages must either be covered by purchasing quota pounds within the same fishing season/year or by making a payment based on the deemed value of the overage.

The North Pacific region of the U.S. has a number of IFQ, cooperative, and rationalization programs, but only one has a carryover provision. The halibut and sablefish individual fishing quota program, the first to be developed in the North Pacific, has a 10 percent carryover provision for both surplus and deficit quota. All future rationalization programs in Alaska, including pollock cooperatives, Community Development Quota, crab rationalization, rockfish pilot program, and the head and gut trawl catcher/processor limited access privilege program, do not have carryover provisions. Applying the carryover/under to halibut/sablefish quota shares has proven difficult to implement. In the halibut/sablefish regulations, the carryover provision is required to follow the quota share. Because quota shares and quota pounds can change hands many times throughout the year, it is not simple to follow the quota shares, determine how they are fished and then deduct or add on carryover pounds to the following year's quota shares. Furthermore, the carryover/under calculation is not done until the TAC is established by IPHC in late January, which delays the ability of fishermen to sell quota shares because they are not able to tell the buyer exactly how many surplus or deficit quota pounds are tied to the quota shares until close to the start of the season. The administrative burden of the carryover provision in halibut/sablefish is high, due to the structure of the carryover provision and the timing of the catch reporting and annual quota issuance.

The groundfish trawl fishery in British Columbia has similar species and gear types to the U.S. west coast groundfish limited entry trawl fishery. The British Columbia individual vessel quota (IVQ) program has a symmetrical 30 percent carryover provision for most species. Anecdotal accounts report that most harvesters attempt to carryover the full 30 percent each year for many species. Species with low TACs have low or no overage allowances. If catch exceeds the allowed overage, quota pounds must be obtained to match the catch overage within 30 days or before the next fishing trip. Until the catch overage is covered by the quota pounds in the fishing area where the overage occurred, the fisherman is restricted to mid-water trawl fishing for the remainder of the fishing year.

In the British Columbia system, anyone owning a vessel license is allowed to carryover a surplus or deficit up to 30 percent of pounds held.[54] In the instance where catch exceeds the allowed carryover of a deficit, catch can be retained but the revenue from that catch must be relinquished to the Canadian Groundfish Research and Conservation Society, an organization that conducts research for the benefit of the fishery. The Society is responsible for securing the monies owed. In addition, the pounds of fish caught in excess of the overage allowance are deducted from next year's allocation. The B.C. experience has been that penalties for violations of carry back provisions have only been assessed twice in the past seven years. The British Columbia Groundfish Trawl Management Plan can be accessed through: http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/.

[54] Overages are set lower for some species including hake (15%), Pacific cod in certain areas (0%), and halibut (15% underage, 0% overage) to safeguard against an undesirable deviation from the TAC.

The following table indicates that the B.C. fleet underharvested targets far more often than they exceeded targets. The number of TACs exceeded and the amount by which they were exceeded are significantly lower in the last three years, as compared to the first three years of the program.

Fishing Year	Number of TACs	Number Exceeded	TACs Exceeded - Species (Percent Over)
'97-'98	54	3	Silvergray Rockfish, Area 5C/D (3.34%) Pacific Ocean Perch, Area 5E (1.04%) Roughey Rockfish, Coastwide (10.30%)
'98-'99	52	5	Yellowtail Rockfish, Rest of Coast (0.11%) Silvergray Rockfish, Area 5C/D (2.62%) Pacific Ocean Perch, Area 5E (4.79%) Pacific Hake, Coastwide (7.72%) Pacific Hake, Joint Venture (10.33%)
'99-'00	52	5	Yellowtail Rockfish, Area 3C (5.40%) Yellowtail Rockfish, Rest of Coast (3.61%) Silvergray Rockfish, Area 5E (3.12%) Pacific Ocean Perch, Area 5E (3.65%) Pacific Hake, Joint Venture (4.00%)
'00-'01	53	2	Yellowtail Rockfish, Rest of Coast (4.78%) Pacific Ocean Perch, Area 5E (2.92%)
'01-'02	53	2	Yellowtail Rockfish, Rest of Coast (0.77%) Pacific Ocean Perch, Area 5E (2.92%)
'02-'03	54	1	Yellowtail Rockfish Area 3C (0.87%)
'03-'04	54	3	Silvergray Rockfish, Area 5E (7.80%) Pacific Ocean Perch, Area 5E (2.43%) Sablefish, coastwide (8.32%)
'04-'05	55	2	Silvergray Rockfish, Area 5A/B (1.24%) Pacific Ocean Perch, Area 5E (10.86%)
'05-'06	56	1	Pacific Ocean Perch, Area 5E (4.00%)
'06-'07	58	1	Pacific Ocean Perch, Area 3C (11.13%)

Source: http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/Groundfish/GFTrawl/GfTrawl Info.htm

The TACs are adjusted each year based on the previous year's overage or underage. Thus the yellowtail rockfish TAC that was exceeded in the 2002-2003 fishing year had been reduced by an amount equal to 2.92 percent of the 2001-2002 TAC (if the 2002-2003 TAC had not been adjusted downward due to the previous year's overage, the harvest would have been within the unadjusted 2002-2003 TAC). Because there is 100 percent observer coverage in the Canadian system, the small percent overage estimates are more likely to reflect actual overages than would be the case if such an estimate were derived for the current U.S. west coast bottom trawl fishery.

Social Benefits versus Net Economic Benefit Trade-Off

This section summarizes the effect of the carryover provision by looking at it from the consequences of there not being a carryover provision.

Without the carryover provision:

- There would be less flexibility and it would be more difficult for harvesters to take all of their own QP without risking overages and penalties. Alternatively, they may reap some benefit

from most of their QP and avoid the risk if, as they reach their limits, they sell their left over QP rather than trying to harvest it.

- If there are more overages, more penalties would have to be imposed. There would be associated enforcement and administrative costs with these other penalties.
- QP costs toward the end of the year may be higher or lower, depending on the effect of the opportunity to use QP in the following year or the willingness of harvesters to release current year QP onto the market.
- Adjustments to OYs, trawl allocations, buffers and rebuilding plans would not be required to keep the system in compliance with the MSA.
- Any surplus QP would not be taken in the next year and would be left to contribute to ecosystem processes.

A-2.2.2.c Quota Share Use-or-Lose Provisions

❖ Provisions and Options

None. The need for this provision will be evaluated as part of the program review process, and the provision could be added later, if necessary.

❖ Rationale and Policy Issues

A use-or-lose provision requires that QS (converted to QP) be actively fished within some time period or the QS must be surrendered (possibly to be reallocated). No use-or-lose provision is included in the IFQ alternative. The need for this provision will be evaluated as part of the program review process, and the provision could be added later, if necessary.

Concerns motivating consideration of this provision stem from a desire to ensure that one of the primary Council goals for the groundfish fishery is met: full utilization within biological constraints. A use-or-lose provision would prevent the reservation of quota by persons that may not use it for a variety of reasons including: acquisition of large amounts of quota shares for a key species and then cornering the market for it or to impose more restrictive conservation measures than those determined by the Council and NMFS to be necessary to achieve optimum yield levels. Non-use of QS may adversely affect objectives for the IFQ program related to net benefits and efficiency, fairness and equity, sector health, labor opportunities, community benefits, impacts on small entities, and new entrants. While the Council has not adopted a use-or-lose provision at this time, it is the Council's intent that the Federal government, acting under the authority of the MS Act, not abdicate its role in determining the appropriate level of removals.

A number of use-or-lose provisions were considered for inclusion in the current program but were rejected because of tracking costs and absent an adequate tracking program it would be easy to evade the use-or-lose provision. For example:

- Use-or-lose Provision: Require a minimum amount of QS usage in order to retain ownership (e.g., some minimum poundage landed within x number of years to keep active status), otherwise the QS is revoked and redistributed (e.g., the QS could be divided among the active participants proportionally to their QS holdings, allocated to new entrants, crew members, etc.). Time periods considered included use in at least one in three years and in at least three in five years.

In deciding not to pursue development of a use-or-lose provision at this time it was noted that the accumulation limit provision would make it somewhat more difficult for a single entity to acquire and not use significant amounts of QS. However, there was still some concern that multiple entities might acquire QS and withhold use in concert with one another. It was also noted that once the program is in place it may become more difficult to add a use-or-lose provision.

❖ Interlinked Elements

There are certain provisions of the program that make the use-or-lose provision more of a concern than it might otherwise be. One of these is the rule on who is eligible to own, which is specified so as to cover all US citizens and other US controlled entities. It has been suggested that this provision might be narrowed to reduce that concern. The TIQC recommended achieving the intent of a use-or-lose provision by adding a new provision to the IFQ alternative that requires that all quota shares be assigned to a vessel with a limited entry permit. The rationale was that while it would not require the vessel fish that quota, the need to obtain cooperation from the vessel owner in order to own and withhold shares could still serve as a partial, though not insurmountable, deterrent. There was also mention of including processors in the group eligible to own.

Also making the need for a use-or-lose provision a concern is the question of whether the accumulation limits will be effective.

While a use-or-lose provision penalizes nonuse, a carryover provision for underages (Section A-2.2.2-b) would be designed to accommodate nonuse. If both use-or-lose and rollover provisions are included in the program, nonuse threshold levels for the use-or-lose provision would need to be set to accommodate rollover provisions. Rollover provisions may be an important part of an effective IFQ program because, in a multispecies fishery catching near 100% of all quota pounds without exceeding some quota pound holdings would likely be impossible.

❖ Analysis

The use or lose provision affects conservation objectives, socio-economic objectives (e.g., efficiency, sector health and communities)

These will be covered in the following sections

- Likelihood of Nonuse
- Conservation
- General Socio Economic Objectives
- Program Costs
- Experiences in Other Programs

● Likelihood of Non-use

The concern than entities might acquire and hold significant amount of QS is partially mitigated by the control accumulation limits, if they can be effectively enforced and depending on how entity and control are defined; for example, whether or not several entities working separately for the same purpose (perhaps to drive up market prices or reduce total fishing impacts) would be consider to control the QS in aggregate and therefore be in violation of the control limits. With respect to attempts to drive up

prices, unlike the typical production control situations, it costs the sellers virtually nothing to "produce" their product (the QP) and further, the amount they produce is predetermined by their QS holding. Therefore there is no "cost savings" from not producing and the price increase they receive must be enough to offset the entire market price of the QP withheld. Additionally, even if, despite accumulation limits, someone is able to effectively exert some control over QP market prices it is likely that by the end of the year it will be in that individual's financial interest to release nearly all of its QP rather than earn zero revenue on the portion of its QP inventory that expires at year end. This reduces the likelihood that there will be non-use occurring that is motivated by the intent to control markets. In contrast, individual entities that might act individually or collectively to withhold QS with the intent of reducing fishing related environmental impacts would not have their objective adversely impacted by the end-of-year expiration of the QS.

- Conservation

Non-use of QS (i.e., not using the associated QP) would decrease mortality, which could benefit the resource if the Council and NMFS have allowed harvests in excess of that which is advisable. If the harvest levels are appropriately set with respect to conservation objectives, the environmental effect of the reduced protein production would depend on the food sources to which people turn as an alternative to fish protein and the relative impacts of producing that food as compared to the fish protein.

A use-or-lose provision could increase impacts on the stock if it encouraged the vessel to harvest fish and discard them, just to use their QP and avoid QS forfeiture. This might occur if the provisions required harvest of amounts that are more than a commercial vessel would normally take (given species availability and market conditions). If a use-or-lose provision is eventually developed, certain species might be exempted, such as those that are under a rebuilding plan or for which the Council might otherwise specify a special precautionary status.

- General Socio Economic Objectives

In general, the socio economic objectives of the program require that groundfish be harvested at sustainable levels that meet other conservation objectives, such as rebuilding. Any reduction of harvest below those levels, through action that withholds QP, will diminish the achievement of socio-economic objectives. If it turns out that a use-or-lose provision is unnecessary, having deferred its creation will have been socially and economically beneficial in reducing the complexity of the IFQ program and implementation costs. On the other hand, if problems develop and such a provision is needed, it may be more costly to implement at a later time because it will involve the disruption of existing expectations and practices.

- Program Costs

The main reason for not developing a use-or-lose provision was the heavy cost that would be entailed in tracking QP usage back to the accounts for which they were originally issued and tracking QS transfers between accounts. For a vessel using QP from multiple QS accounts the data system would have to track the QS account from which the QP originated. Moreover, since QS can be traded among accounts from one year to the next, in order to avoid circumvention of the intent of the use-or-lose provision individual amounts of specific QS would have to be tracked. For example, if QS has not been used and will be subject to revocation if not used in the following year, the system would have to be set up to prevent avoidance of the use-or-lose provision through simply moving of the QS into a different account. The needed tracking system would be analogous to tracking the particular dollars used in a purchase back to asset accounts from which they were originally issued, only more difficult because of

the need to also track the movement of assets associated with those particular dollars as they moved among accounts.

The cost of such a program might be diminished if the number of participants were more limited than what is currently allowed under the eligibility provision. Additionally, costs of QP tracking might be reduced by a somewhat different rendering of the provision such that rather than tracking the QP to a QS account, (1) only the QP is tracked, (2) all QP must be transferred from a the QS holder directly to a vessel account before the end of the year, (3) any entity not meeting the lose-or-lose provision requirements would be responsible for submitting the required amount of QS for forfeiture from whatever source it could acquire it. Specifically, for example, any vessel account that does not use at least a certain percent (XX%) of its QP holdings (aggregated across all species) in two successive years must forfeit the QS equivalent to one half (or all) of the unused QP for the average mix of species that went unused. This approach would keep the current eligibility rules for owning/holding QS/QP but ensure that QP are transferred to a vessel and avoid the need to track the QP back to its source QS. It would not entirely prevent circumvention of the provision, but circumvention would require the cooperation of more than one vessel. Additionally, even the full blown tracking system described in the previous paragraph could still be subject to circumvention given that QS are fungible and a person withholding QS that are about to expire due to nonuse could simply sell them into the market and use the funds to purchase recently used QS.

- Experiences in Other Programs

The following describes experiences in two Canadian programs that did not start out with use-or-lose provisions (BC has implemented one more recently). One of the reasons this issue has been less of a concern for either the B.C. or Nova Scotia fishery is because of the requirements for quota purchases which make speculative activity or ownership without harvesting more expensive and difficult.

British Columbia - There have not been any use-or-lose provisions or other design elements implemented to discourage underutilization of quota pounds. However, there are design elements that became active in April 2005 to help prevent speculative activity and "armchair fishermen." In April, quota owners were required to harvest 25% of groundfish equivalent (GFE) or they lose that 25% minus the rollover allowance. This will increase to 40% after three years and last for four years. In addition, the number of permanent reallocations (quota transfers) will be restricted to two over each of those periods of time. Purchase of quota by environmental groups that would not harvest what they owned has never been a big concern.

Nova Scotia - There are no use-or-lose provisions or other design elements implemented to discourage underutilization of quota pounds. Currently, there are "armchair fishermen". Approximately one-third of the fleet (100 of 350 quota owners) leases out all of their pounds each year to other fishermen.

Note: In order for an entity to hold pounds and not harvest them, the entity would have to either purchase quota or purchase pounds each year. In order to purchase quota or pounds, the entity would have to own a groundfish license for the IVQ fishery. To own a groundfish license, a license holder has to be a full-time fisherman. This is defined as a person with two years experience fishing for seven months each year. The Nova Scotia fishery representatives contacted felt the expense to hire a fisherman not to fish would be significant.

A-2.2.2.d Entry Level Opportunities

❖ Provisions and Options

Under the MSFCMA, the Council is required to consider entry level fishermen, small vessel owners, and crew members, and in particular the possible allocation of a portion of the annual harvest to individuals falling in those categories. No special provisions have been identified for analysis, given that new entry is addressed indirectly by allowing crew, captains and others to acquire QS in small increments.

❖ Rationale and Policy Issues

Section 303A(c)(5)(C) of the MSA requires that in developing a LAPP the Council

> Include measures to assist, when necessary and appropriate, entry level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set asides or allocations of harvesting privileges, or economic assistance in the purchase of quota [55]

The Council and its advisors have discussed this issue and in its preliminary preferred alternative the Council has provided for the listed groups in a number of ways including the following.

1. Allocating based on the history of the permit, allowing new entrants to receive a greater initial allocation than they would if the allocation were based just on their personal history in the fishery (Section A-2.1.1).
2. Including an equal allocation component as part of the initial allocation formula for permits, this will benefit historically smaller producers (Section A-2.1.3).
3. Not including a minimum holding requirement provision, this might be more difficult for smaller vessels to comply with than larger vessels (A-2.2.1)
4. Specifying a broad class of eligible owners, that includes crews and fishing communities (Section A-2.2.3.a).
5. Specifying that the QS/QP be highly divisible so as to facilitate the acquisition of QS/QP in small increments by crew members, those that have just entered the fishery, and operators of small vessels (Section A-2.2.3.d).
6. Not including a grandfather clause for accumulation limits, this will result in some of the initial allocation being distributed away from larger producers and toward smaller producers (Section A-2.2.3.e).
7. Including provisions for a set-aside, as needed to support an adaptive management program that may be used at some future time to address community concerns or create other incentives to benefit the groups listed in 303A(c)(5)(C) or for other purposes (Section A-3).

The TIQC also debated and reported to the Council options for a loan program and a provision that would allocate shares forfeited through a use-or-lose provision to new entrants. The TIQC did not recommend that the Council adopt the loan program because of the high program costs. The use-or-lose provision was not included as part of the package because of implementation obstacles. The TIQC also noted that providing a central lien registry to facilitate obtaining financing by increasing security in the

[55] An **Assisted Purchase Program** may be developed to aid in financing quota purchase by small vessel fishermen and first time purchase by entry-level fishermen (MSA – 303A(g)(1)).

collateral and therefore lower interest rates would benefit new entrants. Such a registry, while required by the MSA, has not been implemented.

❖ Interlinked Elements

The section on rationale contains of list of provisions that were considered adequate to address the concerns about entry level opportunities. If those provisions are modified, consideration should be given as to whether the provisions are still considered to adequately address the Congressional direction provided in MSA 303A(c)(5)(C).

❖ Analysis

Much of the focus in developing the program is on the impacts of those who are currently in the process and who will benefit from receiving an initial allocation of QS. Those individuals will be in an economically stronger situation. The value of the QS they receive will be a stream of resource related rents (additional profits). Because of the infusion of wealth provided by the QS, they will likely be in an economically better position to bear the brunt of increasing fuel prices, program costs, and, if it should occur, declines in the available harvest. As holders of the QS, they will also accrue the benefits that occur from factors that increase the value in the fishery.

However, over the long-term, the constituents of the commercial fishery who come before the Council will be those who at one time or another have been new entrants. New entrants who choose to own QS will have paid an amount for their QS based on the best projections of future profits after taking into account expected fuel prices and other production costs, including observer costs, expected exvessel prices for raw fish, expected harvest levels, and, significantly, the cost of the QS. If costs are greater than expected or revenue less than expected, they will not have the same revenue buffer that will be experienced by those who receive an initial allocation. At the same time, if costs are lower or revenues higher, they will experience a higher than expected return that will not be dissipated by increased competition.

A greater total capital investment will be required by second generation owners than those who came before. In addition to paying for the physical capital (vessel, etc.) they may also choose to acquire QS to control their risk and potentially reap additional profits. If they choose to hold the QS they will bear risk and reward from the changing value of the QS asset (increases, if there is a trend toward higher costs or lower revenue, or decreases if conditions move in the other direction). If there were not an IFQ program, entering the fishery would require less of an investment, but assuming all extra profits (resource rents) are dissipated, it would have similar downside risks but less upside potential. Upside potential would be lower under status quo because higher than expected profits would likely be dissipated by increased competition. If a harvester enters the fishery but chooses not to acquire QS but rather lease QP, their capital investment will be lower, they will not risk the potential decline in value of the asset they purchase, they will not benefit from any long-term improvement in economic conditions in the fishery and, if they are able to be competitive, will fish at a normal profit level through QP they buy during the season or are provided by buyers/processors. (Note: a normal profit implies zero economic profit but sufficient profit to compensate for their investment).

One of the options considered specifically to benefit new entrants but not recommended for implementation was a low cost loan program. It was not recommended, in part, because the program costs are anticipated to be relatively high (at least greater than 3% of exvessel revenue). In that regard there are two mitigating factors to be considered in the decision as to whether or not a loan program

should be developed (1) any additional costs that are born annually by the QS/QP holders in proportion to their holdings will reduce the market value of the QS, and (2) any subsidy provided for the purchase of QS could increase the amount that those holding the QS are willing to pay. This second point was another reason given for not supporting the loan program recommendation. However, whether or not the subsidy results in an actual price increase would depend on whether there is a well functioning and competitive market with established prices. If there is such a market, even those who are able to pay more because of the subsidy would not be expected to do so.

No specific provision is provided here but there are a number of provisions in other parts of the program which address the concern of MSA 303A(c)(5)(C). The impact of those provisions on entry level, crew, small entity and community opportunities are discussed in the sections on those other provisions. The MSA requires that the Council consider, and, **if appropriate**, provide additional measures to benefit the named groups. The Council has considered these groups and certain elements of the program have been designed with impacts on these groups in mind.

A-2.2.3 IFQ Transfer Rules

A-2.2.3.a Eligible to Own or Hold

❖ Provisions and Options

Those eligible to own QS/QP will be restricted to (i) any person or entity eligible to own and control a US fishing vessel with a fishery endorsement pursuant to 46 USC 12108 (general fishery endorsement requirements) and 12102(c) (75% citizenship requirement for entities) and (ii) any person or entity that owns a mothership that participated in the West Coast groundfish fishery during the allocation period and is eligible to own or control that US fishing vessel with a fishery endorsement pursuant to sections 203(g) and 213(g) of the AFA.

❖ Rationale and Policy Issues

Section A-2.2.1 dealt with initial allocation. Here the issue is "Who is allowed to acquire IFQ in the future?" Of note in this eligibility provision are (1) it does not require that a person own a US documented fishing vessel but only that they be eligible for such ownership, and (2) it provides some exceptions for foreign ownership by those eligible to own US documented fishing vessels under the AFA. The second provision may also provide opportunity to own QS/QP for foreign entities eligible to control vessels under the rules of the AFA, depending on Council direction with respect to a clarification sought below (see second paragraph below marked with a "□" in the margin.

The following are some of the intents that were identified by the TIQC during the first stages of developing this provision (related categories of objectives are in parenthesis; see Chapter 6 for a full description of the objectives):

- allowing current participants to continue (minimizing disruption)
- limiting foreign ownership (national net economic benefits)
- preventing absentee ownership (sector health, communities)
- preventing ownership by interests who might leave the QS unused (conservation, net benefits, sector health, labor, communities)
- providing entry level opportunity for crew members (labor)
- providing opportunity for community participation (communities)

The new LAP program provisions of MSA section 303A restrict those allowed to own QS/QP to a particular set of individuals.

> AIN GENERAL.—Any limited access privilege program ... shall—
> (D) prohibit any person other than a United States citizen, **a corporation, partnership or other entity established under the laws of the United States or any State,**[56] or a permanent resident alien that meets the eligibility and participation requirements established in the program from acquiring a privilege to harvest fish, including any person that acquires a limited access privilege solely for the purpose of perfecting or realizing on a security interest in such privilege.@ (MSA, 303A(c)(1)(D), emphasis added)

- In other words, the Council may allow any of the entities listed in 303A(c)(1)(D) to hold QS/QP, or a subset of those entities, but it may not allow anyone not on the list to hold QS/QP. At this time, it is NMFS' preliminary interpretation that those mentioned in the last phrase as being "included" are included in the list of those allowed to acquire privileges. This last phrase refers to banks or other lenders that might accept the QS/QP as collateral for a loan. The Council language would allow banks and lenders to hold QS/QP, and to be consistent with 303A(c)(1)(D), these entities would need to be established under the laws of the United States or any state.

Another requirement with respect to who is eligible to own QS/QP specifies that those who substantially participate be authorized to acquire QS/QP. The definition of those who substantially participate is left to the Council.

> (5) ALLOCATION.—In developing a limited access privilege program to harvest fish a Council or the Secretary shall— . . . .
> (E) authorize limited access privileges to harvest fish to be held, acquired, used by or issued under the system to persons who substantially participate in the fishery, including in a specified sector of such fishery, as specified by the Council. (MSA, 303A(c)(5)(E))

The Council eligibility provision is intended to include all of those who are presently substantial participants in harvesting activities. The first criteria of the Council's eligibility provision, (i), is intended to ensure that nearly all who currently participate as harvesters will be allowed to continue, minimizing disruption while limiting new foreign entry. The criteria of the second part, (ii), was added with the intension of ensuring that entities that include foreign interests and are current participants in the whiting at-sea sector would be allowed to continue, specifically, entities with some foreign control that own a West Coast mothership and received an exemption to the requirements of 12102(c) under section 203(g) or 213(g) of the AFA (see discussion below regarding foreign operators). Since the Council criteria allows QS/QP ownership by those who substantially participate as harvesters and, via the AFA exception, all owners of vessels active in the at-sea whiting sector, it might therefore be considered consistent with MSA 303A(c)(5)(E*).* The first of the criteria is also consistent with the license limitation program rules that currently govern the fishery with respect to permit ownership. The license limitation program allows permit ownership by those entities that are eligible to own a US

[56] The definition of "person" under the MSA means "any individual (whether or not a citizen or national of the United States), any corporation, partnership, association, or other entity (whether or not organized or existing under the laws of any State), and any Federal, State, local, or foreign government or any entity of any such government." (MSA, 3(36)). The person's allowed in section 303A(c)(1)(D) are a subset of this broader definition of person (MSA, 3(36). The broader definition includes persons not organized under the laws of the United States or any state. The persons prohibited from QS/QP ownership in 303A(c)(1)(D) include those not so organized.

documented fishing vessel, which includes fishery participants as well as others. The Council's criteria are also intended to allow non-harvester participants to own QS/QP, for example, shoreside processors, crew members, and communities, so long as they are eligible to participate as harvesters (i.e. meet criteria (i)). While allowing fishery participants to hold QS/QP, the Council QS/QP eligibility criteria goes further than MSA 303A(c)(5)(E) by allowing QS/QP ownership by, for example, those that may wish to hold IFQ for their nonuse benefits (e.g., members of conservation organizations), individual members of the general public, those with security interest in the IFQ (e.g., a lender), and any other person (including business entities such as corporations), so long as those entities are eligible to own a US documented fishing vessel.

While broad, the scope of the Council's eligibility provision does not extend beyond that of MSA 303(c)(1)(D). The MSA allows foreign controlled entities organized under state or Federal laws to hold QS/QP. In that regard, the Council provision is more restrictive in that it prohibits most foreign holding of QS, as is permissible under the MSA. With respect to the requirement that entities not organized under state or Federal laws be excluded from QS/QP ownership, the Council's provision is intended to be compliant because entities must be organized under state or Federal laws in order to be eligible to own a US documented fishing vessel. However, to ensure full compliance, the Council may want to explicitly state that in order to be eligible for a US documented fishing vessel, a partnership or corporation must be organized under Federal or state law.

There is a potential conflict between language added at the November 2007 Council meeting and the Council's intent with respect to the incorporation of the AFA provision in order to ensure that current participants are allowed to continue in the fishery. In the Council's eligibility provision, the second part of item (ii) reads: "any person or entity that . . . and is eligible to own or control that US fishing vessel with a fishery endorsement pursuant to sections 203(g) and 213(g) of the AFA." This applies to both owners and operators. The application to operators was intended to allow continued participation by certain companies with foreign ownership interest that had been operating in the fishery using chartered vessels. The language of the first part of (ii) requires that to be eligible, a person or entity must "owns [own] a mothership that participated in the West Coast groundfish fishery during the allocation period. . . ." This language was added later in the process (November 2007) to limit the scope of the Council's exemption to those who are participants in West Coast fisheries. However, since that language qualifies only the owners and not the operators, it conflicts with the intent of the earlier language. When the Council added this newer language, there was no discussion indicating it was their intent to eliminate the opportunity for foreign owned entities that operate West Coast vessels to continue their participation. Therefore the Council may wish to consider whether or not it should modify (ii) to read: "any person or entity that owns or controls a mothership that participated in the West Coast groundfish fishery . . . . "

It should be noted that the AFA exception within the Council's eligibility provision is intended to apply to the entities in their entirety and not to the individual interests in the entity. In other words, if a foreign entity has partial ownership of a company that controls a US fishing vessel and that company has an exemption under the AFA, it is only the company that can own the QS/QP. The foreign entity's participation in the AFA exempted company does not allow the foreign entity on its own acquire QS/QP.

The Council considered an option that would not allow any foreign controlled entities to control QS/QP (i.e., requiring that all entities be eligible to own US documented fishing vessels). This option was rejected because it would eliminate some current participants for QS/QP ownership. The Council also considered restricting ownership to stakeholders, including owners and lessees of limited entry permits or vessels, skippers/crew, processors, buyers, and communities. This option was rejected (1) because of the increased cost associated with development and monitoring of the qualifying requirements for each

of these groups, and (2) because simple group eligibility requirements that might be easy and less costly to implement would also be easy to circumvent.

Also considered were more extreme restriction, e.g., allowing only limited entry permit holders to own IFQ. Such a restriction would reduce program costs by substantially reducing the number of QS/QP holders, make it more likely that QS/QP owners would be community members (make absentee ownership less likely), and more likely that QS/QP would be used. The substantially smaller number of potential owners might also increase the feasibility of tracking QP to the owner of the QS for which the QP was issued, facilitating implementation of a use-or-lose provision (see Section A-2.2.2.c). At the same time, there are considerable benefits from an ownership eligibility scope that includes crew members, communities, and processors.

❖ Interlinked Elements

The main direct interdependency between the provisions for eligibility to own or hold and others is with the initial allocation criteria. Specifically, if those eligible to own QS do not include some of those eligible for an initial allocation there will be an inconsistency. Mothership Option 2 of Section A-2.1.1.d would allocation QS to the bareboat charter operators of motherships. Unless the current language of the second part (ii) of the eligibility criteria is adjusted to cover both owners and operators there will be an inconsistency between that option and this provision. However, if the Council's final action is the same as its preliminary preferred alternative, the at-sea whiting sector will not be included as part of the final action, therefore no adjustment would be necessary.

❖ Analysis

	Related Category of Goals and Objectives (see Chapter 6 for detailed description)										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Conservation		X			X	X	X	X			
Net Benefits							X				
Fairness and Equity						X					
Sector Health						X					
Labor and New Entrants									X	X	
Communities								X			

- Conservation

The broad class of individuals allowed to own QS includes conservation organizations. Conservation organizations or others who strongly believe that the Federal management system is allowing too much harvest could acquire QS and hold the QP for those shares off the market. Such actions would frustrate the intent of Federal policy which is to allow for an optimum sustained yield and provide economic benefits from the fishery. If the Federal policy is truly a maximum sustainable yield policy this could

reduce long term yield. It could also increase aggregate human environmental impacts for coastal communities dependant on harvest and processing activities and depending on what foods consumers substituted for the reduced availability of fish protein. On the other hand, if the Federal policy has not been set appropriately or is not sufficiently risk averse holding QP back could improve conservation. The Council eligibility recommendation allows a very broad class of entities to own QS based on an assumption that this will lead to their highest value use including organizations that might decide to withhold QS. It is also the Council's intent that the Federal government, acting under the authority of the MS Act, not abdicate its role in determining the appropriate level of removals. For that reason, it has indicated that it may create a use-or-lose provision at some future time if the intent of the Federal harvest policies are being frustrated (Section A-2.2.2.c).

The limitation of foreign ownership may have some conservation benefits. If multinational corporations are not dependent on a particular coastal community or ecosystem, and are able to rotate supply opportunistically from one locale to another, they may have less concern about the long term sustainability of fisheries in anyone nation and less concern about localized effects of harvest activities. They may also be somewhat more independent than domestic firms of the influence of local and national politics. The ocean fisheries are managed as a trust for the people of the nation. The interest of the people, as expressed by their state and Federal government through such laws as the Magnuson-Stevens Act, National Marine Sanctuaries Act and California's Marine Life Protection Act, goes far beyond the economic benefits that might accrue from sustainable removals of the resource. While the laws of a state and nation constrain behavior for domestic and international firms alike, conduct in line with general social values often goes beyond what is strictly required by the letter of the law. While it is possible that an international firm may act more strongly based on local ethics and values than a domestic firm, a firm run by domestic interests may be more likely to act within the local ethics than an international firm simply because more of the decisions will be determined by individuals from the domestic culture.

- Net Benefits

The eligibility criteria strongly limit foreign participation. Net benefits are generally addressed from a national perspective. On that basis, foreign participation in fisheries may reduce total benefits that accrue to citizens of this nation. On the other hand, if that foreign participation occurs as part of general trade liberalization and if trade liberalization has a positive overall effect on the national economy, then allowing foreign ownership may be appropriate as part of a broader policy that lowers trade barriers.

Net benefits may also be reduced if the eligibility requirements allow entities to own QS/QP who are likely to withhold it from the fishery. As described in the section on conservation, the Council is aware of this possible outcome and will evaluate non-use as part of future reviews and revision of the program. However, initially it is believed that the greatest benefits will be achieved by providing QS/QP ownership opportunity to a very broad group.

Finally, specifying broad eligibility criteria that encompass those who value the resource to different degrees for different reasons will help to ensure the QS/QP are distributed in a manner that maximizes net benefits. Net benefits will be enhanced by an active QS/QP market with participation by all of those who may have some reason to value QS/QP.

Disruption

In the rationale we described the TIQC's original intent and the Council intent to minimize disruption of current practices by allowing ownership of QS/QP by all who currently participate as harvesters or by using vessels in the at-sea whiting fishery. The language developed to achieve this end focuses on those

individuals eligible to own a US documented fishing vessel, including some who achieve that eligibility under exemption provisions of the AFA.

The AFA exemptions incorporated into the Council eligibility provisions refer to Section 12102(c) (Chapter 46 of the US Code). This section requires 75 percent domestic ownership and prohibits the chartering of a vessel by any entity that has some foreign ownership. The exemption of 203(g) appears to apply both to those entities eligible to own the vessels under 203(g) and those entities eligible to operate the vessels under 203(g). Section 213(g) is a catch all that provides an exemption to the AFA for any other entity that owns a vessel as of July 24, 2001, as necessary to comply with international treaty. The rationale for allowing continued participation by foreign entities under the Council's IFQ program is to minimize disruption from the new program. As pointed out by the NRC (NRC 1999) (pg. 211) because of foreign ownership interest in the existing fishery, limitations on foreign ownership could be problematic and discriminate against U.S. co-owners and investors. Also, bearing on this issue are current trends toward the liberalization of direct foreign investment worldwide.

There are three motherships that participate in the West Coast whiting fishery and come under the exceptions provided under Section 203(g) of the AFA. Of these, at least one is known to be operated by a company with substantial foreign ownership. If the current wording of provision (ii) is adjusted to apply to both vessel ownership and control it is anticipated that the Council intent with respect to allowing QS/QP ownership by all participating harvesters and those using vessels in the at-sea whiting fishery will be met. If IFQs are not required for the at-sea fisheries, as under the Council's preliminary preferred alternative, then this intent may be achieved without the AFA exception language.

If criteria (ii) applies to owners and operators, it should be noted that the exemption for both would expire with the expiration of the ownership exemptions provided in 203(g) and 213(g). Specifically, for 203(g) with a 50% change in the entity that owns the exempted vessel; and for 213(g) if foreign ownership is established after July 24, 2001 or if any foreign entity acquires an ownership interest in a treaty exempt vessel after July 24, 2001. Thus, the fate of the eligibility of the operating entity would be determined by changes in the composition of the entity owning the vessel.

If processors are considered fishery participants, the language of the eligibility provision may not be sufficiently broad to cover all participants. Specifically, any shorebased processing company that is more than 75% foreign owned or controlled may not be eligible to own QS/QP. We do not know whether or not there are any shorebased processors that not meet the eligibility criteria. On the one hand, the activities of these processors would not be directly disrupted by this provision since QS/QP are not required for the receipt and processing of fish. On the other hand, it has been strongly argued by the processing sector that they will be disadvantaged if they do not receive an initial allocation of QS. On this basis, it might be expected that if there are foreign own shorebased processors, compared to domestically owned processors they would be disadvantaged if they are not allowed to own QS/QP.

- Sector Health

While the initial allocation may be split between harvesters and processors, the eligibility provisions will allow over time for all of the QS to migrate to the hands of harvesters or all of it to processors (or all to any other group that is able to acquire it through transfers). In the event an extreme distribution occurs, one sector may be able to exert market power over the other and adversely affect the health of a sector. In contrast, the BC program allows only those who own vessels to hold QS. The Council also considered a provision that would have restricted QS/QP ownership to those in the harvesting sector. If only harvesters are allowed to own QS/QP, harvesters (and processors who own vessels) could be at an advantage over other entities. There are provisions in the BC program intended to prevent the exclusive

harvester ownership of QS from allowing harvesters to take unfair advantage of processors. Specifically the groundfish development quota (GDQ) system was designed to encourage harvesters to remain in their relationships with domestic processors. The program under consideration here, while it would not start out by restricting QS ownership to one side or the other, allows it to develop over time. Because it is not starting out with a one sided restriction, it is also not starting out with a compensating mechanism for a one sided distribution. If QS migrates to the hands of one group or the other over time, the adaptive management program (if included as part of the final preferred alternative) would provide an opportunity to compensate for effects on the health of the adversely impacted sector.
The broad ownership eligibility criteria also allow ownership of QS/QP by entities the may acquire it and withhold it from use. This is discussed in the sections on conservation and net benefits. Such withholding of harvest opportunity would adversely affect sector health.

- Labor and New Entrants

The eligibility criteria have been specified broadly to allow crew members or processing plant employees to own QS. QS/QP eligibility provides laborers a way to incrementally acquire capital assets in the fishery. The ability to acquire some capital and then accumulate wealth both from their wages and capital ownership may allow them to more rapidly accumulate the assets they need to enter the fishery as business operators. With respect to the opportunity to incrementally become owners of capital, what applies to laborers within the industry also applies to others outside the industry looking to enter. The value of the QS/QP to those who wish to sell it and leave the fishery will be sustained, in part, by those interested in and able to enter the fishery. However, those employees that are not citizens of the US or not otherwise eligible would not be allowed to own QS/QP.

- Communities

It is believed likely that more benefits will flow to communities if foreign and absentee ownership is limited. Allowing the potential for entities to acquire QS/QP and withhold them from use could adversely impact communities. Of these, the Council's provision only limits foreign ownership, absentee ownership and QS/QP withholding is not limited at this time.

Making sure that communities themselves are eligible to own QS/QP is one way the Council takes into account the needs of communities. QS/QP eligibility allows communities who so desire to increase security over their economic base, Under the eligibility provision a community could, for example, acquire QS/QP and auction the QP off each year to those willing to commit the most matching QP for delivery to that community. With respect to allowing communities an opportunity to participate, the NRC study notes that some communities may be heavily dependent on fishing for social, cultural, and economic values and/or are lacking in alternative economic opportunities; and recommends that Councils be permitted to "authorize communities to purchase, hold, manage and sell IFQs" (NRC 1999) (pg. 206). The GAO notes: "The easiest and most direct way to help protect communities under an IFQ program is to allow the communities themselves to hold QS" GAO-04-277.

- Small Vessels and New Entrants

Again, the broadly specified group of those eligible to acquire QS/QP (combined with the divisibility of the QS/QP into small units, Section A-2.2.3.d) facilitates incremental acquisition and participation by small vessels and new entrants.

- Program Performance

Program cost would be minimized with a very restrictive limit on those eligible to own QS/QP because there would be fewer QS/QP accounts to track. Allowing only those with limited entry permits to own QS/QP would be one such option. This would limit the number of entities eligible to hold QS/QP to about 170. The very broad provision that is currently specified would allow for a large number of QS/QP accounts and would require the transfer of QP from QS holders into vessel accounts in order to be used. Depending on the recent participation criteria, there might be as many as 200 processors alone that would qualify for an initial allocation. The greater number of accounts and transactions will add to program costs. An intermediate approach would allow a class of fishery stakeholders to qualify broader than just those who hold limited entry permits but more limited than under the current provision. However, this intermediate approach could be more costly to implement because of the need to determine and track the criteria for membership in the various classes of stake holders. While simple low cost criteria might be designed, such criteria are likely to be relatively easy to circumvent making the program ineffective with respect to limiting the class of those who own QS. For example, if status as a crew member were required, a simple low cost requirement would be that to own QS/QP a person would have to hold a crew license.[57] However, most US citizens could get a crew license without actually working as a crew member. Therefore, to make this an effective barrier, some other provisions such as having worked as a crew member for a certain period of time would be needed. The need to process documentation on crew hours and monitor and enforce the provision would add substantially to the program costs. Similar results would be expected for simple versions of processor, buyer or community participation requirements.

[57] Even if a qualifying class is "licensed crew members," among the states there is not consistent licensing of crew members or other means of crew identification. Therefore some consistent system would need to be developed to identify members in this class.

A-2.2.3.b Transfers and Leasing

❖ Provisions and Options

QS/QP will be transferable and transfers must be registered with NMFS. NMFS will not differentiate between a transfer for a lease and a permanent transfer.[58]

❖ Rationale and Policy Issues

QS/QP transferability is key to the conservation, economic, and social benefits described in Chapter 4, including rationalization of the fleet that is expected to increase efficiency and allow the industry to support 100% observer coverage (with the attendant conservation benefits), the ability of crew members to acquire QS and enter the fishery as owners, and the opportunity for communities to acquire QS and increase their control over their economic base.

Consideration was given to limiting leases of both QS and QP. Each year QP would be issued to those holding QS and be valid for that year (with some exception for the carry-over provision, Section A-2.2.2.x). The sale of QP might be considered an annual lease of the QS privilege, however, such transactions are not considered a lease for the purpose of this discussion. Here, a lease with respect to QS refers to a temporary but multiyear transfer of the QS from one entity to another. For the period of the lease, the entity with which the QS is registered would receive the annual QP. For QP, a lease would be considered the temporary transfer of QP from one entity to another, within the period over which the QP is valid. Such a temporary transfer would be of limited utility because once it is used the QP cannot be returned to the lessor. A QP lease might be useful if there were some a minimum amount of QP a vessel might need to have before it left port. Under such circumstances a vessel might lease QP for species it needed to have but did not expect to encounter and then return them unused at the end of the trip (presumably paying a premium if they were in fact used). While it has been considered, a minimum holding requirement is not part of the Council's preliminary preferred alternative.

Leasing might be prohibited in order to reduce opportunities for absentee ownership, however, such prohibitions would be difficult to enforce. Entities might easily establish private arrangements for the transfer of QS and execute those contracts through transfers with NMFS that are registered as permanent. Similarly, the decision was made to not register lease transfers distinctly from sale transfers because it is not necessary. Leases can be established entirely through private contract and there appears to be little need to incur the added costs that would be entailed in tracking whether a transfer is permanent or temporary.

It is also important to note that there is no specification that the source of any QS or QP transfers will be tracked over time (i.e., like money, QP will be interchangeable (fungible), one QP will not be distinguished from another QP except based on who holds it at the time, and the same will be true for QS). This is particularly important with respect to the QP. There will be a single QP account to which QP are transferred (see Section A-2.2.1), and once in the account, QP from various sources will not be differentiated from one another. This is expected to substantially simplify program administration as compared to systems in which individuals are allowed to retain control over the QP and fish them from a vessel. Any arrangements for unused QP to be transferred back to someone who supplied them would be through private contractual agreements.

[58] QS may be transferred on a temporary basis through private contract (leased) but NMFS will not track lease transfers differently than any other transfer.

❖ Interlinked Elements

Transferability is a key aspect of many provisions of the IFQ program. Without it, significant program redesign would be required. NMFS will consider all transfers "permanent" and individuals will rely on private contracts to execute lease agreements. While this feature may alter the effects of the grandfather clause associated with the accumulation limits (as described in the following analysis) there are no direct interdependencies between the leasing and accumulation limit grandfather clause provisions.

❖ Analysis

As noted in the rationale, QS/QP transferability is key to performance of the program with respect to conservation, economic, and social goals and objectives. The mechanisms by which these objectives are addressed through transferability are described in Chapter 4. Transferability is necessary for the rationalization of the fleet that is expected to increase efficiency and allow the industry to support 100% observer coverage (with the attendant conservation benefits), the ability of crew members to acquire QS incrementally to enter the fishery as owners, and the opportunity for communities to acquire QS and increase their control over their economic base. Other methods, such as revocation or return and reissuance through lottery would be possible, but they would not have the same effect in reducing fleet size, increasing efficiency, or allowing business planning by existing businesses, new entrants, crew or communities, as examples.

- Net Benefits and Sector Strength

A leasing prohibition was considered and could be attempted to reduce the likelihood of absentee ownership, increasing the likelihood that QS will be held and controlled by active members of the fishery. However, such a prohibition, if it could be effectively enforced, would reduce the flexibility businesses have in organizing their activities. For example, a harvester would either have to acquire and pay the full value of the QS, or purchase QP on an annual basis. There would be no intermediate positions through which a harvester might acquire QS at a lower cost on a shorter term basis. Less flexibility implies lost efficiency opportunities and diminished sector strength, as compared to what might otherwise be achieved. For these reasons there is no prohibition on leasing.

- Program Performance

There is not a a requirement that lease transactions be registered, as distinct from sales transactions. By not registering lease transfers, there is expected to be some saving of administrative costs. Additionally, if formal leasing were registered, it would extend the life of the accumulation limit grandfather clause. Individuals would be able to benefit from longer term divestiture of QS via lease mechanisms without reducing the total amount of QS they are able to hold under the accumulation limit grandfather clause (assuming there is such a clause, and that the clause is not modified to specify that a lease would be considered the same as a sale). By not prohibiting and not requiring registration of leases, the program is simpler than it would have otherwise been.

A-2.2.3.c Temporary Transfer Prohibition

❖ Provisions and Options

NMFS may establish temporary prohibitions on the transfer of QS, as necessary to facilitate program administration.

►**Option:** QS will not be transferred in
SubOption 1: the first year
►SubOption 2: the first two years
of the program (QP will be transferable)

❖ Rationale and Policy Issues

There are two types of temporary transfer prohibitions covered in this provision.

(1) an annual QS transfer suspension for administrative necessity, and
(2) a QS trading moratorium at the start of the program to provide an adjustment period.

The Council's preliminary preferred option allows NMFS to establish temporary prohibitions on the transfer of QS at the end of the year if administratively necessary. Such a prohibition might be needed to allow accounts to be resolved before QP is issued to the QS accounts for the following year.

An initial moratorium on trading of QS is proposed to allow initial recipients to develop a better understanding of the IFQ system and the trading prices before they make permanent trades. A number of members of the Council family traveled to New Zealand to learn about their program. They reported to the Council that many of the New Zealanders stated that if they could do it again they would have started with a trading moratorium, to be in place while participants developed a better understanding of the value of the QS.

❖ Interlinked Elements

There are no direct dependency links between this provision and the effective function of other provisions, except as may be determined in the future with respect to the need for suspension of QS trading at the end of each year to facilitate program administration

❖ Analysis

The following are the categories of goals and objectives affected by the decisions on temporary transfer prohibitions.

z	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Moratorium -- Establishing Market Prices		X	X		X	X					
Moratorium -- Effectiveness of the Moratorium					X						X
Moratorium – Administrative Costs										X	X
Annual Trading Suspension		X	X			X				X	X

- Moratorium -- Establishing Market Prices

The moratorium is being proposed because it is believed that it will assist QS holders in trading at fair market prices. Most economic literature assumes an established and known market price, little attention is given to how prices are established for entirely new commodities and how institutional arrangements (i.e., the rules of the market in which the commodity is traded) might affect the process by which the prices are established (Anderson 2004). Anderson (2004) experimentally demonstrated that in a market for a new commodity, in which both sellers and buyers advertise their bid and sale prices and trade at will, there is likely to be a high degree of price volatility and that the typical price pattern will be one of price bubble and collapse (technically termed a "double auction"). In such a system, the price one pays is affected more by when one decides to buy than the actual value of the commodity being purchased, thus bringing up concerns about inequities and disruption. It was further demonstrated that early trades will not necessarily result in the transfer of the commodity to the more efficient producers, thus adversely affecting net benefits and sector health. Comparisons were made to other types of market structures (institutions) and results indicated that a period of leasing prior to free trading tended to stabilize prices and result in prices that are more likely to conform to the actual value of the commodity. Over the long term, appropriate market prices will likely develop regardless of the market structure created to support development of the market, however, the amount of disruption, inequity, and inefficiency encountered during the transition period will vary depending on the structures provided.

The proposed moratorium on QS trading would essentially establish a period of leasing (a period during which only the annual harvest privilege, the QP, could be traded). Based on Anderson (2004), we would expect this to be beneficial for the reasons described in the above paragraph. Lease prices (QP prices) may be helpful to the fishermen in determining the appropriate sale price for the QS in that there should be a relationship between the sale price for the QP and the stream of revenue one would expect from holding the QS and leasing the QP out each year. There are two moratorium options for consideration; one is a one-year moratorium and the other a two-year moratorium. The difference between the two can be evaluated in terms of the additional information that participants might learn in the second year of the moratorium and the costs to industry from the delay in the start of the period of full transferability. QP prices will likely vary through the first year of the program in response to the changes in knowledge about the trading prices, changing mixes in the catch that occur during the year, and shortages or surpluses that become apparent as the fishery moves through the year. As the participants move through the year they will begin to understand the value of the QP but it will not be until after the year is over that they will be able to start evaluating what might have been a reasonable price for QP for an entire year. The second year will provide some information on the annual lease prices for QP for an entire year, based on some knowledge of the seasonal value of the QP in the previous year. Thus there is an increment of knowledge to be gained in the second year that is qualitatively different from the first year (i.e., first year prices are more likely to be based on seasonal

demand while the prices that QP trade for at the start of the second year are more likely to be based on an assessment of the value of the QP across the entire year). The question then is, what is the cost of this additional increment of knowledge? First, it may (see following section) delay QS holders ability to adjust his/her QS holdings to the appropriate mix for his/her business. This will extend the period of uncertainty, make it more difficult to plan and extend the duration of the transition period. Second, during the period of the moratorium there will likely be a greater number of transfers of QP, thus increasing transaction costs and program administrative costs. The equal allocation provision will likely ensure that every year most every participant will have some allocation for a geographic area outside its normal range of operation that will need to be transferred to those that operate in a different geographic area.

In order for the QS trading moratorium period to be most effective in helping to establish QS market prices, it would be useful for the QP prices to be publically available (see Section A-2.3.2).

- Moratorium -- Effectiveness of the Moratorium

While it is hoped that the moratorium will inhibit those who might otherwise transfer QS from doing so, there is little that would prevent QS holders from circumventing the moratorium by signing contracts for the annual transfer of QP to the buyers until the QS transfer moratorium expires and then transferring the QS themselves after the moratorium expires. The moratorium will send a strong message that extreme caution should be exercised in the early transfer of QS but it will not prevent the effective commitment to a permanent transfer of QS by those determined to do so.

- Moratorium -- Administrative Costs

During the period of the moratorium there will likely be more transfers of QP than if there is not a moratorium. Once the moratorium ends, their will likely be a period when the number of QS transfers intensifies, perhaps catching up to the number that would have occurred in the absence of the moratorium. Thus, overall administrative costs during the transition period will likely be higher with a moratorium than with out.

- Annual Trading Suspension

An annual trading suspension of QS may be implemented, as necessary to facilitate program administration. Such a short term suspension might not significantly constrain transactions during the suspension since nothing would prevent the signing of contracts for the QS during the suspension with final execution of the contract to occur at the end of the suspension. When the suspension ends, both the QS and QP for the coming year could be transferred from the seller to the buyer. During the QS suspension, the trading of QP would continue to be allowed so as not to interfere with a harvester's ability to cover their catch.

Depending on the nature of the administrative challenges that a suspension might help address, there may be approaches available which would not require the freezing of QS transfers. For example, suppose it appeared desirable to have a 45 day prohibition on transfers between November 1 and December 15 in order to determine the QS accounts to which QP should be issued for the following year. An alternative might be to issue QP for a year to the holders of QS based on QS account ownership as of November 1. It could be left to private contract for buyers to secure the separate transfer of the attendant QP with respect to transfers of QS occurring after November 1. On the one hand, this would put less of a constraint on the market. On the other hand, it might increase administrative costs by increasing the number of transfers of QP independent of QS (any transfers of QS

between November 1 and the time the QP are issued would have to be followed up with a transfer of the corresponding QP once the QP are issued).

A-2.2.3.d Divisibility

❖ Provisions and Options

QS will be highly divisible and the QP will be transferred in whole pound units (i.e., fractions of a pound could not be transferred).

❖ Rationale and Policy Issues

Blocking shares into nondivisible units has been used in other programs to achieve social objectives (such as the west coast fixed gear sablefish tier system and sablefish and halibut IFQ programs in the north Pacific in which QS were blocked). In the north Pacific sablefish and halibut IFQ programs, some shares are blocked and holders of unblocked QS are limited in their ability to acquire the blocked QS.[59] This is done to preserve small vessel opportunities. However, for this fishery the divisibility is needed not only to allow vessels to achieve the most efficient scales of operation but also to allow vessels to achieve the needed mixes of QP in this multispecies fishery in which the species mixes encountered in the catch vary. For this reason, little consideration was given to the blocking of shares into larger units and maximum divisibility is emphasized.

QS divisibility might vary by species but should probably be in small enough to allow the transfer of single pounds, particularly for species for which the amount of QP available will be very small (e.g., some overfished species).

❖ Interlinked Elements

Second to transferability, a high degree of divisibility is key to the IFQ programs ability to achieve many of its goals and objectives.

❖ Analysis

Divisibility is important with respect to efficiency, sector health, and labor and small vessel opportunities. Blocking of shares into larger units would reduce flexibility reducing the per pound value of the blocked shares.[60] If some shares were left unblocked, it would likely reduce the value of those shares as well because of the increased difficulty that would be entailed in matching a harvesters QP mix to the mix of species in its catch. This reduction in the value of the QS would be a reflection of lost

[59] The NPFMC restricted the number of these blocks that a person could hold in an area. If the person held any unblocked QS in an area they could only hold one block of QS for the area. If the person did not hold unblocked QS for an area then the person could hold up to two blocks for that area. The objective of these blocking rules was to preserve a portion of the QS for the fleet of small part-time operators (Dinneford, *et al.* 1997).

[60] As an example, in the north Pacific, the 1996 average lease price for blocked QS was $0.88 per pound of IFQ and the average lease price for unblocked QS was $0.97 per pound of IFQ when calculated over all areas and vessel categories (Dinneford, *et al.* 1997).

efficiency and reduced net benefits. The larger units, while cheaper on a per pound basis, would make it more difficult to enter through small increments of ownership, reducing opportunity for crew members and for small operators that may have less access to the larger amounts of capital required to acquire the blocked units.

A-2.2.3.e Accumulation Limits (Vessel and Control)

❖ Provisions and Options

This provision restricts the amount of QS and QP that may be held. Two types of accumulation limits would apply, a control limit and a vessel limit. The vessel limit would cap the amount of QP that may be registered for a single vessel during the year. Under this limit a vessel could not have more used and unused quota pounds registered for the permit than a predetermined percentage of the QP pool.

Limits[61] may vary by species/species group, areas, and sector. See options for each sector listed in Table 5.

Vessel Use Limit: A limit on the QP that may be registered for a single vessel during the year. This element will mean that a vessel could not have more used and unused quota pounds registered for the vessel than a predetermined percentage of the QP pool.

Control Accumulation Limit: A person, individually or collectively, may not control QS or QP in excess of the specified limit (unless exempted by the grandfather clause). QS or QP controlled by a person shall include those registered to that person, plus those controlled by other entities in which the person has a direct or indirect ownership interest, as well as shares that the person controls through other means. The calculation of QS or QP controlled by a person will follow the "individual and collective" rule.

> Individual and Collective Rule: The QS or QP that counts toward a person's accumulation limit will include (1) the QS or QP owned by them, and 2) a portion of the QS or QP owned by any entity in which that person has an interest. The person's share of interest in that entity will determine the portion of that entity's QS or QP that counts toward the person's limit.[62]

Grandfather Clause:

Option 1: A grandfather clause will apply to (1) vessel accumulation limits and (2) control accumulation limits. This clause allows a person, if initially allocated QS in amounts in excess of the cap, to maintain ownership of the QS. The grandfather clause will expire with a change in ownership[63] of the QS. If the owner divests some of the QS, the owner may not reacquire QS or QP until the owner is under the cap. Once under the cap, the grandfather clause expires and additional QS or QP may be acquired but not in excess of the control caps.

Option 2: Same as Option 1 but the maximum allowed under the grandfather clause will be twice the vessel accumulation limit.

►**Option 3:** There will not be a grandfather clause.

Note: Absent guidance otherwise, Options 2 and 3 will be implemented in such a manner as to not alter other provisions of the program. Specifically, QS that is not allocated because of the

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[61] In this section, the term "permit" was changed to "vessel" to be consistent with Section A-2.1.3 which indicates that QP go into vessel accounts, not permit accounts. The term "own or control" was shortened to "control" for simplicity. Control includes ownership.

[62] For example, if a person has a 50% ownership interest in that entity then 50% of the QS owned by that entity will count against the individual's accumulation limit.

[63] **Change in Ownership definition:** For the purpose of the grandfather clause, ownership of a legal entity is defined to change with the addition of a new member to the corporation, partnership or other legal entity. Members may leave without causing the grandfather clause to expire for that entity.

limit or absence of the grandfather clause will be distributed to other eligible recipients in a manner that maintains the distribution among groups specified in A-2.1.1 and based on the allocation formulas specified in A-2.1.3.

In addition to deciding on
the percentages to use for the accumulation limits (page A-242), and
the grandfather clause option and associated control date issues (page A-237),

- the following decisions may be needed:

If there is a grandfather clause, how will it be applied for vessels? Page A-229
If there is not a grandfather clause, in what order will the accumulation limits be applied? Page A-238
How will the aggregate limit be applied as trawl allocations or the OY changes? Page A-243

- Rationale and Options Considered But Not Included

There is a tension between allowing sufficient accumulation to improve the efficiencies of harvesting activities and preventing levels of accumulation that could result in a variety of adverse economic and social effects. Excessive accumulation of the control of IFQ can result in changes in the structure of the fishing industry and communities and, in the extreme, reduce net economic benefits if those accumulating QS are able to exert market power. While some IFQ programs rely solely on antitrust law to prevent excessive concentration of shares, experience has shown this not sufficient to prevent problems resulting from excessive concentration of IFQ (NRC 1999) (pg. 209). The NRC also notes that concentration limits may not be very effective if ways can be found to circumvent them.

National Standard 4 of the MSA has always required the consideration of excessive shares

> (4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) *carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privilege.* [Emphasis added]

Additionally, the reauthorized Magnuson-Stevens Act requires that accumulation limits be established within a limited access privilege program.

> (5) ALLOCATION.—In developing a limited access privilege program to harvest fish the Council or secretary shall—
>
> (D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—
>
> (i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and
>
> (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges.

There are a number of policy choices associated with the specification of accumulation limits.

1. Should there be a vessel limit (production level limits: vessel or permit limit)?
2. Should there be a control or ownership limit?
3. How should control be defined and what scope of control relationships should be considered? Should both QS and QP count against the limits?
4. Should there be a grandfather clause and is there a need for a control date?

5. If there is no grandfather clause, what should be done with QS that is not allocated to entities because the allocation would exceed the accumulation limit?
6. At what levels should the limits be set?
7. How should aggregate limits be applied as the trawl allocation changes?

These choices will be discussed in the following sections along with other options considered but rejected with respect to each policy choice.

Page numbers for sections on accumulations limit rationale and analysis.

♦ *Vessel Limit (Production Level Limit: Vessel or Permit)*

The vessel would limit the amount of QP a vessel could use each year. It would apply to the total amount of QP in the vessel account (both used and unused).

In this section we address

- the reason for including a vessel limit, and
- contrast a vessel limit with a permit limit.

The Council's preliminary preferred alternative contains a vessel accumulation limit. The vessel limit is a production unit level limit. The vessel limit is intended to

- assure that there is at least some minimum number of fishing vessels in the fleet in order to support more job positions and the demand for more equipment, supplies, and support from fishing communities;
- increase the likelihood that harvest will be geographically dispersed; and
- serve as a back-up to the control limit (control limits may be difficult to enforce).

The Council is balancing the need to address these objectives with the risk that vessel limits may decrease potential efficiency gains from consolidation.

- If there is a grandfather clause for the accumulation limits, a vessel based limit presents certain implementation challenges. The accumulation limit grandfather clause is generally structured to allow entities to maintain QS they receive in excess of the accumulation limits. QS are issued to entities that own permits, not to vessels. Therefore an additional provision would be needed to establish a grandfathered QS level for a vessel. A simple approach would be to set the vessel's grandfather level to the amount of QS received for the permit associated with the vessel. A few other decisions would also be needed: the conditions under which the vessel grandfather clause expires (e.g. whether the clause expires with a change in ownership of the permit or vessel), and whether one vessel may be substituted for another without the grandfather clause expiring (i.e., whether the vessel grandfather exemption stays with the vessel or transfers with the permit). These are discussed further in the section on the grandfather clause.

  If there is a grandfather clause, a permit accumulation limit may be an alternative to a vessel limit. In order for a permit limit to achieve an effect similar to the vessel limit, there would need to be a prohibition on the stacking of permits and on the rotation of permits through a single vessel. Without such limits on stacking and rotation, the permit based limit would function more like the control limit in that it would not affect the number of vessels in the fleet. The limit on the rotation of permits is partially achieved though the status quo provision that limits transfers to one time per year. Relative to the vessel based limit, the permit based limit would simplify implementation of a grandfather clause for control because the grandfather clause provisions can be easily applied to the permit: the grandfather level would be determined based on the permit's allocation of QS, and the grandfather clause would expire with a change in ownership of the permit (vessels could be replaced through the transfer of a permit without having the grandfather clause expire). If there is not a grandfather provision, the vessel based limit is simpler than the permit limit because there is no need for provisions related to limiting the stacking or rotation of permits.

♦ *Control Limit*

In this section we address

- reasons for having a control limit and for having a control limit instead of an ownership limit
- rationale on whether there should be different control limits for different types of entities

A limit on the amount of QS/QP an entity would be allowed to control is proposed to address requirements of the MSA and a number of goals and objectives. Control limits may

- contribute to efficiency if they are set at a level that prevents the exertion of market power without constraining operation sizes to below the most efficient levels (MSA – National Standard 5, Groundfish FMP Goal 2 and Objective 7, Amendment 20 Objective 2 and 6);
- prevent the accumulation of excessive shares (MSA – National Standard 5, 303(c)(5)(B)(ii), 303(A)(c)(5)(D), Amendment 20 Constraint 6;
- contribute to sector health (Amendment 20, Objectives 2 and 6); and
- help to geographically disperse harvest and landings to the benefit of communities (MSA – National Standard 8, 202A(c)(5)(B); Groundfish FMP Objective 16; Amendment 20 Objective 5 and Constraint 3).
- contribute to fairness and equity (MSA – National Standard 4(a), 3030(c)(5)(A); Amendment 20 constraint 5);

Please see Table 6-1 for additional description of the referenced guidance.

Consideration was given to relying solely on antitrust laws to address concerns about excessive shares, however, the level of aggregation required to establish the anticompetitive behaviors that are of antitrust concern may be substantially greater than the levels of aggregation that trigger concerns about fairness and equity, geographic distribution, communities, or sector health.

The Council also considered having an ownership limit and a control limit. The term "owner" means the QS/QP is registered to the person through NMFS. In general, *control* includes both the control exerted through ownership of the QS/QP, as well as the control exerted by the ability to direct the use of QS/QP. In order to address the stated objectives, a limit is needed on the amount of control. A separate ownership limit that is a subset of a control limit would serve little purpose and add to the complexity of the regulations. Therefore, the Council decided that there should only be a control limit.

Another question to be addressed with respect to the control limit is whether there should be different types of control limits for different types of entities (e.g., control limits for harvesters that are different than control limits for crew members, processors, or communities). In particular, processors have argued that they should have greater control limits because they handle larger volumes of product. It has also been argued the communities should have larger control limits to address the needs of their entire fleet, and that harvester co-operatives should have greater limits in order to form risk management pools and take other advantages of the benefits that may flow from the formation of harvester co-operatives.

When discussed by the TIQC there were two reasons that differential control limits were rejected. First, the differential limits may be circumvented if an entity is able to make some simple adjustments and qualify as the type of entity that has the highest accumulation limit. For example, if separate processor limits are created and they are substantially higher than the harvester limits, then harvesting companies might make adjustments which allow them to qualify as a processor (e.g., acquire a processing license and process a small amount of fish or take on a minority processor interest). The second reason for not having different limits for different types of entities was that most non-harvesting entities would not need to control QS/QP in order to work with volumes of groundfish that exceed the QS/QP control limits. A QS/QP control limit caps the total amount of groundfish a harvesting company can take. A control limit does not cap the amount of groundfish a processor can process, amount that crew members can help harvest, amount that can be landed in a community, etc.

♦ *The Control Rule and Included Scope of Control Relationships*

The control rule and specification of its scope will affect goals and objectives through its impact on the effectiveness of the limits on control. Control may be exerted directly or indirectly.

PARSING THE CONTROL RULE

The full control rule is:

> **Control Accumulation Limit:** A person, individually or collectively, may not control QS or QP in excess of the specified limit (unless exempted by the grandfather clause). QS or QP controlled by a person shall include those registered to that person, plus those controlled by other entities in which the person has a direct or indirect ownership interest, as well as shares that the person controls through other means. The calculation of QS or QP controlled by a person will follow the "individual and collective" rule.
>
> > Individual and Collective Rule: The QS or QP that counts toward a person's accumulation limit will include (1) the QS or QP owned by them, and 2) a

> portion of the QS or QP owned by any entity in which that person has an interest. The person's share of interest in that entity will determine the portion of that entity's QS or QP that counts toward the person's limit.[64]

We will now review a number of the key aspects of this rule.

Control Accumulation Limit: A person, individually or collectively, . . .

This definition applies to all legal persons, whether they are individuals, partnerships, corporations or other legal entities. By including all legal persons within the scope of the rule (rather than just individuals), this specification acknowledges the abilities of individuals to use partnerships, corporations and other legal entities to exert control, or for these other types of legal entities to exert collective control.

Where an individual or group of individuals have collectively formed a legal entity, the individual's influence over the collective legal entity will be taken into account in assessing the control exerted by the individual. The exact formula used to determine the total amount of QS/QP a person controls through ownership is specified below in the "individual and collective rule." This specification will make it more difficult for an individual to circumvent the control cap by exerting influence over a number of different legal entities (e.g. partnerships or corporations).

Control Accumulation Limit: . . . QS or QP controlled by a person . . .

Both the QS and QP will count against the limit. QP will be converted to their QS equivalent for the purpose of evaluating holdings in excess of the limits. QP will not be counted against a person's control limit if the QS from which they were derived have already counted against that limit. This provision will make it more difficult for an individual to use indirect methods to exert control. To be most effective, the limit on QP holdings should apply to the total amount of QP a person acquires during the year from all sources. Thus, simply staying under the limit at any point in time alone may not be enough to ensure that a person is under the control limit.[65]

Control Accumulation Limit: . . . shall include those registered to that person, . . .

All QS or QP registered with NMFS under the person's name or with a vessel owned or leased by a person would count against that person's accumulation limit. This language intentionally uses the word "include" so as not to exclude counting QS/QP against a person's limit even though it is not registered to the person.

Own or Control Accumulation Limit: . . . plus those controlled by other entities in which the person has a direct or indirect ownership interest, ...

This is the first explicit mention of "indirect ownership." Indirect ownership might include ownership through intermediary entities, e.g., if Individual A participates in a partnership that has an ownership interest in a corporation that holds QS/QP, some

[64] For example, if a person has a 50% ownership interest in that entity then 50% of the QS owned by that entity will count against the individual's accumulation limit.

[65] Specifically, individuals should not be able to circumvent the limit by having contracts for the QP from many QS holders (each perhaps at their QS accumulation limit) and acquiring or dispensing the QP from those contracts in a sequential manner so as to never exceed the limit at any particular point in time.

portion of that corporations QS/QP would count against Individual A's limit. The evaluation of control is independent of any direct ownership and independent of the individual and collective rule discussed below. An entity my have no direct ownership in an entity but still exert control.

Control Accumulation Limit: . . . as well as shares that the person controls through other means. . .

This language makes it explicit that the term control covers means of control beyond ownership. Such means might include, for example, exclusive marketing agreements.

Control Accumulation Limit: . . . The calculation of QS or QP controlled by a person will follow the "individual and collective" rule.

Individual and Collective Rule: The QS or QP that counts toward a person's accumulation limit will include (1) the QS or QP owned by them, and 2) a portion of the QS or QP owned by any entity in which that person has an interest. The person's share of interest in that entity will determine the portion of that entity's QS or QP that counts toward the person's limit.

This language is a restatement of the earlier language that control will be assessed both individually and collectively and takes the explanation one step further by specifying how QS/QP will be counted against an individual with respect to their ownership of an entity that owns QS/QP. Note that this rule applies only for the purpose of determining amounts controlled through ownership and does not cover or restrict the consideration of control through other means. For example, if it was determined that a person who was a partial owner in a corporation effectively exerted complete control over the disposition of QS/QP held by that corporation, all of the QS/QP owned by that corporation might be counted against that person in an evaluation of the "shares that the person controls through other means," depending on case specific circumstances.

OWNERSHIP CALCULATIONS (DOWNSTREAM AND UPSTREAM ACCOUNTING)

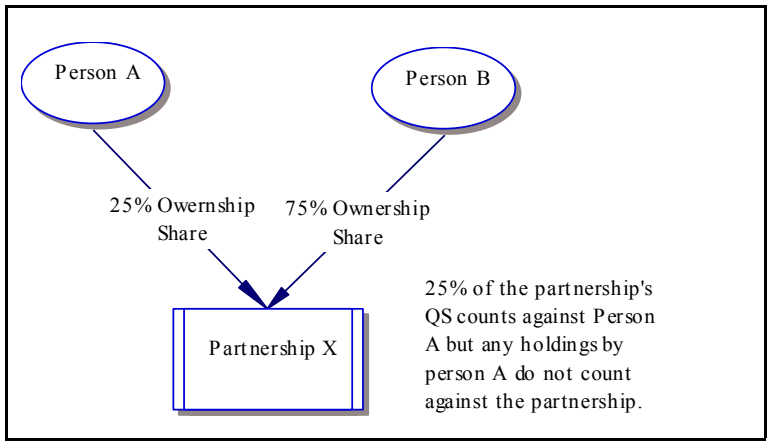


Figure A-36. Downstream accounting for control through ownership.

Under the control rule, individuals are considered to control legal entities but legal entities are not considered to control persons who control them. The QS/QP owned by downstream entities counts against control limits of upstream owners but the ownership of upstream owners does not count against downstream entities. For example, in Figure A-36 a portion of the downstream partnership's QS/QP (Partnership X) would count against Person A, but Person A is upstream of the partnership and any QS/QP held by Person A separately from the partnership would not count against the downstream partnership.

Consideration was given to counting against an entity all shares held by individuals which have some ownership in that entity (upstream accounting). Under such a rule the accumulation limits could become rapidly over restrictive as the QS/QP of individuals with only a very distant relationship to a particular partnership would still count against that partnership. Figure A-37 diagrams an example of partnership QS/QP accounting for a control rule under which there is only downstream accounting against upstream owners (QS/QP owned by a partner does not count toward the partnership's QS/QP). Figure A-38 diagrams the same relationships for a control rule under which there is both downstream and upstream accounting (QS/QP owned by a partner does count toward the partnership's QS/QP). In these figures, the QS held by an entity is provided in the diamond shapes and the entities are represented in circles (individuals) or squares (partnerships). The percent a person controls of a partnership is indicated in the arrows pointing to that partnership. The amount of QS counted against an entity is provided in parentheses in the square or circle. In these examples, Persons A, B and C are individuals. Persons A, B, or C could also be partnerships, corporations or other legal entities, in which case there would be additional boxes showing the upstream owners of those entities.

In Figure A-37, Person A is considered to have ownership control over 0.75% of the QS (person A's own 0.5% and 25% of partnership X's 1% QS). Person B is considered to control 1% of the QS (75% of partnership X's 1% QS and 50% of Partnership Y's 0.5% QS). Person C is considered to control 0.25% of the QS (50% of Partnership Y's QS).

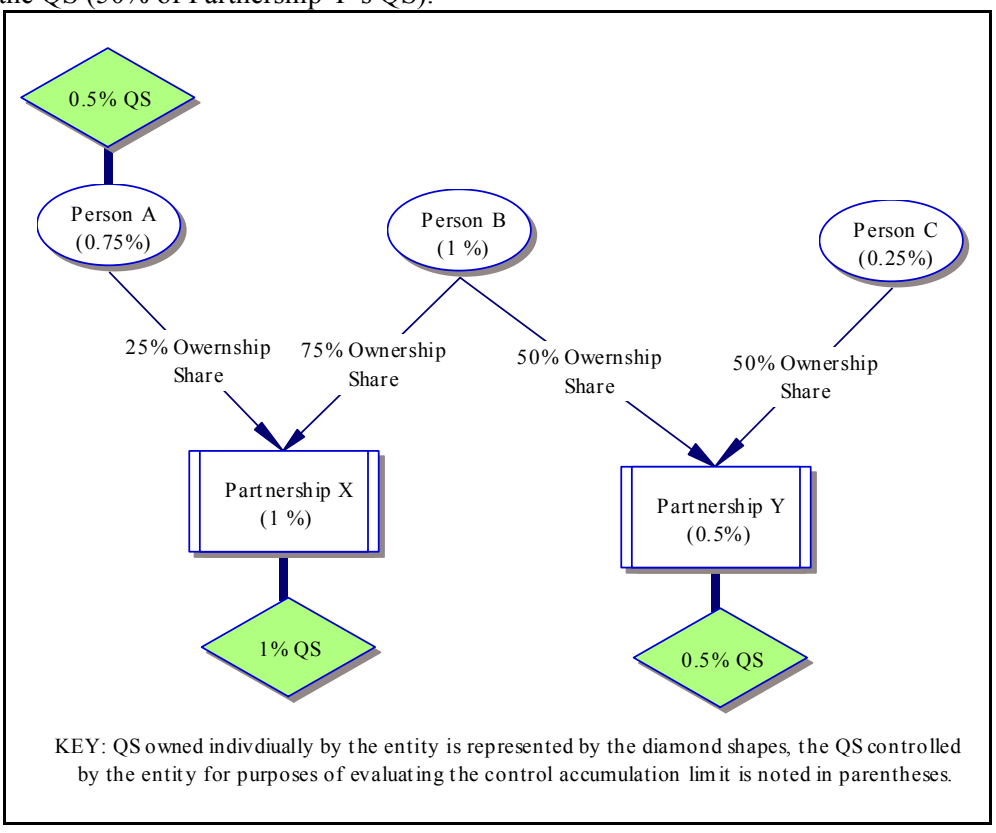
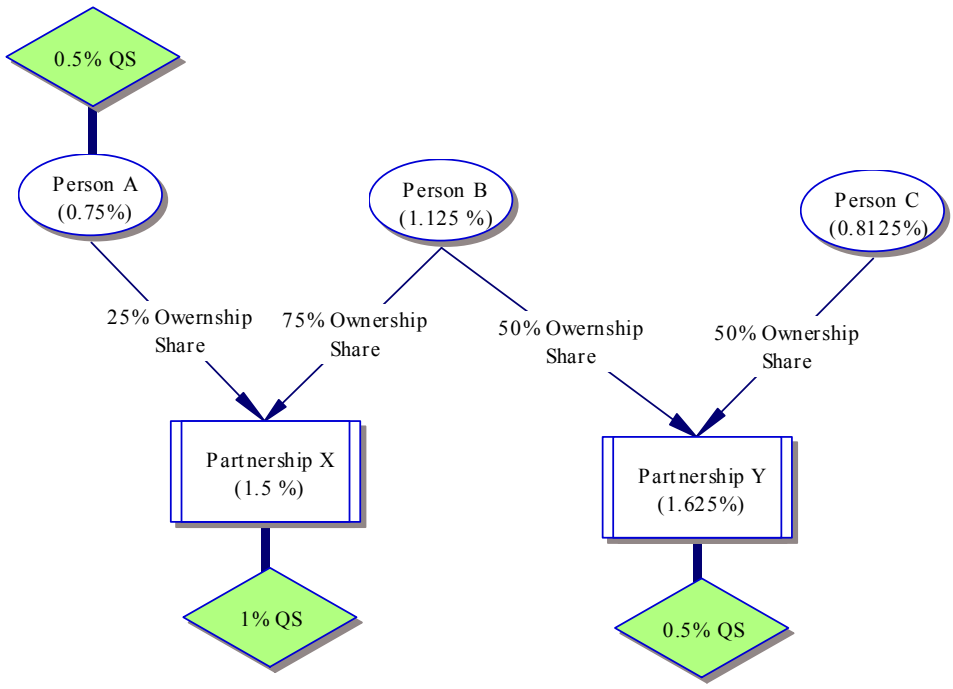


Figure A-37. QS accounting if the QS owned by a partner does not count toward the partnership's QS (downstream accounting only).

The effect of combined upstream and downstream accounting (Figure A-38) is most marked for Partnership Y and Person C, whose QS with respect to the control rule more than doubles. Because all of Person A's QS counts against Partnership X, Person B's 75% interest in Partnership X is counted as giving him control over 1.125% QS (of which 0.375% is that which Person A owns on his own). The

QS person B controls then counts against Partnership Y, which increases that partnership's QS to 1.625% (of which 0.375% is that which Person A owns on his own and 0.75% is that held by Partnership X). Figure A-38 shows only a partial accounting for upstream ownership. For a full accounting, Person B's ownership of Partnership Y would be counted against Partnership X, increasing Partnership X's QS holdings by 0.25% to 1.75%. This would then increase Person A's holdings by 0.675% (25% of 0.25%) to 0.8175%. Thus the full effect of upstream accounting is to increase both the extensiveness of the constraint and complexity of the accounting.

The decision on the downstream/upstream accounting aspect of the control rule draws a balance between a "cascading effect" that may unfairly restrict a person based on the actions of a distantly related entities (Persons A and C in Figure A-38) and the opportunity for an entity to circumvent the limits by a chaining together a number of partnerships which work co-operatively to control QS/QP in excess of limits. It is at this point that the portion of the rule that includes "as well as shares that the person controls through other means" becomes important. Even under a rule that does not count upstream ownership control of QS/QP against limits for downstream entities, <u>if it were determined that upstream ownership and the chaining together of entities was being used to circumvent QS/QP control accumulation limits, such control would still be considered a violation of the limit. Such situations would be evaluated on a case-by-case basis.</u>



KEY: QS owned indivdiually by the entity is represented by the diamond shapes, the QS controlled by the entity for purposes of evaluating the control accumulation limit is noted in parentheses.

Figure A-38. QS accounting if the QS owned by a partner <u>does</u> count toward the partnership's QS (upstream and downstream accounting) (Note: Partnership X's and Person A's QS have not been fully adjusted to account for Person B's separate ownership of Partnership Y. See text for discussion).

An alternative specification of the control rule could count the QS/QP owned by a partner against all entities owned by that partner but not against the other owners of those entities. Under such a rule, in Figure A-38, Partnership X would still be considered to control 1.5% of the QS but Person B would be considered to control only 0.75% of the QS (as in Figure A-37) and Partnership Y and Person C would also be unaffected by Person A's ownership of QS (also as in Figure A-37). This would make it somewhat more difficult to chain entities together but not eliminate the problem and would add complexity to the control rule. Also, it should be noted that in Figure A-37, while Person A's QS does not count toward Partnership X, if Person A transfers to a vessel owned by Partnership X the QP issued for his/her personally held QS, the QS represented by those QP would then count against the Partnership X's accumulation limit even under the control rule that does not automatically count upstream ownership of QS.

Another version of the calculation for the individual and collective rule would have counted 100% of the QS/QP held by any entity against each owner of that entity, regardless of the owners share of ownership. Under such an approach, in Figure A-37, Person A would be considered to control 1.5% QS. This approach while making it more difficult to exert covert control over QS/QP would also constrain a person's ability to participate in multiple partnerships or corporations, or to hold QS/QP and participate in fishing separately from the partnership or corporation in which it also participates. The net effect of the 100% approach would likely be to fragment the ownership in the fishery into more distinct units than may now be the case.

From the above discussion, it is apparent that in specifying the control rule, the Council is balancing

- complexity,
- unintended constraints on business arrangements due to the cascading effect of a more broadly specified control rule,
- the effectiveness of the control rule as evaluated based on ownership information alone, and
- the need and cost of enforcing abuses through investigation of control exerted by means not captured under the rules for evaluating control through ownership

IMPLEMENTATION OF THE CONTROL RULE

When NMFS implements the control accumulation limit, it would provide a regulatory definition of the Council's intent. With respect to the interpretation of "otherwise controls," the following is the regulatory interpretation that was provided for similar policy language for the North Pacific crab rationalization program.[66] *(Note: minor revisions have been made to these examples so that they can be better understood in the context of the IFQ Alternative.)*

a) The person has the right to direct, or does direct, the business of the entity to which the QS/QP are registered;
b) The person has the right to direct, or does direct, the delivery of groundfish harvested under a permit registered to a different person/entity;
c) The person has the right in the ordinary course of business to limit the actions of or replace, or does limit or replace, the chief executive officer, a majority of the board of directors, any general partner or any person serving in a management capacity of the entity to which the QS/QP is registered;
d) The person has the right to direct, or does direct, the transfer of QS/QP;
e) The person, through loan covenants, has the right to restrict, or does restrict, the day-to-day business activities and management policies of the entity to which the QS/QP is registered;

[66] NMFS based its examples on the indices used for determining impermissible control by a non-citizen of a United States fishing vessel under MARAD regulations at (46 CFR 356.11)

f) The person has the right to control, or does control. the management of, or to be a controlling factor in, the entity to which the QS/QP is registered;
g) The person has the right to cause, or does cause, the sale of QS/QP;
h) The person absorbs all of the costs and normal business risks associated with ownership and operation of the entity to which the QS/QP is registered.
i) The person has the ability through any other means whatsoever to control the entity to which the QS/QP is registered.

The catch-all phrase at the end of the definition, "shares that the person controls through other means" restricts ways to circumvent the accumulation limit but also presents questions as to how the definition should be interpreted in its implementation. For example:

- *If someone is a crew member of a vessel or a cutting line employee for a processor, should the shares owned by that person be considered within the control of the harvesting/processing company?*
- *If someone is a vessel captain or a plant manager, should the shares owned by that person be considered within the control of the harvesting/processing company?*
- *If someone leases the vessel/facility to the harvesting/processing business, should the harvesting/processing business be considered under that person's control?*
  If there is only one processor in the port, should that processor be considered to control the harvesting operations (and use of quota) of vessels in that port?

Ultimately the evaluation of a possible accumulation limit violation would be based on specific situational facts.

In considering these examples, one question to be addressed is 'Who controls QP in a vessel account and how does the control limit apply to that entity?" The options for the accumulation limit percentages would set the vessel limits above the control limits with the intent of ensuring that there is room for crew members or others to use their QP on a vessel. However, once the QP are transferred to the vessel account, they might be considered under the control of the harvesting company that operates the vessel. No other entity would be entitled to direct the use and disposition of the QP in the vessel account. Therefore, there is a question as to how the vessel limit be set above the control limit without putting the entity controlling the vessel over their accumulation limit. One approach might be to exclude QP registered to the vessel from the control limit. This would open the door for opportunities to circumvent the control limit. For example, an entity at their QS limit could enter into long-term contracts with other QS holders to acquire the QP that are issued each year to those other QS holders. Another approach might be to provide that when QP are transferred to a vessel they must be held for the vessel in a separate account for each source from which the QP are transferred. This adds complexity both to the tracking of the QP and to the process for crediting catch against QP. For vessels with more QP than the control limit, catch would have to be counted against each of the separate accounts held for the vessel. In addition to adding to the complexity of the tracking system, it would also add a source for error and disagreement and raise questions as to who is responsible for the various accounts on the vessel. Adding more accounts to the vessel would also require consideration of how the carry-over provisions would be applied (which to this point have been on the basis of the QP in the vessel account). An assumed constraint in the design of the program has been that once QP are issued for the year we would not track their source. They would be treated similar to bank accounts in that only the total amounts in an account are relevant, not the source of the QP. Application of the control rule to QP and a vessel limit that is greater than the control rule may require some adjustments during implementation.

♦ *Grandfather Clause and Control Date*

Grandfather Clause:
Option 1: A grandfather clause will apply to (1) vessel accumulation limits and (2) control accumulation limits. This clause allows a person, if initially allocated QS in amounts in excess of the cap, to maintain ownership of the QS. The grandfather clause will expire with a change in ownership[67] of the QS. If the owner divests some of the QS, the owner may not reacquire QS or QP until the owner is under the cap. Once under the cap, the grandfather clause expires and additional QS or QP may be acquired but not in excess of the control caps.
Option 2: Same as Option 1 but the maximum allowed under the grandfather clause will be twice the vessel accumulation limit.
Option 3: There will not be a grandfather clause.

The primary purpose of a grandfather clause would be to reduce disruption in the transition to a new program. Fairness and equity is also a concern. The MSA mandates that in order to ensure a fair and equitable initial allocation that the Council considers current and historical harvests in the fishery and participation of fishing communities, employment (harvesting and processing), investment and dependence. After taking these factors into consideration there is a broad scope of actions available for the Council. One possible response is the adoption of a grandfather clause. A grandfather clause may be appropriate if the Council determines there are certain past or existing practices that would not be allowed under a new program but that those practices should not be immediately disrupted. On the other hand, a grandfather clause delays the full effect and benefit from the program and creates a class of participants that has an advantage over other participants. These types of tradeoffs are taken into account in the Council's development of its recommendations.

- In addition to the disruption issue, the question of a grandfather clause pits a number of fairness and equity questions against one another. If there is no grandfather clause and accumulation limits are below what is needed for some highliners to take their historic harvest levels, is it fair that some entities should have their historic practices disrupted; if there is one is it fair that some entities should have advantages over others and that many of those who will benefit from the program will have to wait for the full benefits until the grandfather provisions expire? And finally, there is a fairness the question associated with issues of advance notice. With no grandfather clause, those with activities prior to the time deliberations on the current program started may not receive a full measure of QS for those activities. A control date was published that had the effect of providing advance notice for decisions that were made after that date but not before. If there is a grandfather clause, question arises as to whether activities occuring after the control date (in particular, the acquisition of additional permits) should entitle an applicant to a greater allocation. Some have said it was not clear that the control date applied to anything more than fishing. They argue that allocations resuling from permit accumulation after the control date should be grandfathered in. This issue is discussed further in the analysis. The question for the Council is whether to restrict quota share issuance for permits accumulated after a certain date.

During its discussion in September 2007, the GAC noted that limiting the grandfather clause might be a way to limit changes in market power that could result from the initial allocation. In the extreme, there could be no grandfather clause. Another choice (Option 2) would provide a limited grandfather clause, reducing the maximum possible disparity among initial recipients. After considering these issues and hearing public testimony at its June 2008 meeting, the Council chose as its preliminary preferred option is Option 3, no grandfather clause.

[67] **Definition of Change in Ownership:** For the purpose of the grandfather clause, ownership of a legal entity is defined to change with the addition of a new member to the corporation, partnership or other legal entity. Members may leave without causing the grandfather clause to expire for that entity. (The provision was specified in this manner so that one partner could not extort concessions from other partners by threatening to leave and cause the grandfather exemption to expire.)

As noted in the section on vessel limits, if there is a grandfather clause, in order to provide an accumulation limit grandfather clause for vessels;

- a rule will have to be developed by which the grandfathered level for a permit will be determined; and
- decisions will be needed on,
  - the conditions under which the vessel grandfather clause expires (e.g. whether the clause expires with a change in ownership of the permit or vessel),
  - whether one vessel may be substituted for another without the grandfather clause expiring (i.e. whether the vessel grandfather exemption stays with the vessel or transfers with the permit).

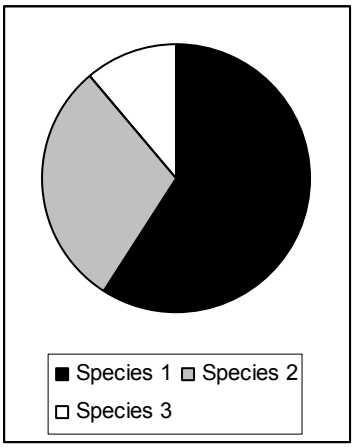
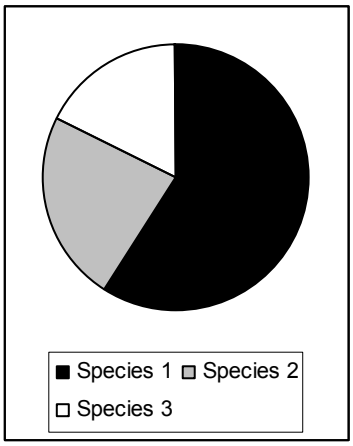
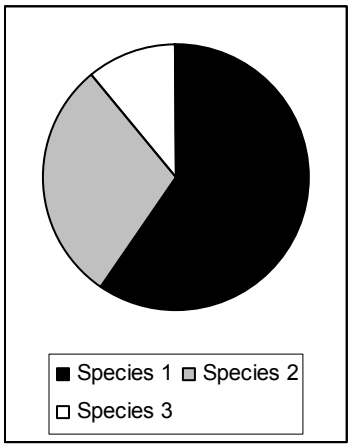
While there are a few decisions needed for the implementation of a vessel grandfather clause, they are not complex.

One approach would be to associate the vessel grandfather level with the permit registered to the vessel at the time of implementation. While the accumulation limits are applied at the vessel level, associating the grandfathered level with the permit would allow a permit owner to change equipment substituting one vessel for another. The rule for expiration of the grandfather clause would be the same as for the control clause (the addition of a new owner to the permit whether through wholesale change in ownership or the addition of a new partner, see footnote 67). This approach would however disadvantage vessel owners who lease their permits.

An alternative approach would be to specify that the vessel grandfather level would be determined by the permit registered with the vessel at the time of implementation but that the level itself would be associated with the vessel. In this case, the grandfather level would expire with a change in ownership of the vessel. The Council would have to determine whether to allow the vessel owners for the substitution of one vessel for another and whether there should be limits on the conditions under which substitution would be allowed (e.g. only in the event of the partial or total loss of the vessel). As with the control limit, the vessel grandfather clause would expire with the addition of a new owner.

- If there is no grandfather clause, the species mix of the allocations to individuals that would otherwise be over the accumulation limits will depend on the order in which the accumulation limits are applied. If the species accumulation limits are applied before the aggregate limits, it is more likely that the ratios will deviate from those that would have occurred in the presence of a grandfather clause. The following table contains a hypothetical three species example. In this example, when the species limit is applied first, QS Species 2 is cut back by 50 percent (from 0.04 to 0.02). After the species are brought under the accumulation limits, all species are reduced proportionally by another 20 percent to bring the total holdings within the aggregate limit (Species 2 is reduced from 0.02 to 0.16). When the aggregate limit is applied first, all species are cut back by about 50 percent after which the additional reduction needed to bring species 2 under the species accumulation limit is only 1 percent. The result is that by applying the aggregate limit first, the mix of QS more closely resembles the mix that an entity would receive if there were no grandfather clause.

Table A-69. Illustration of the effect of the order in which individual species accumulation limits and aggregate groundfish accumulation limits are applied to limit initial QS allocations (Graphs show the proportion of QS for a single entity with QS allocations for three species under three different scenarios).

Grandfather Clause	No Grandfather Clause, Species Limits Applied First	No Grandfather Clause, Aggregate Limits Applied First
		
Total QS: 6.9% QS Species 1 = 0.08 QS Species 2 = 0.04 QS Species 3 = 0.015	Total QS: 3% (weighted total) QS Species 1 = 0.041 QS Species 2 = 0.016 QS Species 3 = 0.012	Total QS: 3% (weighted total) QS Species 1 = 0.04 QS Species 2 = 0.02 QS Species 3 = 0.008

The accumulation limits applied in the above example were:

	Accumulation Limits	Relative Weight of OY for Each Species
Species 1	0.05	2
Species 2	0.02	1
Species 3	0.02	0.5
Aggregate Limit	0.03	

♦ *Disposition of Amounts in Excess of Limits*

If there is no grandfather clause the question arises as to the disposition of the QS that persons would otherwise receive in excess of the accumulation limits. The approaches include,

i. Redistribution: do not allow the allocation of excess QS, redistribute the excesses among those who are under the limits,
   a. redistribute while maintaining the sector shares,
   b. redistribute in a manner that alters the sector shares.
ii. Allow Divestment: allowing people to receive the QS but require that they divest themselves of the excess.

The Council's preliminary preferred alternative takes the redistribution approach and maintains the sector shares. Under this redistribution approach, the QS would be redistributed in accordance with the allocation formulas. Excess QS a processor would otherwise receive for its processing history would be reallocated to processors and excess, QS a harvester would otherwise receive for its harvesting history would be reallocated to harvesters. For an entity that has both processing and harvesting history and

receives excess QS, the excesses would be reassigned proportionally. For example, if 75 percent of an entity's QS was for processing history and 25 percent was for harvesting history and the entity would otherwise receive an amount of QS that is 10 percent over the limit, then 7.5 percent would be allocated back to other processors and 2.5 percent would be allocated back to other harvesters. Selecting this approach;

- maintains the balance struck between processors and harvesters at the overall sector level (the initial allocation decision made in Section A-2.1.1), and
- within a sector will reallocate from larger producers to smaller producers.

Redistribution could also be done in a fashion that provides all of the excess back to the other group (e.g. all of the harvester excess could be allocated to processors or all of the processors excesses to harvesters). The Council is trying to develop a balance in the initial allocation of QS between harvesters and processors. As part of its preliminary preferred alternative the balance struck by the Council was to give 20 percent to processors and 80 percent to harvesters. The Council was under pressure to give more to harvesters and more to processors and Council members spoke to the difficulty of striking a balance mainly as it related to market power. The result of their decision on initial allocation strikes a balance among the sectors as a whole and within the sector provides each individual entity an opportunity to qualify for a certain share of the sector's allocation based on its own history. If this balance is viewed as equitable, based on the opportunity provided to individual entities to qualify for a certain amount of QS rather than the amount of the total QS given to the sector as a whole, the Council could maintain equity for the individual firms but shade the balance between sectors by reallocating excess QS from one group to the other. For example, harvesters receiving QS in excess of an accumulation limit could cede the excess back for redistribution among processors, or processors could cede the excess back for redistribution among harvesters, rather than redistributing the excess within the group. Relative to a system that maintains the sector splits, smaller entities in the sector to which the excess is reallocated will gain while smaller entities in the sector from which the excess is reallocated will lose. Selecting an approach that would allocate any excess QS back to one sector would:

- alter the balance struck between processors and harvesters at the overall sector level the (initial allocation decision made in Section A-2.1.1) while maintaining each individual entity's opportunity to qualify for those QS for which it is eligible under the allocation formula, and
- reduce the differential in allocation between smaller and larger entities[68] in the sector to which the excess is allocated.

Another approach discussed by the Council would be to allow individuals to receive an initial allocation but require that they immediately divest themselves of the excess QS. Some view the amounts that they receive as part of the excess as something they are "entitled" to expect. If the Council concurs with this view but places a stronger weight on the need to keep anyone from holding QS in excess of accumulation limits from the start of the program (i.e. does not include a grandfather clause as part of its final recommendation), it could allow entities to receive the QS and sell it. Thus individuals would receive some of the economic benefit from the QS to which they are viewed to be "entitled" while the Council maintains its objective with respect to the accumulation limits. Selecting this approach:

- provides a wealth benefit to all individuals more in proportion to their relative history,
- may provide a greater opportunity for those divesting themselves to establish relationships that attempt to circumvent the control limits (whether this opportunity adversely impacts the program depends on the effectiveness and cost of case-by-case investigations of abuses).

[68] This statement is generalized based on an assumption that "smaller entities" have less history that "larger entities." This may not be strictly true depending on the length of the history of participation and the dependence of the entities on groundfish.

♦ *Percentages for Limits*

The options for the accumulation limit percentages are provided in Table A-70. The vessel limits are set higher than the accumulation limits in order to,

- allow the potential efficiency gains that may result from the aggregation of catch on fewer vessels, while maintaining a tighter limit on control,
- provide an opportunity for crew members and vessel operators to use their QS on the vessel they work for.

Vessel limits that are greater than control limits imply that it is possible for QP to be used on a vessel without that QP necessarily counting to the control limit of the vessel owner.

The first suite of accumulation limits was developed by the TIQC. The nonwhiting limits were based on aggregate average catches per permit from 1994-2003.[69] The whiting limits were based on the knowledge of whiting industry members present at the TIQC meeting. The TIQC initial recommendations were later modified based on the recommendations the GAC developed at its September 2007 meeting. The GAC developed Option 1 based on the maximum landings history shares of nonbuyback permits (the 1994-2003 average of each non-buyback permit's annual landings divided by the annual landings of all non-buyback permits), however, no control cap was allowed to be set above 5 percent except for English sole and "Other Flatfish." The control caps for the second option were set at 1.5 times the percentages from Option 1. The Option 3 limits would be identical to Option 2 for all nonwhiting groundfish except the aggregate nonwhiting limit would be 3 percent. For all options, the vessel cap would be double the control cap amount, except whiting. The GAC noted that the accumulation limits will determine the maximum fleet consolidation level. Focus on the non-buyback permits was intended to preserve the more recent fleet profile. The period used was the same as the qualifying period. The intent of Option 1 was to develop caps that were generally above the amounts of QS that will be allocated to most permits based on their history during the qualifying period. Option 2 and 3 were set at levels above Option 1 to explore the effects of higher limit levels.

[69] The first option developed by teh TIQC. The limits may vary by species/species group, areas, and sector.

Sector	Own-or-control Accumulation Limits	Permit Use Limit
Shoreside nonwhiting	All groundfish: 1.5%, 2.1%, 3%, or 5% Individual species: sablefish, 1.7%; Dover sole, 1.95%; petrale sole, 3.0%; English sole, 7.0%; sanddabs, 27.6%; other flatfish, 9.1%; longspine thornyhead, 2.1%; shortspine thornyhead, 2.0%; widow rockfish, 3.6%; yellowtail rockfish, 3.5%; canary rockfish, 6.0%; and other Sebastes, 6.6%	Double the own-or-control limits
Shoreside whiting	5%, 10%, or 15%.	7.5%, 10%, or 12%
Mothership whiting	10%, 15%, or 25%	20%, 30%, or 50%
Catcher-processor	50%, 55%, or 60%	65%, 70%, or 75%
Whiting sectors combined*	15%, 25%, or 40%	25%, 40%, or 50%

Table A-70 Control cap and vessel cap options to define QS/QP accumulation limits in the IFQ Program Alternatives.

Stock	Option 1		Option 2		Option 3	
	Control Cap (%)	Vessel Cap (%)	Control Cap (%)	Vessel Cap (%)	Control Cap (%)	Vessel Cap (%)
All nonwhiting groundfish (in aggregate)	1.5	3.0	2.2	4.4	3.0	6.0
Lingcod - coastwide c/	5	10	7.5	15		
N. of 42° N (OR & WA)	5	10	7.5	15		
S. of 42° N (CA)	5	10	7.5	15		
Pacific Cod	5	10	7.5	15		
Pacific Whiting			0	0		
Shoreside Sector	10	15	15	22.5	25	37.5
Mothership Sector	10	25	15	37.5	25	50
Catcher Processors	50	65	55	70	60	75
All Whiting Sectors Combined	15	25	22.5	37.5	40	50
Sablefish (Coastwide)	1.9	3.8	2.9	5.7		
N. of 36° N (Monterey north)	2	6.2	3	9.3		
S. of 36° N (Conception area)	5	6.2	7.5	9.3		
PACIFIC OCEAN PERCH	5	6.2	7.5	9.3		
Shortbelly Rockfish	5	6.2	7.5	9.3		
WIDOW ROCKFISH	3.4	6.8	5.1	10.2		
CANARY ROCKFISH	5	10	7.5	15		
Chilipepper Rockfish	5	10	7.5	15		
BOCACCIO	5	10	7.5	15		
Splitnose Rockfish	5	10	7.5	15		
Yellowtail Rockfish	5	10	7.5	15		
Shortspine Thornyhead - coastwide	3.1	6.2	4.7	9.3		
Shortspine Thornyhead - N. of 34°27' N	4.8	9.6	7.2	14.4		
Shortspine Thornyhead - S. of 34°27' N	4.7	9.4	7.1	14.1		
Longspine Thornyhead - coastwide	2	4	3	6		
Longspine Thornyhead - N. of 34°27' N	2	4	3	6		
Longspine Thornyhead - S. of 34°27' N	5	10	7.5	15		
COWCOD - Conception and Monterey	5	10	7.5	15		
DARKBLOTCHED	5	10	7.5	15		
YELLOWEYE g/	5	10	7.5	15		
Black Rockfish	5	10	7.5	15		
Black Rockfish (WA)	5	10	7.5	15		
Black Rockfish (OR-CA)	5	10	7.5	15		
Minor Rockfish North	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	4	8	6	12		
Slope Species	5	10	7.5	15		
Minor Rockfish South	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	5	10	7.5	15		
Slope Species	5	10	7.5	15		
California scorpionfish	5	10	7.5	15		
Cabezon (off CA only)	5	10	7.5	15		
Dover Sole	1.8	3.6	2.7	5.4		
English Sole	10	20	15	30		
Petrale Sole (coastwide) c/	2.9	5.8	4.4	8.7		
Arrowtooth Flounder	5	10	7.5	15		
Starry Flounder	5	10	7.5	15		
Other Flatfish	10	20	15	30		
Other Fish	5	10	7.5	15		

♦ *Calculation of the Aggregate*

- The options for accumulation limit percentages include both limits for individual species and species group IFQ management units and for nonwhiting groundfish species in aggregate. In order to evaluate an individual's aggregate QS, the individual IFQ management groups are weighted by the amount of the trawl allocation relative to the other species groups. This creates a situation in which an entity may be at the aggregate limit but the increase or decrease of the trawl allocation for a particular species could push that entities aggregate QS holdings over the limit. The trawl allocation might change with changing OYs or direct changes in the allocations. There appear to be two ways to handle this situation. Allow the entity to retain their QS that is over the aggregate limit but not to acquire additional QS or QP. Require the entity to divest themselves of the QS. Some additional guidance may be needed on this point or the Council may leave this issue for NMFS to resolve during implementation.

❖ Interlinked Elements

The accumulation limits and decisions on the grandfather will have a strong but indirect impact on the results of the allocation formulas. The allocation formulas do not directly rely on provisions of the accumulation limits.

A decision will be needed on whether QP issued as part of the adaptive management program count against the accumulation limits. Not counting these QP against the accumulation limits will create another need for separate tracking and monitoring of adaptive management QP separate from other QP. It will also reduce the ability of those who are at accumulation limits to respond to incentives are created by the adaptive management program.

❖ Analysis

● Vessel Limit (Production Level Limits: Vessel or Permit Limit)

The following are the categories of goals and objectives affected by the decision to have vessel limits (independent of the level of those limits or the size of the vessel limits relative to the control limits) and the section in which each are addressed.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Social Versus Net Benefit Trade-off		X			X	X	X	X			
Impact on Labor							X				
Impact on Processors						X					
Impact on Harvester						X					
Impact on the Public										X	

♦ *Social Benefits Verses Net Economic Benefit Trade-off*

The vessel limit is to ensure that there is at least some minimum number of vessels in the fleet so that benefits are more likely to be distributed across more individuals and a broader geographic area. Ensuring this distribution may come at the cost of a lost opportunity for greater efficiency (lower net economic benefits). Absent a vessel accumulation limit, the fleet would be expected to shrink in size to a number that would be determined largely based on efficiency. Control limits alone will not maintain fleet size because several QS owners that are at their control limits might work together to take their QS from a single vessel. Maintaining a larger fleet diverts money from profits to payments for the parts, equipment, supplies, labor, and support services needed to maintain and operate the larger fleet. The diverted profits represent lost efficiency and will likely have a downward influence on the QS price. Had the profits not been diverted they would have been spent or invested on goods and services elsewhere in the economy and overall production in the economy would be greater. While net national benefits may be lower as a result of the vessel limit, the higher expenditures needed to maintain the fleet are likely to occur in the coastal communities, potentially increasing local benefits.

♦ *Impact on Labor*

Maintaining more vessels also may mean more job positions but may not result in an increase in the payments to vessel labor. As a result the annual pay per job on a vessel may be lower than if there were not a vessel accumulation limit. Under similar circumstances in other systems individual crew members and vessel operators have sometimes rotated between vessels so that crew members earn a greater annual income and the harvesting companies gain the benefit of a more experienced crew.

♦ *Impact on Processors*

For processors that do not own vessels, the vessel limit may help ensure that they have more potential suppliers than if there were not such a limit. In the absence of a vessel limit, as many QS owners as is economically efficient might work together to harvest their QS off a single vessel. Individual QS owners operating off the same vessel might negotiate with processors independently of one another or collectively. Their use of a single vessel would reduce flexibility.

For processors that do own vessels, the effect of the vessel limit will depend on where it is set relative to the control limit and whether or not there is a grandfather clause. If there is a grandfather clause for the control limits or if there is no grandfather clause but the control limit is greater than the vessel limit, the vessel limit will force the processor to operate more vessels to take its QS (or to pay other vessels to harvest its QS). If the control limit is less than the vessel limit and there is no grandfather clause (the preliminary preferred alternative), the vessel limit will not have a direct effect on processors owning vessels.

	Grandfather Clause	No Grandfather Clause
Control Limit Greater than Vessel Limit	Processors with more QS than allowed under the vessel limit or grandfathered vessel level forced to operate more vessels to take their QS.	Processors with more QS than allowed under the vessel limit forced to operate more vessels to take their QS.
Control Limit Less than or Equal to the Vessel Limit	Processors grandfathered in at a QS levels higher than the vessel limits or grandfathered vessel level may be forced to operate more vessels to take their QS.	Vessel limit will have no effect on the number of vessels the processor operates (the processor will be able to take all of its QS on one vessel).

♦ *Impact on Harvesters*

As discussed in the section on net benefits, the vessel accumulation limit effectively requires that a greater number of vessels operate in the fishery, increasing the costs to harvesters and reducing their benefits. The existence of a vessel limit reduces the opportunity for multiple owners to gain efficiency by taking their QS from the same vessel. As with processors that own vessels, the effect of the vessel limits on the number of vessels operated by a particular harvesting company will depend on where the vessel limit is set with respect to the control limit and whether or not there is a grandfather clause (see the matrix in the section on processors). Under the preliminary preferred alternative the vessel limit will not require that a harvesting company operate more than one vessel to take its allocation of QS but at the same time may allow independent harvesters some opportunity to cooperate by fishing their QP from the same vessel (because the control limit is less than the vessel limit and there is no grandfather clause).

♦ *Impact on the Public*

The general public will be affected by both lower overall net benefits than might be achieved without a vessel accumulation limit and increased program administrative costs. The effect on net benefits was discussed above. With a vessel accumulation limit, program administration, tracking, monitoring and enforcement costs may be higher than they would be with a greater degree of fleet reduction. The fleet can be charged fees of up to 3 percent of exvessel value. Additional cost recovery may occur through the collection of royalties through means such as auctions, though no such mechanisms are included in the Council's preliminary preferred alternative. Some costs may be paid directly by the fleet, such as the cost of carrying an observer. Any program-related expenses that are not covered through the fee, royalty collection, or direct payment by industry would be covered by tax payers.

● Control Limit

The following are the categories of goals and objectives affected by the decision to have control limits. The level at which such limits are set, whether there is a grandfather clause etc. are discussed in other sections.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Number and Size of Participants and Within Sector Competition		X				X		X			
Market Power		X				X					
Efficiency						X					
Geographic Dispersion								X			
Fairness and Equity					X						

A summary provides impacts by user group.

♦ *Number and Size of Firms and Within Sector Competition*

For the harvesting sector the control limits form an upper bound on the total amount of product a harvesting business can catch and a lower limit on the total number of harvesting companies. For processors, the control limits do not cap their total production but do cap the amount of that production that is backed by QS. Thus, for processors the accumulation limit does not determine some minimum number of firms that will be in the sector. However, processors with more of their purchases backed by QS owned by the processor will likely have a competitive advantage over processors with less QS. The advantages that processors gain over other processors when they have QS to support their production are discussed in Appendix E. Within a given sector control accumulation limits will limit the degree to which a firm can gain advantage over other firms in the sector by amassing QS.

♦ *Market Power*

Market power is the ability to influence prices away from the competitive equilibrium to the favor of the entity(ies) exerting that power. Exerting such power redistributes wealth and in some cases may result in market distortions that reduce overall efficiency of the economy. This issue is discussed in detail in Appendix E.

With respect to relative market power advantage between harvesters and processors, the initial allocation will set the starting point. The initial allocation is (1) an allocation of wealth, and (2) an allocation of advantage to certain firms, if there is a grandfather clause. The grandfather clause would allow firms to retain QS they receive as part of the initial allocation that is in excess of accumulation limits. However, over time, the accumulation limits will have more of an effect than the grandfather clause or the initial allocation. If the accumulation limits are set sufficiently low they will limit the opportunity for individual firms to use QS to exert market power. If set too low, they will constrain efficiency. Options for the level at which accumulation limits would be set are discussed in the section on "Percentages for Limits."

The effect of the accumulation limit on processor market power may relate more to its affect on the power of the individual processing company than to the entire sector. Jointly coordinated action by processors is not legal while it is allowed for harvesters. The effect of the limits on harvester power may be indirect. The more harvesting companies there are the more coordination that is required to exert market power. Accumulation limits may result in more harvesting companies than would exist without such limits.

♦ *Efficiency*

With the control limit, as with the vessel limit, there is a balance to be sought between a limit that is enough of a constraint to meet some social and economic objectives (e.g. preventing exertion of market power) and one that provides enough opportunity for aggregation to gain efficiency and other benefits from rationalization. For the vessel limit, the efficiencies of concern pertain to those related to the operation of a single vessel. For the control limit, the efficiencies of concern are those related to levels of business aggregation. For example, if two fleets have identical numbers of vessels but in one the vessels are controlled by fewer businesses, the fleet controlled by fewer businesses may operate more efficiently because of savings related to such things as bookkeeping, marketing, and the sharing of certain company- owned capital assets across more vessels (e.g. a truck or private hoist). Options for the level at which accumulation limits would be set are discussed in the section on "Percentages for Limits."

♦ *Geographic Distribution*

With respect to geographic distribution, the control limit does not directly result in greater geographic distribution of the harvest. While requiring that QS be distributed among more entities does not guarantee that those entities will be geographically dispersed, allowing QS to be concentrated into the hands of only a few would make geographic concentration of harvest, landings, and benefits more likely.

♦ *Fairness and Equity*

Some view the accumulation of large amounts of wealth as being unfair. Others view it as fair as long as everyone is under the same rules. The accumulation limits would constrain an entity's ability to accumulate wealth through use of QS but all would be playing by the same rules (have the same limit), depending on the Council decision with respect to the grandfather clause.

♦ *Summary*

Effect on Net Benefits
- May result in greater net benefits if set low enough to prevent exertion of market power.
- May result in lower net benefits if set so low that it constrains efficiency.

Effect on Harvesters
- May limit ability to reach most efficient size of operation.
- Sets a lower limit on number of harvesting businesses.
- A greater number of harvesters would make it more challenging for the sector to coordinate action and exert market power over processors.

Effect on Processors
- Does not affect the size of operations.
- Does not set a lower limit on the number of processing businesses.
- Limits ability for larger firms to use QS ownership to gain market power in relation to harvesters.
- Limits amount of advantage larger processing companies can gain over smaller processing companies through QS accumulation.

Communities
- May indirectly encourage QS to be distributed across more communities.

● The Control Rule and Included Scope of Control Relationships

A narrower control rule allows for the circumvention of the limits through means outside of the scope of the rule, frustrating achievement of the objectives related to the provision (objectives identified in previous sections). A broader control rule may inhibit relationships that are useful and beneficial for the efficient organization of the seafood industry (e.g. the formation of co-ops to manage overfished species QP or exclusive marketing agreements to encourage entry by a new processor). The analysis of impacts is organized into the following sections:

- Market Power
- Efficiency
- Alternative Organization of Production
- Administrative and Enforcement Costs
- Fairness and Equity

A bullet summary is provided at the end.

- *Market Power*

The control rule is specified to take into account the exertion of control beyond the boundaries of ownership. This is required to effectively prevent the exertion of market power and the adverse effects that the exertion of such power would have on the economy and socio-economic conditions. Without a broadly specified control rule and the associated percentage limits, anti-trust law would provide the next level of protection against the adverse effects of excessive control. Anti-trust laws are more difficult and costly to enforce than a control rule with a specified threshold (the accumulation limit percentage).

Effectiveness of the control rule in evaluating the amount of QS under an entity's control may be limited by not taking into account QS that owners of an entity hold separately (not accounting for upstream ownership). See the rationale for this provision for further explanation of "upstream" (page A-232). Not including upstream ownership as part of the calculation of control through ownership does not prevent that ownership from being taken into account in the application of the more generalized restrictions which entail "other means of control."

- *Efficiency*

The extension of the control rule to means of control beyond ownership could inhibit the formation of relationships that are useful to maintaining an efficient industry. One example is the potential inhibition of the formation of risk control co-ops. This is discussed further in a following section. Another example might be exclusive marketing agreements. On the one hand, exclusive marketing agreements can be a means of exerting control. On the other hand such agreements may also be used to limit risk and encourage new investment, including the development of new markets. For example, if vessels in a particular port wanted to encourage entry by a new processor, they might reduce that processor's risk by offering an exclusive marketing agreement for a period of time. If the number of competing buyers in the local area is limited, ability to encourage new entrants via marketing agreement may lead to more competitive pricing in the raw fish markets and a more efficient distribution of resources.

The choice to count QP against the control limit may have an adverse impact on processors' ability to vertically integrate. All catch must be covered by QP that is placed in vessel accounts and the QP for all catch by vessels owned by processors would count against the processor's control limits, even if the processor did not own the associated QS. Thus absent some other adjustment to the interpretation of these provisions, processors will not be able to use their own vessels to catch a volume of fish that exceeds accumulation limits. The total volume of product a larger processor handles would likely exceed the accumulation limits. Given the treatment of QP under this control rule it is possible that some processors will not be able to maintain the level of vertical integration on which they have depended unless their activity is grandfathered in (Table A-107 and Figure A-42).

- *Alternative Organization of Production*

The control rule may affect ability to effectively form other types of organizations which would benefit the fishery, such as harvester co-ops or regional fisheries associations.

One of the difficulties that harvesters will face under the IFQ program is covering their catch with QP when they encounter an unexpected high bycatch of an overfished species ("disaster tow") for which the

amount of QP available is very limited. There has been talk that industry members might form risk pools or risk management co-ops. Such types of arrangements may be established as contractual agreements which place obligations on and provide benefits to the parties to the agreement; or it may be established as an entity unto itself (for example, a co-op established as a corporation). Under a contractual agreement, members might simply agree that whichever of them encounters a "disaster tow," all parties of the agreement will transfer to that member a proportion of their holdings of the species sufficient to cover the tow. Or, a risk management co-op might be established to which the members transfer certain species and a co-op manager monitors members and transfers QP to the member accounts in accordance with the co-op rules. Under the rules of the IFQ program, in order for such a co-op to actually hold QS or QP it would have to be incorporated or otherwise take on a legal identity which makes it eligible to own a US documented fishing vessel (the requirement for QS/QP ownership). In the case of an entity eligible to own a vessel there is clearly an entity to which the control rule would apply. In the case of a contractual agreement the question may become one of whether or not the contract effectively establishes control of one entity over another.

If consideration is given to exempting risk management pools from the accumulation limits, careful consideration should be given to the types of pools for which such exemptions are provided and the consequences that would be incurred if attempts were made to use such a pool to circumvent accumulation limits. Under a contract-based risk management pool for vessel overages, the consequences to the vessel for exceeding the limits would limit the ability of anyone to routinely use the contract to circumvent the control rule. Even if parties entered into a risk management contract, no one party to the contract could start with more QS/QP than allowed. When a vessel experienced an overage, the needed QP would be transferred to that vessel. If the amount needed by the vessel exceeds the QS/QP accumulation limit, the vessel would not be prevented from receiving the QP needed to cover its overage. However, the vessel would have to stop fishing until the end of the year. The requirement that the vessel acquire the needed QP and then stop fishing for the remainder of the year would apply regardless of whether the QP were transferred from the risk management pool or through transactions on the open market. On this basis, an interpretation of the control rule that says a risk management pool contract for the purpose of covering a vessel overage is not subject to the accumulation limit might be subject to minimal abuse. On the other hand, it might be easier to abuse a control rule that is interpreted, as an example, to allow processors to establish contingency contracts to mitigate the risk that they will not be able to keep a plant in operation year round. Such a contingency contract might specify that if a processor runs short of product, QP would be transferred to vessels which are not under its control but under contract to deliver to that processor. So long as the vessels are not at their individual accumulation limits, there would be no disincentive for the exercise of such a contract. The processor would be able to continue processing even if the risk management contract resulted in the transfer of amounts of QP to vessels delivering to that processor that exceeded the accumulation limits. Under the example of a vessel risk management pool for an overfished species overage, the vessel would be forced to stop fishing if the exercise of the contract gave it more QP than allowed under the accumulation limit. Thus, a determination as to whether or not contracts that support "risk management pools" are within or outside the scope of the control rule should take into account not only the nature of the control entailed in that contract but also the consequences that might flow from the abuse of the interpretation.

The control rule may also present challenges in the development of RFAs. Specifically, unless an exemption is provided that allows RFAs to exceed the general limits, RFAs that entail amounts of QS in excess of the accumulation limits will need to be structured such that they cannot be construed as an entity "controlling" the QS/QP of its members. In order to be eligible to particpate in an IFQ program an RFA must meet criteria developed by the Council (MSA, 303A(c)(4)(A)). At this time there are no

provisions in the IFQ alternative that would establish the criteria needed for creation of RFAs. Therefore these issues will need to be dealt with in subsequent Council action. [70]

As with other types of entities, the problems with providing exemptions or higher limits for co-ops and RFAs is the potential for such entities to be formed as a front for private interests whose main goal is to control QS in excess of the accumulation limits.

♦ *Administrative and Enforcement Costs*

The control accumulation limit restricts the acquisition of excessive shares, including acquisition by means other than through purchase of QS or QP. "Ownership" and potential violation of such limits would be tracked on an ongoing basis in a NMFS database. The need to track indirect ownership will add to the amount of information NMFS collects about the entities that nominally own QS (as compared, for example, to the information collected on ownership of a trawl limited entry permit). NMFS might also require that additional information be submitted to assist in assessing levels of control not reflected in ownership records. Investigation and prosecution of potential violations of control limits would likely require information beyond that contained in the regular submissions to NMFS. Such investigations would likely be instigated based on substantiated citizen complaints or other sources of information. Adequate enforcement resources would be needed to follow-up on substantiated allegations.

♦ *Fairness and Equity*

Full application of the control rule will require case-by-case investigations and evaluation of the situations. If those who are adversely harmed by entities that are alleged to exert excessive control do not believe those violations are being adequately investigated, they may feel that the program is not fair and equitable, that someone is getting away with violating the program. For this reason it will be important to ensure that there are resources available to adequately follow-up on allegations of violations for which there is some supporting evidence. On the other hand, those who are the subject of such allegations will likely feel that the program is not fair and equitable if control is not being evaluated consistently against all participants. In particular the consistent application of the language "shares that the person controls through other means" will be important. Further, the vagueness of the language may leave some uncertainty about what is and is not allowed. Ultimately, the standard of evaluation might be "Is or isn't control being established that adversely impacts program objectives?"

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[70] At such time that rules are established for RFAs, to minimize the chance that RFAs are established to circumvent the accumulation limit rules, the Council might impose certain restrictions and requirements. The following is an example of the type of language that might be considered as part of the criteria for an RFA:

An RFA plan shall:

(a) not be approved if the Council or NMFS determines that
  (1) the primary purpose or effect is to allow an entity to control quota shares in excess of the accumulation limits which apply to entities that are not part of RFAs or co-ops;
  (2) will in any way allow the RFA or its members to exert market power with respect to exvessel price negotiations between processors and harvesters.

(b) be revocable at any time based on a Council or NMFS determination that the RFA is not meeting the terms and conditions on which the agreement was approved or that the RFA is otherwise being used to circumvent the intent of the trawl rationalization program.

♦ *Summary*

- A control rule that extends beyond ownership control is necessary to effectively limit control and achieve related program objectives.
- Depending on its interpretation, the control rule may hamper the ability of harvesters to form risk management co-ops or other types of beneficial business arrangements.
- The control rule will hamper the ability of processors to vertically integrate.
- The formation of RFAs could be hampered by control rules, but the current alternative does not include criteria for formation of RFAs (RFAs will need to be addressed in subsequent Council action).
- Direct and indirect ownership will be monitored on an ongoing basis. Monitoring indirect ownership will add to program costs.
- Control that is not based on ownership will be enforced on a case-by-case basis and require additional enforcement resources for investigation.
- Perceptions of fairness and equity may be affected by whether or not it is perceived that non-ownership control is being adequately investigated and applied consistently across all QS/QP holders.

● Grandfather Clause and Control Date

The following are the categories of goals and objectives affected by the decision on the grandfather clause and implications of the control date and the section in which each are addressed.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Grandfather Clause and Disruption			X			X					
Grandfather Clause and Fairness and Equity				X	X						
Control Date and Disruption, Fairness and Equity			X		X						
Sector Health		X	X			X					X
Program Performance		X									X
Net Economic Benefits		x				X					

The analysis of impacts is organized into the following sections:

- Grandfather Clause and Disruption
- Grandfather Clause and Fairness and Equity
- Control Date and Disruption, Fairness and Equity
- Sector Health
- Program Performance
- Net Economic Benefits

♦ *Grandfather Clause and Disruption*

Disruption is associated with change. For those firms benefiting, the grandfather clause provision does not eliminate the change but rather delays and spreads the change out over time, reducing the perceived disruptive characteristics of change.

Two types of disruptions are considered relevant to the grandfather clause. The first is the effect on an entity's ability to maintain the current and historical levels of production on which it has depended. The absence of a grandfather clause for QS issued based on processing history would not constrain production by processors while the absence of such a clause for harvesting entities would constrain production of harvest (including harvest by entities that also process). The degree of disruption will depend on the level at which the accumulation limits are set. Analysis of the effects of the levels set is provided below in "Percentages for Limits." The second effect of concern is the effect on relative bargaining strength. In its November 2007 report to the Council, the GAC identified the effect of the initial allocation on bargains strength as a reason for considering a limited grandfather clause (Option 2), i.e. to prevent individual firms from gaining too much bargaining strength through the initial allocation. The same would be true for a no grandfather clause option (Option 3, the Council's preliminary preferred option). While we can look at the quantitative effects of the grandfather clause on the initial allocation, we do not have quantitative information that is sufficient to determine the degree to which the presence or absence of a grandfather clause changes the market power balance represented by the 80/20 split. Therefore, whether the change in negotiating power which results from the absence of the grandfather clause contributes to balance or imbalance relative to the 80/20 QS allocation split in the preliminary preferred alternative is a judgment call that will have to be made on the part of the Council based on qualitative information and the quantitative effects on the initial allocation.

In general, not including a grandfather clause will reallocate from those who would otherwise receive QS in excess of the limits to those receiving less than the accumulation limits. In Figure A-39 the points on the grey line on the far right show those entities (harvesters and processors) that would receive a lower QS allocation if there a no grandfather clause. The dark line shows the allocations to the same entities without a grandfather clause. Those points below the dark line represent entities that would gain from there not being a grandfather clause. The estimates in the figure are based on an 80/20 harvester processor share, equal allocation, no grandfather clause, and the Option 1 accumulation limits. Estimates of the expected allocation of QS among entities have been made based on ownership information available in the fall of 2006. These estimates do not include other forms of control, which will also be limited by the control accumulation limits, and not all ownership information is available. Further, ownership may change more between now and when the program is implemented, if one is ultimately recommended by the Council for implementation. Figures at the end of this section provide information on changes in ownership that is believed to have occurred between the Fall of 2006 and the start of 2008.

The effects of the grandfather clause provisions on entities that only harvest (with permit history but not history of buying groundfish) are illustrated in Figure A-40. Again, those losing QS are on the far right hand side, however, for permits the amount of gain is relatively proportional to their total QS. The effects of the grandfather clause provisions on entities that only process are illustrated in Figure A-41. The amounts these entities receive without a grandfather clause is substantially greater than the amounts the entities receive if there is a grandfather clause because processors that would otherwise receive QS in excess of accumulation limits also tend to hold permits. Information on the harvest-based QS that would go to these processors is provided in Figure A-42, information on their processing based QS is provided in Figure A-43, and information on their combined harvesting and processing related QS is provide in Figure A-44. The amounts of QS in excess of limits that would be issued to these entities

based on their permit history was redistributed to other permits to keep the balance of QS issued to permits at 80 percent. The amounts of QS that would have been issued for their processing history (Figure A-43) was redistributed to the processors, as is apparent in Figure A-41. As indicated in Figure A-44, if there is no grandfather clause the total amount issued to processors holding permits would be 1.5 percent, the Option 1 accumulation limit.

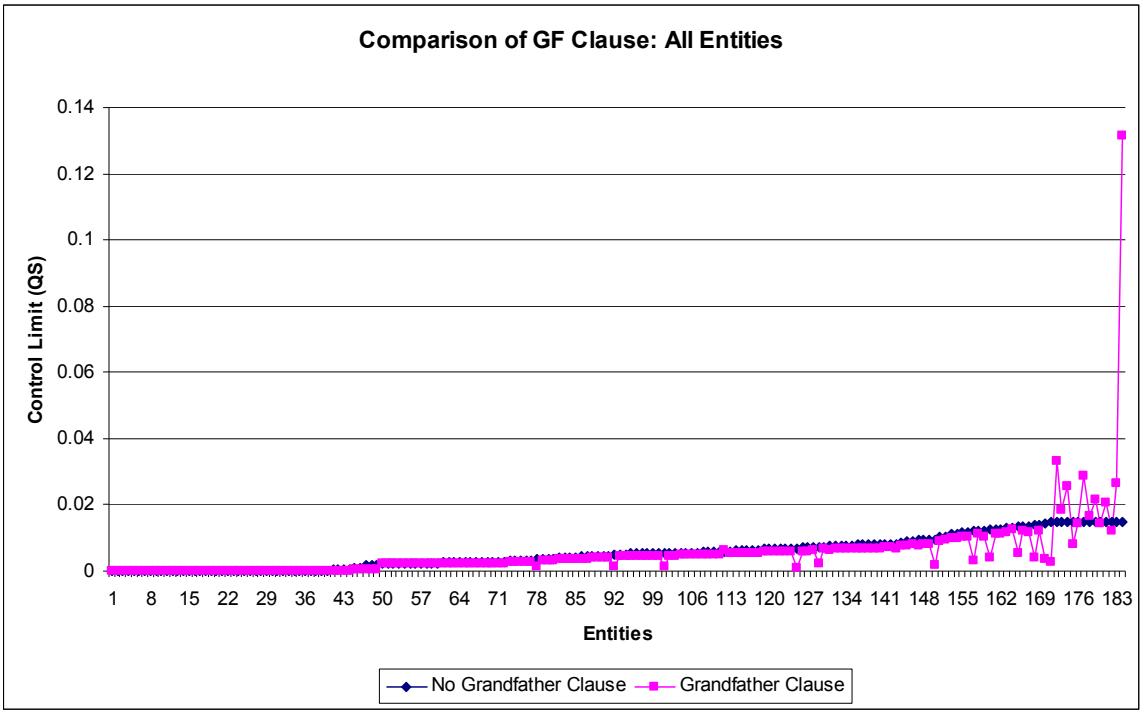

Figure A-39. Comparison of grandfather clause (aggregate nonwhiting QS): all entities (80/20 permit/processor split, equal allocation, shoreside processor recent participation, Option 1 accumulation limits). (Y axis correction: label as "Initial Allocation (QS)")

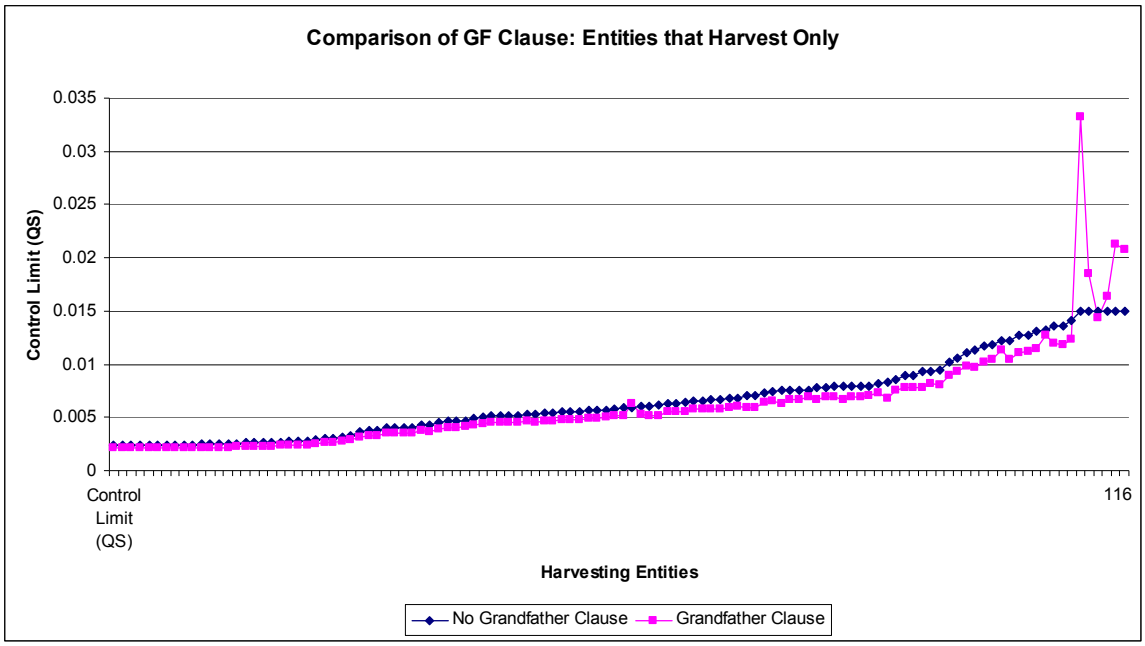

Figure A-40. Comparison of grandfather clause (aggregate nonwhiting QS): entities that harvest only (80/20 permit/processor split, equal allocation, shoreside processor recent participation, Option 1 accumulation limits). (Y axis correction: label as "Initial Allocation (QS)")

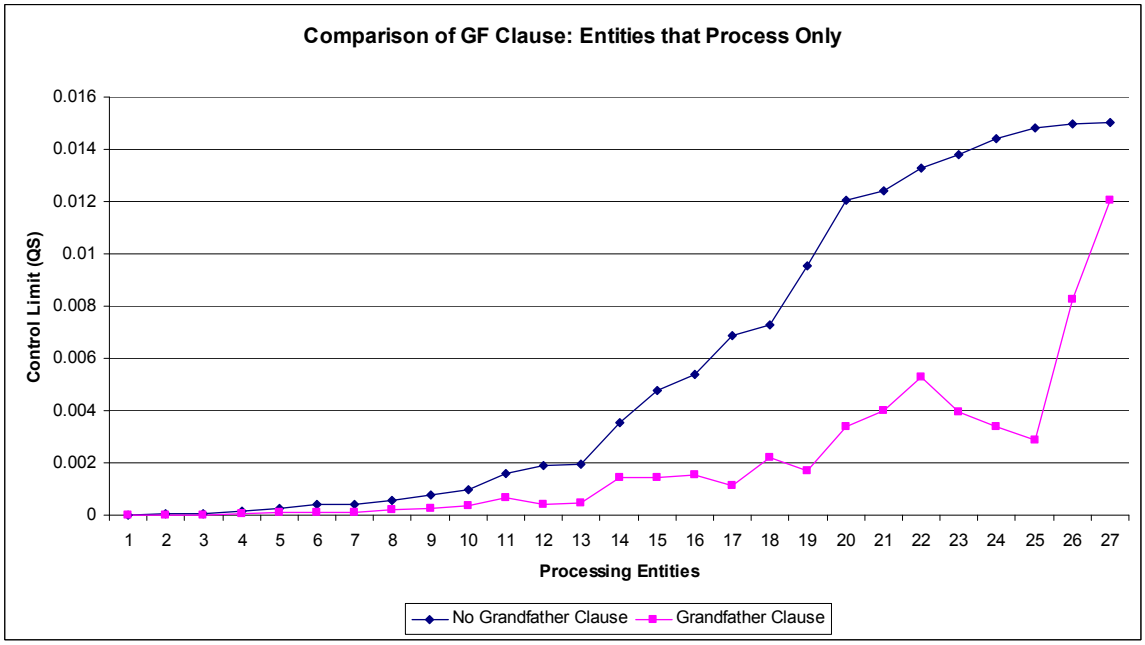

Figure A-41. Comparison of grandfather clause (aggregate nonwhiting QS): entities that process only (80/20 permit/processor split, equal allocation, shoreside processor recent participation, Option 1 accumulation limits). (Y axis correction: label as "Initial Allocation (QS)")

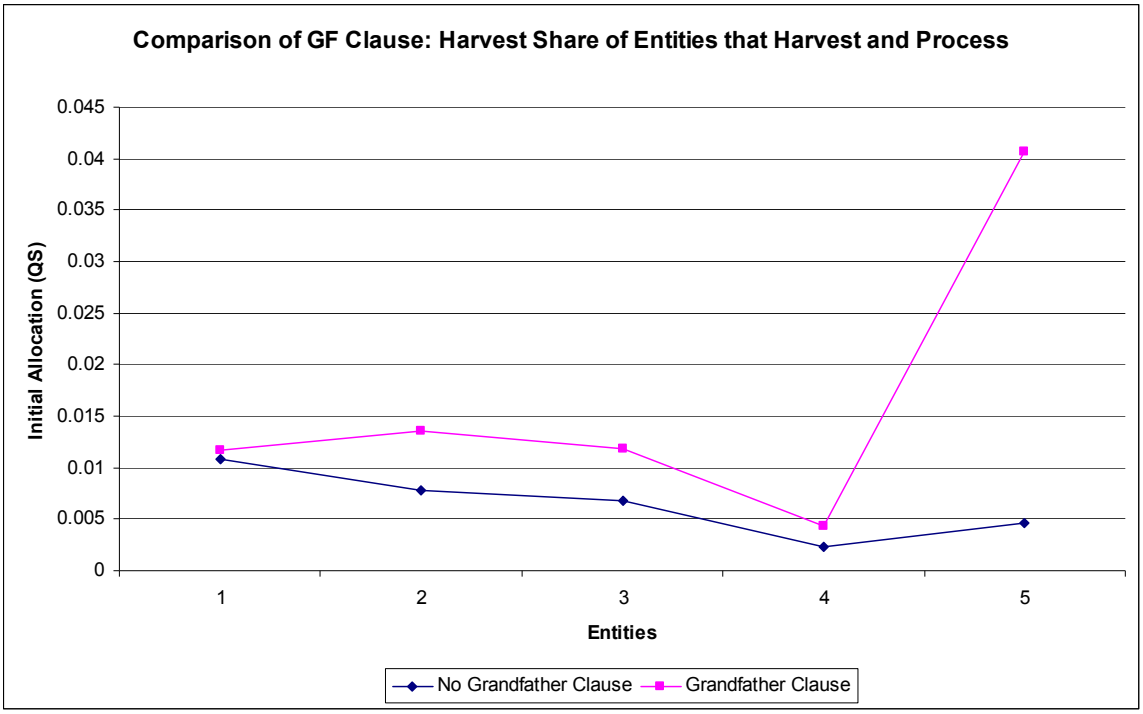

Figure A-42. Comparison of grandfather clause (aggregate nonwhiting QS): entities that both harvest and process (shares from harvesting) (80/20 permit/processor split, equal allocation, shoreside processor recent participation, Option 1 accumulation limits).

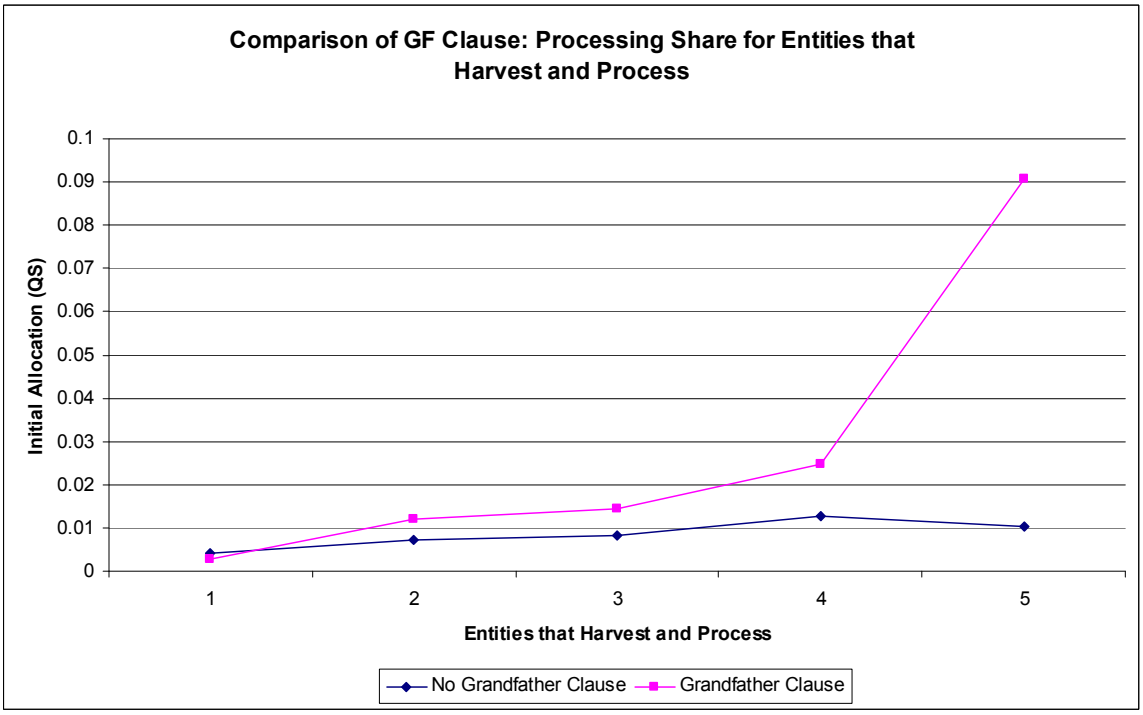

Figure A-43. Comparison of grandfather clause (aggregate nonwhiting QS): entities that both harvest and process (shares from processing) (80/20 permit/processor split, equal allocation, shoreside processor recent participation,Option 1 accumulation limits).

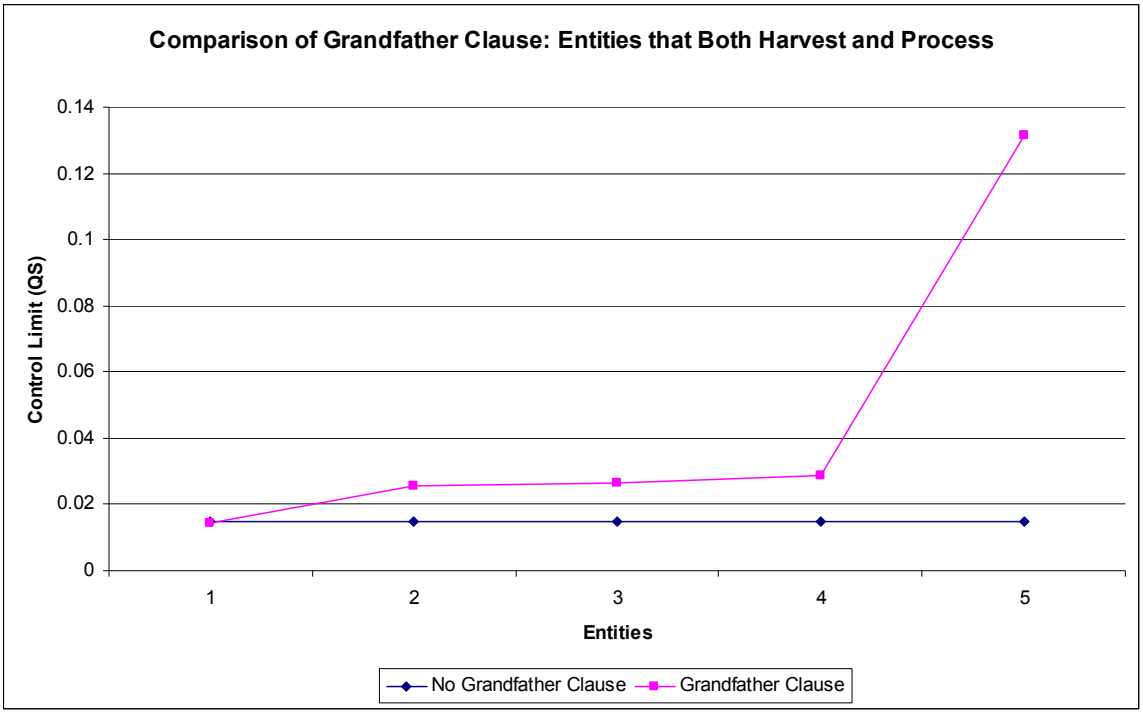

Figure A-44. Comparison of grandfather clause (aggregate nonwhiting QS): entities that both harvest and process (80/20 permit/processor split, equal allocation, shoreside processor recent participation, Option 1 accumulation limits). (Y axis correction: label as "Initial Allocation (QS)")

Grandfather cap Option 2 would set an upper limit (cap) on the grandfather clause. Table A-71 through Table A-73 show maximum amounts of QS that we expect would be issued to any single entity based on the Council's preliminary preferred allocation formula option but with the grandfather clause. Cells in the table are shaded for species/species groups and options for which the cap is less than the maximum that would be allocated. Table A-71 shows the comparisons for all entities receiving an initial allocation. Table A-72 shows the comparisons just for the shares based on the permits held by an entity. Table A-73 shows the shares that would be issued based on an entity's processing (buying) history.

Table A-74 shows the upper limits that would be set on the grandfather clause (Option 2) side by side with the historic shares that have been accessed by single vessels. A grandfather clause cap that accommodates the single vessel shares would accommodate the needs of harvesting business that operates only a single vessel, as those needs are reflected in data on historic shares of vessel harvest.

Figure A-40 and Figure A-42 show amounts of QS that may be redistributed under a no grandfather clause provision. However, in the absence of a grandfather clause, entities that would otherwise receive an initial allocation in excess of the accumulation limits due to their ownership of multiple permits are likely to divest themselves of those permits prior to the initial allocation. In that way, they would capitalize on the value inherent in the permits prior to the initial allocation without having actually received the initial allocation of QS.

Also related to disruption is the question of the order in which the accumulation limits would be applied in the absence of a grandfather clause. Application of the aggregate limit first would result in less disruption than application of the species limit first (see example provided in Table A-69).

Table A-71. Comparison of capped grandfather clause (Grandfather Clause Option 2) to maximum allocations: <u>all entities</u> (80/20 permit/processor split, equal allocation, no grandfather clause, shoreside processor recent participation). Shaded cells indicate cap is lower than maximum allocation.

Stock	Entities with Allocation	Maximum Allocation (%)	Capped Limit (Option 1 Accum Limit) (%)	Capped Limit (Option 2 Accum Limit) (%)
All nonwhiting groundfish (in aggregate)	148	13.13	6	8.8
Lingcod - coastwide c/	146	13.59	20	30
N. of 42° N (OR & WA)	132	13.55	20	30
S. of 42° N (CA)	137	13.77	20	30
Pacific Cod	138	15.85	20	30
Pacific Whiting	135	9.40	40	60
Shoreside Sector	139	8.59	40	60
Mothership Sector	123	11.47	40	60
Catcher Processors	4	53.53	100	100
All Whiting Sectors Combined	143	20.96	60	90
Sablefish (Coastwide)	147	14.46	7.6	11.6
N. of 36° N (Monterey north)	146	14.70	8	12
S. of 36° N (Conception area)	128	25.70	20	30
PACIFIC OCEAN PERCH	135	17.18	20	30
Shortbelly Rockfish	138	16.48	20	30
WIDOW ROCKFISH	138	15.64	13.6	20.4
CANARY ROCKFISH	138	16.82	20	30
Chilipepper Rockfish	137	10.34	20	30
BOCACCIO	81	14.69	20	30
Splitnose Rockfish	137	11.48	20	30
Yellowtail Rockfish	139	15.60	20	30
Shortspine Thornyhead - coastwide	145	15.21	12.4	18.8
Shortspine Thornyhead - N. of 34°27' N	136	16.01	19.2	28.8
Shortspine Thornyhead - S. of 34°27' N	138	11.43	18.8	28.4
Longspine Thornyhead - coastwide	145	14.31	8	12
Longspine Thornyhead - N. of 34°27' N	145	14.31	8	12
Longspine Thornyhead - S. of 34°27' N	121	51.66	20	30
COWCOD - Conception and Monterey	81	18.99	20	30
DARKBLOTCHED	138	15.96	20	30
YELLOWEYE g/	135	15.70	20	30
Black Rockfish	135	18.82	20	30
Black Rockfish (WA)	123	12.08	20	30
Black Rockfish (OR-CA)	133	18.95	20	30
Minor Rockfish North	145	14.59	20	30
Nearshore Species	130	14.02	20	30
Shelf Species	145	13.50	16	24
Slope Species	138	14.61	20	30
Minor Rockfish South	138	10.59	20	30
Nearshore Species	136	11.88	20	30
Shelf Species	138	9.68	20	30
Slope Species	138	10.63	20	30
California scorpionfish	125	50.67	20	30
Cabezon (off CA only)	124	47.60	20	30
Dover Sole	145	14.06	7.2	10.8
English Sole	145	14.93	40	60
Petrale Sole (coastwide) c/	145	13.27	11.6	17.6
Arrowtooth Flounder	138	12.09	20	30
Starry Flounder	138	24.39	20	30
Other Flatfish	146	10.07	40	60
Other Fish	143	14.40	20	30

Table A-72. Comparison of capped grandfather clause (Grandfather Clause Option 2) to maximum allocations: all entities holding permits (portion of allocation based on permit) (80/20 permit/processor split, equal allocation, no grandfather clause, shoreside processor recent participation). Shaded cells indicate cap is lower than maximum allocation.

Stock	Entities with Allocation	Maximum Allocation (%)	Capped Limit (Option 1 Accum Limit) (%)	Capped Limit (Option 2 Accum Limit) (%)
All nonwhiting groundfish (in aggregate)	121	4.06	6	8.8
Lingcod - coastwide c/	121	4.10	20	30
N. of 42° N (OR & WA)	121	3.75	20	30
S. of 42° N (CA)	121	5.48	20	30
Pacific Cod	121	9.10	20	30
Pacific Whiting	121	6.93	40	60
Shoreside Sector	121	8.59	40	60
Mothership Sector	121	7.62	40	60
Catcher Processors	4	42.83	100	100
All Whiting Sectors Combined	124	16.40	60	90
Sablefish (Coastwide)	121	3.79	7.6	11.6
N. of 36° N (Monterey north)	121	3.82	8	12
S. of 36° N (Conception area)	121	25.70	20	30
PACIFIC OCEAN PERCH	117	4.46	20	30
Shortbelly Rockfish	121	16.48	20	30
WIDOW ROCKFISH	121	4.55	13.6	20.4
CANARY ROCKFISH	121	6.65	20	30
Chilipepper Rockfish	121	7.78	20	30
BOCACCIO	63	11.40	20	30
Splitnose Rockfish	121	8.33	20	30
Yellowtail Rockfish	121	5.54	20	30
Shortspine Thornyhead - coastwide	121	3.58	12.4	18.8
Shortspine Thornyhead - N. of 34°27' N	121	3.61	19.2	28.8
Shortspine Thornyhead - S. of 34°27' N	121	11.43	18.8	28.4
Longspine Thornyhead - coastwide	121	3.71	8	12
Longspine Thornyhead - N. of 34°27' N	121	3.71	8	12
Longspine Thornyhead - S. of 34°27' N	121	51.66	20	30
COWCOD - Conception and Monterey	63	14.64	20	30
DARKBLOTCHED	121	3.98	20	30
YELLOWEYE g/	118	5.97	20	30
Black Rockfish	121	10.97	20	30
Black Rockfish (WA)	121	10.79	20	30
Black Rockfish (OR-CA)	121	11.13	20	30
Minor Rockfish North	121	3.27	20	30
Nearshore Species	121	10.23	20	30
Shelf Species	121	3.78	16	24
Slope Species	121	3.27	20	30
Minor Rockfish South	121	10.59	20	30
Nearshore Species	121	10.87	20	30
Shelf Species	121	6.63	20	30
Slope Species	121	10.63	20	30
California scorpionfish	121	50.67	20	30
Cabezon (off CA only)	121	47.60	20	30
Dover Sole	121	3.96	7.2	10.8
English Sole	121	6.04	40	60
Petrale Sole (coastwide) c/	121	3.95	11.6	17.6
Arrowtooth Flounder	121	4.99	20	30
Starry Flounder	121	24.39	20	30
Other Flatfish	121	7.35	40	60
Other Fish	121	5.71	20	30

Table A-73. Comparison of capped grandfather clause (Grandfather Clause Option 2) to maximum allocations: processors (portion of allocation based on buying history) (80/20 permit/processor split, equal allocation, no grandfather clause, shoreside processor recent participation). Shaded cells indicate cap is lower than maximum allocation.

Stock	Entities with Allocation	Maximum Allocation (%)	Capped Limit (Option 1 Accum Limit) (%)	Capped Limit (Option 2 Accum Limit) (%)
All nonwhiting groundfish (in aggregate)	32	9.06	6	8.8
Lingcod - coastwide c/	30	9.49	20	30
N. of 42° N (OR & WA)	15	9.79	20	30
S. of 42° N (CA)	20	8.29	20	30
Pacific Cod	21	6.75	20	30
Pacific Whiting	18	6.45	40	60
Shoreside Sector	21	6.26	40	60
Mothership Sector	5	6.01	40	60
Catcher Processors	4	10.71	100	100
All Whiting Sectors Combined	28	4.55	60	90
Sablefish (Coastwide)	31	10.68	7.6	11.6
N. of 36° N (Monterey north)	30	10.88	8	12
S. of 36° N (Conception area)	10	19.51	20	30
PACIFIC OCEAN PERCH	22	12.93	20	30
Shortbelly Rockfish	22	10.23	20	30
WIDOW ROCKFISH	22	11.09	13.6	20.4
CANARY ROCKFISH	22	10.17	20	30
Chilipepper Rockfish	20	4.17	20	30
BOCACCIO	22	5.14	20	30
Splitnose Rockfish	20	5.83	20	30
Yellowtail Rockfish	22	10.06	20	30
Shortspine Thornyhead - coastwide	28	11.63	12.4	18.8
Shortspine Thornyhead - N. of 34°27' N	19	12.41	19.2	28.8
Shortspine Thornyhead - S. of 34°27' N	21	6.91	18.8	28.4
Longspine Thornyhead - coastwide	28	10.66	8	12
Longspine Thornyhead - N. of 34°27' N	28	10.66	8	12
Longspine Thornyhead - S. of 34°27' N	0	0.00	20	30
COWCOD - Conception and Monterey	22	4.83	20	30
DARKBLOTCHED	22	11.98	20	30
YELLOWEYE g/	22	9.73	20	30
Black Rockfish	18	11.81	20	30
Black Rockfish (WA)	4	12.08	20	30
Black Rockfish (OR-CA)	16	11.87	20	30
Minor Rockfish North	29	11.34	20	30
Nearshore Species	11	11.72	20	30
Shelf Species	29	9.71	16	24
Slope Species	21	11.36	20	30
Minor Rockfish South	22	6.72	20	30
Nearshore Species	18	3.24	20	30
Shelf Species	22	3.71	20	30
Slope Species	21	6.75	20	30
California scorpionfish	4	8.69	20	30
Cabezon (off CA only)	4	10.00	20	30
Dover Sole	29	10.25	7.2	10.8
English Sole	29	8.89	40	60
Petrale Sole (coastwide) c/	29	9.32	11.6	17.6
Arrowtooth Flounder	21	8.49	20	30
Starry Flounder	21	14.72	20	30
Other Flatfish	30	7.16	40	60
Other Fish	27	11.65	20	30

Table A-74. Comparison of grandfather clause Option 2 caps to vessel (permit) share of landing history.

Stock	Grandfather Clause Cap Op. 2		Annual Percent of Total Catch			
			1994-2003		2004-2006	
	Capped Limit (Option 1 Accum Limit) (%)	Capped Limit (Option 2 Accum Limit) (%)	90th Percent	Max	90th Percent	Max
All nonwhiting groundfish (in aggregate)	6	8.8	1.0	4.1	1.5	4.9
Lingcod - coastwide c/	20	30	1.8	9.0	2.2	3.7
N. of 42° N (OR & WA)	20	30	2.4	12.1	3.0	4.3
S. of 42° N (CA)	20	30	4.3	14.1	8.0	14.6
Pacific Cod	20	30	6.4	22.7	6.0	21.1
Pacific Whiting	40	60				
Shoreside Sector	40	60	8.1	9.1	6.2	7.3
Mothership Sector	40	60	11.3	18.5	16.4	28.9
Catcher Processors	200	220	37.3	49.5	31.1	49.4
All Whiting Sectors Combined	60	90				
Sablefish (Coastwide)	7.6	11.6	1.0	2.3	1.5	5.7
N. of 36° N (Monterey north)	8	12	1.0	2.4	1.5	5.7
S. of 36° N (Conception area)	20	30	24.0	38.4	43.5	60.3
PACIFIC OCEAN PERCH	20	30	2.7	7.3	3.7	10.1
Shortbelly Rockfish	20	30	41.3	82.5	65.8	76.4
WIDOW ROCKFISH	13.6	20.4	4.5	28.7	6.0	31.9
CANARY ROCKFISH	20	30	3.5	12.6	3.8	45.7
Chilipepper Rockfish	20	30	6.2	46.8	14.9	26.5
BOCACCIO	20	30	60.0	78.9	36.8	53.4
Splitnose Rockfish	20	30	5.7	19.9	12.1	26.9
Yellowtail Rockfish	20	30	2.8	9.9	5.2	11.5
Shortspine Thornyhead - coastwide	12.4	18.8	1.1	3.8	1.8	6.8
Shortspine Thornyhead - N. of 34°27' N	19.2	28.8	1.3	5.0	2.2	8.7
Shortspine Thornyhead - S. of 34°27' N	18.8	28.4	4.2	7.0	8.8	16.0
Longspine Thornyhead - coastwide	8	12	1.4	2.0	3.7	7.3
Longspine Thornyhead - N. of 34°27' N	8	12	1.4	2.0	2.2	8.7
Longspine Thornyhead - S. of 34°27' N	20	30	61.5	64.4	8.8	16.0
COWCOD - Conception and Monterey	20	30	100.0	100.0	0.0	0.0
DARKBLOTCHED	20	30	2.0	15.8	3.1	5.6
YELLOWEYE g/	20	30	9.4	35.8	13.7	35.5
Black Rockfish	20	30	14.4	52.6	19.7	21.4
Black Rockfish (WA)	20	30	100.0	100.0	85.2	94.0
Black Rockfish (OR-CA)	20	30	14.4	52.6	19.7	21.4
Minor Rockfish North	20	30	2.0	9.2	2.8	13.9
Nearshore Species	20	30	80.1	98.3	17.0	20.9
Shelf Species	16	24	2.9	30.6	2.2	49.1
Slope Species	20	30	2.0	11.9	3.0	15.7
Minor Rockfish South	20	30	4.9	23.8	11.0	20.7
Nearshore Species	20	30	34.4	78.0	100.0	100.0
Shelf Species	20	30	6.1	46.6	13.1	30.9
Slope Species	20	30	5.8	24.8	12.2	21.7
California scorpionfish	20	30	100.0	100.0	0.0	0.0
Cabezon (off CA only)	20	30	100.0	100.0	0.0	0.0
Dover Sole	7.2	10.8	1.1	2.0	1.6	5.6
English Sole	40	60	1.5	13.9	2.6	7.7
Petrale Sole (coastwide) c/	11.6	17.6	1.4	6.2	2.3	8.0
Arrowtooth Flounder	20	30	1.9	25.5	3.2	19.1
Starry Flounder	20	30	13.2	65.7	5.5	54.5
Other Flatfish	40	60	1.3	16.4	2.0	8.1
Other Fish	20	30	2.5	10.2	9.0	21.3

♦ *Grandfather Clause and Fairness and Equity*

Another major objective affected by the grandfather clause issue is the perception of fairness and equity. On the one hand, if there is not a grandfather clause, those who do not receive an amount of QS that they would have otherwise received may feel they been treated unfairly. On the other hand, if there is a grandfather clause, those who are unable to accumulate as much QS as those who were grandfathered in above the limit may feel unfairly disadvantaged.

♦ *Control Date and Disruption, Fairness and Equity*

On November 6, 2003 the Council took action to adopt a control date for the trawl rationalization program. The November 6, 2003 control date was published in the *Federal Register* on January 9, 2004 and the public was put on notice that a trawl rationalization system was under development that could alter their future opportunities in the fishery. One aspect of whether people perceive the absence or presence of a grandfather clause to be fair and equitable is the advance notice the control date provides that there would be a change in the management system. However, while control dates can contribute to a sense of fairness, the primary purpose of a control date is to reduce disruption. This reduction occurs through two mechanisms. First, it discourages speculative activities that may have adverse effects on the fishery during deliberations on rationalization programs. Second, if those speculative activities have been minimized by the control date, then there is less disruption during implementation if speculators do not have their expectations realized. Thus speculation can have disruptive effects both in the present and when the management system changes.

One point of discussion around the issue of the control date and need for a grandfather clause on accumulation limits is whether or not the November 6, 2003 control date covers activities such as the acquisition of additional permits. The control date notice stated that "The control date for the trawl IQ program is intended to discourage increased fishing effort in the limited entry trawl fishery based on economic speculation while the Pacific Council develops and considers a trawl IQ program." There are many ways an individual can increase fishing effort including the more intense use of existing permits and vessels, or the aggregation and use of additional permits and vessels. The notice states further that "The control date announces to the public that the Pacific Council may decide not to count activities occurring after the control date toward determining a person's qualification for an initial allocation or determining the amount of initial allocation of quota shares." Use of the general term "activities" indicates that the scope of the notice goes beyond fishing activities such that it discourages any activity that might potentially entitle an individual to a greater allocation. Therefore, the control date has been interpreted to cover the acquisition of additional permits.

While advance notice of a possible upcoming change to the management program may provide a sense of fairness and equity, advance notice is not required. Until the Council takes final action there is no certainty about what the provisions of the program will and will not include. The Council has been actively working on the trawl rationalization program since publication of the control date. For much of that period a full accumulation limit grandfather clause was the only option in the alternatives, though other options were implicitly available. In November 2007 the Council explicitly added options that would exclude a grandfather clause on accumulation limits. The exclusion of an accumulation limit grandfather clause would affect activities both before and after the control date. Even if a person had fishing activities and owned permits before the control date that would otherwise entitle him/her to QS in excess of the accumulation limits, without a grandfather clause he will not be able to receive/hold that amount of QS. To this point, the control date notice states that "Fishers are not guaranteed future

participation in the groundfish fishery, regardless of their date of entry or level of participation in the fishery." Thus the control date did not guarantee that activity occurring before the control date would entitle an entity to an initial allocation of quota shares, much less activity occurring after that date.

There has been change in ownership of permits since the November 6, 2003 control date was set. The main data set used in this analysis is based on records held by NMFS on permit ownership as it stood in the Fall of 2006 and an examination of state data on the identity of buyers associated with fish ticket records. To evaluate how ownership of permits has changed since the control date, we examined NMFS data on limited entry permit ownership changes, comparing permit ownership information from the start of 2004 with the Fall of 2006 and the start of 2008. Our assessment of ownership and ownership changes is based on an examination of name and address changes on permit records in consultation with agency personnel and members of industry. We do not have information on control other than ownership or on changes in ownership that may not be reflected in the NMFS data set. We were unable to evaluate changes in ownership of processors over that period. From the start of 2004 through the start of 2008 there were 23 entities that acquired permits and 40 entities that divested themselves of permits (including two that acquired and divested themselves of permits mid period) (Table A-75). Over all, 39 entities left the fishery (including one that both entered and left over the period). From 2004 through the time the database was assembled six entities already owning permits accumulated additional permits representing 4.3 percent of the QS (Table A-76). From the time the database was assembled in Fall of 2006 until the start of 2008 two entities acquired additional permits representing 0.7 percent of the QS and one entity divested itself permits representing 0.5 percent of the QS. For entities involved in permit trades over this period, the maximum shares represented by the permits held by any one entity increased from 1.35 percent to 4.06 percent. There will no doubt be additional ownership changes between the start of 2008 and the date of program implementation, if implementation is recommended.

Table A-75. Harvester shoreside aggregate non-whiting QS allocations to business entities acquiring or divesting themselves of permits between January 1, 2004, and January 1, 2008 (QS allocations based on a 80-20 permit-processor split, equal sharing, a grandfather clause and shoreside processor recent participation requirement).

	Permit Ownership Dates			Change in Initial QS Allocation					
				2004 to 2006		2006 to 2008		2004 to 2008	
BUSID	Jan 1, 2004	Fall 2006	Jan 1, 2008	Gained	Lost	Gained	Lost	Gained	Lost
B01	1.10%	4.06%	4.06%	Y				Y	
B02	0.63%	1.18%	0.63%	Y			Y		
B03	0.60%	0.81%	0.81%	Y				Y	
B04	0.42%	0.69%	0.69%	Y				Y	
B05	0.40%	0.47%	0.47%	Y				Y	
B06	0.39%	0.60%	0.60%	Y				Y	
B07	-	3.33%	3.79%	Y		Y		Y	
B08	-	1.11%	1.32%	Y		Y		Y	
B09	-	0.97%	0.97%	Y				Y	
B10	-	0.79%	0.79%	Y				Y	
B11	-	0.70%	0.70%	Y				Y	
B12	-	0.69%	0.69%	Y				Y	
B13	-	0.66%	0.66%	Y				Y	
B14	-	0.48%	0.48%	Y				Y	
B15	-	0.48%	0.48%	Y				Y	
B16	-	0.37%	0.37%	Y				Y	
B17	-	0.24%	0.24%	Y				Y	
B18	-	0.24%	0.24%	Y				Y	
B19	-	0.22%	0.22%	Y				Y	
B20	-	0.21%	0.21%	Y				Y	
B21	-	-	1.35%			Y		Y	
B22	-	-	0.55%			Y		Y	
B23	-	0.21%	-	Y			Y		
B24	1.35%	1.35%	-				Y		Y
B25	0.47%	0.47%	-				Y		Y
QS for 36 entities Departing After 2004	14.95%	-	-		Y				
TOTAL QS	20.3%	20.3%	20.3%						
Count	44	23	22	21	36	4	4	21	38
Number of entities acquiring permits		21	4						
Number of entities divesting of permits		36	4						

Note: Shaded cells indicate a change from one year to the next for entity that already owned a permit. Ownership changes estimated based on based on changes in ownership information for permits on record at the NMFS Limited Entry Permit office and may not reflect changes in control.

Table A-76. Summary of information on changes in permit ownership, amount of associated QS and maximum amounts of QS represented by entities acquiring and divesting themselves of permits between January 1, 2004 and January 1 2008.

	Permit Ownership Dates		
	Jan 1, 2004	Fall 2006	Jan 1, 2008
Numbers of Entities Changing Permit Holdings			
Number of Entities Exiting After the Year	36	3	
Number of Remaining Entities Divesting Permits		-	1
Number of Existing Entities Acquiring Permits		6	2
Number of Entities Entering in the Year		15	2
Amount of Potential QS Transferred Through Permit Transfers			
QS Divested by Entitles Leaving the Fishery After the Year	-15.0%	-2.0%	
QS Divested by Entitles Remaining in the Fishery		-	-0.5%
QS Accumulated by Existing Entities		4.3%	0.7%
QS Acquired by Entities Entering in the Year		10.7%	1.9%
Amounts of Potential QS Held by (includes the 36 entities departing in 2004)			
Largest	1.35%	4.06%	4.06%
2nd largest	1.10%	3.33%	3.79%
3rd largest	0.79%	1.35%	1.35%
4th largest	0.76%	1.18%	1.32%
5th largest	0.71%	1.11%	0.97%
6th largest	0.70%	0.97%	0.81%

♦ *Sector Health*

The sections on the vessel limits and control limits mention that the effects of these provisions will be influenced by the presence or absence of the grandfather clause. Disruption adversely impacts sector health and the utility of the grandfather clause in reducing disruption is discussed in earlier sections on that topic. Over the long term, the grandfather clause will expire as ownership changes so its effect in the long run is mainly distributional.

Some of the main points covered elsewhere:

- For harvesters, the grandfather clause could allow some more efficient operations during the transition period but could also discourage transfers. This dynamic is discussed in the following section on net benefits.
- For processors, the grandfather clause will not directly affect efficiency though impact on scale of operations but may affect their short term ability to maintain previous levels of vertical integration, or to expand that vertical integration for processors that are grandfathered in at higher levels with QS from their processing activities.
- Absence of a grandfather clause will substantially redistribute the relative advantage of the initial allocation to processors and may therefore increase competition within the sector.

If there is no grandfather clause, an initial allocation in which the aggregate limits are applied first is likely to provide harvesters with a species mix that is more reflective of that on which they have historically depended (see section on Net Economic Benefits). The quantitative analysis provided here always applies the aggregate limits first.

♦ *Program Performance*

Much of the overall performance of the program relies on the transfer of QS from less efficient to more efficient producers and from those with higher bycatch rates to those with lower bycatch rates. Firms that are grandfathered in at higher accumulation limits will be less likely to sell their QS than others because any QS they sell they will not be able to buy back, as long as they are above the limit. Further, these firms are less likely to change ownership because with change in ownership the grandfather clause will expire and advantages of the grandfathered levels of QS lost. Therefore, it will be difficult to find buyers willing to purchase the firm for an amount that fully compensates the grandfathered owners for what they can earn if they maintain ownership of the firms.

♦ *Net Economic Benefits*

On the one hand, allowing some firms to be grandfathered in at higher levels may enhance efficiency until such time as the grandfather clause for those firms expires, assuming the larger firms are more efficient. On the other hand, if those firms happen to be less efficient than some smaller firms, a grandfather clause may inhibit the effectiveness of the market mechanisms by which it is expected that QS will be transferred from less efficient to more efficient firms, as discussed in the section on Program Performance.

If there is no grandfather clause, the order in which the accumulation limits are applied (whether the aggregate limit is applied first or the species limits) will affect the mix of QS an entity receives. Application of the aggregate limit first is expected to result in a better match between the species mix on which the harvesting operation has been dependent and the mix of QS it receives (see example provided in **Table A-69**). This better match implies that there will be less trading required during the transition phase, reducing costs and thereby increasing net benefits.

● Disposition of Amounts in Excess of Limits

In the event that there is not a grandfather clause there is a choice as to how to dispose of QS not allocated because of accumulation limits. The Council's preliminary preferred alternative would redistribute QS while maintaining the QS distribution. Also discussed at times have been approaches that would redistribute in a manner that alters the sector shares or would allow entities to receive QS but require that they divest themselves of those shares. While these have not been identified as formal options, they are discussed here in order to provide contrast to the the approach chosen by the Council.

The Council's preferred alternative is redistribution while maintaining the sector shares. This choice potentially affects goals and objectives pertaining to:

- net benefits and economically excessive shares
- fairness and equity (socially excessive shares), and
- sector health
    - market power between sectors
    - balances between small and large entities within a sector

- program performance

Other major categories of goals and objectives: conservation, labor and communities are not likely to be affected strongly by this policy choice. The following discussion generally summarizes many of the points touched on in the section on rationale.

Net benefits may be affected to the degree that the choice alters the balance of the initial QS distribution among individuals or sectors such that an entity or group of entities is able to exert market power. In general, when market power can be exerted net benefits are reduced. For its preliminary preferred alternative, the Council elected to allocate 80 percent to harvesters and 20 percent to processors. This split was based in part on their judgment that it would not favor one side or the other with respect to the exertion of market power. If redistribution of the excess of one sector to the other would alter that balance enough to allow for the exertion of market power, then there may be an adverse effect on net benefits. Otherwise, it is likely that the primary impact of the choice is distributional both between and within sectors.

An important effect of the initial allocation is that it distributes wealth. Wealth distribution affects perceived fairness and equity. Wealth is experienced by the individual, rather than the sector so we will look at the effect of the distribution choices on individuals. Without a grandfather clause, maintaining the 80/20 split will reduce the differences in allocation between larger and smaller producers (Figure A-39). If instead of maintaining the 80/20 split, a reallocation of the excess is made from one sector to the other, there will be an even lesser difference in the allocations made between large and small producers in the sector to which the excess is transferred and a greater difference in the sector from which the allocation is transferred (as compared to reallocating and maintaining the sector split). However, the difference between small and large producers in the sector from which the allocation is transferred would not be as great as it would be if there was a grandfather clause. The following provides a schematic representation of this result.

Effect on differences between largest and smallest producers within a sector (more "+"s indicate greater differences in the initial allocation).

	With a Grandfather Clause	Without A Grandfather Clause	
		Excess Stays in Sector	Excess Goes to other Sector
Within Sector Differences Between Smallest and Larger Producers	++++	++	+ (for sector receiving the excess) +++ (for sector giving up the excess)

Another approach that would maintain an initial wealth affect similar to what would be expected with a grandfather clause while achieving a QS distribution that is below the limits would be to allocate the QS to all recipients based on the allocation formulas, but require that they divest themselves of any QS allocated in excess of those limits. This approach would be viewed as more equitable by those who believe that an entity's history entitles it to a certain benefit from the initial allocation. However, this raises the question as to who would likely receive the QS from the forced divestment and the program's ability to effectively limit control. The section on control limits identifies numerous devices by which an entity might seek to circumvent the control limits. There will undoubtedly be gray areas and NMFS' ability to monitor many of the subtle versions of control will be on a case-by-case, individual investigation basis. Allowing those receiving amounts in excess of the control limits to determine how they will divest themselves of their excess provides them a degree of direct control for a period of time. That limited period of direct control may put those entities in position to more easily establish indirect

control mechanisms based on to whom they transfer the QS and the terms of that transfer. This could decrease program effectiveness, unless the Council/NMFS believes that a case-by-case investigative approach will provide adequate enforcement in a situation when there is more opportunity to attempt to circumvent control limits at the start of the program.

Even if a provisions is not developed which allows entities to receive and divest themselves of the QS they may be able to effectively do so. In the absence of a grandfather clause, entities that would otherwise receive an initial allocation in excess of the accumulation limits due to their ownership of multiple permits are likely to divest themselves of those permits prior to the initial allocation. In that way, they would capitalize on much of the value inherent in the permits prior to the initial allocation without having actually received the initial allocation of QS. Being able to capture that value prior to the initial allocation will likely depend on their ability to document the permit history and otherwise provide certainty to the buyer of the buyer's ability to qualify for that QS through ownership of the permit.

- Percentages for Limits

  - *Vessel Percentage Limits*

The following are the categories of goals and objectives affected by the decision on the level at which to set vessel accumulation l limits and the section in which each are addressed.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Initial Endowments (Allocations Compared to Vessel Accumulation Limits)			X	X	X	X					
Structure of the Fleet (Accumulation limit effect on historic fleet structure)			X			X					
Efficiency		X				X					

The vessel percentage limits will determine the minimum size to which the fleet may shrink while still taking all of the groundfish and cap the degree to which efficiency may increase (assuming efficiency consistently increases with the amount a vessel can harvest). Because the regulatory focus of concern here is the vessel, the focus of this section is on the permits and vessels rather than the firms owning them or the processors. Effects of the allocation on firms, including processors, are addressed in the following section on control limits. The rationale for using vessel limits is discussed above in the section on vessel limits. Here the focus is on the actual percentages chosen for those limits.

The options for the vessel percentage limits were built through a multistep process. First, the GAC identified a maximum share that any of the non-buyback permits had of the total harvest of the non-buy-back vessels for 1994-2003. This was then used to establish an Option 1 control limit. These control limits were then doubled to establish the Option 1 vessel limits. As discussed previously, the vessel limits were set higher than the control limits in order to allow multiple vessel owners to consolidate their harvest on a single vessel or to ensure that there would be some opportunity for crew

members who acquire QS to use those QS on the vessel on which they worked.[71] The Option 2 levels were established by increasing the Option 1 levels by 50 percent. The intent of Option 2 was to explore the implications of setting the accumulation limits at different levels.

INITIAL ENDOWMENTS (ALLOCATIONS COMPARED TO VESSEL ACCUMULATION LIMITS)

How do the vessel limits compare to the per permit initial QS allocations?

- Will the accumulation limit levels create a disparity between those with more history and those with less, if there is a grandfather clause;
- will those who have historically taken a greater share of the harvest (as reflected by their QS allocations) be constrained to lower levels of production if there is not a grandfather clause; or
- are the limits high enough such that QS allocations will not be constrained by the accumulation limits?

These questions are pertinent mainly with respect to disruption, equity, and efficiency objectives. As we explore the quantitative data we will determine how the accumulation limit levels affect the number and degree to which some vessels will be at an advantage over others (if there is an accumulation limit grandfather clause) or will have a reduced level of production because of the accumulation limits (if there is not an accumulation limit grandfather clause). If there is a grandfather clause, the main issue is whether there is an inequity because some permits/vessel are able to operate at higher levels of production and efficiency than others. If there is not a grandfather clause, the issues are whether there is inequity, disruption, and reduced efficiency because of the reduced amount of QS that will go to permits/vessels that have a history of making greater amounts of deliveries.

Permits will individually be allocated the greatest amounts of QS if 100 percent of the allocation goes to permits and there is no equal sharing. For such an allocation, in 19 of 46 accumulation limit categories some permits would be eligible for more than the most restrictive accumulation limits (Option 1 in Table A-77). Most of these are for species that are not frequently encountered or encountered in restricted geographic ranges and for most species only one or two permits would be over the limits. For example, for arrowtooth flounder the Option 1 limit is 10 percent, there are 129 permits that would receive some QS but only 2 would receive more than 10 percent. The most allocated to any of the permits over the limit is 13 percent and the total amount allocated to permits over the limit is 24 percent (4 percent more than would be allowed if the two permits were each held to the 10 percent limit). Sablefish in the southern area is the management unit for which there are the most permits over the limit (6) and the amount by which they exceed the limit is 41 percent in aggregate (6 percent on average). This indicates that the Option 1 limit for sablefish in the southern area may significantly constrain what is needed to take the available harvest. Some rarely taken species such as cabezon and California scorpionfish may be problematic because 100 percent of the allocation would go to two permits if the allocation is based on landing history alone. The number of permits over the limit and amount of the initial allocations to permits that are over the limit is reduced if there is an allocation to processors (Table A-78) or an equal allocation component (Table A-79). When there is both an allocation to processors and an equal allocation component, the distribution of QS among permits is generally close to or below the vessel accumulation limits, with a few notable exceptions: longspine south, cowcod, California scorpionfish, cabezon and starry flounder (Table A-80). Of these species, all but cowcod and starry flounder have been identified for potential exclusion from the IFQ program (see Section A-

[71] Allowing crew members or others an opportunity to fish their QP on a vessel that has reached the control accumulation limit will require determining a means by which a vessel can acquire and use the additional QP without it being determined that those QP are under the control of the vessel.

1.1 and Table 2-4). While the Council's preferred alternative is an 80/20 split rather than the 75/25 split shown in Table A-80, the 75/25 split is a reasonable approximation of the 80/20 split and Table A-77 and Table A-80 combined generally bracket the results and highlight the primary areas of concern. Table A-81 shows results for the whiting fishery for a 100 percent allocation to permits and that in no case would any permit be over the individual accumulation limits. These results show that in general, the most constraining accumulation limits (Option 1) are not constraining on the initial allocations with a few notable exceptions which probably warrant some Council attention. However, initial allocations that are below the accumulation limits do not necessarily mean that, in general, permits will be able to harvest what they have in recent years, since the initial allocations will likely, on average, be lower than what some of the higher producing permits have taken in recent years.

Summary

- Most of the maximum initial allocations will be within the proposed vessel limits.
- The main exceptions are for species rarely landed or landed by only a few harvsters in localized geographic areas.
- That the limits are below the maximum QS allocations implies less disruption and inequity with respect to the QS allocations but not necessarily with respect to recent production levels of higher producing permits/vessels.

Table A-77. Number of permits and amounts of QS allocated to permits in excess of vessel limits (100 percent allocation to permits, no equal sharing, with grandfather clause).

			---------Vessel Limit Option 1----------			---------- Vessel Limit Option 2----------		
	# permits receiving QS	MAX QS Alloc.	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit
Aggregate Non-Whiting Groundfish (Nonwhiting Grndfsh)	163	0.025	0.03	0	0.000	0.044	0	0.000
LingcodCoastwide	155	0.035	0.1	0	0.000	0.15	0	0.000
Lingcod North	111	0.044	0.1	0	0.000	0.15	0	0.000
Lingcod South	95	0.069	0.1	0	0.000	0.15	0	0.000
Pacific Cod	109	0.204	0.1	2	0.314	0.15	1	0.204
Pwhiting (bycatch)	73	0.147	0.075	3	0.322	0.113	1	0.147
Sablefish Coast	154	0.020	0.038	0	0.000	0.057	0	0.000
Sablefish North	152	0.021	0.062	0	0.000	0.093	0	0.000
Sablefish South	31	0.234	0.062	6	0.786	0.093	4	0.636
Pac Ocean Perch	126	0.050	0.062	0	0.000	0.093	0	0.000
Shortbelly	120	0.355	0.062	2	0.433	0.093	1	0.355
Widow	157	0.081	0.068	1	0.081	0.102	0	0.000
Canary	156	0.047	0.1	0	0.000	0.15	0	0.000
Chilipepper	87	0.118	0.1	2	0.222	0.15	0	0.000
Bocaccio	73	0.151	0.1	1	0.151	0.15	1	0.151
Splitnose	77	0.120	0.1	1	0.120	0.15	0	0.000
Yellowtail	130	0.062	0.1	0	0.000	0.15	0	0.000
Shortspine Coast	149	0.021	0.062	0	0.000	0.093	0	0.000
Shortspine No.	127	0.032	0.096	0	0.000	0.144	0	0.000
Shortspine So.	101	0.047	0.094	0	0.000	0.141	0	0.000
Longspine Coast	148	0.018	0.04	0	0.000	0.06	0	0.000
Longspine No.	148	0.018	0.04	0	0.000	0.06	0	0.000
Longspine So.	1	1.000	0.1	1	1.000	0.15	1	1.000
Cowcod	1	1.000	0.1	1	1.000	0.15	1	1.000
Darkblotched	153	0.079	0.1	0	0.000	0.15	0	0.000
Yelloweye	145	0.089	0.1	0	0.000	0.15	0	0.000
Black RF Coast	80	0.151	0.1	1	0.151	0.15	1	0.151
Black RF WA	19	0.403	0.1	2	0.780	0.15	2	0.780
Black RF OR-CA	71	0.167	0.1	1	0.167	0.15	1	0.167
Minor RckFsh No.	153	0.032	0.1	0	0.000	0.15	0	0.000
Nearshore	50	0.308	0.1	1	0.308	0.15	1	0.308
Shelf	153	0.044	0.08	0	0.000	0.12	0	0.000
Slope	128	0.038	0.1	0	0.000	0.15	0	0.000
Minor RckFsh So.	111	0.083	0.1	0	0.000	0.15	0	0.000
Nearshore	52	0.150	0.1	4	0.475	0.15	1	0.150
Shelf	104	0.098	0.1	0	0.000	0.15	0	0.000
Slope	104	0.094	0.1	0	0.000	0.15	0	0.000
CA Scorpionfsh	2	0.673	0.1	2	1.000	0.15	2	1.000
Cabezon CA	2	0.620	0.1	2	1.000	0.15	2	1.000
Dover Sole	155	0.018	0.036	0	0.000	0.054	0	0.000
English Sole	154	0.054	0.2	0	0.000	0.3	0	0.000
Petrale	156	0.028	0.058	0	0.000	0.087	0	0.000
Arrowtooth	129	0.130	0.1	2	0.240	0.15	0	0.000
Starry Flounder	72	0.346	0.1	1	0.346	0.15	1	0.346
Other Flatfish	156	0.135	0.2	0	0.000	0.3	0	0.000
Other Grndfsh	136	0.062	0.1	0	0.000	0.15	0	0.000

Table A-78. Number of permits and amounts of QS allocated to permits in excess of vessel limits (75 percent allocation to permits, 25% to processors, no equal sharing, with grandfather clause and no recent participation requirement for shoreside processors.).

			---------Vessel Limit Option 1----------			---------- Vessel Limit Option 2--------		
	# permits receiving QS	MAX QS Alloc.	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit
Nonwhiting Grndfsh	163	0.02	0.03	0	0.000	0.04	0	0.000
LingcodCoastwide	155	0.03	0.10	0	0.000	0.15	0	0.000
Lingcod North	111	0.03	0.10	0	0.000	0.15	0	0.000
Lingcod South	95	0.05	0.10	0	0.000	0.15	0	0.000
Pacific Cod	109	0.15	0.10	1	0.153	0.15	1	0.153
Pwhiting (bycatch)	73	0.11	0.08	1	0.111	0.11	0	0.000
Sablefish Coast	154	0.02	0.04	0	0.000	0.06	0	0.000
Sablefish North	152	0.02	0.06	0	0.000	0.09	0	0.000
Sablefish South	31	0.18	0.06	5	0.541	0.09	3	0.398
Pac Ocean Perch	126	0.04	0.06	0	0.000	0.09	0	0.000
Shortbelly	120	0.27	0.06	1	0.267	0.09	1	0.267
Widow	157	0.06	0.07	0	0.000	0.10	0	0.000
Canary	156	0.04	0.10	0	0.000	0.15	0	0.000
Chilipepper	87	0.09	0.10	0	0.000	0.15	0	0.000
Bocaccio	73	0.11	0.10	1	0.113	0.15	0	0.000
Splitnose	77	0.09	0.10	0	0.000	0.15	0	0.000
Yellowtail	130	0.05	0.10	0	0.000	0.15	0	0.000
Shortspine Coast	149	0.02	0.06	0	0.000	0.09	0	0.000
Shortspine No.	127	0.02	0.10	0	0.000	0.14	0	0.000
Shortspine So.	101	0.04	0.09	0	0.000	0.14	0	0.000
Longspine Coast	148	0.01	0.04	0	0.000	0.06	0	0.000
Longspine No.	148	0.01	0.04	0	0.000	0.06	0	0.000
Longspine So.	1	0.75	0.10	1	0.750	0.15	1	0.750
Cowcod	1	0.75	0.10	1	0.750	0.15	1	0.750
Darkblotched	153	0.06	0.10	0	0.000	0.15	0	0.000
Yelloweye	145	0.07	0.10	0	0.000	0.15	0	0.000
Black RF Coast	80	0.11	0.10	1	0.113	0.15	0	0.000
Black RF WA	19	0.30	0.10	2	0.585	0.15	2	0.585
Black RF OR-CA	71	0.13	0.10	1	0.125	0.15	0	0.000
Minor RckFsh No.	153	0.02	0.10	0	0.000	0.15	0	0.000
Nearshore	50	0.23	0.10	1	0.231	0.15	1	0.231
Shelf	153	0.03	0.08	0	0.000	0.12	0	0.000
Slope	128	0.03	0.10	0	0.000	0.15	0	0.000
Minor RckFsh So.	111	0.06	0.10	0	0.000	0.15	0	0.000
Nearshore	52	0.11	0.10	1	0.113	0.15	0	0.000
Shelf	104	0.07	0.10	0	0.000	0.15	0	0.000
Slope	104	0.07	0.10	0	0.000	0.15	0	0.000
CA Scorpionfsh	2	0.50	0.10	2	0.750	0.15	2	0.750
Cabezon CA	2	0.47	0.10	2	0.750	0.15	2	0.750
Dover Sole	155	0.01	0.04	0	0.000	0.05	0	0.000
English Sole	154	0.04	0.20	0	0.000	0.30	0	0.000
Petrale	156	0.02	0.06	0	0.000	0.09	0	0.000
Arrowtooth	129	0.10	0.10	0	0.000	0.15	0	0.000
Starry Flounder	72	0.26	0.10	1	0.260	0.15	1	0.260
Other Flatfish	156	0.10	0.20	0	0.000	0.30	0	0.000
Other Grndfsh	136	0.05	0.10	0	0.000	0.15	0	0.000

Table A-79. Number of permits and amounts of QS allocated to permits in excess of vessel limits (QS allocated 100 percent to permits, equal sharing, with grandfather clause and no processor recent participation).

			---------Vessel Limit Option 1--------			---------- Vessel Limit Option 2-----		
	# permits receiving QS	MAX QS Alloc.	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit
Nonwhiting Grndfsh	169	0.016	0.03	0	0.000	0.044	0	0.000
LingcodCoastwide	169	0.022	0.1	0	0.000	0.15	0	0.000
Lingcod North	169	0.026	0.1	0	0.000	0.15	0	0.000
Lingcod South	169	0.044	0.1	0	0.000	0.15	0	0.000
Pacific Cod	169	0.100	0.1	1	0.100	0.15	0	0.000
Pwhiting (bycatch)	169	0.087	0.075	1	0.087	0.113	0	0.000
Sablefish Coast	169	0.014	0.038	0	0.000	0.057	0	0.000
Sablefish North	169	0.014	0.062	0	0.000	0.093	0	0.000
Sablefish South	169	0.150	0.062	4	0.411	0.093	3	0.342
Pac Ocean Perch	169	0.030	0.062	0	0.000	0.093	0	0.000
Shortbelly	169	0.195	0.062	1	0.195	0.093	1	0.195
Widow	169	0.054	0.068	0	0.000	0.102	0	0.000
Canary	169	0.028	0.1	0	0.000	0.15	0	0.000
Chilipepper	169	0.096	0.1	0	0.000	0.15	0	0.000
Bocaccio	169	0.124	0.1	1	0.124	0.15	0	0.000
Splitnose	169	0.092	0.1	0	0.000	0.15	0	0.000
Yellowtail	169	0.037	0.1	0	0.000	0.15	0	0.000
Shortspine Coast	169	0.014	0.062	0	0.000	0.093	0	0.000
Shortspine No.	169	0.019	0.096	0	0.000	0.144	0	0.000
Shortspine So.	169	0.033	0.094	0	0.000	0.141	0	0.000
Longspine Coast	169	0.013	0.04	0	0.000	0.06	0	0.000
Longspine No.	169	0.013	0.04	0	0.000	0.06	0	0.000
Longspine So.	169	0.646	0.1	1	0.646	0.15	1	0.646
Cowcod	169	0.444	0.1	1	0.444	0.15	1	0.444
Darkblotched	169	0.044	0.1	0	0.000	0.15	0	0.000
Yelloweye	169	0.060	0.1	0	0.000	0.15	0	0.000
Black RF Coast	169	0.117	0.1	1	0.117	0.15	0	0.000
Black RF WA	169	0.135	0.1	2	0.262	0.15	0	0.000
Black RF OR-CA	169	0.139	0.1	1	0.139	0.15	0	0.000
Minor RckFsh No.	169	0.020	0.1	0	0.000	0.15	0	0.000
Nearshore	169	0.128	0.1	1	0.128	0.15	0	0.000
Shelf	169	0.026	0.08	0	0.000	0.12	0	0.000
Slope	169	0.024	0.1	0	0.000	0.15	0	0.000
Minor RckFsh So.	169	0.059	0.1	0	0.000	0.15	0	0.000
Nearshore	169	0.109	0.1	1	0.109	0.15	0	0.000
Shelf	169	0.075	0.1	0	0.000	0.15	0	0.000
Slope	169	0.064	0.1	0	0.000	0.15	0	0.000
CA Scorpionfsh	169	0.632	0.1	2	0.939	0.15	2	0.939
Cabezon CA	169	0.595	0.1	2	0.959	0.15	2	0.959
Dover Sole	169	0.013	0.036	0	0.000	0.054	0	0.000
English Sole	169	0.035	0.2	0	0.000	0.3	0	0.000
Petrale	169	0.017	0.058	0	0.000	0.087	0	0.000
Arrowtooth	169	0.062	0.1	0	0.000	0.15	0	0.000
Starry Flounder	169	0.305	0.1	1	0.305	0.15	1	0.305
Other Flatfish	169	0.092	0.2	0	0.000	0.3	0	0.000
Other Grndfsh	169	0.039	0.1	0	0.000	0.15	0	0.000

Table A-80. Number of permits and amounts of QS allocated to permits in excess of vessel limits (QS allocated 75 percent to permits, 25 percent to processors, equal sharing, with grandfather clause and no processor recent participation requirement).

			---------Vessel Limit Option 1--------			---------- Vessel Limit Option 2-----		
	# permits receiving QS	MAX QS Alloc.	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit
Nonwhiting Grndfsh	169	0.012	0.03	0	0.000	0.044	0	0.000
LingcodCoastwide	169	0.016	0.1	0	0.000	0.15	0	0.000
Lingcod North	169	0.020	0.1	0	0.000	0.15	0	0.000
Lingcod South	169	0.033	0.1	0	0.000	0.15	0	0.000
Pacific Cod	169	0.075	0.1	0	0.000	0.15	0	0.000
Pwhiting (bycatch)	169	0.065	0.075	0	0.000	0.113	0	0.000
Sablefish Coast	169	0.010	0.038	0	0.000	0.057	0	0.000
Sablefish North	169	0.010	0.062	0	0.000	0.093	0	0.000
Sablefish South	169	0.113	0.062	3	0.257	0.093	1	0.113
Pac Ocean Perch	169	0.022	0.062	0	0.000	0.093	0	0.000
Shortbelly	169	0.146	0.062	1	0.146	0.093	1	0.146
Widow	169	0.040	0.068	0	0.000	0.102	0	0.000
Canary	169	0.021	0.1	0	0.000	0.15	0	0.000
Chilipepper	169	0.072	0.1	0	0.000	0.15	0	0.000
Bocaccio	169	0.093	0.1	0	0.000	0.15	0	0.000
Splitnose	169	0.069	0.1	0	0.000	0.15	0	0.000
Yellowtail	169	0.028	0.1	0	0.000	0.15	0	0.000
Shortspine Coast	169	0.010	0.062	0	0.000	0.093	0	0.000
Shortspine No.	169	0.014	0.096	0	0.000	0.144	0	0.000
Shortspine So.	169	0.025	0.094	0	0.000	0.141	0	0.000
Longspine Coast	169	0.009	0.04	0	0.000	0.06	0	0.000
Longspine No.	169	0.009	0.04	0	0.000	0.06	0	0.000
Longspine So.	169	0.484	0.1	1	0.484	0.15	1	0.484
Cowcod	169	0.333	0.1	1	0.333	0.15	1	0.333
Darkblotched	169	0.033	0.1	0	0.000	0.15	0	0.000
Yelloweye	169	0.045	0.1	0	0.000	0.15	0	0.000
Black RF Coast	169	0.088	0.1	0	0.000	0.15	0	0.000
Black RF WA	169	0.101	0.1	1	0.101	0.15	0	0.000
Black RF OR-CA	169	0.104	0.1	1	0.104	0.15	0	0.000
Minor RckFsh No.	169	0.015	0.1	0	0.000	0.15	0	0.000
Nearshore	169	0.096	0.1	0	0.000	0.15	0	0.000
Shelf	169	0.020	0.08	0	0.000	0.12	0	0.000
Slope	169	0.018	0.1	0	0.000	0.15	0	0.000
Minor RckFsh So.	169	0.044	0.1	0	0.000	0.15	0	0.000
Nearshore	169	0.082	0.1	0	0.000	0.15	0	0.000
Shelf	169	0.056	0.1	0	0.000	0.15	0	0.000
Slope	169	0.048	0.1	0	0.000	0.15	0	0.000
CA Scorpionfsh	169	0.474	0.1	2	0.704	0.15	2	0.704
Cabezon CA	169	0.446	0.1	2	0.720	0.15	2	0.720
Dover Sole	169	0.009	0.036	0	0.000	0.054	0	0.000
English Sole	169	0.026	0.2	0	0.000	0.3	0	0.000
Petrale	169	0.013	0.058	0	0.000	0.087	0	0.000
Arrowtooth	169	0.047	0.1	0	0.000	0.15	0	0.000
Starry Flounder	169	0.229	0.1	1	0.229	0.15	1	0.229
Other Flatfish	169	0.069	0.2	0	0.000	0.3	0	0.000
Other Grndfsh	169	0.029	0.1	0	0.000	0.15	0	0.000

Table A-81. Number of permits and amounts of whiting QS allocated to permits in excess of vessel limits (whiting QS allocated 100 percent to permits.)

			Vessel Limit Option 1			Vessel Limit Option 2			Vessel Limit Option 3		
	# permits receiving QS	MAX QS Alloc.	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit	Limit	Number of Permits Over the Limit	Total QS Allocated to Permits Over the Limit
Equal sharing of buyback history											
Shorebased	169	0.046615	0.075	-	-	0.113	-	-	0.12	-	-
At Sea CV-MS	169	0.095748	0.25	-	-	0.375	-	-	0.5	-	-
No equal sharing of buyback history											
Shorebased	59	0.050029	0.075	-	-	0.113	-	-	0.12	-	-
At Sea CV-MS	32	0.101767	0.25	-	-	0.375	-	-	0.5	-	-
CP	10	0.235539	0.65	-	-	0.70	-	-	0.75	-	-

STRUCTURE OF THE FLEET (ACCUMULATION LIMIT EFFECT ON HISTORIC FLEET STRUCTURE)

How will the accumulation limits affect the structure of the harvesting and processing sectors?

- What levels of concentration of harvest on vessels have we experienced recently and in the past?
- What size of fleet has been active in the fishery?
- How do the vessel accumulation limits compare to those levels of concentration and will they allow or constrain fleet sizes as compared to the past?

  We will use the past to provide context for conceptualizing and evaluating how the fishery should look in the future. Our past experiences in the fishery provide reference points for how we might want the fishery to look in the future. If we believe, for example, the conditions in the fishery and industry sectors were reasonably acceptable in the mid-1990s, or provide a good initial target, this may provide a reference point against which to judge the effects of the IFQ program and in particular the constraints that accumulation limits may impose. However, some conditions from that period will not be achievable and some conditions may be achievable but are mutually exclusive. For example, it is likely that there are simply not enough fish available for every community to have a sustainable groundfish trawl fishery with levels of shoreside activities similar to what they saw in the mid-1990s. However, either the fleet size of that period or the maximum production levels for individual vessels for that period might be achieved, but not both.

There are a number of ways to look at recent past and historic data. One is to look at permit/vessel historic shares of annual harvest to determine whether a particular accumulation limit option will allow lesser, similar or greater levels of concentration as compared to that of the past. This comparison is most relevant to the proportional sharing of harvest within the fleet, distribution, and equity issues (comparisons of the following paragraph are more relevant to efficiency). To this end information on two time periods is provided: 1994-2003 and 2004-2006 (Table A-82). Values are provided for the maximum share achieved by any single vessel in a year during the period and for the 90th percentile vessel (i.e. values exceeded by only 10 percent of the fleet). An accumulation limit set at the 90th percentile would accommodate past harvest shares of 90 percent of the fleet but not the top 10 percent. The maximum amount of all nonwhiting species in aggregate taken by any one vessel in any single year from 1994-2003 or 2004-2006 was 4.9 percent. The aggregate vessel accumulation limits under options 1, 2 and 3 are 3 percent, 4.4 percent and 6 percent, thus only under Option 3 would vessels be able to achieve that maximum share. On the other hand, 90 percent of the vessels did not take more than 1.51 percent of the total catch and such levels of performance would be more than accommodated by Option 1. Looking at the results for single species and taking northern sablefish as an example, the proposed vessel accumulation limits are 4 percent and 6 percent. The maximum share achieved by any vessel from 1994-2003 was 2.36 percent and the maximum for 2004-2006 was 5.71 percent. Thus if Option 2 were selected, with respect to sablefish the fleet could rationalize to the point where every vessel had slightly more than the maximum share achieved by any one vessel from 1994-2003. As a final example, examine the minor rockfish north row for slope species. The vessel accumulation limits are 10 percent for Option 1 and 15 percent for Option 2 and the historic maximums are 11.87 percent for 1994-2003 and 15.7 percent for 2004-2006. Thus only Option 2 would accommodate close to those historic shares. In general, for many species the maximum shares of harvest occurred in the 2004-2006 period rather than the 1994-2003 period and the Option 2 limits are required to meet or approach those maximums. The most problematic species appear to be the overfished species and less frequently caught species (such as nearshore and shelf rockfish). For these species the maximums appear to be

significantly above the Option 2 limits and in some cases even the 90th percentile values exceed the limits.

Another way to evaluate the accumulation limits would be to determine whether or not they would allow lesser, similar, or greater poundages of harvest as compared to the past. This comparison may be the most relevant to the efficiency and economics of the individual harvest operations. For the individual harvester the pounds of fish they can catch relates more to their costs and earnings than their share of catch. This becomes rapidly apparent if we consider, for example, widow rockfish. The same share of catch from the mid-1990s applied to widow OYs of recent years would yield substantially lower harvest opportunties. In order to evaluate the poundage equivalents we look at the maximum and 90th percentile poundages in any one year from 1994-2003 and then determine what share of the 2004-2006 annual harvests would be required to achieve a similar level of harvest (Table A-83). For many of the main target species the Option 1 or Option 2 vessel limits accommodate at least the 90th percentile vessels, if not the maximums. The poundage level of harvest for overfished species, those species constrained to protect overfished species (e.g. yellowtail), or nearshore or shelf rockfish species would be difficult to accommodate with any reasonable accumulation limit levels assuming 2004-2006 harvest levels. For Dover sole and sablefish, the vessel accumulation limits options would generally accommodate the 1994-2003 maximum poundages translated into 2004-2006 shares, however, the 1994-2003 longspine thornyhead maximums translated to 2004-2006 shares exceed Option 2 limits, as do the longspine thornyhead 90th percentile levels.

The number of vessels catching each species/species group also suggests a minimum vessel accumulation limit which might be set if one wanted to ensure that the fishery could accommodate as much consolidation as there has been in the past. For example, if the minimum number of vessels participating in a segment of the fishery in the past is 20 (catching a particular species), an accumulation limit of 2 percent would require that 30 more vessels participate than in the past, in order to take the entire available catch (a 2 percent limit requires that at least 50 vessels take part if the entire trawl allocation is to be harvested). Table A-84 provides the accumulation limit options, the minimum limit required to accommodate the minimum number of vessels catching each species in 2004-2006, the minimum fleets implied by the vessel accumulation limit options, and the minimum or the annual number of vessels taking each species for two past periods (1994-2003 and 2004-2006). If the intent is to allow the fleet to consolidate down to at least as few as the minimum number of vessels that participated in the past, the accumulation limit should probably be set at a level slightly higher than that which would exactly allow for that minimum. This may be necessary because of the logistical difficulties that would be entailed if the only way that the entire trawl allocation could be harvested would be for every vessel to achieve the maximum allowed harvest. Under such circumstances some vessels would inevitably go over the limits. While carryover provisions might accommodate those overages, the vessels with the overage would not be able to fish again until the following year's QP had been issued.

Summary

- For many species, the Option 2 limits required to accommodate recent permit/vessel harvest shares (2004-2006).
- Most of the poundages of landings per permit that were seen in the 1994-2003 period, translated to shares of the 2004-2006 harvest, would be accommodated by the maximum QS allowed per vessel under Option 1 or Option 2, but not for overfished species and target species for which harvest has been dramatically reduced to protect overfished species, including nearshore and shelf rockfish categories.
- If the desire is to accommodate consolidation to some minimum fleet size, accumulation limits should be set somewhat higher than necessary to reach that minimum, because of the logistical

challenges and difficulties entailed in every vessel taking its maximum shares (i.e. in order to accommodate variation in harvest among vessels).

Table A-82. Comparison of vessel limits to vessel share of actual history (maximums and 90th percentile history for the indicated periods).

Stock	Vessel Limits (%)		Annual Percent of Total Catch			
			1994-2003		2004-2006	
	Option 1	Option 2	90th Percent	Max	90th Percent	Max
All nonwhiting groundfish (in aggregate)	3.0	4.4	1.0	4.1	1.5	4.9
Lingcod - coastwide c/	10	15	1.8	9.0	2.2	3.7
N. of 42° N (OR & WA)	10	15	2.4	12.1	3.0	4.3
S. of 42° N (CA)	10	15	4.3	14.1	8.0	14.6
Pacific Cod	10	15	6.4	22.7	6.0	21.1
Pacific Whiting						
Shoreside Sector	15	22.5	8.1	9.1	6.2	7.3
Mothership Sector	25	37.5	11.3	18.5	16.4	28.9
Catcher Processors	65	70	37.3	49.5	31.1	49.4
All Whiting Sectors Combined	25	37.5				
Sablefish (Coastwide)	3.8	5.7	1.0	2.3	1.5	5.7
N. of 36° N (Monterey north)	4	6	1.0	2.4	1.5	5.7
S. of 36° N (Conception area)	10	15	24.0	38.4	43.5	60.3
PACIFIC OCEAN PERCH	10	15	2.7	7.3	3.7	10.1
Shortbelly Rockfish	10	15	41.3	82.5	65.8	76.4
WIDOW ROCKFISH	6.8	10.2	4.5	28.7	6.0	31.9
CANARY ROCKFISH	10	15	3.5	12.6	3.8	45.7
Chilipepper Rockfish	10	15	6.2	46.8	14.9	26.5
BOCACCIO	10	15	60.0	78.9	36.8	53.4
Splitnose Rockfish	10	15	5.7	19.9	12.1	26.9
Yellowtail Rockfish	10	15	2.8	9.9	5.2	11.5
Shortspine Thornyhead - coastwide	6.2	9.3	1.1	3.8	1.8	6.8
Shortspine Thornyhead - N. of 34°27' N	9.6	14.4	1.3	5.0	2.2	8.7
Shortspine Thornyhead - S. of 34°27' N	9.4	14.1	4.2	7.0	8.8	16.0
Longspine Thornyhead - coastwide	4	6	1.4	2.0	3.7	7.3
Longspine Thornyhead - N. of 34°27' N	4	6	1.4	2.0	2.2	8.7
Longspine Thornyhead - S. of 34°27' N	10	15	61.5	64.4	8.8	16.0
COWCOD - Conception and Monterey	10	15	100.0	100.0	0.0	0.0
DARKBLOTCHED	10	15	2.0	15.8	3.1	5.6
YELLOWEYE g/	10	15	9.4	35.8	13.7	35.5
Black Rockfish	10	15	14.4	52.6	19.7	21.4
Black Rockfish (WA)	10	15	100.0	100.0	85.2	94.0
Black Rockfish (OR-CA)	10	15	14.4	52.6	19.7	21.4
Minor Rockfish North	10	15	2.0	9.2	2.8	13.9
Nearshore Species	10	15	80.1	98.3	17.0	20.9
Shelf Species	8	12	2.9	30.6	2.2	49.1
Slope Species	10	15	2.0	11.9	3.0	15.7
Minor Rockfish South	10	15	4.9	23.8	11.0	20.7
Nearshore Species	10	15	34.4	78.0	100.0	100.0
Shelf Species	10	15	6.1	46.6	13.1	30.9
Slope Species	10	15	5.8	24.8	12.2	21.7
California scorpionfish	10	15	100.0	100.0	0.0	0.0
Cabezon (off CA only)	10	15	100.0	100.0	0.0	0.0
Dover Sole	3.6	5.4	1.1	2.0	1.6	5.6
English Sole	20	30	1.5	13.9	2.6	7.7
Petrale Sole (coastwide) c/	5.8	8.7	1.4	6.2	2.3	8.0
Arrowtooth Flounder	10	15	1.9	25.5	3.2	19.1
Starry Flounder	10	15	13.2	65.7	5.5	54.5
Other Flatfish	20	30	1.3	16.4	2.0	8.1
Other Fish	10	15	2.5	10.2	9.0	21.3

Table A-83. 90th percentile and maximum pounds per vessel landed in historic period (1994-2003) compared with vessel limit options, and translated into shares of average fleet harvest for the more recent period 2004-2006.

Stock	Vessel Limits (%)		Annual Pounds and Percent of Total Catch			
	Option 1	Option 2	1994-2003 (Pounds)		1994-2003 pounds as a % of 2004-2006 pounds	
			90th Percent	Max	90th	Max
All nonwhiting groundfish (in aggregate)	3.0	4.4	1,045,368	2,500,536	2.5	5.9
Lingcod - coastwide c/	10	15	31,057	203,593	15.5	101.6
N. of 42° N (OR & WA)	10	15	40,325	203,593	26.2	132.1
S. of 42° N (CA)	10	15	19,286	72,098	41.8	156.3
Pacific Cod	10	15	115,342	287,803	7.2	18.0
Pacific Whiting						
Shoreside Sector	15	22.5	12,145,550	14,042,043	5.7	6.6
Mothership Sector	25	37.5	8,197,176	16,683,203	8.7	17.7
Catcher Processors	65	70	40,313,940	62,729,980	23.8	37.0
All Whiting Sectors Combined	25	37.5				
Sablefish (Coastwide)	3.8	5.7	73,815	180,128	1.3	3.2
N. of 36° N (Monterey north)	4	6	74,566	180,128	1.4	3.3
S. of 36° N (Conception area)	10	15	49,226	63,959	45.2	58.7
PACIFIC OCEAN PERCH	10	15	35,725	117,139	19.0	62.3
Shortbelly Rockfish	10	15	4,556	60,415	*	*
WIDOW ROCKFISH	6.8	10.2	247,904	473,554	188.6	360.3
CANARY ROCKFISH	10	15	29,969	130,574	149.7	652.0
Chilipepper Rockfish	10	15	120,083	595,649	174.9	867.4
BOCACCIO	10	15	40,252	224,802	517.0	*
Splitnose Rockfish	10	15	135,035	287,617	51.7	110.1
Yellowtail Rockfish	10	15	154,382	498,907	34.6	111.9
Shortspine Thornyhead - coastwide	6.2	9.3	69,197	245,689	5.4	19.3
Shortspine Thornyhead - N. of 34°27' N	9.6	14.4	65,613	245,689	7.2	26.9
Shortspine Thornyhead - S. of 34°27' N	9.4	14.1	58,929	97,906	16.3	27.1
Longspine Thornyhead - coastwide	4	6	123,142	240,834	8.0	15.7
Longspine Thornyhead - N. of 34°27' N	4	6	65,613	245,689	7.2	26.9
Longspine Thornyhead - S. of 34°27' N	10	15	58,929	97,906	16.3	27.1
COWCOD - Conception and Monterey	10	15	19	19		
DARKBLOTCHED	10	15	26,849	250,799	10.1	94.2
YELLOWEYE g/	10	15	4,914	28,578	588.5	*
Black Rockfish	10	15	18,358	33,169	456.6	825.0
Black Rockfish (WA)	10	15	22,418	27,012	*	*
Black Rockfish (OR-CA)	10	15	18,180	33,169	459.2	837.7
Minor Rockfish North	10	15	63,041	440,281	17.3	120.2
Nearshore Species	10	15	1,122	1,501	66.0	88.2
Shelf Species	8	12	38,680	178,331	55.1	254.1
Slope Species	10	15	33,529	261,950	11.4	89.0
Minor Rockfish South	10	15	74,634	292,532	22.1	86.6
Nearshore Species	10	15	6,677	22,780	*	*
Shelf Species	10	15	20,815	83,556	226.7	909.9
Slope Species	10	15	49,159	285,834	15.0	87.0
California scorpionfish	10	15	11,203	12,408		
Cabezon (off CA only)	10	15	6,026	6,026		
Dover Sole	3.6	5.4	226,860	439,098	1.5	3.0
English Sole	20	30	36,117	339,187	1.9	17.4
Petrale Sole (coastwide) c/	5.8	8.7	57,251	195,683	1.1	3.7
Arrowtooth Flounder	10	15	181,499	1,432,863	3.9	30.8
Starry Flounder	10	15	11,631	58,510	8.0	40.2
Other Flatfish	20	30	69,572	548,878	2.7	21.5
Other Fish	10	15	48,389	182,881	21.7	82.0

* - Greater than 1,000.0%

Table A-84. The minimum number of vessels required to take the full allocation as determined by the vessel accumulation limits and the minimum number of vessels that have landed in any one year in the past (by species).

Stock	Vessel Limits (%)		Percent (Inverse of '04-'06 Vessels)	Minimum Number of Vessels Under Vessel Limits		Minimum Annual Number of Vessels	
	Option 1	Option 2		Option 1	Option 2	'94-'03	'04-'06
All nonwhiting groundfish (in aggregate)	3.0	4.4	0.76	33	23	206	131
Lingcod - coastwide c/	10	15	0.95	10	7	142	105
N. of 42° N (OR & WA)	10	15	1.33	10	7	93	75
S. of 42° N (CA)	10	15	2.56	10	7	52	39
Pacific Cod	10	15	1.75	10	7	71	57
Pacific Whiting							
Shoreside Sector	15	22.5	3.33	7	4	42	30
Mothership Sector	25	37.5	10.0	4	3	11	10
Catcher Processors	65	70	16.67	2	1	5	6
All Whiting Sectors Combined	25	37.5		4	3		
Sablefish (Coastwide)	3.8	5.7	0.81	26	18	198	124
N. of 36° N (Monterey north)	4	6	0.83	25	17	191	121
S. of 36° N (Conception area)	10	15	16.67	10	7	12	6
PACIFIC OCEAN PERCH	10	15	1.20	10	7	129	83
Shortbelly Rockfish	10	15		10	7	7	0
WIDOW ROCKFISH	6.8	10.2	1.69	15	10	61	59
CANARY ROCKFISH	10	15	1.49	10	7	87	67
Chilipepper Rockfish	10	15	4.35	10	7	29	23
BOCACCIO	10	15	11.11	10	7	4	9
Splitnose Rockfish	10	15	4.35	10	7	50	23
Yellowtail Rockfish	10	15	1.39	10	7	94	72
Shortspine Thornyhead - coastwide	6.2	9.3	0.88	16	11	177	114
Shortspine Thornyhead - N. of 34°27' N	9.6	14.4	1.11	10	7	141	90
Shortspine Thornyhead - S. of 34°27' N	9.4	14.1	3.70	11	7	50	27
Longspine Thornyhead - coastwide	4	6	1.00	25	17	167	100
Longspine Thornyhead - N. of 34°27' N	4	6	1.00	25	17	167	100
Longspine Thornyhead - S. of 34°27' N	10	15		10	7	0	0
COWCOD - Conception and Monterey	10	15		10	7	0	0
DARKBLOTCHED	10	15	0.96	10	7	171	104
YELLOWEYE g/	10	15	6.67	10	7	25	15
Black Rockfish	10	15	8.33	10	7	15	12
Black Rockfish (WA)	10	15		10	7	0	0
Black Rockfish (OR-CA)	10	15	8.33	10	7	15	12
Minor Rockfish North	10	15	1.02	10	7	153	98
Nearshore Species	10	15	6.67	10	7	3	15
Shelf Species	8	12	1.10	13	8	121	91
Slope Species	10	15	1.06	10	7	141	94
Minor Rockfish South	10	15	2.78	10	7	60	36
Nearshore Species	10	15	100.0	10	7	7	1
Shelf Species	10	15	5.26	10	7	38	19
Slope Species	10	15	3.57	10	7	54	28
California scorpionfish	10	15		10	7	0	0
Cabezon (off CA only)	10	15		10	7	0	0
Dover Sole	3.6	5.4	0.81	28	19	190	123
English Sole	20	30	0.91	5	3	167	110
Petrale Sole (coastwide) c/	5.8	8.7	0.87	17	11	186	115
Arrowtooth Flounder	10	15	1.01	10	7	134	99
Starry Flounder	10	15	2.50	10	7	20	40
Other Flatfish	20	30	0.80	5	3	196	125
Other Fish	10	15	2.78	10	7	111	36

EFFICIENCY

How will the vessel accumulation limits affect efficiency?

> For most of the objectives we do not have the quantitative information needed to make exact predictions about how the objectives will be affected by the level at which accumulation limits are set, therefore we rely on comparisons to historic experiences. However, we do have some general quantitative results indicating the effect of the accumulation limits on overall fleet efficiency. These will be discussed under this section.

A quantitative analysis by Lian et. al. {Lian, 2008} indicates an expectation that after rationalization there will be a fleet of 50-60 vessels of a size of 60-70 feet. Aggregate accumulation limits in the range of 1.4-1.7 percent would be sufficient to allow a fleet of this size. The analysis also indicated that an aggregate accumulation limit of 1 percent would increase the minimum fleet size to 100 vessels, reduce benefits by about $3.8 million and would substantially increase the number of 50 ft vessels. Based on this model, it does not appear that the aggregate limits under consideration by the Council, even under Option 1, would necessarily constrain an efficient outcome. The 2.2 percent limit would allow consolidation of the fleet down to 46 vessels. However, because of the variation of harvest among vessels and variation of opportunity along the coast, a 2.2 percent limit could result in substantially more vessels than the mathematical minimum. Whatever vessel limits are set, the Council will have opportunities to make adjustments after initial implementation.

♦ *Control Percentage Limits*

The following are the categories of goals and objectives affected by the decision on the level at which to set control accumulation limits and the section in which each are addressed.

	Related Category of Goals and Objectives										
Section	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
Initial Endowments (Allocations to Firms Compared to Control Accumulation Limits)			X	X	X	X					
Structure of the Harvesting and Processing Sectors (Accumulation Limit Effect on Relative to Recent Business Practices)		X	X			X					

The control percentage limits will determine the minimum number of firms which may control fishing operations while still taking all of the groundfish and cap the efficiency of firm level fishing operations (assuming efficiency consistently increases with increases in the amount of product a firm can harvest).

We evaluate control limit percentages from the perspective of how they affect the distribution of the initial endowments, and the magnitude and degree of concentration as compared to our historical experience. Also provided for contrast are some the ownership caps that have been used in other fisheries around the world.

INITIAL ENDOWMENTS (ALLOCATIONS TO FIRMS COMPARED TO CONTROL ACCUMULATION LIMITS)

How do the control limits compare to the allocations to fishing businesses?

- Will the control accumulation limit levels create a disparity between those businesses with more history and those with less, if there is a grandfather clause;
- will those who have historically taken a greater share of the harvest (as reflected by their QS allocations) or otherwise receive a higher QS allocation be constrained to lower levels of production if there is not a grandfather clause; or
- are the limits high enough such that QS allocations will not be constrained by the accumulation limits?

These questions are pertinent mainly with respect to disruption, equity, and efficiency objectives. As we explore the quantitative data we will determine how the accumulation limit levels affect the number and degree to which some firms will be at an advantage over others (if there is an accumulation limit grandfather clause) or will have a reduced level of production because of the accumulation limits (if there is not an accumulation limit grandfather clause). If there is a grandfather clause, the main issue is whether there is an inequity because some businesses are able to operate at higher levels of production and efficiency than others. If there is not a grandfather clause, the issues are whether there is inequity, disruption, and reduced efficiency because of the reduced amount of QS that will go to harvesting firms that have a history of making greater amounts of deliveries (lower allocations to processors will not limit the amount a firm processes).

The information presented for both for the recent period (2004-2006) and for the concentration of QS among firms is based on the ownership of firms as we understand it to have it stood in the Fall of 2006. There were some minor changes between then and the start of 2008 and there may have been further changes since that time (Table A-75 and Table A-76). A few tables are provided here to show how those changes in permit ownership have affected the distribution of the harvest history component of the allocations at the species level (Table A-97 and Table A-98). Between now and the time a program is implemented, if the Council recommends implementation, entities may decide to accumulate more permits in hopes that there is a grandfather clause and the November 6, 2008 control date does not apply;[72] or they may divest themselves of permits if there is not a grandfather clause or, for permits accumulated after the control date, the control date applies.

A guide to the tables in this section is provided in Table A-85.

Table A-86 shows that for most of the limits the amounts of QS that would be allocated under an allocation formula using 80/20 permit-processor split and equal sharing would be over the proposed control limits for many entities. Table A-87 shows that if just the shares allocated to harvesters are considered, including harvesting entities that are also processors, the number of entities over the limit and amount of QS associated with those entities, as expected, would be substantially less than when the allocation for processing shares is considered. The contrast between Table A-86 and Table A-87 allows the reader to evaluate the effects of the control limits they relates to accommodation of vertical and horizontal integration (Table A-86) reflected by the initial allocation, as compared to the accomodation of horizontal integration in the harvesting sector (Table A-87). Table A-88 as compared to Table A-87

[72] Northwest Region NOAA General Counsel has advised that the control date does apply to the accumulation of permits (i.e. the public was on notice that the Council might not recognize activities occurring after the control date [such as fishing or the accumulation of permit]) as counting toward credit for the initial allocation of QS.

shows that even with just a 20 percent allocation to processors, the maximum amounts allocated to a single entity based on processing (buying) history would generally exceed the amounts issued to entities holding permits (allocations in these tables include a grandfather clause). Comparison of Table A-89 (maximum QS issued to harvesters) to Table A-91 (maximum QS issued to processors based on history of permits they own, indicates that the degree of vertical integration in the processing sector is such that the processing sector is also more horizontally integrated in the harvesting sector than other firms in the harvesting sector that are not also buyers (the maximum QS that processors would receive from their permit history is greater than that which firms that only harvest would receive).

Table A-90 shows that the maximum amounts of QS issued for processing to those entities that only process tends to be substantially lower than the maximum QS issued for processing to those entities that also harvest (hold permits) (comparison of

Table A-90 to Table A-88, which includes all entities that process and own permits).

Subsequent tables provide the opportunity to make comparisons to isolate the effects of various parts of the allocation formula on the maximum amounts of QS allocated and to look at those effects with respect to all entities and just those that process. Comparisons can be made between allocating 100 percent to harvesters and 25 percent to processors, between including or not including the equal allocation component, and the effect of the point in time at which control of the permits was assessed. Table A-93 through Table A-103 do not include a recent participation screen on processors, so the total number of entities to which allocations are made tend to be larger than in Table A-86 However, processors that do not meet the recent participation requirement tend to have very small amounts of QS, therefore the impact of the inclusion of these vessels on the allocation is relatively small (see section A-2.1.2.c on the recent participation requirements for shoreside processors).

Summary

- Relatively few firms would receive QS in excess of control limits if there is a grandfather clause.
- The amount of QS received by those qualifying for amounts in excess of limits would be relatively substantial.
- Processors that exceed the accumulation limits tend to be vertically integrated and qualify for more QS issued based on processing (buying) history than other processors and tend to qualify for more QS issued based on harvesting (permit) history than other harvesters.
- With respect to harvesting history, the amounts of QS that would be issued to entities based on ownership in the Fall of 2006 is substantially more than when based on ownership at the start of 2004.

Table A-85. Table of tables comparing control accumulation limit options to maximum shares allocated.

Table	Entities (Fall 2006 Ownership, Except as Noted)	Basis for QS Issuance	Comparison	Permit-Prcsr Split	Equal Sharing	Grndfthr Clause	Processor Recent Partici-pation
Table A-86	All	Hvst & Processing	Opt 1&2 Control Limits to QS Allocations	80/20	Yes	Yes	Yes
Table A-87	All	Harvesting	" "	80/20	Yes	Yes	Yes
Table A-88	All	Processing	" "	80/20	Yes	Yes	Yes
Table A-89	Harvesters Only (Excludes Harvester/ Processor Entities)	Harvesting	" "	80/20	Yes	Yes	Yes
Table A-90	Processors Only (Excludes Harvester/ Processor Entities)	Processing	" "	80/20	Yes	Yes	Yes
Table A-91	Processors with Permits	Harvesting	" "	80/20	Yes	Yes	Yes
Table A-92	Processors with Permits	Processing	" "	80/20	Yes	Yes	Yes
Table A-93	All	Harvesting	" "	100/0	No	Yes	No
Table A-94	Processing Entities	Harvesting	" "	100/0	No	Yes	No
Table A-95	All	Harvesting	" "	100/0	Yes	Yes	No
Table A-96	Processing Entities	Harvesting	" "	100/0	Yes	Yes	No
Table A-97	Harvesting Entities (Jan 1, 2004 Ownership)	Harvesting	" "	100/0	Yes	Yes	No
Table A-98	Harvesting Entities (Jan 1, 2008 Ownership)	Harvesting	" "	100/0	Yes	Yes	No
Table A-99	All	Harvesting & Processing	" "	75/25	No	Yes	No
Table A-100	Processing Entities	Harvesting& Processing	" "	75/25	No	Yes	No
Table A-101	All	Harvesting & Processing	" "	75/25	Yes	Yes	No
Table A-102	Processing Entities	Harvesting& Processing	" "	75/25	Yes	Yes	No
Table A-103	Various	Various	Option 3	Various	Various	Various	Various

Table A-86. Comparison of control limits to allocations: all entities (applying permit and buying history) (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	148	13.13	1.5	9	32.23	2.2	5	24.54
Lingcod - coastwide c/	146	13.59	5	1	13.59	7.5	1	13.59
N. of 42° N (OR & WA)	132	13.55	5	1	13.55	7.5	1	13.55
S. of 42° N (CA)	137	13.77	5	1	13.77	7.5	1	13.77
Pacific Cod	138	15.85	5	3	29.38	7.5	2	23.88
Pacific Whiting	135	9.40	10	0	0.00	15	0	0.00
Shoreside Sector	139	8.59	10	0	0.00	15	0	0.00
Mothership Sector	123	11.47	10	2	22.89	15	0	0.00
Catcher Processors	4	53.53	50	1	53.53	55	0	0.00
All Whiting Sectors Combined	143	20.96	15	1	20.96	22.5	0	0.00
Sablefish (Coastwide)	147	14.46	1.9	6	26.97	2.9	2	17.66
N. of 36° N (Monterey north)	146	14.70	2	5	24.94	3	2	17.95
S. of 36° N (Conception area)	128	25.70	5	4	62.91	7.5	3	57.41
PACIFIC OCEAN PERCH	135	17.18	5	1	17.18	7.5	1	17.18
Shortbelly Rockfish	138	16.48	5	3	34.85	7.5	2	29.38
WIDOW ROCKFISH	138	15.64	3.4	1	15.64	5.1	1	15.64
CANARY ROCKFISH	138	16.82	5	1	16.82	7.5	1	16.82
Chilipepper Rockfish	137	10.34	5	6	45.03	7.5	3	25.83
BOCACCIO	81	14.69	5	5	51.13	7.5	4	44.61
Splitnose Rockfish	137	11.48	5	6	46.23	7.5	3	27.48
Yellowtail Rockfish	139	15.60	5	1	15.60	7.5	1	15.60
Shortspine Thornyhead - coastwide	145	15.21	3.1	2	18.40	4.7	1	15.21
Shortspine Thornyhead - N. of 34°27' N	136	16.01	4.8	1	16.01	7.2	1	16.01
Shortspine Thornyhead - S. of 34°27' N	138	11.43	4.7	4	34.46	7.1	3	28.45
Longspine Thornyhead - coastwide	145	14.31	2	7	31.14	3	3	21.27
Longspine Thornyhead - N. of 34°27' N	145	14.31	2	7	31.14	3	3	21.27
Longspine Thornyhead - S. of 34°27' N	121	51.66	5	1	51.66	7.5	1	51.66
COWCOD - Conception and Monterey	81	18.99	5	8	73.59	7.5	4	51.73
DARKBLOTCHED	138	15.96	5	1	15.96	7.5	1	15.96
YELLOWEYE g/	135	15.70	5	1	15.70	7.5	1	15.70
Black Rockfish	135	18.82	5	3	36.99	7.5	2	29.79
Black Rockfish (WA)	123	12.08	5	4	43.33	7.5	4	43.33
Black Rockfish (OR-CA)	133	18.95	5	3	37.39	7.5	2	30.08
Minor Rockfish North	145	14.59	5	1	14.59	7.5	1	14.59
Nearshore Species	130	14.02	5	2	24.25	7.5	2	24.25
Shelf Species	145	13.50	4	2	18.05	6	1	13.50
Slope Species	138	14.61	5	1	14.61	7.5	1	14.61
Minor Rockfish South	138	10.59	5	5	37.72	7.5	2	19.43
Nearshore Species	136	11.88	5	5	41.21	7.5	2	22.75
Shelf Species	138	9.68	5	5	38.68	7.5	2	18.40
Slope Species	138	10.63	5	5	37.79	7.5	2	19.46
California scorpionfish	125	50.67	5	4	92.40	7.5	4	92.40
Cabezon (off CA only)	124	47.60	5	3	86.92	7.5	3	86.92
Dover Sole	145	14.06	1.8	7	29.95	2.7	3	20.85
English Sole	145	14.93	10	1	14.93	15	0	0.00
Petrale Sole (coastwide) c/	145	13.27	2.9	4	23.15	4.4	1	13.27
Arrowtooth Flounder	138	12.09	5	2	20.87	7.5	2	20.87
Starry Flounder	138	24.39	5	4	54.70	7.5	2	42.09
Other Flatfish	146	10.07	10	1	10.07	15	0	0.00
Other Fish	143	14.40	5	3	25.40	7.5	1	14.40

Table A-87. Comparison of control limits to allocations: all entities (applying permit history only) (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	121	4.06	1.5	6	15.08	2.2	2	7.39
Lingcod - coastwide c/	121	4.10	5	0	0.00	7.5	0	0.00
N. of 42° N (OR & WA)	121	3.75	5	0	0.00	7.5	0	0.00
S. of 42° N (CA)	121	5.48	5	1	5.48	7.5	0	0.00
Pacific Cod	121	9.10	5	2	17.13	7.5	2	17.13
Pacific Whiting	121	6.93	10	0	0.00	15	0	0.00
Shoreside Sector	121	8.59	10	0	0.00	15	0	0.00
Mothership Sector	121	7.62	10	0	0.00	15	0	0.00
Catcher Processors	4	42.83	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	124	16.40	15	1	16.40	22.5	0	0.00
Sablefish (Coastwide)	121	3.79	1.9	4	10.92	2.9	1	3.79
N. of 36° N (Monterey north)	121	3.82	2	3	8.59	3	1	3.82
S. of 36° N (Conception area)	121	25.70	5	3	43.21	7.5	2	37.70
PACIFIC OCEAN PERCH	117	4.46	5	0	0.00	7.5	0	0.00
Shortbelly Rockfish	121	16.48	5	2	21.94	7.5	1	16.48
WIDOW ROCKFISH	121	4.55	3.4	1	4.55	5.1	0	0.00
CANARY ROCKFISH	121	6.65	5	1	6.65	7.5	0	0.00
Chilipepper Rockfish	121	7.78	5	5	34.62	7.5	2	15.42
BOCACCIO	63	11.40	5	4	41.32	7.5	4	41.32
Splitnose Rockfish	121	8.33	5	5	35.24	7.5	2	16.00
Yellowtail Rockfish	121	5.54	5	1	5.54	7.5	0	0.00
Shortspine Thornyhead - coastwide	121	3.58	3.1	1	3.58	4.7	0	0.00
Shortspine Thornyhead - N. of 34°27' N	121	3.61	4.8	0	0.00	7.2	0	0.00
Shortspine Thornyhead - S. of 34°27' N	121	11.43	4.7	2	17.44	7.1	1	11.43
Longspine Thornyhead - coastwide	121	3.71	2	4	12.82	3	2	7.36
Longspine Thornyhead - N. of 34°27' N	121	3.71	2	4	12.82	3	2	7.36
Longspine Thornyhead - S. of 34°27' N	121	51.66	5	1	51.66	7.5	1	51.66
COWCOD - Conception and Monterey	63	14.64	5	7	63.10	7.5	4	47.39
DARKBLOTCHED	121	3.98	5	0	0.00	7.5	0	0.00
YELLOWEYE g/	118	5.97	5	1	5.97	7.5	0	0.00
Black Rockfish	121	10.97	5	3	23.60	7.5	1	10.97
Black Rockfish (WA)	121	10.79	5	2	20.92	7.5	2	20.92
Black Rockfish (OR-CA)	121	11.13	5	3	23.92	7.5	1	11.13
Minor Rockfish North	121	3.27	5	0	0.00	7.5	0	0.00
Nearshore Species	121	10.23	5	1	10.23	7.5	1	10.23
Shelf Species	121	3.78	4	0	0.00	6	0	0.00
Slope Species	121	3.27	5	0	0.00	7.5	0	0.00
Minor Rockfish South	121	10.59	5	3	22.13	7.5	1	10.59
Nearshore Species	121	10.87	5	4	32.31	7.5	2	19.58
Shelf Species	121	6.63	5	4	24.74	7.5	0	0.00
Slope Species	121	10.63	5	3	22.22	7.5	1	10.63
California scorpionfish	121	50.67	5	2	75.27	7.5	2	75.27
Cabezon (off CA only)	121	47.60	5	2	76.77	7.5	2	76.77
Dover Sole	121	3.96	1.8	4	12.40	2.7	2	7.78
English Sole	121	6.04	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	121	3.95	2.9	2	6.97	4.4	0	0.00
Arrowtooth Flounder	121	4.99	5	0	0.00	7.5	0	0.00
Starry Flounder	121	24.39	5	3	37.00	7.5	1	24.39
Other Flatfish	121	7.35	10	0	0.00	15	0	0.00
Other Fish	121	5.71	5	2	10.99	7.5	0	0.00

Table A-88. Comparison of control limits to allocations: all entities (applying buying history only) (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	32	9.06	1.5	2	11.52	2.2	2	11.52
Lingcod - coastwide c/	30	9.49	5	1	9.49	7.5	1	9.49
N. of 42° N (OR & WA)	15	9.79	5	1	9.79	7.5	1	9.79
S. of 42° N (CA)	20	8.29	5	1	8.29	7.5	1	8.29
Pacific Cod	21	6.75	5	2	12.00	7.5	0	0.00
Pacific Whiting	18	6.45	10	0	0.00	15	0	0.00
Shoreside Sector	21	6.26	10	0	0.00	15	0	0.00
Mothership Sector	5	6.01	10	0	0.00	15	0	0.00
Catcher Processors	4	10.71	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	28	4.55	15	0	0.00	22.5	0	0.00
Sablefish (Coastwide)	31	10.68	1.9	1	10.68	2.9	1	10.68
N. of 36° N (Monterey north)	30	10.88	2	1	10.88	3	1	10.88
S. of 36° N (Conception area)	10	19.51	5	1	19.51	7.5	1	19.51
PACIFIC OCEAN PERCH	22	12.93	5	1	12.93	7.5	1	12.93
Shortbelly Rockfish	22	10.23	5	1	10.23	7.5	1	10.23
WIDOW ROCKFISH	22	11.09	3.4	1	11.09	5.1	1	11.09
CANARY ROCKFISH	22	10.17	5	1	10.17	7.5	1	10.17
Chilipepper Rockfish	20	4.17	5	0	0.00	7.5	0	0.00
BOCACCIO	22	5.14	5	1	5.14	7.5	0	0.00
Splitnose Rockfish	20	5.83	5	1	5.83	7.5	0	0.00
Yellowtail Rockfish	22	10.06	5	1	10.06	7.5	1	10.06
Shortspine Thornyhead - coastwide	28	11.63	3.1	1	11.63	4.7	1	11.63
Shortspine Thornyhead - N. of 34°27' N	19	12.41	4.8	1	12.41	7.2	1	12.41
Shortspine Thornyhead - S. of 34°27' N	21	6.91	4.7	1	6.91	7.1	0	0.00
Longspine Thornyhead - coastwide	28	10.66	2	1	10.66	3	1	10.66
Longspine Thornyhead - N. of 34°27' N	28	10.66	2	1	10.66	3	1	10.66
Longspine Thornyhead - S. of 34°27' N	0	0.00	5	0	0.00	7.5	0	0.00
COWCOD - Conception and Monterey	22	4.83	5	0	0.00	7.5	0	0.00
DARKBLOTCHED	22	11.98	5	1	11.98	7.5	1	11.98
YELLOWEYE g/	22	9.73	5	1	9.73	7.5	1	9.73
Black Rockfish	18	11.81	5	1	11.81	7.5	1	11.81
Black Rockfish (WA)	4	12.08	5	2	19.82	7.5	2	19.82
Black Rockfish (OR-CA)	16	11.87	5	1	11.87	7.5	1	11.87
Minor Rockfish North	29	11.34	5	1	11.34	7.5	1	11.34
Nearshore Species	11	11.72	5	1	11.72	7.5	1	11.72
Shelf Species	29	9.71	4	2	13.91	6	1	9.71
Slope Species	21	11.36	5	1	11.36	7.5	1	11.36
Minor Rockfish South	22	6.72	5	1	6.72	7.5	0	0.00
Nearshore Species	18	3.24	5	0	0.00	7.5	0	0.00
Shelf Species	22	3.71	5	0	0.00	7.5	0	0.00
Slope Species	21	6.75	5	1	6.75	7.5	0	0.00
California scorpionfish	4	8.69	5	2	17.14	7.5	2	17.14
Cabezon (off CA only)	4	10.00	5	1	10.00	7.5	1	10.00
Dover Sole	29	10.25	1.8	1	10.25	2.7	1	10.25
English Sole	29	8.89	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	29	9.32	2.9	1	9.32	4.4	1	9.32
Arrowtooth Flounder	21	8.49	5	2	16.03	7.5	2	16.03
Starry Flounder	21	14.72	5	1	14.72	7.5	1	14.72
Other Flatfish	30	7.16	10	0	0.00	15	0	0.00
Other Fish	27	11.65	5	1	11.65	7.5	1	11.65

Table A-89. Comparison of control limits to allocations: entities that only harvest (applying permit history) (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	113	3.32	1.5	5	11.01	2.2	1	3.32
Lingcod - coastwide c/	113	2.24	5	0	0.00	7.5	0	0.00
N. of 42° N (OR & WA)	113	2.65	5	0	0.00	7.5	0	0.00
S. of 42° N (CA)	113	4.15	5	0	0.00	7.5	0	0.00
Pacific Cod	113	8.03	5	1	8.03	7.5	1	8.03
Pacific Whiting	113	6.93	10	0	0.00	15	0	0.00
Shoreside Sector	113	8.59	10	0	0.00	15	0	0.00
Mothership Sector	113	4.35	10	0	0.00	15	0	0.00
Catcher Processors	0	0.00	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	113	4.51	15	0	0.00	22.5	0	0.00
Sablefish (Coastwide)	113	2.43	1.9	3	7.13	2.9	0	0.00
N. of 36° N (Monterey north)	113	2.41	2	2	4.77	3	0	0.00
S. of 36° N (Conception area)	113	25.70	5	3	43.21	7.5	2	37.70
PACIFIC OCEAN PERCH	110	4.46	5	0	0.00	7.5	0	0.00
Shortbelly Rockfish	113	16.48	5	2	21.94	7.5	1	16.48
WIDOW ROCKFISH	113	2.66	3.4	0	0.00	5.1	0	0.00
CANARY ROCKFISH	113	2.70	5	0	0.00	7.5	0	0.00
Chilipepper Rockfish	113	7.78	5	4	26.97	7.5	1	7.78
BOCACCIO	56	11.12	5	3	29.92	7.5	3	29.92
Splitnose Rockfish	113	8.33	5	4	29.59	7.5	2	16.00
Yellowtail Rockfish	113	2.99	5	0	0.00	7.5	0	0.00
Shortspine Thornyhead - coastwide	113	2.69	3.1	0	0.00	4.7	0	0.00
Shortspine Thornyhead - N. of 34°27' N	113	2.93	4.8	0	0.00	7.2	0	0.00
Shortspine Thornyhead - S. of 34°27' N	113	11.43	4.7	2	17.44	7.1	1	11.43
Longspine Thornyhead - coastwide	113	3.71	2	3	9.18	3	1	3.71
Longspine Thornyhead - N. of 34°27' N	113	3.71	2	3	9.18	3	1	3.71
Longspine Thornyhead - S. of 34°27' N	113	51.66	5	1	51.66	7.5	1	51.66
COWCOD - Conception and Monterey	56	12.88	5	6	48.46	7.5	3	32.74
DARKBLOTCHED	113	3.91	5	0	0.00	7.5	0	0.00
YELLOWEYE g/	110	2.37	5	0	0.00	7.5	0	0.00
Black Rockfish	113	10.97	5	1	10.97	7.5	1	10.97
Black Rockfish (WA)	113	10.79	5	2	20.92	7.5	2	20.92
Black Rockfish (OR-CA)	113	11.13	5	1	11.13	7.5	1	11.13
Minor Rockfish North	113	3.27	5	0	0.00	7.5	0	0.00
Nearshore Species	113	3.46	5	0	0.00	7.5	0	0.00
Shelf Species	113	3.55	4	0	0.00	6	0	0.00
Slope Species	113	3.27	5	0	0.00	7.5	0	0.00
Minor Rockfish South	113	10.59	5	3	22.13	7.5	1	10.59
Nearshore Species	113	10.87	5	3	23.60	7.5	1	10.87
Shelf Species	113	6.63	5	2	12.91	7.5	0	0.00
Slope Species	113	10.63	5	3	22.22	7.5	1	10.63
California scorpionfish	113	50.67	5	2	75.27	7.5	2	75.27
Cabezon (off CA only)	113	47.60	5	2	76.77	7.5	2	76.77
Dover Sole	113	3.96	1.8	3	8.59	2.7	1	3.96
English Sole	113	2.82	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	113	3.02	2.9	1	3.02	4.4	0	0.00
Arrowtooth Flounder	113	4.99	5	0	0.00	7.5	0	0.00
Starry Flounder	113	24.39	5	3	37.00	7.5	1	24.39
Other Flatfish	113	3.71	10	0	0.00	15	0	0.00
Other Fish	113	5.71	5	2	10.99	7.5	0	0.00

Table A-90. Comparison of control limits to allocations: entities that only process (applying buying history). (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause and shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	26	1.21	1.5	0	0.00	2.2	0	0.00
Lingcod - coastwide c/	24	0.66	5	0	0.00	7.5	0	0.00
N. of 42° N (OR & WA)	10	0.79	5	0	0.00	7.5	0	0.00
S. of 42° N (CA)	16	3.32	5	0	0.00	7.5	0	0.00
Pacific Cod	16	2.99	5	0	0.00	7.5	0	0.00
Pacific Whiting	13	3.76	10	0	0.00	15	0	0.00
Shoreside Sector	17	2.18	10	0	0.00	15	0	0.00
Mothership Sector	2	4.10	10	0	0.00	15	0	0.00
Catcher Processors	0	0.00	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	19	0.98	15	0	0.00	22.5	0	0.00
Sablefish (Coastwide)	25	1.41	1.9	0	0.00	2.9	0	0.00
N. of 36° N (Monterey north)	24	1.43	2	0	0.00	3	0	0.00
S. of 36° N (Conception area)	7	0.12	5	0	0.00	7.5	0	0.00
PACIFIC OCEAN PERCH	17	0.86	5	0	0.00	7.5	0	0.00
Shortbelly Rockfish	16	2.57	5	0	0.00	7.5	0	0.00
WIDOW ROCKFISH	17	1.39	3.4	0	0.00	5.1	0	0.00
CANARY ROCKFISH	17	1.48	5	0	0.00	7.5	0	0.00
Chilipepper Rockfish	16	4.17	5	0	0.00	7.5	0	0.00
BOCACCIO	17	2.92	5	0	0.00	7.5	0	0.00
Splitnose Rockfish	16	3.85	5	0	0.00	7.5	0	0.00
Yellowtail Rockfish	17	0.78	5	0	0.00	7.5	0	0.00
Shortspine Thornyhead - coastwide	23	1.34	3.1	0	0.00	4.7	0	0.00
Shortspine Thornyhead - N. of 34°27' N	14	1.46	4.8	0	0.00	7.2	0	0.00
Shortspine Thornyhead - S. of 34°27' N	17	3.98	4.7	0	0.00	7.1	0	0.00
Longspine Thornyhead - coastwide	23	1.64	2	0	0.00	3	0	0.00
Longspine Thornyhead - N. of 34°27' N	23	1.64	2	0	0.00	3	0	0.00
Longspine Thornyhead - S. of 34°27' N	0	0.00	5	0	0.00	7.5	0	0.00
COWCOD - Conception and Monterey	17	3.85	5	0	0.00	7.5	0	0.00
DARKBLOTCHED	17	1.46	5	0	0.00	7.5	0	0.00
YELLOWEYE g/	17	1.29	5	0	0.00	7.5	0	0.00
Black Rockfish	13	1.03	5	0	0.00	7.5	0	0.00
Black Rockfish (WA)	2	12.08	5	1	12.08	7.5	1	12.08
Black Rockfish (OR-CA)	11	1.05	5	0	0.00	7.5	0	0.00
Minor Rockfish North	23	0.78	5	0	0.00	7.5	0	0.00
Nearshore Species	8	3.38	5	0	0.00	7.5	0	0.00
Shelf Species	23	0.75	4	0	0.00	6	0	0.00
Slope Species	16	0.77	5	0	0.00	7.5	0	0.00
Minor Rockfish South	17	3.70	5	0	0.00	7.5	0	0.00
Nearshore Species	15	3.24	5	0	0.00	7.5	0	0.00
Shelf Species	17	2.72	5	0	0.00	7.5	0	0.00
Slope Species	17	3.72	5	0	0.00	7.5	0	0.00
California scorpionfish	4	8.69	5	2	17.14	7.5	2	17.14
Cabezon (off CA only)	3	5.00	5	0	0.00	7.5	0	0.00
Dover Sole	23	1.52	1.8	0	0.00	2.7	0	0.00
English Sole	23	1.07	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	23	1.10	2.9	0	0.00	4.4	0	0.00
Arrowtooth Flounder	16	1.74	5	0	0.00	7.5	0	0.00
Starry Flounder	16	0.61	5	0	0.00	7.5	0	0.00
Other Flatfish	24	1.16	10	0	0.00	15	0	0.00
Other Fish	21	2.01	5	0	0.00	7.5	0	0.00

Table A-91. Comparison of control limits to allocations: only those processors with permits (applying permit history). (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation. Note, "processors" includes CPs and mothership processors that own permits).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	8	4.06	1.5	1	4.06	2.2	1	4.06
Lingcod - coastwide c/	8	4.10	5	0	0.00	7.5	0	0.00
N. of 42° N (OR & WA)	8	3.75	5	0	0.00	7.5	0	0.00
S. of 42° N (CA)	8	4.15	5	1	5.48	7.5	0	0.00
Pacific Cod	8	9.10	5	1	9.10	7.5	1	9.10
Pacific Whiting	8	3.74	10	0	0.00	15	0	0.00
Shoreside Sector	8	2.91	10	0	0.00	15	0	0.00
Mothership Sector	8	7.62	10	0	0.00	15	0	0.00
Catcher Processors	4	42.83	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	11	16.40	15	1	16.40	22.5	0	0.00
Sablefish (Coastwide)	8	3.79	1.9	1	3.79	2.9	1	3.79
N. of 36° N (Monterey north)	8	3.82	2	1	3.82	3	1	3.82
S. of 36° N (Conception area)	8	2.06	5	0	0.00	7.5	0	0.00
PACIFIC OCEAN PERCH	7	4.25	5	0	0.00	7.5	0	0.00
Shortbelly Rockfish	8	2.67	5	0	0.00	7.5	0	0.00
WIDOW ROCKFISH	8	4.55	3.4	1	4.55	5.1	0	0.00
CANARY ROCKFISH	8	6.65	5	1	6.65	7.5	0	0.00
Chilipepper Rockfish	8	7.64	5	1	7.64	7.5	1	7.64
BOCACCIO	7	11.40	5	1	11.40	7.5	1	11.40
Splitnose Rockfish	8	5.65	5	1	5.65	7.5	0	0.00
Yellowtail Rockfish	8	5.54	5	1	5.54	7.5	0	0.00
Shortspine Thornyhead - coastwide	8	3.58	3.1	1	3.58	4.7	0	0.00
Shortspine Thornyhead - N. of 34°27' N	8	3.61	4.8	0	0.00	7.2	0	0.00
Shortspine Thornyhead - S. of 34°27' N	8	3.27	4.7	0	0.00	7.1	0	0.00
Longspine Thornyhead - coastwide	8	3.65	2	1	3.65	3	1	3.65
Longspine Thornyhead - N. of 34°27' N	8	3.65	2	1	3.65	3	1	3.65
Longspine Thornyhead - S. of 34°27' N	8	1.35	5	0	0.00	7.5	0	0.00
COWCOD - Conception and Monterey	7	14.64	5	1	14.64	7.5	1	14.64
DARKBLOTCHED	8	3.98	5	0	0.00	7.5	0	0.00
YELLOWEYE g/	8	5.97	5	1	5.97	7.5	0	0.00
Black Rockfish	8	7.01	5	2	12.64	7.5	0	0.00
Black Rockfish (WA)	8	3.17	5	0	0.00	7.5	0	0.00
Black Rockfish (OR-CA)	8	7.07	5	2	12.79	7.5	0	0.00
Minor Rockfish North	8	3.25	5	0	0.00	7.5	0	0.00
Nearshore Species	8	10.23	5	1	10.23	7.5	1	10.23
Shelf Species	8	3.78	4	0	0.00	6	0	0.00
Slope Species	8	3.25	5	0	0.00	7.5	0	0.00
Minor Rockfish South	8	4.05	5	0	0.00	7.5	0	0.00
Nearshore Species	8	8.71	5	1	8.71	7.5	1	8.71
Shelf Species	8	5.97	5	2	11.83	7.5	0	0.00
Slope Species	8	4.05	5	0	0.00	7.5	0	0.00
California scorpionfish	8	0.24	5	0	0.00	7.5	0	0.00
Cabezon (off CA only)	8	0.16	5	0	0.00	7.5	0	0.00
Dover Sole	8	3.81	1.8	1	3.81	2.7	1	3.81
English Sole	8	6.04	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	8	3.95	2.9	1	3.95	4.4	0	0.00
Arrowtooth Flounder	8	4.55	5	0	0.00	7.5	0	0.00
Starry Flounder	8	2.99	5	0	0.00	7.5	0	0.00
Other Flatfish	8	7.35	10	0	0.00	15	0	0.00
Other Fish	8	2.76	5	0	0.00	7.5	0	0.00

Table A-92. Comparison of control limits to allocations: only those processors with permits (applying buying history). (QS allocation formula uses: 80/20 permit-processor split, equal sharing, a grandfather clause & shoreside processor recent participation).

Stock	Entities with Allocation	Maximum Allocation (%)	Control Limit Option 1 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)	Control Limit Option 2 (%)	Number of Entities Over Limit	Total QS for Those Over Limit (%)
All nonwhiting groundfish (in aggregate)	6	9.06	1.5	2	11.52	2.2	2	11.52
Lingcod - coastwide c/	6	9.49	5	1	9.49	7.5	1	9.49
N. of 42° N (OR & WA)	5	9.79	5	1	9.79	7.5	1	9.79
S. of 42° N (CA)	4	3.32	5	1	8.29	7.5	1	8.29
Pacific Cod	5	6.75	5	2	12.00	7.5	0	0.00
Pacific Whiting	5	6.45	10	0	0.00	15	0	0.00
Shoreside Sector	4	6.26	10	0	0.00	15	0	0.00
Mothership Sector	3	6.01	10	0	0.00	15	0	0.00
Catcher Processors	4	10.71	50	0	0.00	55	0	0.00
All Whiting Sectors Combined	9	4.55	15	0	0.00	22.5	0	0.00
Sablefish (Coastwide)	6	10.68	1.9	1	10.68	2.9	1	10.68
N. of 36° N (Monterey north)	6	10.88	2	1	10.88	3	1	10.88
S. of 36° N (Conception area)	3	19.51	5	1	19.51	7.5	1	19.51
PACIFIC OCEAN PERCH	5	12.93	5	1	12.93	7.5	1	12.93
Shortbelly Rockfish	6	10.23	5	1	10.23	7.5	1	10.23
WIDOW ROCKFISH	5	11.09	3.4	1	11.09	5.1	1	11.09
CANARY ROCKFISH	5	10.17	5	1	10.17	7.5	1	10.17
Chilipepper Rockfish	4	3.00	5	0	0.00	7.5	0	0.00
BOCACCIO	5	5.14	5	1	5.14	7.5	0	0.00
Splitnose Rockfish	4	5.83	5	1	5.83	7.5	0	0.00
Yellowtail Rockfish	5	10.06	5	1	10.06	7.5	1	10.06
Shortspine Thornyhead - coastwide	5	11.63	3.1	1	11.63	4.7	1	11.63
Shortspine Thornyhead - N. of 34°27' N	5	12.41	4.8	1	12.41	7.2	1	12.41
Shortspine Thornyhead - S. of 34°27' N	4	6.91	4.7	1	6.91	7.1	0	0.00
Longspine Thornyhead - coastwide	5	10.66	2	1	10.66	3	1	10.66
Longspine Thornyhead - N. of 34°27' N	5	10.66	2	1	10.66	3	1	10.66
Longspine Thornyhead - S. of 34°27' N	0	0.00	5	0	0.00	7.5	0	0.00
COWCOD - Conception and Monterey	5	4.83	5	0	0.00	7.5	0	0.00
DARKBLOTCHED	5	11.98	5	1	11.98	7.5	1	11.98
YELLOWEYE g/	5	9.73	5	1	9.73	7.5	1	9.73
Black Rockfish	5	11.81	5	1	11.81	7.5	1	11.81
Black Rockfish (WA)	2	7.74	5	1	7.74	7.5	1	7.74
Black Rockfish (OR-CA)	5	11.87	5	1	11.87	7.5	1	11.87
Minor Rockfish North	6	11.34	5	1	11.34	7.5	1	11.34
Nearshore Species	3	11.72	5	1	11.72	7.5	1	11.72
Shelf Species	6	9.71	4	2	13.91	6	1	9.71
Slope Species	5	11.36	5	1	11.36	7.5	1	11.36
Minor Rockfish South	5	6.72	5	1	6.72	7.5	0	0.00
Nearshore Species	3	3.17	5	0	0.00	7.5	0	0.00
Shelf Species	5	3.71	5	0	0.00	7.5	0	0.00
Slope Species	4	6.75	5	1	6.75	7.5	0	0.00
California scorpionfish	0	0.00	5	0	0.00	7.5	0	0.00
Cabezon (off CA only)	1	10.00	5	1	10.00	7.5	1	10.00
Dover Sole	6	10.25	1.8	1	10.25	2.7	1	10.25
English Sole	6	8.89	10	0	0.00	15	0	0.00
Petrale Sole (coastwide) c/	6	9.32	2.9	1	9.32	4.4	1	9.32
Arrowtooth Flounder	5	8.49	5	2	16.03	7.5	2	16.03
Starry Flounder	5	14.72	5	1	14.72	7.5	1	14.72
Other Flatfish	6	7.16	10	0	0.00	15	0	0.00
Other Fish	6	11.65	5	1	11.65	7.5	1	11.65

Table A-93. All entities receiving allocations above control limits (QS allocated 100 percent to permits, no equal sharing, with grandfather clause).

			Control Limit Option 1			Control Limit Option 2		
	# entities receiving QS	MAX QS Alloc.	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	116	0.051	0.015	20	0.475	0.022	7	0.229
LingcodCoastwide	112	0.058	0.05	1	0.058	0.075	0	0.000
Lingcod North	85	0.047	0.05	0	0.000	0.075	0	0.000
Lingcod South	68	0.083	0.05	8	0.498	0.075	1	0.083
Pacific Cod	87	0.204	0.05	6	0.726	0.075	4	0.590
Pwhiting (bycatch)	59	0.147	0.1	2	0.265	0.15	0	0.000
Pwhiting (Shoreside)	47	0.115	0.1	1	0.115	0.15	0	0.000
Pwhiting (Mthrshp)	28	0.102	0.1	1	0.102	0.15	0	0.000
Pwhiting (CtchrProc)	4	0.535	0.5	1	0.535	0.55	0	0.000
Pwhiting (Combined)	54	0.206	0.15	1	0.206	0.225	0	0.000
Sablefish Coast	112	0.047	0.019	13	0.351	0.029	4	0.159
Sablefish North	112	0.048	0.02	10	0.288	0.03	3	0.129
Sablefish South	24	0.488	0.05	3	0.827	0.075	3	0.827
Pac Ocean Perch	96	0.068	0.05	3	0.173	0.075	0	0.000
Shortbelly	92	0.365	0.05	3	0.554	0.075	3	0.554
Widow	115	0.081	0.034	4	0.234	0.051	2	0.146
Canary	113	0.061	0.05	1	0.061	0.075	0	0.000
Chilipepper	63	0.118	0.05	8	0.706	0.075	5	0.520
Bocaccio	54	0.178	0.05	6	0.566	0.075	2	0.317
Splitnose	57	0.133	0.05	6	0.615	0.075	5	0.560
Yellowtail	99	0.086	0.05	2	0.149	0.075	1	0.086
Shortspine Coast	110	0.072	0.031	4	0.191	0.047	1	0.072
Shortspine No.	97	0.056	0.048	1	0.056	0.072	0	0.000
Shortspine So.	73	0.198	0.047	4	0.430	0.071	3	0.382
Longspine Coast	109	0.056	0.02	13	0.427	0.03	5	0.228
Longspine No.	109	0.056	0.02	13	0.427	0.03	5	0.228
Longspine So.	1	1.000	0.05	1	1.000	0.075	1	1.000
Cowcod	1	1.000	0.05	1	1.000	0.075	1	1.000
Darkblotched	112	0.092	0.05	3	0.233	0.075	2	0.181
Yelloweye	108	0.089	0.05	5	0.323	0.075	1	0.089
Black RF Coast	69	0.151	0.05	5	0.460	0.075	4	0.400
Black RF WA	17	0.403	0.05	4	0.969	0.075	4	0.969
Black RF OR-CA	61	0.167	0.05	5	0.487	0.075	3	0.349
Minor RckFsh No.	113	0.064	0.05	2	0.115	0.075	0	0.000
Nearshore	44	0.308	0.05	4	0.564	0.075	3	0.491
Shelf	113	0.067	0.04	4	0.209	0.06	1	0.067
Slope	98	0.060	0.05	4	0.212	0.075	0	0.000
Minor RckFsh So.	79	0.157	0.05	7	0.561	0.075	3	0.343
Nearshore	39	0.176	0.05	7	0.731	0.075	4	0.540
Shelf	74	0.099	0.05	8	0.611	0.075	4	0.390
Slope	73	0.182	0.05	5	0.488	0.075	3	0.384
CA Scorpionfsh	2	0.673	0.05	2	1.000	0.075	2	1.000
Cabezon CA	2	0.620	0.05	2	1.000	0.075	2	1.000
Dover Sole	113	0.062	0.018	13	0.377	0.027	4	0.187
English Sole	112	0.094	0.1	0	0.000	0.15	0	0.000
Petrale	113	0.056	0.029	5	0.207	0.044	2	0.107
Arrowtooth	98	0.130	0.05	6	0.519	0.075	3	0.325
Starry Flounder	64	0.346	0.05	4	0.590	0.075	3	0.524
Other Flatfish	113	0.135	0.1	1	0.135	0.15	0	0.000
Other Grndfsh	101	0.108	0.05	4	0.326	0.075	2	0.208

Table A-94. Processing entities receiving allocations above control limits (applying permit and buying history) (QS allocated 100 percent to permits, no equal sharing, and grandfather clause).

			---------Control Limit Option 1----------			----------Control Limit Option 2----------		
	# entities receiving QS	MAX QS Alloc.	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	8	0.051	0.015	3	0.089	0.022	1	0.051
LingcodCoastwide	8	0.058	0.05	1	0.058	0.075	0	0.000
Lingcod North	2	0.047	0.05	0	0.000	0.075	0	0.000
Lingcod South	8	0.083	0.05	3	0.203	0.075	1	0.083
Pacific Cod	3	0.187	0.05	1	0.187	0.075	1	0.187
Pwhiting (bycatch)	5	0.073	0.1	0	0.000	0.15	0	0.000
Pwhiting (Shoreside)	1	0.038	0.1	0	0.000	0.15	0	0.000
Pwhiting (Mthrshp)	3	0.102	0.1	1	0.102	0.15	0	0.000
Pwhiting (CtchrProc)	4	0.535	0.5	1	0.535	0.55	0	0.000
Pwhiting (Combined)	7	0.206	0.15	1	0.206	0.225	0	0.000
Sablefish Coast	8	0.047	0.019	2	0.067	0.029	1	0.047
Sablefish North	8	0.048	0.02	2	0.069	0.03	1	0.048
Sablefish South	4	0.013	0.05	0	0.000	0.075	0	0.000
Pac Ocean Perch	3	0.068	0.05	1	0.068	0.075	0	0.000
Shortbelly	8	0.038	0.05	0	0.000	0.075	0	0.000
Widow	8	0.033	0.034	0	0.000	0.051	0	0.000
Canary	8	0.046	0.05	0	0.000	0.075	0	0.000
Chilipepper	7	0.118	0.05	2	0.180	0.075	1	0.118
Bocaccio	7	0.061	0.05	2	0.116	0.075	0	0.000
Splitnose	7	0.092	0.05	1	0.092	0.075	1	0.092
Yellowtail	3	0.086	0.05	1	0.086	0.075	1	0.086
Shortspine Coast	6	0.042	0.031	1	0.042	0.047	0	0.000
Shortspine No.	3	0.043	0.048	0	0.000	0.072	0	0.000
Shortspine So.	5	0.044	0.047	0	0.000	0.071	0	0.000
Longspine Coast	6	0.044	0.02	2	0.069	0.03	1	0.044
Longspine No.	6	0.044	0.02	2	0.069	0.03	1	0.044
Longspine So.	0	0.000	0.05	0	0.000	0.075	0	0.000
Cowcod	0	0.000	0.05	0	0.000	0.075	0	0.000
Darkblotched	8	0.040	0.05	0	0.000	0.075	0	0.000
Yelloweye	8	0.018	0.05	0	0.000	0.075	0	0.000
Black RF Coast	5	0.087	0.05	3	0.249	0.075	3	0.249
Black RF WA	1	0.001	0.05	0	0.000	0.075	0	0.000
Black RF OR-CA	5	0.097	0.05	3	0.256	0.075	2	0.182
Minor RckFsh No.	8	0.041	0.05	0	0.000	0.075	0	0.000
Nearshore	3	0.308	0.05	1	0.308	0.075	1	0.308
Shelf	8	0.047	0.04	1	0.047	0.06	0	0.000
Slope	3	0.035	0.05	0	0.000	0.075	0	0.000
Minor RckFsh So.	7	0.054	0.05	3	0.160	0.075	0	0.000
Nearshore	6	0.150	0.05	1	0.150	0.075	1	0.150
Shelf	7	0.098	0.05	4	0.302	0.075	2	0.192
Slope	7	0.052	0.05	1	0.052	0.075	0	0.000
CA Scorpionfsh	0	0.000	0.05	0	0.000	0.075	0	0.000
Cabezon CA	0	0.000	0.05	0	0.000	0.075	0	0.000
Dover Sole	8	0.048	0.018	2	0.066	0.027	1	0.048
English Sole	8	0.094	0.1	0	0.000	0.15	0	0.000
Petrale	8	0.051	0.029	2	0.083	0.044	1	0.051
Arrowtooth	5	0.068	0.05	1	0.068	0.075	0	0.000
Starry Flounder	4	0.036	0.05	0	0.000	0.075	0	0.000
Other Flatfish	8	0.135	0.1	1	0.135	0.15	0	0.000
Other Grndfsh	8	0.026	0.05	0	0.000	0.075	0	0.000

Table A-95. All entities receiving allocations above control limits (QS allocated 100 percent to permits, with equal sharing, and grandfather clause).

			-------Control Limit Option 1---------			---------Control Limit Option 2-----		
	# entities receiving QS	MAX QS Alloc.	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	121	0.049	0.015	14	0.317	0.022	4	0.139
LingcodCoastwide	121	0.053	0.05	1	0.053	0.075	0	0.000
Lingcod North	121	0.047	0.05	0	0.000	0.075	0	0.000
Lingcod South	121	0.068	0.05	2	0.120	0.075	0	0.000
Pacific Cod	121	0.114	0.05	3	0.272	0.075	2	0.214
Pwhiting (bycatch)	121	0.087	0.1	0	0.000	0.15	0	0.000
Pwhiting (Shoreside)	121	0.107	0.1	1	0.107	0.15	0	0.000
Pwhiting (Mthrshp)	121	0.096	0.1	0	0.000	0.15	0	0.000
Pwhiting (CtchrProc)	4	0.535	0.5	1	0.535	0.75	0	0.000
Pwhiting (Combined)	124	0.205	0.15	1	0.205	0.225	0	0.000
Sablefish Coast	121	0.047	0.019	6	0.181	0.029	3	0.111
Sablefish North	121	0.048	0.02	6	0.174	0.03	2	0.078
Sablefish South	121	0.321	0.05	3	0.540	0.075	2	0.471
Pac Ocean Perch	121	0.058	0.05	1	0.058	0.075	0	0.000
Shortbelly	121	0.206	0.05	2	0.274	0.075	1	0.206
Widow	121	0.054	0.034	3	0.140	0.051	1	0.054
Canary	121	0.046	0.05	0	0.000	0.075	0	0.000
Chilipepper	121	0.097	0.05	7	0.545	0.075	4	0.360
Bocaccio	121	0.148	0.05	5	0.439	0.075	2	0.268
Splitnose	121	0.104	0.05	5	0.441	0.075	4	0.370
Yellowtail	121	0.069	0.05	1	0.069	0.075	0	0.000
Shortspine Coast	121	0.055	0.031	2	0.100	0.047	1	0.055
Shortspine No.	121	0.045	0.048	0	0.000	0.072	0	0.000
Shortspine So.	121	0.143	0.047	3	0.276	0.071	2	0.218
Longspine Coast	121	0.046	0.02	9	0.269	0.03	4	0.160
Longspine No.	121	0.046	0.02	9	0.269	0.03	4	0.160
Longspine So.	121	0.646	0.05	1	0.646	0.075	1	0.646
Cowcod	121	0.448	0.05	1	0.448	0.075	1	0.448
Darkblotched	121	0.056	0.05	2	0.110	0.075	0	0.000
Yelloweye	121	0.060	0.05	1	0.060	0.075	0	0.000
Black RF Coast	121	0.117	0.05	4	0.321	0.075	2	0.195
Black RF WA	121	0.135	0.05	2	0.262	0.075	2	0.262
Black RF OR-CA	121	0.139	0.05	5	0.415	0.075	2	0.228
Minor RckFsh No.	121	0.044	0.05	0	0.000	0.075	0	0.000
Nearshore	121	0.128	0.05	1	0.128	0.075	1	0.128
Shelf	121	0.047	0.04	2	0.092	0.06	0	0.000
Slope	121	0.041	0.05	0	0.000	0.075	0	0.000
Minor RckFsh So.	121	0.119	0.05	4	0.308	0.075	1	0.119
Nearshore	121	0.136	0.05	5	0.454	0.075	4	0.404
Shelf	121	0.083	0.05	5	0.362	0.075	2	0.161
Slope	121	0.133	0.05	4	0.328	0.075	2	0.210
CA Scorpionfsh	121	0.633	0.05	2	0.941	0.075	2	0.941
Cabezon CA	121	0.595	0.05	2	0.960	0.075	2	0.960
Dover Sole	121	0.050	0.018	8	0.230	0.027	4	0.155
English Sole	121	0.075	0.1	0	0.000	0.15	0	0.000
Petrale	121	0.049	0.029	3	0.121	0.044	1	0.049
Arrowtooth	121	0.062	0.05	3	0.172	0.075	0	0.000
Starry Flounder	121	0.305	0.05	4	0.521	0.075	3	0.463
Other Flatfish	121	0.092	0.1	0	0.000	0.15	0	0.000
Other Grndfsh	121	0.071	0.05	2	0.137	0.075	0	0.000

Table A-96. Processing entities receiving allocations above control limits (QS allocated 100 percent to permits, with equal sharing, and grandfather clause).

			-------Control Limit Option 1---------			---------Control Limit Option 2-----		
	# entities receiving QS	MAX QS Alloc.	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	8	0.049368	0.015	2	0.065889879	0.022	1	0.049367537
LingcodCoastwide	8	0.052951	0.05	1	0.052951299	0.075	0	0
Lingcod North	8	0.046926	0.05	0	0	0.075	0	0
Lingcod South	8	0.068463	0.05	1	0.068463104	0.075	0	0
Pacific Cod	8	0.11377	0.05	1	0.113769841	0.075	1	0.113769841
Pwhiting (bycatch)	8	0.046771	0.1	0	0	0.15	0	0
Pwhiting (Shoreside)	3	0.036405	0.1	0	0	0.15	0	0
Pwhiting (Mthrshp)	3	0.095748	0.1	0	0	0.15	0	0
Pwhiting (CtchrProc)	4	0.535326	0.5	1	0.53532631	0.75	0	0
Pwhiting (Combined)	9	0.204991	0.15	1	0.204990569	0.225	0	0
Sablefish Coast	8	0.047179	0.019	1	0.047179278	0.029	1	0.047179278
Sablefish North	8	0.047766	0.02	1	0.047766142	0.03	1	0.047766142
Sablefish South	8	0.025797	0.05	0	0	0.075	0	0
Pac Ocean Perch	8	0.0585	0.05	1	0.058499947	0.075	0	0
Shortbelly	8	0.033414	0.05	0	0	0.075	0	0
Widow	8	0.038162	0.034	1	0.038161779	0.051	0	0
Canary	8	0.046377	0.05	0	0	0.075	0	0
Chilipepper	8	0.095559	0.05	2	0.154413472	0.075	1	0.095558921
Bocaccio	8	0.058838	0.05	1	0.05883755	0.075	0	0
Splitnose	8	0.070637	0.05	1	0.070636902	0.075	0	0
Yellowtail	8	0.069225	0.05	1	0.069225092	0.075	0	0
Shortspine Coast	8	0.044359	0.031	1	0.044359158	0.047	0	0
Shortspine No.	8	0.045119	0.048	0	0	0.072	0	0
Shortspine So.	8	0.040891	0.047	0	0	0.071	0	0
Longspine Coast	8	0.045581	0.02	1	0.045580576	0.03	1	0.045580576
Longspine No.	8	0.045581	0.02	1	0.04558144	0.03	1	0.04558144
Longspine So.	8	0.016869	0.05	0	0	0.075	0	0
Cowcod	8	0.026453	0.05	0	0	0.075	0	0
Darkblotched	8	0.043708	0.05	0	0	0.075	0	0
Yelloweye	8	0.02836	0.05	0	0	0.075	0	0
Black RF Coast	8	0.077602	0.05	3	0.204231702	0.075	1	0.077602222
Black RF WA	8	0.032348	0.05	0	0	0.075	0	0
Black RF OR-CA	8	0.088419	0.05	3	0.222035088	0.075	1	0.088419396
Minor RckFsh No.	8	0.043885	0.05	0	0	0.075	0	0
Nearshore	8	0.127927	0.05	1	0.12792687	0.075	1	0.12792687
Shelf	8	0.047302	0.04	1	0.047302211	0.06	0	0
Slope	8	0.040581	0.05	0	0	0.075	0	0
Minor RckFsh So.	8	0.051896	0.05	1	0.051896419	0.075	0	0
Nearshore	8	0.108905	0.05	1	0.108905046	0.075	1	0.108905046
Shelf	8	0.074621	0.05	3	0.201027625	0.075	0	0
Slope	8	0.050595	0.05	1	0.050594577	0.075	0	0
CA Scorpionfsh	8	0.002939	0.05	0	0	0.075	0	0
Cabezon CA	8	0.001947	0.05	0	0	0.075	0	0
Dover Sole	8	0.047644	0.018	1	0.0476437	0.027	1	0.0476437
English Sole	8	0.075442	0.1	0	0	0.15	0	0
Petrale	8	0.04938	0.029	1	0.049379955	0.044	1	0.049379955
Arrowtooth	8	0.056886	0.05	1	0.05688561	0.075	0	0
Starry Flounder	8	0.037327	0.05	0	0	0.075	0	0
Other Flatfish	8	0.091888	0.1	0	0	0.15	0	0
Other Grndfsh	8	0.034438	0.05	0	0	0.075	0	0

Table A-97. All entities receiving allocations above control limits based Jan 1, 2004 permit ownership (QS allocated 100 percent to permits, with equal sharing, and grandfather clause).*

			-------Control Limit Option 1----			-----Control Limit Option 2-----		
Species Category	Number of entities receiving QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
All nonwhiting groundfish (in aggregate)	142	**0.027**	0.015	8	0.162	0.022	3	0.076
Lingcod - coastwide c/	142	**0.028**	0.05	0	0.000	0.075	0	0.000
N. of 42° N (OR & WA)	142	**0.033**	0.05	0	0.000	0.075	0	0.000
S. of 42° N (CA)	142	**0.046**	0.05	0	0.000	0.075	0	0.000
Pacific Cod	142	**0.100**	0.05	3	0.208	0.075	1	0.100
Pacific Whiting								
Shoreside Sector	142	**0.107**	0.1	1	0.107	0.15	0	0
Mothership Sector	142	**0.096**	0.1	0	0.000	0.15	0	0
Sablefish (Coastwide)	142	**0.030**	0.019	4	0.100	0.029	2	0.059
N. of 36° N (Monterey north)	142	**0.030**	0.02	4	0.102	0.03	1	0.030
S. of 36° N (Conception area)	142	**0.150**	0.05	5	0.467	0.075	3	0.342
PACIFIC OCEAN PERCH	142	**0.036**	0.05	0	0.000	0.075	0	0.000
Shortbelly Rockfish	142	**0.206**	0.05	2	0.274	0.075	1	0.206
WIDOW ROCKFISH	142	**0.054**	0.034	2	0.101	0.051	1	0.054
CANARY ROCKFISH	142	**0.042**	0.05	0	0.000	0.075	0	0.000
Chilipepper Rockfish	142	**0.097**	0.05	5	0.404	0.075	3	0.277
BOCACCIO	142	**0.148**	0.05	4	0.314	0.075	1	0.148
Splitnose Rockfish	142	**0.104**	0.05	4	0.362	0.075	3	0.292
Yellowtail Rockfish	142	**0.037**	0.05	0	0.000	0.075	0	0.000
Shortspine Thornyhead - coastwide	142	**0.034**	0.031	1	0.034	0.047	0	0.000
Shortspine Thornyhead - N. of 34°27'	142	**0.037**	0.048	0	0.000	0.072	0	0.000
Shortspine Thornyhead - S. of 34°27'	142	**0.075**	0.047	2	0.133	0.071	1	0.075
Longspine Thornyhead - coastwide	142	**0.035**	0.02	7	0.177	0.03	2	0.068
Longspine Thornyhead - N. of 34°27'	142	**0.035**	0.02	7	0.177	0.03	2	0.068
Longspine Thornyhead - S. of 34°27'	142	**0.646**	0.05	1	0.646	0.075	1	0.646
COWCOD - Conception and Monterey	142	**0.448**	0.05	1	0.448	0.075	1	0.448
DARKBLOTCHED	142	**0.056**	0.05	2	0.110	0.075	0	0.000
YELLOWEYE	142	**0.060**	0.05	1	0.060	0.075	0	0.000
Black Rockfish	142	**0.137**	0.05	4	0.322	0.075	1	0.137
Black Rockfish (WA)	142	**0.135**	0.05	2	0.262	0.075	2	0.262
Black Rockfish (OR-CA)	142	**0.139**	0.05	4	0.327	0.075	1	0.139
Minor Rockfish North	142	**0.041**	0.05	0	0.000	0.075	0	0.000
Nearshore Species	142	**0.128**	0.05	1	0.128	0.075	1	0.128
Shelf Species	142	**0.044**	0.04	1	0.044	0.06	0	0.000
Slope Species	142	**0.041**	0.05	0	0.000	0.075	0	0.000
Minor Rockfish South	142	**0.077**	0.05	3	0.202	0.075	1	0.077
Nearshore Species	142	**0.109**	0.05	5	0.397	0.075	4	0.347
Shelf Species	142	**0.078**	0.05	3	0.225	0.075	1	0.078
Slope Species	142	**0.077**	0.05	3	0.204	0.075	1	0.077
California scorpionfish	142	**0.632**	0.05	2	0.939	0.075	2	0.939
Cabezon (off CA only)	142	**0.595**	0.05	2	0.960	0.075	2	0.960
Dover Sole	142	**0.030**	0.018	6	0.133	0.027	2	0.058
English Sole	142	**0.035**	0.1	0	0.000	0.15	0	0.000
Petrale Sole (coastwide)	142	**0.038**	0.029	1	0.038	0.044	0	0.000
Arrowtooth Flounder	142	**0.062**	0.05	2	0.115	0.075	0	0.000
Starry Flounder	142	**0.305**	0.05	4	0.521	0.075	3	0.463
Other Flatfish	142	**0.092**	0.1	0	0.000	0.15	0	0.000
Other Fish	142	**0.092**	0.05	2	0.038	0.15	2	0.960
Bycatch-rate Bocaccio	71	**0.071**	0.1	4	0.115	0.044	0	0.058
Bycatch-rate Canary	142	**0.143**	0.05	0	0.521	0.075	0	0.000
Bycatch-rate Cowcod	71	**0.034**	0.05	2	0.000	0.075	0	0.000
Bycatch-rate Darkblotched	142	**0.183**	0.05	6	0.137	0.15	3	0.000
Bycatch-rate POP	138	**0.049**	0.05	0	0.576	0.075	0	0.463
Bycatch-rate Widow	142	**0.056**	0.05	8	0.000	0.075	0	0.000
Bycatch-rate Yelloweye	137	**0.033**	0.05	0	0.824	0.075	4	0.000

* Option 3: There are no entities over the option 3 control limits (i.e., 3% aggregate limits for all nonwhiting groundfish and 25% shoreside and mothership sector limits).

"Bycatch rate" values show maximums using the bycatch approach for allocating overfisehd species (see A-2.1.3.a, Option 2) values higher in the table use the historic catch (Option 1).

Table A-98. All entities receiving allocations above control limits based Jan 1, 2008 permit ownership (QS allocated 100 percent to permits, with equal sharing, grandfather clause, and no processor recent participation requirement).

			-------Control Limit Option 1----			---------Control Limit Option 2-----		
Species Category	Number of entities receiv-ing QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
All nonwhiting groundfish (in aggregate)	120	**0.051**	0.01	11	0.277	0.022	5	0.174
Lingcod - coastwide c/	120	**0.051**	0.05	1	0.051	0.075	0	0.000
N. of 42° N (OR & WA)	120	**0.047**	0.05	0	0.000	0.075	0	0.000
S. of 42° N (CA)	120	**0.068**	0.05	2	0.124	0.075	0	0.000
Pacific Cod	120	**0.114**	0.05	3	0.272	0.075	2	0.214
Pacific Whiting								
Shoreside Sector	120	**0.107**	0.1	1	0.107	0.15	0	0
Mothership Sector	120	**0.096**	0.1	0	0.000	0.15	0	0
Sablefish (Coastwide)	120	**0.047**	0.01	6	0.182	0.029	4	0.141
N. of 36° N (Monterey north)	120	**0.048**	0.02	6	0.177	0.03	2	0.078
S. of 36° N (Conception area)	120	**0.390**	0.05	2	0.540	0.075	2	0.540
PACIFIC OCEAN PERCH	120	**0.058**	0.05	1	0.058	0.075	0	0.000
Shortbelly Rockfish	120	**0.206**	0.05	2	0.274	0.075	1	0.206
WIDOW ROCKFISH	120	**0.054**	0.03	3	0.140	0.051	1	0.054
CANARY ROCKFISH	120	**0.046**	0.05	0	0.000	0.075	0	0.000
Chilipepper Rockfish	120	**0.097**	0.05	7	0.549	0.075	4	0.364
BOCACCIO	120	**0.148**	0.05	5	0.443	0.075	2	0.273
Splitnose Rockfish	120	**0.104**	0.05	5	0.456	0.075	4	0.385
Yellowtail Rockfish	120	**0.069**	0.05	1	0.069	0.075	0	0.000
Shortspine Thornyhead - coastwide	120	**0.045**	0.03	3	0.115	0.047	0	0.000
Shortspine Thornyhead - N. of 34°27'	120	**0.045**	0.04	0	0.000	0.072	0	0.000
Shortspine Thornyhead - S. of 34°27'	120	**0.167**	0.04	3	0.300	0.071	2	0.242
Longspine Thornyhead - coastwide	120	**0.054**	0.02	9	0.276	0.03	4	0.167
Longspine Thornyhead - N. of 34°27'	120	**0.054**	0.02	9	0.276	0.03	4	0.167
Longspine Thornyhead - S. of 34°27'	120	**0.646**	0.05	1	0.646	0.075	1	0.646
COWCOD - Conception and Monterey	120	**0.448**	0.05	1	0.448	0.075	1	0.448
DARKBLOTCHED	120	**0.056**	0.05	2	0.110	0.075	0	0.000
YELLOWEYE	120	**0.060**	0.05	1	0.060	0.075	0	0.000
Black Rockfish	120	**0.137**	0.05	5	0.410	0.075	2	0.225
Black Rockfish (WA)	120	**0.135**	0.05	2	0.262	0.075	2	0.262
Black Rockfish (OR-CA)	120	**0.139**	0.05	5	0.415	0.075	2	0.228
Minor Rockfish North	120	**0.041**	0.05	0	0.000	0.075	0	0.000
Nearshore Species	120	**0.128**	0.05	1	0.128	0.075	1	0.128
Shelf Species	120	**0.047**	0.04	2	0.092	0.06	0	0.000
Slope Species	120	**0.041**	0.05	0	0.000	0.075	0	0.000
Minor Rockfish South	120	**0.144**	0.05	4	0.339	0.075	2	0.221
Nearshore Species	120	**0.156**	0.05	5	0.474	0.075	4	0.424
Shelf Species	120	**0.088**	0.05	5	0.366	0.075	2	0.166
Slope Species	120	**0.144**	0.05	4	0.340	0.075	2	0.222
California scorpionfish	120	**0.634**	0.05	2	0.941	0.075	2	0.941
Cabezon (off CA only)	120	**0.596**	0.05	2	0.961	0.075	2	0.961
Dover Sole	120	**0.059**	0.01	8	0.240	0.027	4	0.165
English Sole	120	**0.075**	0.1	0	0.000	0.15	0	0.000
Petrale Sole (coastwide)	120	**0.049**	0.02	3	0.124	0.044	1	0.049
Arrowtooth Flounder	120	**0.062**	0.05	3	0.172	0.075	0	0.000
Starry Flounder	120	**0.305**	0.05	4	0.521	0.075	3	0.463
Other Flatfish	120	**0.092**	0.1	0	0.000	0.15	0	0.000
Other Fish	120	**0.092**	0.05	3	0.124	0.15	4	0.961
Bycatch-rate Bocaccio	61	**0.071**	0.1	4	0.172	0.044	0	0.165
Bycatch-rate Canary	120	**0.148**	0.05	0	0.521	0.075	1	0.000
Bycatch-rate Cowcod	61	**0.083**	0.05	2	0.000	0.075	0	0.049
Bycatch-rate Darkblotched	120	**0.183**	0.05	6	0.137	0.15	3	0.000
Bycatch-rate POP	116	**0.050**	0.05	1	0.634	0.075	0	0.463
Bycatch-rate Widow	120	**0.056**	0.05	8	0.083	0.075	0	0.000
Bycatch-rate Yelloweye	118	**0.057**	0.05	0	0.840	0.075	4	0.000

"Bycatch rate" values show maximums using the bycatch approach for allocating overfisehd species (see A-2.1.3.a, Option 2) values higher in the table use the historic catch (Option 1).

Table A-99. All entities receiving allocations above control limits (QS allocated 75 percent to permits and 25 percent based on processing history, with no equal sharing, with grandfather clause, and no processor recent participation requirement).

			-------Control Limit Option 1----			---------Control Limit Option 2-----		
	# entities receiving QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	297	**0.140**	0.015	14	0.426	0.022	7	0.309
LingcodCoastwide	235	**0.145**	0.05	1	0.145	0.075	1	0.145
Lingcod North	134	**0.140**	0.05	1	0.140	0.075	1	0.140
Lingcod South	147	**0.154**	0.05	2	0.206	0.075	1	0.154
Pacific Cod	131	**0.199**	0.05	6	0.603	0.075	3	0.434
Pwhiting (bycatch)	85	**0.123**	0.1	2	0.234	0.15	0	0.000
Pwhiting (Shoreside)	67	**0.086**	0.1	0	0.000	0.15	0	0.000
Pwhiting (Mthrshp)	31	**0.128**	0.1	1	0.128	0.15	0	0.000
Pwhiting (CtchrProc)	4	**0.535**	0.5	1	0.535	0.55	0	0.000
Pwhiting (Combined)	75	**0.212**	0.15	1	0.212	0.225	0	0.000
Sablefish Coast	224	**0.156**	0.019	6	0.301	0.029	3	0.222
Sablefish North	217	**0.162**	0.02	5	0.286	0.03	3	0.230
Sablefish South	51	**0.366**	0.05	5	0.808	0.075	4	0.754
Pac Ocean Perch	156	**0.168**	0.05	2	0.230	0.075	1	0.168
Shortbelly	133	**0.274**	0.05	4	0.545	0.075	3	0.486
Widow	211	**0.134**	0.034	4	0.287	0.051	2	0.195
Canary	218	**0.135**	0.05	1	0.135	0.075	1	0.135
Chilipepper	135	**0.117**	0.05	6	0.496	0.075	4	0.361
Bocaccio	118	**0.133**	0.05	5	0.420	0.075	2	0.238
Splitnose	127	**0.131**	0.05	5	0.482	0.075	4	0.412
Yellowtail	159	**0.173**	0.05	1	0.173	0.075	1	0.173
Shortspine Coast	207	**0.142**	0.031	4	0.265	0.047	2	0.196
Shortspine No.	150	**0.175**	0.048	1	0.175	0.072	1	0.175
Shortspine So.	131	**0.149**	0.047	5	0.463	0.071	4	0.403
Longspine Coast	190	**0.155**	0.02	10	0.427	0.03	5	0.308
Longspine No.	189	**0.155**	0.02	10	0.427	0.03	5	0.308
Longspine So.	2	**0.750**	0.05	2	1.000	0.075	2	1.000
Cowcod	3	**0.750**	0.05	3	1.000	0.075	3	1.000
Darkblotched	224	**0.154**	0.05	3	0.290	0.075	1	0.154
Yelloweye	186	**0.111**	0.05	2	0.177	0.075	1	0.111
Black RF Coast	101	**0.187**	0.05	5	0.490	0.075	3	0.380
Black RF WA	26	**0.302**	0.05	6	0.933	0.075	4	0.792
Black RF OR-CA	86	**0.203**	0.05	5	0.519	0.075	3	0.410
Minor RckFsh No.	228	**0.154**	0.05	1	0.154	0.075	1	0.154
Nearshore	56	**0.231**	0.05	5	0.546	0.075	2	0.354
Shelf	223	**0.145**	0.04	3	0.245	0.06	1	0.145
Slope	165	**0.154**	0.05	1	0.154	0.075	1	0.154
Minor RckFsh So.	176	**0.117**	0.05	6	0.485	0.075	2	0.221
Nearshore	75	**0.141**	0.05	5	0.486	0.075	4	0.434
Shelf	167	**0.114**	0.05	5	0.440	0.075	3	0.292
Slope	151	**0.136**	0.05	5	0.447	0.075	3	0.310
CA Scorpionfsh	9	**0.505**	0.05	5	0.936	0.075	2	0.750
Cabezon CA	8	**0.465**	0.05	3	0.833	0.075	3	0.833
Dover Sole	215	**0.149**	0.018	9	0.372	0.027	6	0.313
English Sole	226	**0.166**	0.1	1	0.166	0.15	1	0.166
Petrale	248	**0.142**	0.029	4	0.265	0.044	2	0.190
Arrowtooth	146	**0.140**	0.05	6	0.538	0.075	4	0.420
Starry Flounder	107	**0.260**	0.05	4	0.579	0.075	2	0.446
Other Flatfish	247	**0.125**	0.1	2	0.228	0.15	0	0.000
Other Grndfsh	172	**0.159**	0.05	3	0.315	0.075	2	0.241

Table A-100. Processing entities receiving allocations above control limits (QS allocated 75 percent to permits and 25 percent based on processing history, with no equal sharing, with grandfather clause, and no processor recent participation requirement).

			-------Control Limit Option 1----			---------Control Limit Option 2-----		
	# entities receiving QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	189	**0.140**	0.015	4	0.230	0.022	4	0.230
LingcodCoastwide	131	**0.145**	0.05	1	0.145	0.075	1	0.145
Lingcod North	55	**0.140**	0.05	1	0.140	0.075	1	0.140
Lingcod South	87	**0.154**	0.05	2	0.206	0.075	1	0.154
Pacific Cod	51	**0.199**	0.05	1	0.199	0.075	1	0.199
Pwhiting (bycatch)	32	**0.123**	0.1	1	0.123	0.15	0	0.000
Pwhiting (Shoreside)	21	**0.078**	0.1	0	0.000	0.15	0	0.000
Pwhiting (Mthrshp)	5	**0.128**	0.1	2	0.252	0.15	0	0.000
Pwhiting (CtchrProc)	4	**0.535**	0.5	1	0.535	0.55	0	0.000
Pwhiting (Combined)	28	**0.212**	0.15	1	0.212	0.225	0	0.000
Sablefish Coast	120	**0.156**	0.019	3	0.217	0.029	2	0.192
Sablefish North	113	**0.162**	0.02	3	0.225	0.03	2	0.199
Sablefish South	35	**0.134**	0.05	2	0.188	0.075	1	0.134
Pac Ocean Perch	67	**0.168**	0.05	2	0.230	0.075	1	0.168
Shortbelly	49	**0.129**	0.05	1	0.129	0.075	1	0.129
Widow	104	**0.134**	0.034	2	0.178	0.051	1	0.134
Canary	113	**0.135**	0.05	1	0.135	0.075	1	0.135
Chilipepper	80	**0.117**	0.05	2	0.195	0.075	2	0.195
Bocaccio	72	**0.066**	0.05	2	0.130	0.075	0	0.000
Splitnose	78	**0.131**	0.05	1	0.131	0.075	1	0.131
Yellowtail	67	**0.173**	0.05	1	0.173	0.075	1	0.173
Shortspine Coast	105	**0.142**	0.031	3	0.211	0.047	1	0.142
Shortspine No.	60	**0.175**	0.048	1	0.175	0.072	1	0.175
Shortspine So.	65	**0.103**	0.047	2	0.176	0.071	2	0.176
Longspine Coast	89	**0.155**	0.02	4	0.246	0.03	2	0.194
Longspine No.	88	**0.155**	0.02	4	0.246	0.03	2	0.194
Longspine So.	9	**0.250**	0.05	1	0.250	0.075	1	0.250
Cowcod	10	**0.125**	0.05	2	0.250	0.075	2	0.250
Darkblotched	120	**0.154**	0.05	1	0.154	0.075	1	0.154
Yelloweye	86	**0.111**	0.05	1	0.111	0.075	1	0.111
Black RF Coast	40	**0.187**	0.05	4	0.376	0.075	2	0.267
Black RF WA	16	**0.125**	0.05	2	0.206	0.075	2	0.206
Black RF OR-CA	33	**0.203**	0.05	4	0.394	0.075	2	0.285
Minor RckFsh No.	123	**0.154**	0.05	1	0.154	0.075	1	0.154
Nearshore	20	**0.231**	0.05	2	0.354	0.075	2	0.354
Shelf	118	**0.145**	0.04	2	0.195	0.06	1	0.145
Slope	74	**0.154**	0.05	1	0.154	0.075	1	0.154
Minor RckFsh So.	104	**0.104**	0.05	3	0.227	0.075	1	0.104
Nearshore	44	**0.141**	0.05	2	0.193	0.075	1	0.141
Shelf	100	**0.114**	0.05	3	0.292	0.075	3	0.292
Slope	86	**0.093**	0.05	2	0.159	0.075	1	0.093
CA Scorpionfsh	15	**0.063**	0.05	3	0.186	0.075	0	0.000
Cabezon CA	13	**0.083**	0.05	1	0.083	0.075	1	0.083
Dover Sole	110	**0.149**	0.018	4	0.231	0.027	3	0.209
English Sole	122	**0.166**	0.1	1	0.166	0.15	1	0.166
Petrale	143	**0.142**	0.029	3	0.223	0.044	2	0.190
Arrowtooth	55	**0.140**	0.05	2	0.241	0.075	2	0.241
Starry Flounder	49	**0.186**	0.05	1	0.186	0.075	1	0.186
Other Flatfish	142	**0.125**	0.1	2	0.228	0.15	0	0.000
Other Grndfsh	79	**0.159**	0.05	1	0.159	0.075	1	0.159

Table A-101. All entities receiving allocations above control limits (QS allocated 75 percent to permits and 25 percent based on processing history, with equal sharing, with grandfather clause, and no processor recent participation requirement).

			-------Control Limit Option 1----			---------Control Limit Option 2-----		
	# entities receiving QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	302	**0.139**	0.015	9	0.320	0.022	4	0.229
LingcodCoastwide	244	**0.142**	0.05	1	0.142	0.075	1	0.142
Lingcod North	168	**0.141**	0.05	1	0.141	0.075	1	0.141
Lingcod South	200	**0.144**	0.05	1	0.144	0.075	1	0.144
Pacific Cod	164	**0.144**	0.05	2	0.219	0.075	2	0.219
Pwhiting (bycatch)	145	**0.104**	0.1	1	0.104	0.15	0	0.000
Pwhiting (Shoreside)	139	**0.081**	0.1	0	0.000	0.15	0	0.000
Pwhiting (Mthrshp)	124	**0.125**	0.1	1	0.125	0.15	0	0.000
Pwhiting (CtchrProc)	4	**0.535**	0.5	1	0.535	0.75	0	0.000
Pwhiting (Combined)	139	**0.211**	0.15	1	0.211	0.225	0	0.000
Sablefish Coast	233	**0.156**	0.019	6	0.283	0.029	2	0.190
Sablefish North	226	**0.161**	0.02	5	0.265	0.03	2	0.196
Sablefish South	148	**0.241**	0.05	5	0.595	0.075	3	0.489
Pac Ocean Perch	180	**0.161**	0.05	2	0.225	0.075	1	0.161
Shortbelly	162	**0.154**	0.05	3	0.344	0.075	2	0.293
Widow	217	**0.138**	0.034	4	0.253	0.051	1	0.138
Canary	226	**0.135**	0.05	1	0.135	0.075	1	0.135
Chilipepper	193	**0.100**	0.05	6	0.428	0.075	2	0.176
Bocaccio	185	**0.111**	0.05	4	0.322	0.075	2	0.201
Splitnose	191	**0.115**	0.05	6	0.442	0.075	2	0.193
Yellowtail	180	**0.160**	0.05	2	0.212	0.075	1	0.160
Shortspine Coast	218	**0.144**	0.031	3	0.218	0.047	1	0.144
Shortspine No.	173	**0.177**	0.048	1	0.177	0.072	1	0.177
Shortspine So.	178	**0.107**	0.047	4	0.332	0.071	3	0.276
Longspine Coast	202	**0.156**	0.02	7	0.324	0.03	3	0.225
Longspine No.	201	**0.156**	0.02	7	0.324	0.03	3	0.225
Longspine So.	122	**0.484**	0.05	2	0.734	0.075	2	0.734
Cowcod	123	**0.336**	0.05	3	0.586	0.075	3	0.586
Darkblotched	233	**0.156**	0.05	1	0.156	0.075	1	0.156
Yelloweye	199	**0.118**	0.05	1	0.118	0.075	1	0.118
Black RF Coast	153	**0.180**	0.05	3	0.334	0.075	2	0.268
Black RF WA	129	**0.125**	0.05	4	0.426	0.075	4	0.426
Black RF OR-CA	146	**0.197**	0.05	3	0.372	0.075	2	0.301
Minor RckFsh No.	236	**0.156**	0.05	1	0.156	0.075	1	0.156
Nearshore	133	**0.143**	0.05	2	0.239	0.075	2	0.239
Shelf	231	**0.145**	0.04	2	0.196	0.06	1	0.145
Slope	187	**0.158**	0.05	1	0.158	0.075	1	0.158
Minor RckFsh So.	217	**0.093**	0.05	4	0.305	0.075	2	0.182
Nearshore	157	**0.110**	0.05	5	0.384	0.075	2	0.212
Shelf	213	**0.097**	0.05	5	0.378	0.075	2	0.183
Slope	199	**0.100**	0.05	5	0.358	0.075	2	0.185
CA Scorpionfsh	128	**0.475**	0.05	5	0.891	0.075	2	0.706
Cabezon CA	126	**0.446**	0.05	3	0.804	0.075	3	0.804
Dover Sole	223	**0.149**	0.018	7	0.306	0.027	3	0.215
English Sole	235	**0.153**	0.1	1	0.153	0.15	1	0.153
Petrale	256	**0.141**	0.029	3	0.213	0.044	1	0.141
Arrowtooth	168	**0.132**	0.05	2	0.234	0.075	2	0.234
Starry Flounder	162	**0.229**	0.05	4	0.534	0.075	2	0.416
Other Flatfish	255	**0.107**	0.1	1	0.107	0.15	0	0.000
Other Grndfsh	192	**0.166**	0.05	2	0.219	0.075	1	0.166

Table A-102. Processing entities receiving allocations above control limits (QS allocated 75 percent to permits and 25 percent based on processing history, with equal sharing, with grandfather clause, and no processor recent participation requirement)

			-------Control Limit Option 1----			---------Control Limit Option 2-----		
	# entities receiving QS	**MAX QS Alloc.**	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit	Limit	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
Nonwhiting Grndfsh	189	**0.139**	0.015	4	0.222	0.022	3	0.201
LingcodCoastwide	131	**0.142**	0.05	1	0.142	0.075	1	0.142
Lingcod North	55	**0.141**	0.05	1	0.141	0.075	1	0.141
Lingcod South	87	**0.144**	0.05	1	0.144	0.075	1	0.144
Pacific Cod	51	**0.144**	0.05	1	0.144	0.075	1	0.144
Pwhiting (bycatch)	32	**0.104**	0.1	1	0.104	0.15	0	0.000
Pwhiting (Shoreside)	21	**0.081**	0.1	0	0.000	0.15	0	0.000
Pwhiting (Mthrshp)	5	**0.125**	0.1	2	0.244	0.15	0	0.000
Pwhiting (CtchrProc)	4	**0.535**	0.5	1	0.535	0.75	0	0.000
Pwhiting (Combined)	28	**0.211**	0.15	1	0.211	0.225	0	0.000
Sablefish Coast	120	**0.156**	0.019	3	0.213	0.029	2	0.190
Sablefish North	113	**0.161**	0.02	3	0.220	0.03	2	0.196
Sablefish South	35	**0.135**	0.05	2	0.190	0.075	1	0.135
Pac Ocean Perch	67	**0.161**	0.05	2	0.225	0.075	1	0.161
Shortbelly	49	**0.138**	0.05	1	0.138	0.075	1	0.138
Widow	104	**0.138**	0.034	2	0.176	0.051	1	0.138
Canary	113	**0.135**	0.05	1	0.135	0.075	1	0.135
Chilipepper	80	**0.100**	0.05	2	0.176	0.075	2	0.176
Bocaccio	72	**0.064**	0.05	2	0.121	0.075	0	0.000
Splitnose	78	**0.115**	0.05	2	0.165	0.075	1	0.115
Yellowtail	67	**0.160**	0.05	2	0.212	0.075	1	0.160
Shortspine Coast	105	**0.144**	0.031	2	0.177	0.047	1	0.144
Shortspine No.	60	**0.177**	0.048	1	0.177	0.072	1	0.177
Shortspine So.	65	**0.094**	0.047	2	0.169	0.071	2	0.169
Longspine Coast	89	**0.156**	0.02	4	0.238	0.03	2	0.191
Longspine No.	88	**0.156**	0.02	4	0.238	0.03	2	0.191
Longspine So.	9	**0.250**	0.05	1	0.250	0.075	1	0.250
Cowcod	10	**0.125**	0.05	2	0.250	0.075	2	0.250
Darkblotched	120	**0.156**	0.05	1	0.156	0.075	1	0.156
Yelloweye	86	**0.118**	0.05	1	0.118	0.075	1	0.118
Black RF Coast	40	**0.180**	0.05	2	0.246	0.075	1	0.180
Black RF WA	16	**0.125**	0.05	2	0.230	0.075	2	0.230
Black RF OR-CA	33	**0.197**	0.05	2	0.268	0.075	1	0.197
Minor RckFsh No.	123	**0.156**	0.05	1	0.156	0.075	1	0.156
Nearshore	20	**0.143**	0.05	2	0.239	0.075	2	0.239
Shelf	118	**0.145**	0.04	2	0.196	0.06	1	0.145
Slope	74	**0.158**	0.05	1	0.158	0.075	1	0.158
Minor RckFsh So.	104	**0.093**	0.05	2	0.161	0.075	1	0.093
Nearshore	44	**0.110**	0.05	2	0.163	0.075	1	0.110
Shelf	100	**0.097**	0.05	3	0.257	0.075	2	0.183
Slope	86	**0.086**	0.05	2	0.150	0.075	1	0.086
CA Scorpionfsh	15	**0.063**	0.05	3	0.186	0.075	0	0.000
Cabezon CA	13	**0.085**	0.05	1	0.085	0.075	1	0.085
Dover Sole	110	**0.149**	0.018	4	0.225	0.027	2	0.178
English Sole	122	**0.153**	0.1	1	0.153	0.15	1	0.153
Petrale	143	**0.141**	0.029	3	0.213	0.044	1	0.141
Arrowtooth	55	**0.132**	0.05	2	0.234	0.075	2	0.234
Starry Flounder	49	**0.187**	0.05	1	0.187	0.075	1	0.187
Other Flatfish	142	**0.107**	0.1	1	0.107	0.15	0	0.000
Other Grndfsh	79	**0.166**	0.05	1	0.166	0.075	1	0.166

Table A-103. Number of entities receiving allocations of total non-whiting groundfish above the Option 3 aggregate control limit and the amounts of QS over the limit, categorized by type of entity (Option 3 QS limit = 3%).

	QS Allocations to Harvesters / Buyers	Number of Entities Over the Limit	Total QS Allocated to Entities Over the Limit
1	**All eligible harvesting entities and buying entities**		
	Equal sharing of buyback		
	100% to Harvesters	2	0.09
	87.5% / 12.5%	2	0.13
	75% / 25%	2	0.17
	50% / 50%	3	0.33
	No equal sharing of buyback		
	100% to Harvesters	4	0.16
	87.5% / 12.5%	3	0.16
	75% / 25%	3	0.20
	50% / 50%	4	0.37
2	**Only entities that are buyers (includes allocation to buyers that own permits)**		
	Equal sharing of buyback		
	100% to Harvesters	1	0.05
	87.5% / 12.5%	1	0.09
	75% / 25%	2	0.17
	50% / 50%	3	0.33
	No equal sharing of buyback		
	100% to Harvesters	1	0.05
	87.5% / 12.5%	1	0.10
	75% / 25%	3	0.20
	50% / 50%	4	0.37
3	**Only entities that are not buyers**		
	Equal sharing of buyback		
	100% to Harvesters	1	0.04
	87.5% / 12.5%	1	0.03
	75% / 25%	0	0.00
	50% / 50%	0	0.00
	No equal sharing of buyback		
	100% to Harvesters	3	0.11
	87.5% / 12.5%	2	0.06
	75% / 25%	0	0.00
	50% / 50%	0	0.00

STRUCTURE OF THE HARVESTING AND PROCESSING SECTORS (ACCUMULATION LIMIT EFFECT ON RELATIVE TO RECENT BUSINESS PRACTICES)

How will the accumulation limits affect the structure of the harvesting and processing sectors?

- What levels of concentration (horizontal integration) have we experienced recently and are they desirable?
- What levels of processors participating as harvesters (vertical integration) have we experienced recently?
- How do the accumulation limits compare to those recent levels of integration?

  Depending on whether or not those recent levels are viewed as desirable after reviewing how the accumulation limit options compare to the recent levels of integration, the Council may select among or adjust the control accumulation limit options.

  We will use the recent fishery to provide context for conceptualizing and evaluating how the businesses in the harvesting and processing sectors should look in the future. We have limited information on past ownership in the industry; therefore most of our quantitative analysis will be confined to the recent past (2004-2006). Using these data, we will look at the shares of recent harvest taken by firms that operate in the harvesting sector as compared to the control of shares that would be allowed under the accumulation limits, and we will look at the recent levels of vertical integration as compared to what would be allowed under the control accumulation limits.

While for the most part our analysis is limited to the 2004-2006 period for which we have more information about the ownership affiliation of harvesting and processing entities, it is instructive to compare historic vessel harvests against the proposed control accumulation limit caps. In general it should be noted that the control limits are one half the vessel limits. In the previous section, we saw that on a permit basis it appears that many of the vessel limits accommodate historic levels of vessel harvest and harvest concentration. However, because the control limits are smaller, co-operation between independent QS owners will be required in order to achieve the permissible levels of harvest on a single vessel without violating the control limit. This also means that while the historic single permit harvests we evaluated were generally under the control of a single firm, the harvests that a single firm would be allowed to control will be substantially less than the historic single permit harvests. Table A-105 reproduces the Table A-82 harvest information but provides comparisons to the Option 1 and Option 2 control limits. This table shows that control limit Options 1 and 2 tend to be more often below the historic shares of permit harvest than they are below the vessel limits (which are by definition set at twice the control limit levels). Since historically most vessels have been associated with no more than one firm, the vessel historic shares are a lower bound of the shares that firms would need to access to achieve their historic shares of harvest (i.e. control limits which do not accommodate historic vessel shares will not likely accommodate historic business entity shares).

Recent harvesting history for entities controlling permits is provided in Table A-106 and Table A-107. Table A-106 provides comparisons for entities that only harvest (hold permits but do not process), and Table A-107 provides comparisons for entities that harvest and process. In contrast to the results for the comparison of control accumulation limit options to expected QS allocations, the comparison to maximum share of annual harvest handled by entities in recent years shows that those entities that harvest only tend to have a slightly greater share of the recent harvest than entities that harvest and process. This result is the opposite of that showing that processors will tend to receive greater QS allocation from their permit history than entities that only harvest (Table A-89 compared to Table

A-91). There are at least two possible reasons for this result. First, there is one organization that has accumulated ownership over many permits which are then leased out to fishing businesses. The primary mission of that organization is not to earn income from fishing. Second, while some processors have accumulated permits that may entitle them to substantial quantities of QS, in recent years the degree to which they have used those permits does not reflect the amount of QS they will be issued.

For processing entities, their maximum shares of the total annual harvests tend to be substantially larger than the amounts of QS they would be allocated and larger than the control accumulation limits. Table A-108 shows that for entities that only process the shares of total buying often run between 10 and 40 percent with some larger and some small shares. This contrasts to control limits that generally max out at 7.5 percent under Option 2. Table A-109 shows that for entities that both process and harvest (buy and hold permits), their share of total buying often runs between 50 percent and 60 percent. These tables demonstrate the constraints that control accumulation limits will impose on the ability of these entities to fully vertically integrate their harvesting operations up to the level of their processing operations, particularly if there is not a grandfather clause.

Summary

- Control limits which do not accommodate historic vessel shares will not accommodate historic business entity shares.
- The control limit options are frequently below the historic vessel shares.
- Entities that only own permits (do not buy fish) have shares of harvest in recent years that are slightly greater than for entities that process and harvest.
- Processing entities' share of harvest activity (entities that own permits and buy fish) appears to be less than the initial QS allocation they would expect to receive based on their permit ownership.
- Processing entities' shares of buying activities tend to be many fold greater than the control accumulation limits, showing the degree to which vertical integration by these companies will be constrained, particularly if there is no grandfather clause.

Table A-104. Table of tables comparing control accumulation limit options to historic participation information (90th percentile and maximum annual shares of landings for vessels, harvesting entities and processing entities).

Table	Entities (Fall 2006 Ownership)	Period
Table A-105	Vessels/ Permits	1994-2003 2004-2006
Table A-106	Harvesting-Only Entities (Processors with Permits Excluded)	2004-2006
Table A-107	Processors Only (Excludes Harvester/ Processor Entities)	Yes
Table A-108	Entities that Both Harvest and Process	Yes
Table A-109	Entities that Both Harvest and Process	Yes

Table A-105. Comparison of control limits to vessel (permit) share of annual landings (1994-2003 and 2004-2006).

Stock	Control Limits (%)		Annual Percent of Total Catch			
			1994-2003		2004-2006	
	Option 1	Option 2	90th Percent	Max	90th Percent	Max
All nonwhiting groundfish (in aggregate)	1.5	2.2	1.0	4.1	1.5	4.9
Lingcod - coastwide c/	5	7.5	1.8	9.0	2.2	3.7
N. of 42° N (OR & WA)	5	7.5	2.4	12.1	3.0	4.3
S. of 42° N (CA)	5	7.5	4.3	14.1	8.0	14.6
Pacific Cod	5	7.5	6.4	22.7	6.0	21.1
Pacific Whiting	10	15				
Shoreside Sector	10	15	8.1	9.1	6.2	7.3
Mothership Sector	10	15	11.3	18.5	16.4	28.9
Catcher Processors	50	55	37.3	49.5	31.1	49.4
All Whiting Sectors Combined	15	22.5				
Sablefish (Coastwide)	1.9	2.9	1.0	2.3	1.5	5.7
N. of 36° N (Monterey north)	2	3	1.0	2.4	1.5	5.7
S. of 36° N (Conception area)	5	7.5	24.0	38.4	43.5	60.3
PACIFIC OCEAN PERCH	5	7.5	2.7	7.3	3.7	10.1
Shortbelly Rockfish	5	7.5	41.3	82.5	65.8	76.4
WIDOW ROCKFISH	3.4	5.1	4.5	28.7	6.0	31.9
CANARY ROCKFISH	5	7.5	3.5	12.6	3.8	45.7
Chilipepper Rockfish	5	7.5	6.2	46.8	14.9	26.5
BOCACCIO	5	7.5	60.0	78.9	36.8	53.4
Splitnose Rockfish	5	7.5	5.7	19.9	12.1	26.9
Yellowtail Rockfish	5	7.5	2.8	9.9	5.2	11.5
Shortspine Thornyhead - coastwide	3.1	4.7	1.1	3.8	1.8	6.8
Shortspine Thornyhead - N. of 34°27' N	4.8	7.2	1.3	5.0	2.2	8.7
Shortspine Thornyhead - S. of 34°27' N	4.7	7.1	4.2	7.0	8.8	16.0
Longspine Thornyhead - coastwide	2	3	1.4	2.0	3.7	7.3
Longspine Thornyhead - N. of 34°27' N	2	3	1.4	2.0	2.2	8.7
Longspine Thornyhead - S. of 34°27' N	5	7.5	61.5	64.4	8.8	16.0
COWCOD - Conception and Monterey	5	7.5	100.0	100.0	0.0	0.0
DARKBLOTCHED	5	7.5	2.0	15.8	3.1	5.6
YELLOWEYE g/	5	7.5	9.4	35.8	13.7	35.5
Black Rockfish	5	7.5	14.4	52.6	19.7	21.4
Black Rockfish (WA)	5	7.5	100.0	100.0	85.2	94.0
Black Rockfish (OR-CA)	5	7.5	14.4	52.6	19.7	21.4
Minor Rockfish North	5	7.5	2.0	9.2	2.8	13.9
Nearshore Species	5	7.5	80.1	98.3	17.0	20.9
Shelf Species	4	6	2.9	30.6	2.2	49.1
Slope Species	5	7.5	2.0	11.9	3.0	15.7
Minor Rockfish South	5	7.5	4.9	23.8	11.0	20.7
Nearshore Species	5	7.5	34.4	78.0	100.0	100.0
Shelf Species	5	7.5	6.1	46.6	13.1	30.9
Slope Species	5	7.5	5.8	24.8	12.2	21.7
California scorpionfish	5	7.5	100.0	100.0	0.0	0.0
Cabezon (off CA only)	5	7.5	100.0	100.0	0.0	0.0
Dover Sole	1.8	2.7	1.1	2.0	1.6	5.6
English Sole	10	15	1.5	13.9	2.6	7.7
Petrale Sole (coastwide) c/	2.9	4.4	1.4	6.2	2.3	8.0
Arrowtooth Flounder	5	7.5	1.9	25.5	3.2	19.1
Starry Flounder	5	7.5	13.2	65.7	5.5	54.5
Other Flatfish	10	15	1.3	16.4	2.0	8.1
Other Fish	5	7.5	2.5	10.2	9.0	21.3

Table A-106. Comparison of control limits to share of annual landings (maximum of 2004-2006):entities that harvest only.

Stock	Maximum Entities Partici-pating	Control Limits (%)		Maximum Share (% of year's total)	
		Option 1	Option 2	90th Percent	Max
All nonwhiting groundfish (in aggregate)	99	1.5	2.2	2.1	4.9
Lingcod - coastwide c/	95	5	7.5	2.2	4.6
N. of 42° N (OR & WA)	73	5	7.5	3.1	6.3
S. of 42° N (CA)	33	5	7.5	7.5	13.8
Pacific Cod	56	5	7.5	8.5	20.9
Pacific Whiting (nonwhiting sector)	4	10	15	*	59.2
Shoreside Sector	30	10	15	7.0	15.3
Mothership Sector	16	10	15	9.7	9.7
Catcher Processors		50	55		
All Whiting Sectors Combined		15	22.5		
Sablefish (Coastwide)	95	1.9	2.9	2.0	5.7
N. of 36° N (Monterey north)	94	2	3	2.0	5.7
S. of 36° N (Conception area)	7	5	7.5	*	60.3
PACIFIC OCEAN PERCH	67	5	7.5	4.8	15.5
Shortbelly Rockfish	12	5	7.5	*	76.4
WIDOW ROCKFISH	53	3.4	5.1	7.8	31.9
CANARY ROCKFISH	59	5	7.5	5.1	45.5
Chilipepper Rockfish	20	5	7.5	18.7	24.4
BOCACCIO	8	5	7.5	*	18.1
Splitnose Rockfish	18	5	7.5	12.5	23.5
Yellowtail Rockfish	61	5	7.5	6.9	11.5
Shortspine Thornyhead - coastwide	87	3.1	4.7	2.5	6.8
Shortspine Thornyhead - N. of 34°27' N	73	4.8	7.2	2.9	8.7
Shortspine Thornyhead - S. of 34°27' N	24	4.7	7.1	15.4	19.9
Longspine Thornyhead - coastwide	74	2	3	4.1	13.7
Longspine Thornyhead - N. of 34°27' N	74	2	3	4.1	13.7
Longspine Thornyhead - S. of 34°27' N		5	7.5		
COWCOD - Conception and Monterey		5	7.5		
DARKBLOTCHED	81	5	7.5	3.9	11.7
YELLOWEYE g/	27	5	7.5	14.8	35.5
Black Rockfish	25	5	7.5	19.8	21.4
Black Rockfish (WA)	2	5	7.5	*	94.0
Black Rockfish (OR-CA)	23	5	7.5	19.8	21.4
Minor Rockfish North	79	5	7.5	3.4	16.1
Nearshore Species	31	5	7.5	19.5	20.9
Shelf Species	76	4	6	2.8	49.2
Slope Species	73	5	7.5	3.8	15.7
Minor Rockfish South	29	5	7.5	13.8	20.7
Nearshore Species	31	5	7.5	*	100.0
Shelf Species	76	5	7.5	22.5	30.0
Slope Species	73	5	7.5	14.0	21.7
California scorpionfish		5	7.5		
Cabezon (off CA only)	0	5	7.5	0.0	0.0
Dover Sole	94	1.8	2.7	2.2	5.6
English Sole	88	10	15	3.6	7.6
Petrale Sole (coastwide) c/	87	2.9	4.4	2.6	8.0
Arrowtooth Flounder	85	5	7.5	4.2	19.1
Starry Flounder	47	5	7.5	7.4	52.9
Other Flatfish	95	10	15	2.4	9.1
Other Fish	46	5	7.5	12.8	21.0

* - 90th percentile producer is same as maximum when there are ten or fewer entities in the category in the year of the maximum.

Table A-107. Comparison of control limits to share of annual landings (maximum of 2004-2006): entities that process and own permits (harvesting activities as a share of all harvesters).

Stock	Entities Partici-pating	Control Limits (%)		Maximum Share (% of year's total)	
		Option 1	Option 2	90th Percent	Max
All nonwhiting groundfish (in aggregate)	7	1.5	2.2	*	4.8
Lingcod - coastwide c/	7	5	7.5	*	5.7
N. of 42° N (OR & WA)	4	5	7.5	*	5.9
S. of 42° N (CA)	6	5	7.5	*	15.9
Pacific Cod	4	5	7.5	*	5.8
Pacific Whiting (nonwhiting sector)	2	10	15	*	85.7
Shoreside Sector	3	10	15	*	3.3
Mothership Sector	3	10	15	*	18.1
Catcher Processors		50	55		
All Whiting Sectors Combined		15	22.5		
Sablefish (Coastwide)	6	1.9	2.9	*	4.8
N. of 36° N (Monterey north)	6	2	3	*	4.8
S. of 36° N (Conception area)	1	5	7.5	*	9.5
PACIFIC OCEAN PERCH	4	5	7.5	*	4.4
Shortbelly Rockfish	4	5	7.5	*	41.1
WIDOW ROCKFISH	4	3.4	5.1	*	6.0
CANARY ROCKFISH	5	5	7.5	*	9.1
Chilipepper Rockfish	5	5	7.5	*	26.4
BOCACCIO	4	5	7.5	*	85.5
Splitnose Rockfish	4	5	7.5	*	26.9
Yellowtail Rockfish	4	5	7.5	*	5.5
Shortspine Thornyhead - coastwide	7	3.1	4.7	*	3.9
Shortspine Thornyhead - N. of 34°27' N	4	4.8	7.2	*	5.0
Shortspine Thornyhead - S. of 34°27' N	5	4.7	7.1	*	5.1
Longspine Thornyhead - coastwide	6	2	3	*	5.1
Longspine Thornyhead - N. of 34°27' N	6	2	3	*	5.1
Longspine Thornyhead - S. of 34°27' N		5	7.5		
COWCOD - Conception and Monterey		5	7.5		
DARKBLOTCHED	5	5	7.5	*	8.4
YELLOWEYE g/	4	5	7.5	*	17.0
Black Rockfish	2	5	7.5	*	13.3
Black Rockfish (WA)	0	5	7.5	0.0	0.0
Black Rockfish (OR-CA)	2	5	7.5	*	13.7
Minor Rockfish North	5	5	7.5	*	4.6
Nearshore Species	2	5	7.5	*	6.3
Shelf Species	5	4	6	*	6.7
Slope Species	4	5	7.5	*	4.7
Minor Rockfish South	6	5	7.5	*	20.3
Nearshore Species	2	5	7.5	*	68.0
Shelf Species	5	5	7.5	*	34.7
Slope Species	4	5	7.5	*	20.5
California scorpionfish		5	7.5		
Cabezon (off CA only)	1	5	7.5	*	100.0
Dover Sole	7	1.8	2.7	*	5.8
English Sole	7	10	15	*	6.4
Petrale Sole (coastwide) c/	7	2.9	4.4	*	4.3
Arrowtooth Flounder	4	5	7.5	*	4.9
Starry Flounder	5	5	7.5	*	7.6
Other Flatfish	7	10	15	*	7.8
Other Fish	5	5	7.5	*	8.5

* - 90th percentile producer is same as maximum when there are ten or fewer entities in the category in the year of the maximum.

Table A-108. Comparison of control limits to share of annual landings (maximum of 2004-2006): entities that process only (do not have permits) (share of buying activity).

Stock	Maximum Entities Partici-pating	Control Limits (%)		Maximum Share (% of year's total)	
		Option 1	Option 2	90th Percent	Max
All nonwhiting groundfish (in aggregate)	45	1.5	2.2	1.4	9.3
Lingcod - coastwide c/	37	5	7.5	2.7	7.6
N. of 42° N (OR & WA)	16	5	7.5	*	10.4
S. of 42° N (CA)	21	5	7.5	12.4	26.0
Pacific Cod	8	5	7.5	*	28.1
Pacific Whiting (nonwhiting sector)	2	10	15	*	85.7
Shoreside Sector	7	10	15	*	24.9
Mothership Sector	2	10	15	*	9.2
Catcher Processors		50	55		
All Whiting Sectors Combined		15	22.5		
Sablefish (Coastwide)	27	1.9	2.9	1.5	12.9
N. of 36° N (Monterey north)	22	2	3	1.5	13.2
S. of 36° N (Conception area)	6	5	7.5	*	31.1
PACIFIC OCEAN PERCH	9	5	7.5	*	2.4
Shortbelly Rockfish	6	5	7.5	*	35.4
WIDOW ROCKFISH	12	3.4	5.1	*	48.6
CANARY ROCKFISH	21	5	7.5	7.3	20.8
Chilipepper Rockfish	12	5	7.5	22.3	57.1
BOCACCIO	6	5	7.5	*	53.5
Splitnose Rockfish	14	5	7.5	17.4	39.0
Yellowtail Rockfish	10	5	7.5	*	41.7
Shortspine Thornyhead - coastwide	20	3.1	4.7	2.2	16.2
Shortspine Thornyhead - N. of 34°27' N	9	4.8	7.2	*	4.3
Shortspine Thornyhead - S. of 34°27' N	14	4.7	7.1	*	48.9
Longspine Thornyhead - coastwide	16	2	3	3.3	33.5
Longspine Thornyhead - N. of 34°27' N	16	2	3	3.3	33.5
Longspine Thornyhead - S. of 34°27' N		5	7.5		
COWCOD - Conception and Monterey		5	7.5		
DARKBLOTCHED	16	5	7.5	4.2	14.1
YELLOWEYE g/	6	5	7.5	*	35.5
Black Rockfish	5	5	7.5	*	2.0
Black Rockfish (WA)	1	5	7.5	*	6.0
Black Rockfish (OR-CA)	5	5	7.5	*	2.0
Minor Rockfish North	13	5	7.5	1.9	3.8
Nearshore Species	3	5	7.5	*	29.0
Shelf Species	13	4	6	*	17.7
Slope Species	10	5	7.5	*	2.4
Minor Rockfish South	24	5	7.5	15.3	41.6
Nearshore Species	3	5	7.5	*	100.0
Shelf Species	13	5	7.5	12.3	70.5
Slope Species	10	5	7.5	15.3	40.0
California scorpionfish		5	7.5		
Cabezon (off CA only)	1	5	7.5	*	100.0
Dover Sole	28	1.8	2.7	1.1	12.1
English Sole	27	10	15	2.3	10.0
Petrale Sole (coastwide) c/	34	2.9	4.4	2.2	8.0
Arrowtooth Flounder	10	5	7.5	*	19.1
Starry Flounder	16	5	7.5	6.6	11.8
Other Flatfish	30	10	15	3.4	6.2
Other Fish	21	5	7.5	7.1	13.7

* - 90th percentile producer is same as maximum when there are ten or fewer entities in the category in the year of the maximum.

Table A-109. Comparison of control limits to share of annual landings (maximum of 2004-2006): entities that process and own permits (share of buying).

Stock	Entities Participating	Control Limits (%)		Maximum Share (% of year's total)	
		Option 1	Option 2	90th Percent	Max
All nonwhiting groundfish (in aggregate)	6	1.5	2.2	*	51.8
Lingcod - coastwide c/	6	5	7.5	*	53.4
N. of 42° N (OR & WA)	4	5	7.5	*	57.0
S. of 42° N (CA)	5	5	7.5	*	51.1
Pacific Cod	4	5	7.5	*	37.9
Pacific Whiting (nonwhiting sector)	2	10	15	*	59.2
Shoreside Sector	4	10	15	*	40.8
Mothership Sector	3	10	15	*	30.6
Catcher Processors		50	55		
All Whiting Sectors Combined		15	22.5		
Sablefish (Coastwide)	6	1.9	2.9	*	58.8
N. of 36° N (Monterey north)	6	2	3	*	60.7
S. of 36° N (Conception area)	1	5	7.5	*	90.1
PACIFIC OCEAN PERCH	3	5	7.5	*	63.6
Shortbelly Rockfish	4	5	7.5	*	100.0
WIDOW ROCKFISH	4	3.4	5.1	*	41.8
CANARY ROCKFISH	5	5	7.5	*	67.8
Chilipepper Rockfish	5	5	7.5	*	46.0
BOCACCIO	3	5	7.5	*	6.1
Splitnose Rockfish	4	5	7.5	*	46.2
Yellowtail Rockfish	4	5	7.5	*	37.3
Shortspine Thornyhead - coastwide	5	3.1	4.7	*	59.1
Shortspine Thornyhead - N. of 34°27' N	3	4.8	7.2	*	72.8
Shortspine Thornyhead - S. of 34°27' N	4	4.7	7.1	*	31.0
Longspine Thornyhead - coastwide	5	2	3	*	53.2
Longspine Thornyhead - N. of 34°27' N	5	2	3	*	53.2
Longspine Thornyhead - S. of 34°27' N		5	7.5		
COWCOD - Conception and Monterey		5	7.5		
DARKBLOTCHED	5	5	7.5	*	53.6
YELLOWEYE g/	3	5	7.5	*	45.0
Black Rockfish	4	5	7.5	*	78.1
Black Rockfish (WA)	1	5	7.5	*	94.0
Black Rockfish (OR-CA)	4	5	7.5	*	78.1
Minor Rockfish North	4	5	7.5	*	71.4
Nearshore Species	3	5	7.5	*	55.4
Shelf Species	4	4	6	*	83.1
Slope Species	3	5	7.5	*	73.2
Minor Rockfish South	6	5	7.5	*	36.0
Nearshore Species	3	5	7.5	*	0.0
Shelf Species	4	5	7.5	*	46.1
Slope Species	3	5	7.5	*	37.7
California scorpionfish		5	7.5		
Cabezon (off CA only)	0	5	7.5	0.0	0.0
Dover Sole	5	1.8	2.7	*	58.9
English Sole	6	10	15	*	56.4
Petrale Sole (coastwide) c/	6	2.9	4.4	*	48.8
Arrowtooth Flounder	4	5	7.5	*	48.3
Starry Flounder	3	5	7.5	*	90.1
Other Flatfish	6	10	15	*	56.0
Other Fish	5	5	7.5	*	59.6

* - 90th percentile producer is same as maximum when there are ten or fewer entities in the category in the year of the maximum.

OWNERSHIP CAPS FROM OTHER FISHERIES

The following table summarizes ownership caps in some of the existing IFQ fisheries:

IQ Fishery	Quota Ownership Cap
B.C. Groundfish	4-10% for most species/area; 15% (hake); about 2% vessel caps[14/]
Nova Scotia Groundfish	About 2% depending on species/area
Alaska Halibut & Sablefish	Area specific[15/]
Austrailia SE Trawl	None
Iceland Groundfish	10% for cod and haddock; 20% for other species; 12% of value of all TACs in all areas.
New Zealand	35% of total IFQ in all areas or 20% of total IFQ in any one area for a species (will vary for some species)
U.S. Surf Clam/Ocean Quahog	Min: 5 cages (160 bushels); Max: None
U.S. Wreckfish	None

- Calculation of the Aggregate

The Council needs to determine whether individuals who are pushed over the aggregate non-groundfish limit by an increase in the trawl allocation or OY for a particular species will be required to divest themselves of the excess QS. If such divestment is required, at a later time another shift in the available harvest may bring them under the aggregate limit and they will have to repurchase QS to maintain their previous share of production. If this is the case, they may be able to use the revenues from their divestment to reacquire the QS. If divestment is not required, they will be able to retain some amount of QS over the accumulation limits, and maintain some advantage over other participants.

In a multispecies system, one of the challenges for participants that are close to the accumulation limits will be to maintain a mix of species that matches their catch without exceeding the aggregate limits. If a person maintains QS right at the aggregate limit and their catch mix does not match their holdings mix they will be unable to acquire additional QP unless they divest themselves of some of their QS. Divesting themselves of QP alone would not help them get under the limit if they still maintain ownership of the associated QS. This lack of flexibility for entities that maintain themselves at the aggregate limit could mean that they would have to forgo the harvest of some of the QS/QP they hold (again, unless they are able to exactly match their catch to their species mix). Forgoing harvest does not however, mean that they would forgo all the benefits of those QP as they would still be able to sell the QP to others. Alternatively, because vessel limits are above the control limits, crew members or others could supply the vessel with the needed QP, however if a crew member shows up with a portfolio that is just what the vessel needs to cover its deficits, this would take on the appearance of a possible control situation. To maintain control over their own flexibility, vessels may choose to maintain somewhat less

14 IVQ holdings caps were calculated for each groundfish trawl license, during the first year of the IVQ program. The total IVQ holdings cap for each groundfish trawl license is measured in groundfish equivalents (described in FMP) as a percentage of total groundfish equivalents. These holdings caps, determined in 1997, continue to remain in effect.

15/ "Rules on the accumulation and transfers of halibut and sablefish IFQ are constantly evolving. In general, there are limits on accumulation and transferability. No person (individual, company, corporation) may own more than 0.5% of the total halibut QS in combined Areas 2C, 3A, and 3B; more than 0.5% of the total halibut QS in Areas 4A-E; or more than 1% of the total QS for Area 2C. No person may control more than 1% of the total Bering Sea-Aleutian Islands and Gulf of Alaska sablefish QS or more than 1% of the total sablefish QS east of 140 degrees west…Individuals whose initial allocation exceeded the ownership limits were grandfathered-in, but prohibited from acquiring additional QS."

QS than the aggregate maximum and acquire QP during the year needed to fill out the maximum and/or seek crew members who can bring additional QS/QP to the vessel.

A-2.3.1 Tracking, Monitoring, and Enforcement

A-2.3.1.a Discarding

❖ Provisions and Options

►T&M Program Alt 1: Non-whiting – Discarding of IFQ allowed, discarding of IBQ required, discarding of non-groundfish species allowed.

T&M Program Alt 2: Non-whiting – Discarding of IFQ species prohibited, discarding of non IFQ commercial species prohibited, discarding of IBQ species required, discarding of non-groundfish species allowed except retention of non-IBQ prohibited species would be required.

►T&M Program Alt 1 & 2:

Shoreside whiting
Maximized retention vessels: Discarding of IFQ, IBQ, and non-groundfish species prohibited.
Vessels sorting at sea: Discarding of IFQ allowed, discarding of IBQ required, discarding of non-groundfish species allowed.

At-sea whiting
Discarding of IFQ allowed by processors, discarding of IBQ required by processors, discarding of non-groundfish species allowed by processors, mothership catcher vessels prohibited from discarding catch.

❖ Rationale and Policy Issues

Alternatives 1 and 2 are identical for the shoreside whiting and nonwhiting fisheries. Options are provided for vessels that supply non-whiting groundfish to shoreside processors.[73] It is expected that the tracking and monitoring program will be able to provide accurate estimates of each vessel's discards of IFQ and IBQ species. Non-marketable species can also be discarded. As a disincentive to IBQ catch, the current policy of mandatory discard of halibut would continue. [74] Allowing discards of IFQ species gives vessels the flexibility to determine what species are retained for landing or discarded. In determining what to discard, vessel captains would review a variety of factors including exvessel prices, marketable sizes of fish, and vessel storage space. Allowing discard provides flexibility to the vessels. Discarding will also require changes in vessel operations and the purchase of new equipment to have onboard and at sea. In addition to observers, vessels would need to have scales on board to allow for accurate weighing of fish. To efficiently use observer time, vessel crew will have to aid the observer in the sorting of fish and with other functions associated with sorting, weighing, and identifying discarded fish species.

[73] The shoreside whiting and at-sea mothership and catcher-processors sectors do not bottom trawl; they midwater trawl for whiting.
[74] Halibut is currently the only IBQ species.

❖ Interlinked Elements

IFQ discards have to be accounted for with QPs. The accuracy and timeliness of IFQ discard estimates will affect all those elements associated with comparing QPs with catch and QS.

❖ Analysis

Allowing discards would change the nature of the tracking and monitoring system. Observers will have to focus their efforts on estimating discarded catch and not on estimating retained catch. However, implementation of a full retention program where there is zero discarding of IFQ species would be difficult. Full retention might require the retention of everything from tires and derelict fishing gear to bottom items like mud, clams, and sea anemones. For example, the shoreside whiting fishery has evolved from the concept of "full retention" to a "maximized retention" fishery to account for operational discards and safety issues. Maximized retention would apply to the relevant species of the fishery, and would not prevent the discard of rocks, seaweed, and plastics, for example.

A-2.3.1.b Monitoring

❖ Provisions and Options

At Sea Catch Monitoring

T&M Program Alt 1: Nonwhiting – The sorting, weighing and discarding of any IFQ or IBQ species must be monitored by an observer with supplemental video monitoring.

►T&M Program Alt 2: Nonwhiting – The sorting of catch must be monitored by an observer. The weighing and discarding of any IBQ species must be monitored by an observer. The retention of IFQ species monitored by the observer. (The preliminary preferred alternative matches this with T&M Program Alt 1, discarding allowed. Therefore, discards would also have to be monitored.)

►T&M Program Alt 1 & 2:

Shoreside whiting - *For maximized retention vessels*: video monitoring as proposed under Amendment 10.

►Suboption: Observers would be required in addition to or as a replacement for video monitoring.

For vessels that sort at sea: The sorting, weighing, and discarding of any IFQ or IBQ species must be monitored by an observer with supplemental video monitoring.

At-sea whiting: *Catcher vessels.* Observers would be required in addition to or as a replacement for video monitoring. *Motherships and catcher/processors*: The sorting, weighing and discarding of any IFQ or IBQ species must be monitored by an observer.

►**Shoreside Landings Monitoring** (T&M Program Alt 1 & 2)
Non-whiting - The sorting, weighing, and reporting of any IFQ or IBQ species must be monitored by a catch monitor.

Shoreside whiting - The sorting, weighing, and reporting of any IFQ or IBQ species must be monitored by a catch monitor.

❖ Rationale and Policy Issues

More accurate estimates of total mortality through better catch-accounting would help achieve stock conservation goals.

Shoreside whiting and non-whiting: A monitoring and tracking program is necessary to assure that all catch (including discards) is documented and matched against QP. For shoreside nonwhiting trips there is a proposed requirement for 100 percent observer coverage on vessels and for shoreside whiting trips, observers in addition to or as a replacement for video monitoring. Note that the Council's preferred alternative is for the shoreside whiting and nonwhiting fisheries to be managed under an IFQ system and as a single combined sector. However, if Congress provides the needed legislation, the shoreside whiting fishery may be managed as a co-op with processor linkages rather than with IFQs. In addition to 100 percent observer coverage, 100 percent shoreside monitoring is also being proposed because the sorting, weighing, and reporting of any IFQ or IBQ species must be monitored by a catch monitor.

At-Sea Sector: Under status quo, mothership processing vessels and catcher-processors currently carry two observers. This monitoring requirement would remain for these vessels. However, a new requirement would be the placement of observers, possibly supplemented by cameras, on catcher-vessels that deliver to motherships. (Note that the for the 2009-10 groundfish harvest specifications and management measures the Council is proposing video monitoring for these vessels.) See also Appendix B, Section 1.4 on at-sea observers and monitoring for information regarding this sector.

❖ Interlinked Elements

Overall Program Execution: Implementation of the trawl rationalization program hinges on individual and co-op catch accountability, which in turn hinges on complete observer coverage. Should 100 percent observer coverage not be retained as part of the trawl rationalization preferred alternative, the entire proposed program would have to be re-thought.

General Management and Trawl Sectors (A-1.3): The decision whether to manage the shoreside whiting fishery as a co-op or an IFQ fishery will affect the determination as to whether observers are more appropriate than cameras for the shoreside whiting fishery. As mentioned above, shoreside co-ops with processor linkages will require Congressional approval.

❖ Analysis

Cameras are currently employed as an electronic monitoring system (EMS) in the shoreside whiting fishery as a monitoring tool. The EMS system employed under the EFP for Pacific whiting allows shoreside vessels to dump unsorted catch directly below deck and would allow unsorted catch to be landed, provided that an EMS is used on all fishing trips to verify retention of catch at sea. The EMS is an effective tool for accurately monitoring catch retention and identifying the time and location of discard events. However, current video technology is not good enough to use cameras in trawl fisheries for purposes of measuring the amount of fish discarded or determining the species of fish discarded. Therefore, observers are deemed a superior monitoring tool for the non-whiting trawl fishery given the number of species and need to have accurate estimates of IFQ discards. If the shoreside whiting fishery is managed as an IFQ fishery, observers rather than the current cameras will also be needed for the same reason. The option of requiring cameras in addition to observers (should human observers be deemed to be needed to assure compliance) is a potential cost cutting measure compared to requiring a second

human observer. The purpose of having catch monitoring in shoreside non-whiting fishery is to assure that all IFQ and IBQ species are accurately weighed, sorted, and reported. Catch monitors are already employed in the shoreside whiting fishery. See also the discussion under program costs, below.

A-2.3.1.c Catch Tracking Mechanisms

❖ Provisions and Options

►Catch Tracking Mechanisms (T&M Program Alt 1 & 2)

Electronic vessel logbook report
Non-whiting, shoreside whiting and at-sea whiting: VMS-based electronic logbook required to be transmitted from vessel. At-sea entry by vessel personnel required including catch weight by species and if retained or discarded.

Vessel landing declaration report
Non-whiting and shoreside whiting: Mandatory declaration reports.

Electronic IFQ landing report
Non-whiting and shoreside whiting: Mandatory reports completed by processors and similar to electronic fish ticket report.

Processor production report
Non-whiting, shoreside whiting and at-sea whiting: Mandatory reports (possible inclusion of proprietary data included to be recommended as option is fleshed out).

❖ Rationale and Policy Issues

Other than the declaration reports and the processor production reports, these catch tracking mechanisms are largely the conversion of existing state paper-based systems. Converting to electronic reporting is seen as aid for improved accuracy of reported data and better quota monitoring at the individual vessel, co-op, and sector level. Declaration reports and processor production reports are seen as tools that improve the ability to enforce regulations. One of the issues facing the implementation of these reporting systems is how best to adapt the existing state paper-based systems to the needs of the trawl rationalization program.

❖ Interlinked Elements

All of these reports address directly or indirectly address the needs for total catch accounting, biological and management data, socio-economic data, economic data including data for anti-trust, excessive share assessments, cost-recovery, and for program performance measures.

❖ Analysis

All trawl sectors (shorebase non-whiting, shorebase whiting, mothership catcher vessels and processors, and catcher-processors) will require VMS-based electronic logbooks. Non-whiting and whiting vessels that deliver shoreside will also have to submit declaration reports. Shorebased processors will have to submit the electronic IFQ landing reports in the form of the electronic "fishtickets," and processors will also have to supply mandatory production reports.

Compared to the status quo, the only new reports are the vessel declaration reports and the processor production reports. As cited above, there are many conservation and management reasons for these reports. In addition, electronic reporting will aid vessels, processors, and all QS and QP holders in making real-time decisions. Currently the Pacific States Marine Fisheries Commission is working with the states on converting their paper-based fish ticket and trawl logbook systems into electronic systems. Electronic fishtickets are now being experimented with in the shoreside whiting fishery. The actual design of these reports are under development and most likely will be more fully analyzed for public comment under the rulemaking process that converts the Council's preferred alternative into regulation. This process includes addressing reporting issues under the Paperwork Reduction Act process and under the Regulatory Flexibility Act (regulatory reporting burden on small businesses). One of the issues in the design of these systems and the integration with observer, catch monitor, and QP/QS tracking systems concerns lining up the coding systems so that all IFQ species are reported consistently on a species and species group basis. Another issue is understanding when changes are needed. As the Council and Federal management tracking and monitoring needs change, states will need to convert their systems to meet these needs.

A-2.3.1.d Cost Control Mechanisms

❖ Provisions and Options

Shoreside landing hour restrictions
T&M Program Alt 1, Non-whiting and shoreside whiting: Landing hours not restricted.
►T&M Program Alt 2, Non-whiting and shoreside whiting: Landing hours limited.

Shoreside site Licenses
►T&M Progam Alt 1 & 2, Non-whiting and shoreside whiting: Mandatory license for shoreside deliveries. License can be issued to any site that meets the monitoring requirements.

Vessel Certification
►T&M Progam Alt 1 & 2, All Trawl Sectors: Mandatory certification. Certificate can be issued to any vessel that meets the monitoring requirements.

❖ Rationale and Policy Issues

The certification of vessels and licensing of shoreside processing plants and restricted shoreside landing hours support management and enforcement objectives and potentially reduce costs by restricting the number of shoreside processing plants and the hours under which plant monitors have to be present in the plant.

❖ Interlinked Elements

Among other requirements to receive certification or licensing will be the need for accurate scales to be used, thus aiding many of the catch tracking mechanisms discussed above. Tracking and monitoring costs will be affected by the certification requirements and by decisions to limit shoreside landing hours.

❖ Analysis

All trawl sectors (shoreside non-whiting, shoreside whiting, mothership catcher vessels and processors, and catcher-processors) would require certification or licenses that show they meet the monitoring requirements. In order to reduce costs, landing hours could be restricted.

Many of the other requirements will be similar to those currently specified as part of the 2008 Pacific Whiting Shoreside Fishery Maximized Retention and Monitoring Exemption Program (see http://www.pcouncil.org/bb/2008/0308/F1a_SUP_ATT2.pdf). This program outlines the reporting requirements, equipment needs, and vessel and plant responsibilities including relationships with plant monitors, notification and declaration procedures, and the requirement of a NMFS monitoring plan. For IFQ and co-op fisheries, these elements would have to be expanded to include existing observer requirements including safety requirements as well as the responsibilities of the crew to assist the observer in the weighing and sorting of catch and responsibilities of the captain to assure that vessel operations do not hinder observer efforts. For IFQ vessels, there is likely to be a need to purchase appropriate scales to meet these requirements. The actual design of these reports are under development and would be more fully analyzed for public comment under the rulemaking process that converts the Council's preferred alternative into regulations. This process includes addressing reporting issues under the Paperwork Reduction Act process and under the Regulatory Flexibility Act (regulatory reporting burden on small businesses).

A-2.3.1.e Program Performance Measures

❖ Provisions and Options

►**T&M Program Alt 1 & 2,** All Trawl Sectors: Integrate into the tracking and monitoring program the collection of data on cost, earnings and profitability; Economic efficiency and stability; capacity measures; net benefits to society; distribution of net benefits; product quality; functioning of quota market; incentives to reduce bycatch; market power; spillover effects into other fisheries; contribution to regional economies (income and employment); distributional effects/Community Impacts; employment-seafood catching and processing; safety; bycatch and discards; administrative, enforcement, and management costs. (See A-2.3.2)

A-2.3.2 Socio Economic Data Collection

Provisions and Options

The data collection program will be expanded and submission of economic data by harvesters and processors will be mandatory. Random and targeted audits may be used to validate mandatory data submissions. See footnote for a full description. Information on QS transaction prices, will be included in a central QS ownership registry. *NOTE: Data collection started before the first year of implementation would be beneficial, in order to have a baseline for comparison.*

Footnote from IFQ Program provisions:

- Mandatory submission of economic data for LE trawl industry (harvesters and processors).
- Voluntary submission of economic data for other sectors of the fishing industry.
- Include transaction value information in a centralized registry of ownership.
- Formal monitoring of government costs.

Mandatory Provisions: The Council and NMFS shall have the authority to implement a data collection program for cost, revenue, ownership, and employment data, compliance with which will

be mandatory for members of the West Coast groundfish industry harvesting or processing fish under the Council's authority. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA.

A mandatory data collection program shall be developed and implemented as part of the groundfish trawl rationalization program and continued through the life of the program. Cost, revenue, ownership, employment, and other information will be collected on a periodic basis (based on scientific requirements) to provide the information necessary to study the impacts of the program, including achievement of goals and objectives associated with the rationalization program. The data may also be used to analyze the economic and social impacts of future FMP amendments on industry, regions, and localities. The program will include targeted and random audits as necessary to verify and validate data submissions. Additional funding (as compared to status quo) will be needed to support the collection of these data. The data collected would include data needed to meet MSA requirements (including antirust).
The development of the program shall include: A comprehensive discussion of the enforcement of such a program, including discussion of the type of enforcement actions that will be taken if inaccuracies are found in mandatory data submissions. The intent of this action will be to ensure that accurate data are collected without being overly burdensome on industry in the event of unintended errors.

Voluntary Provisions: A voluntary data collection program will be used to collect information needed to assess spillover impacts on non-trawl fisheries.

Central Registry: Information on transaction prices will be included in a central registry of whiting endorsed permit and processor permit owners. Such information will also be included for sales and lessees.

Government Costs: Data will be collected and maintained on the monitoring, administration, and enforcement costs related to governance of the rationalization program.

Interlinked Elements

The program inherently relies on data collection. These provisions include requirements for data needed to adequately monitor program performance (see Section A-2.3.4).

Rationale and Policy Issues

The goal of the Council's rationalization alternatives involves several economic components. One stated goal of the program is to:

> *Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch.*

The Council has also enumerated several objectives and constraints for the program that involve economic components and monitoring of the program.

The MSA (as amended through January 2007) also places importance on social and economic outcomes resulting with a rationalization programs. Sec. 303A.(c)(1)(C) states that any limited access privilege program (LAPP) to harvest fish submitted by a Council or approved by the Secretary under this section shall promote social and economic benefits.

The Act also contains a monitoring requirement to determine whether a LAPP is meeting its goals. Sec. 303A.(c)(1)(G) states that any LAPP shall:

> *include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal review 5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequent than once every 7 years).*

In order to meet the monitoring requirements for the economic goals, improved and expanded economic data would be needed for the trawl IFQ fishery. The Council's preliminary preferred alternative provides for a mandatory economic data collection provision. Regardless of whether the economic data collection is mandatory or voluntary, the types of data necessary to monitor the effects of the program are the same. However, the choice of mandatory or voluntary data collection will likely have a large effect on the Council's and the NMFS' ability to consistently and systematically collect the necessary data.

Despite the NWFSC's recent progress in voluntary economic data collection, economic analysis of the limited entry trawl fishery has historically been severely constrained by a lack of economic data. Incomplete cost-earnings data on vessels and processors has been a particular problem. While PacFIN provides data on most, but not all, earnings sources for limited entry trawlers, little data on the cost of operating harvesting vessels have been available. Data on the costs and earnings of processing plants have not been available to NMFS or Council economists. This lack of economic data has hampered attempts to measure economic performance, build regional economic input-output models, assess overcapacity, and build models that predict economic behavior.

The first attempt to collect economic data from limited entry trawl vessel owners occurred in 1999 and 2000. This mail survey used a lengthy questionnaire asking for considerable fishery-specific information, but obtained a response rate well below 20 percent. Because of the low response rate and non-respondent bias, data collected through this survey were of limited value. A processor survey conducted at about the same time obtained an even lower response rate.

A second voluntary economic survey of limited entry vessel owners was conducted in 2005-2007. In order to obtain higher response rates, this second survey used a much shorter questionnaire and collected data through in-person interviews. This survey obtained a fairly high response rate of over 70 percent, but at the cost of considerably less data collected from each respondent due to the shorter questionnaire. While this second survey provides much data of value for assessing industry economic performance and regional economic impacts, our ability to evaluate the contribution of individual fisheries (such as groundfish) to vessel economic performance is limited by the reduced questionnaire length. Collecting data through in-person interviews helped to substantially increase the response rate, but at considerably increased survey cost.

Mandatory economic data collection offers the advantages of reduced non-response bias, the ability to collect more detailed fishery-specific data, and reduced survey fielding costs. These advantages would apply to data collection from both the harvesting sector and the processing sector.

The collection of such data is related to several aspects of MSA and groundfish FMP guidance on rationalization. These include the categories of net benefits, fairness and equity, and harvester and processor sector health. To a large degree these broad categories are addressed by data collection because such data collection allows for the measurement of these categories. The measurement of these

categories may help inform future decisions on the part of the Council.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Data Collection		X			X	X				

Analysis

An economic data collection program will increase the ability to monitor and measure the economic performance of the industry, as described in the rationale above. It will also increase the burden on agencies involved in the data collection and analysis and the burden on industry members in the form of time spent reporting data.

The NWFSC has gone through two voluntary survey efforts. The first effort resulted in a relatively low response rate, which minimized the ability to use the survey. The second effort used face-to-face interviews and resulted in a response rate of over 70 percent. This relatively high response rate has resulted in several pieces of analysis utilized in the rationalization process and may prove useful for other means as well. While this survey has largely been considered to be successful, the face-to-face interview technique is estimated to have cost somewhere on the order of $700 to $800 per interview. This cost does not include the time and cost of developing the survey and analyzing the data. Given that the trawl fishery is over 100 vessels, the field cost of conducting a voluntary survey using a face-to-face technique could be on the order of $100,000 to the agency each year it is conducted.

On the other hand, a mandatory survey may obviate the need for face-to-face interviews. Face-to-face interviews were used in the voluntary survey for several reasons including obtaining a favorable response rate. If a survey is mandatory, a face-to-face technique may not be necessary. However, differences may exist between a mandatory and a voluntary survey, which can make the burden on the industry greater for a mandatory survey than a voluntary survey.

Factors affecting the response rate of a voluntary survey include the length of the survey and the difficulty of the questions. If a survey is viewed as being overly lengthy and/or requests information that is not readily available and that may take time to uncover, the response rate is likely to suffer. The response rate from a mandatory survey may not suffer in the same fashion. Therefore, it is reasonable to expect that a voluntary survey may (at least at times) be simpler and shorter than a mandatory survey simply to get a favorable response rate. If this is the case, a mandatory survey may impose a larger burden on industry than a voluntary survey. In the worst case scenario (one where the survey is highly burdensome), industry members may at times respond with a "protest response" or information that is of poor quality. This can affect the ability to use the survey responses even if the response rate is high.

The collection of economic data relates to several aspects of policy guidance from the MSA, the Groundfish FMP, and Amendment 20 goals and objectives. If better data collection leads to more informed decisions relating to net benefits and efficiency, then data collection is related to MSA

National Standard 5, MSA – 303A(c)(1)(B), Amendment 20 objective 2 and 6, and potentially others. In particular, Amendment 20 objective 6 (promote measurable economic benefits) is related to data collection, because data collection allows economic benefits to be measured. Many benefits may not be able to be measured without the acquisition of additional economic data. If additional data collection helps in the development of policies, then such data collection may also relate to policy guidance on sector health including Amendment 20 objectives 2 and 6, groundfish FMP goal 2, and groundfish FMP objective 7 and 15. Finally, data collection is directly related to several aspects of policy guidance that related to program performance monitoring and modification. MSA – 303A(c)(1)(G) calls for a regular review and monitoring of the program for progress in meeting goals.

A-2.3.3 Program Costs

A-2.3.3.a Cost Recovery

❖ Provisions and Options

Cost Recovery
►Option 1: Fees will be used to recover costs associated with management of the IFQ program but not for enforcement or science. The limit on fees will be 3% of ex-vessel value, as specified in the MSFCMA.

Option 2: There will be full cost recovery. Cost recovery will be achieved through landing fees plus privatization of elements of the management system. In particular, privatization for monitoring of IFQ catch (e.g., industry pays for their own compliance monitors). Stock assessments will not be privatized and the electronic fish ticket system will not be privatized.

Fee Structure
To be determined. TIQC recommends a fee structure that reflects usage. Option (to be developed) that allows for equitable sharing of observer costs for smaller vessels.

❖ Rationale and Policy Issues

Fees would be used to recover costs associated with management, data collection and analysis, and enforcement of the IFQ program. The limit on fees will be three percent of exvessel value, as specified in the MSFCMA, shown below.

The MSFCMA states in Sections 303A(e):

> (e) COST RECOVERY.—In establishing a limited access privilege program, a Council shall—
>
> > (1) develop a methodology and the means to identify and assess the management, data collection and analysis, and enforcement programs that are directly related to and in support of the program; and
> >
> > (2) provide, under section 304(d)(2), for a program of fees paid by limited access privilege holders that will cover the costs of management, data collection and analysis, and enforcement activities.

In Section 304(d)(2)(A) of the MSCFMA:

> (2)(A) Notwithstanding paragraph (1), the Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management, data collection, and enforcement of any—
>
> (i) limited access privilege program; and
>
> (ii) community development quota program that allocates a percentage of the total allowable catch of a fishery to such program.
>
> (B) Such fee shall not exceed 3 percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

The policy issues associated with cost recovery include aligning the Council's preferred alternative to be consistent with MSFCMA by including enforcement costs as required by the MSFCMA and adjusting the provisions of tracking and monitoring program so that the 3 percent fee covers the costs of management, data collection and analysis, and enforcement activities.

Cost projections appear to be slightly higher than the maximum fee of 3 percent of exvessel value of fish harvested that is allowed for cost recovery. However, cost projections are preliminary and will be refined during the regulatory process that converts the Council's preferred alternative into regulation. During this period, it is also expected that there will be several meetings with affected industry to determine how costs can be reduced, including the Council's recommended use of limited landings hours for shoreside processors.

Fees collection based on "usage" and any special provisions such as "equitable sharing of observer costs for small vessels" is pending further development of tracking and monitoring cost estimates and Council discussion of these issues.

❖ Interlinked Elements

The interlinked elements are all the tracking and monitoring elements discussed above as well as all elements that affect the costs of management, enforcement, or are associated with data collection and analysis. Almost all elements affect costs. These elements include permits, endorsements, IFQ and co-op allocation and transfer rules, adaptive management rules, excessive share monitoring, gear switching regulations, and regional and area management and allocation rules.

❖ Analysis

The analysis below is based on Council discussions as well as discussion and information provided by NWFSC, NW Regional Staff, the Council's Enforcement Consultant Committee and Ad-Hoc Tracking and Monitoring Committee, PSMFC, and conversations with NMFS Alaska Regional Office. (This analysis was presented to the Council at its June 2008 meeting.) The analysis below is also based on information found in the NWFSC sponsored Lian-Weninger economic analysis {Lian, 2008 1670 /id}. The cost and revenue estimates are rough estimates to see if they fall in the realm of affordability by the industry and near the 3 percent fee level to cover management and other costs. These estimates will need refinement as the Council preferred alternative is revised to reflect comments received under the NEPA and Federal rulemaking processes.

Below is a series of tables that show the existing tracking and monitoring system, current tracking and monitoring costs by sector, and what the costs of additional observers, plant monitors, and cameras may be as a result of the trawl rationalization program. In addition, state and Federal agency costs are described both here and in Chapter 4. These cost projections are then compared with revenue estimates to determine how they compare to the three percent cost recovery fee level.

Status Quo Tracking and Monitoring Systems: Table A-110 below shows the status quo tracking and monitoring systems. Vessel monitoring systems (VMS) are employed by all vessels except motherships. Paper logbooks are in place in all harvest sectors -- they are mandatory for shoreside vessels but voluntary for the at-sea motherships and catcher-processors. The state fish tickets and logbooks are integrated into a single fish ticket database by the PSMFC and are supported by a federal grant to the PSMFC and by state funding. The industry pays for the cameras while NMFS pays for review and analysis of the resulting video. Observer coverage in the non-whiting fishery is about 25 percent, which is funded through NMFS while the at-sea motherships and catcher-processors use hired observers from a private company. The equipment, training, and data collection and analysis associated with these observers is paid for by NMFS. Plant monitors and electronic fish tickets are currently employed in the shoreside whiting fishery. Plant monitors are paid for by the industry whereas NMFS covers the cost of their equipment and training, data collection, and subsequent data analysis by the plant monitors.

Table A-110. Status quo observer coverage and monitoring for all sectors.

Status Quo	Shorebased Non-whiting Trawl	Shorebased Whiting Trawl	At-Sea Mothership Trawl	At-Sea Mothership Processor	At-Sea Catcher-Processor
VMS	X	X	X		X
Logbooks	X	X	X	X	X
Cameras		X			
Observers	25% WCOP		0	2	2
Fish Tickets	X	X			
Electronic Fish Tickets		X			
Electronic Fish Tickets		1			

Non-whiting Trawl (Table A-111): According to the Lian-Weninger analysis {Lian, 2008 1670 /id}, there were 117 vessels operating in the non-whiting trawl fishery, taking 2,699 trips in 2004. Based on average of 3 days per trip, these vessels operated just over 8,000 days. Based on observer cost estimates used in NMFS Alaska Region's and Northwest Region's analyses of $350 per day, 100 percent observer coverage would require the industry to pay approximately $2.8 million in observer costs. If, in addition to observers, cameras are also required, industry costs would be about $700,000 based on the industry estimate of $6,000 per camera per vessel. It is not known how many vessels already have the proper scales which may cost in the neighborhood of $5,000 to $10,000 each. Processors would have to pay for plant monitors to monitor the landings from the 2,699 trips. Assuming that each trip needs one day of plant monitoring, the costs to the processors will be about $945,000 for 100 percent monitoring. Currently, vessels and processors do not have observer and monitoring coverage so the status quo estimate is zero. The costs of observers and plant monitors are estimated to be about $3.8 million. Note that there will be operational costs to both the plants and vessels as they adjust their operations to account for the observers and monitors. There are no available estimates of these adjustment costs. If, in addition to observers, vessels also are required to carry cameras, this option raises the estimated cost of monitoring to about $4.5 million.

Table A-111. Non-whiting trawl sector observation and monitoring costs at-sea and shoreside.

	Non-whiting Trawl						
Catcher Vessels	Current						
Number	117						
Trips	2699						
Days per trip	3						
observer days	8097						
observer variable cost per day	$350						
Observer Cost		$2,833,950					
Camera unit cost	$6,000						
Camera Cost	$702,000	$702,000					
Additional Equipment Costs	Discard option may require vessels to have motion-compensating scales						
Processors							
Number	29						
Trips	2699						
Number of trips per day	1						
Operating Days	2699						
number of monitors	1						
monitor variable cost	350						
Total monitor variable cost		944650					
Status Quo				**0**			
T&M Alternative 1 Observers and Monitors				**$3,778,600**			
T&M Alternative 2 Observers, Monitors, and Cameras				**$4,480,600**			

Shoreside Whiting (Table A-112): Based on recent participation rates, a whiting fishery prosecuted by 30 vessels and with a season length of 60 days leads to 1800 observer days at an industry cost of $630,000. The current camera costs are $180,000 and the current processor monitoring costs are about $294,000 for a combined status quo cost of $474,000. If cameras are replaced with observers, the costs rise to $924,000 and if cameras are used to supplement observers, the costs rise to $1.1 million. These cost estimates will be updated based on information on the 2008 fishery, the first year in which plant monitors were employed in this fishery. It is unknown if these vessels will have to purchase scales and the operational adjustment costs of these vessels to the use of observers are also unknown.

Table A-112. Shoreside whiting trawl sector observation and monitoring costs at-sea and shoreside.

	Shorebased whiting		
Catcher Vessel			
Number	30		
Season Length	60		
observer days	1800		
observer variable cost per day	$350		
Observer Cost		$630,000	
Camera unit cost	$6,000		
Camera Cost	$180,000	$180,000	
Additional Equipment Costs	??		
Processor			
Number	14		
Season Length	60		
Operating Days	840		
Monitoring Cost per day	350		
Total monitor variable cost		294000	
Status Quo			**$474,000**
T&M Alternative 1 Observers and Monitors			**$924,000**
T&M Alternative 2 Observers, Monitors, and Cameras			**$1,104,000**

Mothership Whiting (Table A-113): This analysis follows a similar approach to the shoreside whiting analysis above. Under status quo, mothership processors are required to carry two observers and the catcher vessels have no direct monitoring, therefore the costs are about $250,000. Adding observers to the catcher vessels increases the costs to $672,000 and adding observers and cameras further increase costs to $828,000.

Table A-113. Mothership sector observation and monitoring costs.

	Mothership Whiting		
Catcher Vessels			
Number	20		
Season Length	60		
observer days	1200		
observer variable cost per day	$350		
Observer Cost		$420,000	
Camera unit cost	$6,000		
Camera Cost		$120,000	
Processor			
Number	6		
Season Length	60		
Operating Days	360		
Number observers	2		
Observer cost per day (1)	350		
Total monitor variable cost		252000	
Camera Unit cost	6000		
Camera cost		36000	
Status Quo -Observers Processors			**$252,000**
T&M Alternative 1 Observers Catcher vessels and Processors			**$672,000**
T&M Alternative 2 Observers, Monitors, and Cameras			**$828,000**

Catcher-processor Whiting (Table A-114): Unless cameras are required, there would be no change to industry costs of tracking and monitoring, because catcher-processors already carry two observers. If cameras are also required, industry costs would rise from $378,000 to $432,000.

Table A-114. Catcher-vessel sector observation and monitoring costs.

	Catcher-Processor Whiting		
Processor			
Number	9		
Season Length	60		
Operating Days	540		
Number observers	2		
Observer cost per day (1)	350		
Total monitor variable cost		378000	
Camera Unit cost	6000		
Camera cost		54000	
Status Quo		**378000**	
Alternative 1 observers		**378000**	
Alternative 2 observers and cameras		**432000**	

State and Federal agency costs for program enforcement, data collection and analysis, and administration are outlined in the following paragraph and in Chapter 4. The costs in Table A-115 on the following page are 'incremental' costs of the IFQ program compared to the status quo. The shift from dockside enforcement to enforcement through auditing-reported data as a result of IFQ was discussed by the Enforcement Committee. With the presence of 100 percent observation and monitoring on vessels, the need for dockside enforcement is greatly reduced. Consequently, state/Federal enforcement estimates ranged from no additional costs above the status quo to $500,000. Camera program costs are based on scaling up the costs NMFS is currently incurring for the whiting EMS camera program and scaling up to the entire trawl sector. Estimates of the At-Sea Observer Program are based on scaling up the estimated current costs of managing the trawl portion of the West Coast Observer Program to 100 percent of the fleet. The $3 million estimate for scaling up the observer program includes the costs of administration, observer training, and program infrastructure, and does not include the observer services. Data quality assurance would result from the periodic substitution of industry-paid-for observers with those paid by NMFS. The catch monitoring program cost estimate is based on the scaling up of the current costs of catch monitoring in the current shoreside whiting fishery. (These estimates will be updated based on analysis of the 2008 season, the first year catch monitors were employed in the whiting fishery.)

The IFQ/Co-op Permits, Quota Program estimate is based on doubling the current size of the NMFS NWR Permit Staff (Supervisor, Computer Specialist, Permits Specialist, and Permits Assistant) plus one staff person devoted to the cost-recovery process. The appeals costs were based on requiring the services of a lawyer and a paralegal. It is expected that the PSMFC will continue working with the states, NMFS, and industry in developing electronic fish ticket and logbook reporting. There will be costs in the collection of data to monitor the performance of the fishery and developing various reports. In sum, these estimated costs total $5.2 million.

Table A-115. Program enforcement, data collection & analysis, and administration estimated costs.

Program Enforcement, Data Collection & Analysis, and Administration			
	Total Costs		
State/Fed Enforcement	$500,000	Incremental Cost-4 staff support, 1 uniform officer	**could be $0
Camera Program	$500,000	Tape review and Analysis	
At-Sea Observer program	$3,000,000	Scale up current observer programs to 100% and Data Quality Assurance	
Catch Monitor Program	$300,000	Monitor, Computer Specialist, training & Equipment, logistical,	
ITQ/Coop Permits and Quota Program	$500,000	Permits staff plus Cost-recovery specialist	
Appeals/GCF/GCF	$200,000	lawyers and para-legal	
E-Reporting Support	$100,000	working w industry/States	
Performance Monitoring Data Collection and Reporting	$100,000	collect data and draft reports	
Total	**$5,200,000**		

To provide an economic comparison, Table A-116 below shows current harvest, revenue, and price dimensions of the fishery. It shows the recent variation in landings, revenues, exvessel prices, fuel prices, and wholesale whiting prices. The 2007 fishery generated $57 million, of which $28 million was associated with non-whiting groundfish and $30 million was generated by whiting fishery. Over the 2004-07 period, the whiting fishery experienced a significant increase in prices, while all sectors experienced rising fuel costs.

Table A-116. Economic comparison of 2004 and 2007 revenues.

Economic Comparsion		2004	2007
Harvests Metric Tons			
Total Non-Tribal Whiting		191793	180056
Total Non-Whiting Groundfish		17238	22253
Total Groundish Including Whiting Tons		209031	202309
Ex-Vessel Revenues Million $			
Total Non-Tribal Whiting		$26.1	$29.7
Total Non-Whiting Groundfish		$16.2	$27.2
Total Groundish including Whiting		$42.3	$56.9
Ex-Vessel Prices			
Ex-Vessel Price Whiting		0.046	0.075
Ex-Vessel Price All Flatfish	$/lb	0.425	0.43
Ex-vessel Price Thorneyhead Compl	$/lb	0.609	0.627
H&G whiting Export Price $/lb		0.55	0.75
Marine Diesel Fuel Costs Newport Oregon June $/gal		1.65	2.5

To provide a summary of the comparison of costs to revenues, Table A-117 below compares the status quo to costs of a trawl rationalization program that requires 100 percent observer coverage for all trawl sectors and 100 percent monitoring coverage in shoreside plants (T&M Alternative 1) and if cameras are also used to supplement observers (T&M Alternative 2). Again, the costs of observers are divided between government and industry, with government requiring about $3 million for administration, observer training, and program infrastructure and industry paying for observer services. The largest

increase in industry costs occurs in the non-whiting fishery with change in costs over the status quo of $3.8 million. This change is due to the fact that currently the industry does not pay for the 25 percent observer coverage nor is it required to have plant monitors. Program management costs under T&M Alternative 1 are about $4.7 million. The total costs of T&M Alternative 1 are about $10.5 million. However, funds currently received by NWFSC for observing the trawl sector would continue to be used, thus reducing the total costs of the program to $8.2 million. If exvessel revenues in the fishery are $57 million and the total costs of management are about 14 percent, the industry would pay directly $10 million for the observers and plant monitors. In terms of paying the program costs, a 4 percent fee, which is higher than the maximum fee level of 3 percent, would be required. Therefore, in developing this program, such aspects as limited landing hours need to be explored to see if program costs can be reduced enough to match up with the 3 percent maximum cost recovery level.

However, as the fishery adjusts to the IFQ and co-op programs, it is expected that costs will be reduced, because consolidation will create fewer, more productive vessels earning greater revenue by catching more target species. If industry costs are reduced 25 percent and revenues are increased by $20 million, then the resulting program costs fall to 3 percent. If program costs also fall, then possibly the cost recovery fee will fall below 3 percent.

The revenue estimate includes estimates of exvessel revenues associated with the whiting fishery. In 2007, the catcher-processor sector accounted for about 40 percent of the fish landed or about $12 million. If the catcher-process cooperative is not a limited access privilege program then the cost recovery fee would not apply. The 2007 industry revenue estimate would have to be adjusted to $45 million. The program cost ($2.4 million after the offset) to industry revenues ($45 million) percentage is about 5 percent. But after the projected industry adjustment to IFQs, the program costs would be 3.5 percent of industry revenues ($68 million).

Fees collected from industry to cover program costs will reduce the value of the QS initially allocated and the price at which QS and QP is traded by an amount that reflects the additional costs of participation in the program.

Table A-117. Summary comparison of tracking and monitoring costs.

Summary Totals (Million $)				Change from Status Quo
	Status Quo	T&M Alt 1	T&M Alt 2	T&M Alt 1-Status quo
Non-Whiting Trawl	0.0	3.8	3.9	3.8
Shore Whiting	0.5	0.9	1.1	0.4
Mothership Whiting	0.3	0.7	0.8	0.4
Catcher Processor	0.4	0.4	0.4	0.0
Program(s) Management	***2.3***	4.7	5.2	2.4
Grand Total	**3.5**	**10.5**	**11.4**	
NWFSC Observer Program offset	2.3	2.3	2.3	
Net Grand Total	1.2	8.2	9.1	**7.0**
Ex-vessel Revenues Million $	57	57	57	
"% Net Grand Total		14%	16%	
% Direct		10%	11%	
%Program Management		4%	5%	
Assume-ITQs Reduce Costs by 25% because fewer vessels that are more productive				
Assume-ITQs Lead to $20 million in Non-Whiting Revenues as reduced bycatch allows greater target catch				
Adjusted Costs		6	7	
Adjusted Revenues		80	80	
% Net Grand Total		8%	9%	
%Direct		5%	5%	
% Program Management		3%	4%	

A-2.3.4 Program Duration and Modification

Provisions and Options

Four-year review process to start four years after implementation.
Community advisory committee to review IFQ program performance.

Rationale and Policy Issues

Four years after implementation a quadrennial review cycle would be implemented. The 4 year review is more frequent than required by Section 303A(c)(1)(g) of the act. The act only requires that the review occur within 5 years of implementation and thereafter in conjunction with the Council's scheduled review of the groundfish FMP, but not less frequently than once every 7 years.

A community advisory committee would review IFQ program performance. This provision was added when the Council considered measures to address community needs at its November 2005 meeting.

Options were considered to provide a sunset provision for the program as a whole or to limit the term of the IFQ issued. The Council rejected the sunset provision and has not included the 15/16 year limit/auction option (Section A-6) as part of its preliminary preferred alternative.

Regardless of the explicit inclusion of a fixed term for the QS, the MSA requires that QS terminate every 10 years but that they be automatically renewed unless the holder has failed to comply with any term of the plan identified as a cause for revocation, or has committed a prohibited act (has defined in Section 307 of the MSA). Thus far, the Council has not identified in the plan any specific acts that would be the cause for revocation (Section 303A(f).. The QS are not a property right and may also be revoked as a result of an amendment to the FMP or regulations.

Interlinked Elements

This provision would be modified by the fixed term option included in Section A-6 and analyzed in Appendix F.

Analysis

The IFQ program may be modified at any time through Council action. QS do not constitute a property right. An IFQ program does not change the resources public ownership status. It is a public resource managed by the government as a public trust. Under the current management system, the government manages the resource to the public benefit by controlling catch (directly or indirectly) and allowing catch taken under the management rules to be converted to private property sometime between when it is caught and when it is sold to a fish buyer. IFQs are an alternative way for the government to control and organize harvest activity. IFQs do so by creating a catch privilege. A catch privilege is different from ownership of the resource. The following Magnuson-Stevens Act language pertains to the limits on this catch privilege:

> Sec. 303A(b) NO CREATION OF RIGHT, TITLE OR INTEREST.—Limited access privilege, quota share, or other limited access system authorization established, implemented or managed under this Act—
>
> (1) shall be considered a permit for the purposes of sections 307, 308, and 309;
>
> (2) may be revoked, limited or modified at any time in accordance with this Act, including revocation if the system is found to have jeopardized the sustainability of the stock or the safety of fishermen;
>
> (3) shall not confer any right of compensation to the holder of such limited access privilege, quota share, or other such limited access system authorization if its revoked, limited or modified;
>
> (4) shall not create, or be construed to create, any right, title, or interest in or to any fish before the fish is harvested by the holder; and
>
> (5) shall be considered a grant of permission to the holder of the limited access privilege or quota share to engage in activities permitted by such limited access privilege or quota share.
>
> Sec. 303(d)(3) "An individual fishing quota...
>
> (B) May be revoked or limited at any time in accordance with the Magnuson-Stevens Act.
>
> (C) Shall not infer any right of compensation to the holder of such individual fishing quota, if it is revoked or limited.

Effects of limiting the duration of a the QS (Fixed terms) are analyzed in Appendix F. The setting of a specific fixed term after which QS must be automatically renewed unless an individual has violated the program or the program has been modified (as required by the MSA) has less effects on an entity's ability to plan and on fleet rationalization than a program with a specific fixed term at the end of which a portion of the QS is ceded back to be reallocated in an auction.

The Council's current schedule requires more frequent review than that required by the MSA. It entails higher administrative costs than one that is less frequent. By timing the review process to occur every two years, the Council can set the review up to coincide either with the on year or off year for the biennial groundfish specifications process. Depending on the degree of work entailed and modifications to be considered, reviewing the program at the same time the biennial specifications are developed could be more efficient or could create untenable work loads. The specification of a flexible review period could provide the Council an opportunity to better prioritize and manage its work load.

A-2.4 Additional Measures for Processors

Provisions and Options

Option 1: Any QS received for processing history as part of the initial allocation will expire after a certain period of time (to be determined prior to final Council action). At that time all remaining QS will be adjusted proportionally so that the total is 100%.
Option 2: The accumulation limit grandfather clause of Section A-2.2.3.e will not apply for processing history. Regardless of the percent of the total QS designated for processors, processing history will not entitle a person to receive QS in excess of the accumulation limits.
Option 3: The Adaptive Management allocation and process (Section A-3) will be used to compensate processors for demonstrated harm by providing QP to be directed in a fashion that increases benefits for affected processors.

Rationale and Options Considered but not Analyzed Further

These options are being considered as possible ways to address processor concerns short of a full allocation of QS to processors. In section A-2.1.1.a we focused on reasons for allocating or not allocating to all groups. The focus of this section is on the rationale for allocating to processors and additional measure that might be adopted in addition to or in lieu of an allocation to processors. In the spring of 2007 we compiled and received public comment on a list of the reasons provided for allocating and not allocating to processors. Since the focus of this section is specifically on the allocation to processors, we provide a summary of that compilation here.

Reasons to Allocate to Processors	Reasons Given for Not Allocating to Processors
Compensation for stranded capital	Stranded capital will not occur for processors. Long-term compensation should not be given for a short term problem.
Processors are fishery participants that are invested and dependent on the fishery (303A) and have made contributions to the development of the fishery.	National Standard 4 says allocations, when necessary, should be to "fishermen." No precedence for allocating IFQ to processors
Keep balance of market power and flow of product to existing plants	Will create a market power imbalance.

Facilitate communication and coordination of fishing activity between plants and vessels, including management of total harvest, bycatch, and participation among co-ops.	Such communication and coordination occurs under status quo and processors do not need an initial allocation to continue. If processors do not receive an initial allocation they can still participate in co-ops by acquiring QS in the market place.
There is a conservation benefit whether you give QS to permit holders or processors.	Degrades conservation benefit.
Maintain diversity and competition in the processing sector.	The processing sector will be consolidated and new entry will become more difficult.
Processor buy-in is needed to move the program forward.	
	Consolidation among permit holders not associated with processors will increase.
	An allocation to processors does not take into account the permit owner's obligation to repay loans from the buyback program. Those loans bought up permits representing nearly 50% of the fleets landing history.

Limited Duration QS. Option 1 would provide processors with QS for a limited period of time. Under the Amendment 6 program, limited duration permits ("B" permits) were issued to provide an adjustment period for those to whom "A" permits were not granted. One reason limited duration QS might be considered would be if the primary rationale for granting QS to processors is the concern that QS holders may capture a portion of processor profits. This may be a possibility if processors are overcapitalized, the processing side of the market is structured competitively and QS holders are able to exert market power. The period of time might be set such that it is believed excess capital will have left the fishery when the QS expire or that any processor who had taken out loans to finance their investment would be able to pay that investment back. Holding QS for that period would provide leverage in the market place while the QS is active.

No Grandfather Clause. Option 2 would place caps on the amount of QS a processor receives at the time of initial allocation. It is relevant only if the Council adopts a grandfather clause as part of the accumulation limit option. This option might be adopted to pursue at least two different ends

(1) to provide another balance the Council could strike in trying to establish the appropriate distribution of QS between processors and harvesters, and
(2) to alter the balance of program impacts between small and large processors (independent of issues related to the harvester/buyer split of the initial allocation).

This option would provide more QS to smaller processors and less to larger processors and not affect the split between harvesters and processors (assuming that the intent of the option is to preserve the split of QS between harvesters and processors established in section A.2.1.1.a, e.g. a 75/25 split). [75] Part of the rationale for a grandfather clause for harvesters is that they must have QP to operate and a grandfather clause allows them to achieve certain historic scales of operation. Processors do not need the grandfather clause to preserve their historic scale of operation because they do not need to hold QP to buy groundfish. The grandfather clause is needed for historic scale of operations with respect to processor owned permits, however, this option is phrased such that QS allocations issued for processor owned permits would still be grandfathered in.

[75] An alternative interpretation of this option could be that any QS that is not issued to a processor because it exceeds the accumulation limit would be distributed as part of the initial allocation to QS holders.

Adaptive Management. Option 3, like Option 1, is focused primarily on the issue of compensation for harm to processors. Option 3 would establish that it is the Council's specific intent to use the adaptive management program for the purpose of compensating processors for harm. The adaptive management program itself (Section A-3) leaves this open as a possibility but does not commit the Council to that course of action. Under Option 3 no special action would be taken to benefit processors until after such harm has been identified. At that time, the Council would have to decide if the holdback program will be used to benefit all processors, a certain class of processors, or just those specific entities that demonstrate they have been harmed by the program.

The following option was considered but rejected.

> As needed, a fee will be established to provide financial compensation to processors for demonstrated harm. A process will be established for the demonstration of harm.

Establishing the fee and using it to provide direct financial compensation would require Congressional action.

Interlinked Elements

Depending on the rationale for considering these options, each of these may be linked with the decision on the amount of QS allocation to give to buyers (processors) as part of the initial allocation (Section A-2.1.1.c).

Options 1 and 2 are interlinked with the accumulation limit decision on whether or not to include a grandfather clause. Option 2 only makes sense if such a clause is provided in Section A-2.2.3.e. Option 1 in particular would require some additional considerations with respect to specification of the grandfather clause. Specifically when the QS issued to processors expires and the result is that all other QS increase proportionally, are those who control QS allowed to keep the additional QS they receive that is in excess of the accumulation limits? If there is a vessel grandfather clause, will the grandfathered levels for vessels be increased.
Option 3 of this section would apply to relatively few processors if adopted in conjunction with Option 5 of Section A-2.1.1.a (Option 5 allocated to processors and specifies a set aside for the adaptive management program). Section A-3.0 covers the adaptive management program. A-3.0 specifies that if the Council were to allocate QS to processors (adopt Option 5 in Section A-2.1.1.a) those processors who receive an initial allocation would not be eligible to receive QP issued through the adaptive management program. Option 3 of this section allocates only to those processors able to demonstrate harm. Presumably, in order to demonstrate harm from an IFQ Program, the processor would have to exist at time of program implementation. Since most processors would receive an initial allocation the only processors eligible for QS under Option 3 would be those that had entered the program relatively recently (i.e. after 2003) or are pre-existing but did not meet the recent participation criteria of Section A-2.1.2.

Analysis

These options impact goals and objectives related to net benefits and efficiency, disruption, excessive shares, fairness and equity, and sector health. The impacts will be reviewed here in the context of the effect of the options on processors and harvesters. There may be some indirect impacts to communities and labor related to the amount and duration of the QS issued to processors or the distribution of QP under adaptive management. These impacts are discussed in Section A.2.1.1.a and A-3. Whether communities are benefited more by a provision that benefits harvesters or one that provides more

benefits to processors depends in part on the degree to which each of these entities tends to be tied to communities.

Limited Duration QS (Option 1)

❖ Impacts on Processors

One of the rationales for allocation to processors is that during the post implementation transition period, those who hold QS will be able to capture profits from the harvesters or processors that would otherwise go to a return on investment and possibly repayment of debt. In Section A-2.1.1-a we identified that the opportunity for QS holders to capture such profits would be limited to the time period and sectors for which overcapitalization exists. Further, we identified that the ability to capture profits from a sector depends on price based market competition within the sector; and finally, that if the price based market competition existed prior to implementation of the IFQ program a firm's profits should not vary substantially from what is observed under status quo. If there are profits that exist under status quo that may be captured by QS holders (for example, because some competition under status quo was based on ability to handle product volume during an Olympic fishery) that ability to capture such profits should be limited to the time period during which overcapitalization remains in the sector. Thus whether this measure would address the concern about capture of processor profits by QS holders will depend on when QS issued to processors are set to expire, the time period over which the processors capture adequate return on capital and the time period required to repay debt on the capital investment.

With respect to the difference between capturing adequate return and paying off debt, adequate return is that return necessary to compensate the owners of capital for their investment and should be comparable to the return for investments of similar levels of risk in other sectors of the economy. When such compensation is not available, it discourages future investments in the sector. Adequate return should be taken into account whether the capital investment is financed through the firm's own assets (e.g. cash on hand) or through a bank loan. The time period required to cover debt is an important consideration with respect to the effect of the IFQ program on financial stress and potential bankruptcies. Banks generally require that most fishery specific equipment investments be paid off within 5-10 years.

Another reason for providing QS to processors is to affect the balance of market power in the fishery. Those initially holding QS will receive resource rents and be in a better position to thwart an attempt by those on the opposite side of the market to exert market power. If processors are given QS over concern about harvesters' ability to exert market power, limiting the duration of the QS will cut short the achievement of this objective. It would provide processors a grace period during which they might be in a better position to maintain their profits (assuming that harvesters would otherwise exert market power) and that period could provide an opportunity for them to acquire QS from harvesters (QS that will not expire). At the start of the program, the QS available from harvesters will be somewhat less expensive relative to their value after the QS issued to processors expires. At the same time, those holding the QS may be more reluctant to part with them because they know their value will increase substantially as the time at which the QS issued to processors approaches. Additionally, an initial moratorium on the transfer of QS (an option in Section A-2.2.3.c) would also make it more difficult to accumulate QS.

An initial allocation of QS will provide an infusion of wealth to the initial recipients which may give them a leg up in the growth and expansion of their operations, including the accumulation of additional QS (see Section A-2.1.1.a). If the intent of an initial allocation to processors is to also provide them with this advantage, or an advantage more on a par with harvesters, that advantage will be substantially decreased if the QS are set to expire after a certain period.

The initial allocation will also create a competitive advantage for existing businesses *vis a vis* new entrants (a barrier to new entry, see Section A-2.1.1.a). Sectors are able to exert market power over the long run only to the degree that a barrier to entry prevents the entry of new competitors attracted by higher profits. Limiting the duration of the initial allocation will reduce this affect.

❖ Impacts on Harvesters

If processor QS is to expire after a period of time and all QS that was originally issued to harvesters expanded, the expiration will cause a price fluctuation and there will be a second transition period. The effect of the expiration on price fluctuation and QS availability on the market is described above in the section on processors. After QS are issued it is expected that the individual quota will migrate into the hands of the most efficient producers (whether as QS they own or as QP they acquire from other QS holders). It is, however, likely that the initial distribution will affect the vessels to which the QS/QP migrates. The QS issued to permit owners will likely migrate through the market to the most efficient vessels, some of which may be owned by harvesters and others by entities that also process.[76] Processors may be more likely to use QS on their own vessels (taking advantage of vertical integration opportunities) and accumulate additional QS to make those vessels more efficient;[77] or they may decide it is more efficient to not operate vessels but rather to use the QS they own to influence deliveries of independently operated vessels. Depending on this choice, the rationalization process may leave a different set of active vessels. However, either way, if a substantial degree of rationalization is achieved within the "lifespan" of the limited duration QS, once those limited duration QS expire some vessels may find themselves with excessive amounts of QS and others with less than they need. Vessels owners may use a variety of contracting mechanisms in order to arrange in advance to minimize the disruptive effects of the second transition period. However, this will require additional transaction costs, and advance contracting by owners at or close to their accumulation limits may be difficult.

❖ Impacts on Net Economic Benefits

The need to track QS originally issued to processors separately from other QS will add some cost to the QS tracking program. The second adjustment period occurring when limited duration endorsements expire will also have an effect on net benefits by increasing transaction costs as QS owners prepare for the repositioning required by the expiration.

No Grandfather Clause (Option 2)

❖ Impacts on Processors

This grandfather clause would not affect any QS issued to a processor based on the history of a limited entry permits owned by that processor. However, a processor that receives for its limited entry permits an amount of QS in excess of the accumulation limits will not be eligible to receive QS for its processing history. QS it would have otherwise received will be redistributed to the remaining processors in accordance with the allocation formula. Thus, excluding processors from the grandfather clause provision will even the distribution of QS among processors. This effect has been discussed in Section A-2.1.1.a.

[76] In some cases it will be the QP that migrates while initial recipients retain ownership of QS.
[77] Up to accumulation limits.

Some of the smaller processors will be relatively better off in that they will have more QS and thus potentially more bargaining power in their interaction with harvesters. Relative to larger processors they are likely to have greater strength, as compared to what they would have had if there had been a grandfather clause.

❖ Impacts on Harvesters

As compared to a processor allocation in which a grandfather clause applied to processors, harvesters are more likely to face a buying sector that has a greater number of buyers and smaller buyers with relatively more bargaining power.

If smaller processors are less likely to own their own permits or vessels than larger processors, then a redistribution of QS issued to processors that is skewed more toward smaller processors is more likely to result in consolidation of QP on vessels that are harvester owned rather than those that are processor owned.

❖ Impacts on Net Economic Benefits

The impact of Option 2 on net benefits relative to a processor allocation without a cap on the accumulation limit is uncertain and likely depends on whether there would be a change in the transaction costs necessary to get QP into vessel accounts and whether there would be any greater or lesser reason to expect that market competition will be hampered. As compared to Options 1 and Options 3 the transition/implementing costs are lower.

Adaptive Management (Option 3)

❖ Impacts on Processors

Under Option 3, QP issued through the adaptive management program would be used to compensate processors for demonstrated harm. If adopted, the exact impacts of this provision will depend on the process by which the provision is activated and how the QP issued for this purpose are distributed.

With respect to activation of the provision, the first step is demonstration of harm. If prior to implementation of the IFQ program there is no further development of this option, there would be several implicit lags in its activation. First, the harm would have to be identified and someone, the industry or government, would have to collect the information and provide it in a Council forum. The Council would then develop criteria for evaluating the information and harm, conduct the evaluation, identify a remedy and complete the Council decision process, at which time NMFS would evaluate the Council recommendation and take appropriate action. Alternatively, the matter of developing criteria, evaluating the harm, and determining a remedy could be delegated to NMFS discretion. In either case, the action would require a public process. The first QP would be issued in the year following completion of that process.

On the one hand leaving the program completely open with respect to criteria and response provides the maximum flexibility for appropriate adaptive management. On the other hand, that flexibility results in a time lag for taking action. Depending on the length of that lag and the degree of harm, processing companies could go out of business prior to remedial action.

Alternatively, some criteria and remedial actions might be developed in advance so they are ready to support a rapid initial response. This would not prevent the Council from augmenting or revising the criteria and response to be more targeted with respect to the circumstances which eventually present themselves. The Council could even start the program with remedial actions in place that would sunset after a certain transition period. For example, the potential for a market power imbalance in favor of harvesters might be addressed by issuing adaptive management QP directly to processors for the transition period. This would differ from Option 1 in that processors would not have QS to trade. The QP allocation might be based on the processor share of the total deliveries in the previous year.[78] Using another approach, some stability and power could be given to processors simply by issuing the adaptive management QP to a vessel for whatever portion of the vessel's coming year's harvest it commits to delivering to the same processor that it did in the previous year. This would provide a disincentive for moving between processors in the same way that the requirement to spend a year in the "non-co-op" portion of the fishery provides a disincentive for moving between processors in the co-op alternative. However, in this case the disincentive would be an effective reduction in the total QP available to a harvester. The additional leverage for a processor would be limited because while the harvester moving to a different processor retains the QP it would have otherwise had, for example 90% of its QP, the processor would be left with no production from that vessel. Nevertheless, this approach would be similar to the Groundfish Development Program used in the BC trawl IFQ program that has been viewed to be relatively successful in providing some stability for processors. Another approach that has been suggested is that QP might be given to harvesters based on their entry into a preseason contract. This could provide processors some single year stability through planning opportunity but it is not clear how it would affect longer term stability and market power. Pressure would be on both the harvesters and processors to enter into the preseason contract in order to gain the advantage of the adaptive management QP but it is the harvesters that would be able to shop that QP around and gain the best terms. A processor that did not agree to the harvester's price would be left with nothing and would face a market in which there are few QP available because of the preseason contracts to which other harvesters had committed themselves.

Option 3 of this section and Option 5 of A-2.1.1.a (Option 5 allocates QS to processors and provides for an adaptive management program) could both be adopted, but in that case the only processors able to benefit from Option 3 of this section would be those entering the fishery after 2003, or those disqualified by a recent participation criteria (Section A-2.1.2). This is because the adaptive management program (A-3) prohibits allocation of QP to processors that received an initial allocation.

❖ Impacts on Harvesters

As with the processors, the impact on harvesters will depend on how the program is implemented. If adaptive management QP are issued to processors, depending on the criteria for usage, it may be more likely that a processor will use the QP on its own vessel rather than an independent harvester. This would cause a direct disruption in the flow of QP among vessels, however, by definition the adaptive management program will likely either alter product flow or the prices at which raw fish are sold. While issuing QP to processors for use in balancing bargaining power might alter product flow among harvesters, issuing QP to harvesters as a reward for delivering to the same processors that they had in the previous year would stabilize product flow. Issuing the QP to harvesters in this fashion would also stabilize the rationalization process. Alternatively, if the fleet rationalizes, adjusting operation sizes to QS holdings, and then QP is diverted for use to compensate for processor harm and not available to the

[78] In such a case, the adaptive management QP might be issued part way through the fishing year (after completion of the accounting for the previous year's harvest). For example, a condition of the program might be that the QP issuance would occur March 1 based on all fish tickets turned in by January 15.

same harvesters (e.g. processors receive the QP want to use it on their own vessels) then harvesters would go through another adjustment phase.

❖ Impacts on Net Economic Benefits

There will be some management costs associated with the adaptive management program and depending on how it is implemented there may be some additional transaction costs if the QP available to particular harvesters are reduced and they need to make adjustments to their QS holdings in order to re-optimize.

In general, imposing a restriction on a properly functioning market system results in some inefficiency. However, if market power is being exerted and adaptive management is used to counter that effect, the effect on efficiency may be minimal. It might be possible to distribute the QP in such a way as to change the balance of market power, essentially redistributing the profits without changing who harvests and processes the fish. If this end is achieved, the effect on efficiency would be less than if the program resulted in an actual redistribution of the product flow. In order for the distribution to redistribute profits without redistributing the flow, it would be the threat of the potential redistribution that causes a different outcome in the bargaining process, rather than an actual shift.

A-3 ADAPTIVE MANAGEMENT (OPTION)

Provisions and Options

► During the biennial specifications process, up to 10% each year's QP available for the trawl IFQ program will be set aside for use in an adaptive management program that could create incentives for developing gear efficiencies, or community development or to compensate for unforeseen outcomes from implementing the IFQ program. Examples of unforeseen outcomes include, but are not limited to, unexpected geographic shifts in the distribution of catch or landings, unexpected effects on certain segments of the industry (e.g. processors), or an unexpected barrier to new entry into the fishery. Should the Council adopt initial allocation of **fishing QS** to processors, those processors receiving an initial allocation would not be eligible to hold QP issued through an adaptive management program. This provision will apply to the overall trawl sector (whiting and non-whiting) but the QP set aside from each trawl sector would be specific to that sector.

Rationale and Policy Issues

Rationalization of the trawl limited entry fishery could have unforeseen or unanticipated consequences. Adaptive management is a suggested as a tool to deal with these unforeseen issues. For example, if unforeseen harm to processors or communities occurs, adaptive management quota pounds could be used for compensation. The Council intends that the adaptive management holdback for each sector would be specifically for use in that sector.

The Council may choose to build flexibility into the management of the rationalization program by providing incentives to harvesters in order to shape fishing behaviors. Adaptive management could be used to rewarded low bycatch rates/amounts, low prohibited species catch rates/amounts, or to encourage conversion to fixed-gears.

The Council intends that the adaptive management quota pounds be fished. Any quota pounds that are not allocated through the adaptive management provision would be redistributed to all the quota share holders in proportion to the amount of QS they hold. In this manner, no quota pounds in the Adaptive

Management program would remain unallocated. It is not the intention of the Council to remove 10 percent of each sectors' allocation from use.

- Vessels receiving adaptive management quota pounds in addition to quota pounds already held in a vessel account could cause the vessel to exceed a vessel accumulation limit. The Council would need to address this issue of excessive shares/pounds caused by allocation of adaptive management quota pounds. If adaptive management quota pounds count towards the accumulation limit, then for those vessels that are at the maximum, there is no way to provide them with the incentives. If adaptive management quota pounds are not counted towards the vessel's accumulation limit, that would add a small amount of complexity to the tracking and monitoring of accumulation limits. The Council could consider this issue as part of the trawl rationalization program, or leave it as a modification to be made upon implementation.

- If the Council were to allocate QS to processors (adopt Option 5 in Section A-2.1.1.a), those processors who receive an initial allocation would not be eligible to "hold" QP issued through the adaptive management program, according to the way the adaptive management provision is currently written. It may be difficult to track indefinitely which processors were initially allocated QS, and whether or not they are a processors that CAN or CANNOT hold adaptive management QP. The Council may wish to address this issue by changing the term "hold" to "can't initially receive". In other words, processors would not be able to initially be awarded adaptive management QP, but could later in the year buy them, hold them, and fish them. This alternation to the provision would substantially reduce the amount and cost of tracking adaptive management quota pounds beyond the initial receiver. Anotehr possible approach might be to put a sunset date on processors that are ineligible to hold adaptive management QP.

Depending on the final purpose and structure of the Adaptive Management provision, the goals and objectives addressed include; promote fishery conservation and assist in rebuilding of overfished species (MSA 303A(c)(1)(A) & (C)); address concerns over excessive geographic or other consolidation in the harvesting or processing sectors (MSA 303A(c)(5)(B)(ii)); avoid unnecessary adverse impacts on small entities (Groundfish FMP Objective 15); and assist fishing communities, entry-level and small vessel owner-operators, captains, crew through set-asides or assistance in the purchase of quota (MSA 303A(c)(5)(C)).

Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
X			X			X	X	X		

Interlinked Elements

Quota shares allocated to processors – Adaptive management quota pounds would not be allocated to processors that received an initial allocation of quota shares.

Tracking and Monitoring – Adaptive management quota pounds may have to be tracked separately from other quota pounds, if they cannot be transferred to processors that receive an initial allocation.

Accumulation limits – Adaptive management quota pounds may or may not count against an individual's, an entity's, or a vessel's accumulation limit.

Transferability – Adaptive management quota pounds may or may not be transferable, depending on the purpose of the awarded quota pounds.

Program costs – Adaptive management would add some complexity and increase the cost of execution of the rationalization program.

Additional measures for processors – A particular use of the adaptive management QP is specified in section A-2.4, Option 3.

Analysis

Up to 10 percent of each trawl sector's allocation would be distributed to those harvesters which meet the criteria established for the Adaptive Management provision. The Council may choose to utilize the Adaptive Management quota pounds for a variety of purposes including to increase landings in certain communities, increase deliveries to certain processors, help crew or other individuals enter the fishery, encourage greater use of fixed gear by trawlers, or encourage specific harvesting behaviors, such as bycatch avoidance. These uses are currently intentionally vague, to leave room for further development, flexibility, and to address unforeseen problems in the rationalization program.

The Adaptive Management provision could be used in many different ways. If the QP is used to protect vulnerable communities by ensuring that landings are delivered to those locations, the Adaptive Management provision could be structured to approximate the competitive grant program of the Groundfish Development Authority (GDA) in British Columbia, Canada. In that program, 10 percent of the quota is available to harvesters if they have an agreement with a processor for delivery. The criteria of this program favor Canadian processors and favor more established or stable processors. The Canadian program is not intended to help new entrants into the fishery, but rather is intended to act as a stabilizing factor for processors. The GDA was set-up as the alternative to allocating processor quota shares.

If the Adaptive Management provision purpose includes facilitating new entrants into the fishery, the Adaptive Management QP could be distributed to applicants based on certain criteria that must be met. These criteria might include a certain amount of time as crew on a U.S. commercial fishing vessel or on a west coast groundfish trawl vessel. For example, the halibut/sablefish fishery in Alaska has a 150-crew-days-in-any-U.S.-commercial-fishery requirement for new entrants to become quota share holders.

If the Adaptive Management provision is used to encourage converting to fixed-gear, the terms of converting and the amount of QP for compensation and the basis for each award would have to be pre-determined. Likewise, if the Adaptive Management provision is used to encourage lower bycatch amounts of salmon or rebuilding species, the Adaptive Management QP could be awarded to those trawlers with the lowest bycatch amount or rate.

Implementation and execution of the Adaptive Management provision has not yet been defined by the Council. The Council may choose to allocate adaptive management quota pounds to harvesters that meet a pre-set requirement, or an application process may be involved, or some other means of identifying the receiver of the adaptive management QP. No criteria or use for adaptive management quota pounds is provided in this analysis, and activation of the adaptive management provision would require future Council action. The future Council action would require at least a two Council meeting

process with full public participation and production of a regulatory package including an environmental assessment. The environmental assessment could possibly be part of the groundfish biennial specifications process, but tacking that on to an already burdened process would add to the workload and might slow the specifications process down.

If the standards for receiving Adaptive Management quota pounds are clearly established and do not require subjective judgment, implementation could be made simple and less costly. For example, if the use of adaptive management is to encourage reduction of bycatch catch amounts, the criteria for awarding adaptive management quota pounds could be pre-defined, for example, going to the top one-third of all trawlers with the lowest overfished species bycatch amounts or rates.

Adaptive management QP would not be retired or held-back from use in the fishery. All adaptive management QP would end up with vessels, however the distribution would not necessarily be equal among all vessels. Depending on how the adaptive management provision is structured, all vessels may have an equal shot at competing to receive adaptive management quota pounds (e.g. a QP bump would be given to vessels delivering to same processors as the previous year, or vessels that achieve a certain reduction in bycatch over the previous year). The adaptive management provision could be structured in a way that would benefit certain vulnerable communities, and therefore some vessels would be positioned to access adaptive management quota pounds, while other vessels would not be positioned well to compete. Note also that control of adaptive management QP could be given to communities or regional fishing associations.

Because adaptive management quota is intended to address unforeseen issues in a new management program, the Council may choose to wait to implement the adaptive management provision in order to properly address issues as they arise. Waiting to implement could cause some disruption and uncertainly for harvesters. Uncertainty could arise from either not knowing if the provision would be implemented or not knowing how the provision would be implemented, and uncertainty would reduce QS prices. To decrease that uncertainty, this provision provides notice to quota share holders that an adaptive management hold-back could occur at a future date. Even without the notice provided by this provision, the Council could initiate adaptive management later, but the element of surprise might produce objections.

As noted in Section A-2.4 on processor measures, QP issued through the adaptive management program could be used to compensate processors for demonstrated harm. Harm would have to be identified, and provide information showing the harm in a Council forum. Criteria for evaluating the information and harm, an evaluation, and a remedy would need to take place in the Council decision process. NMFS would evaluate the Council recommendation and take appropriate action, or criteria, evaluation and remedy could be delegated to NMFS discretion. After a thorough public process, the first adaptive management QP to address harm would be issued in the year following completion of that process.

A-4 PACIFIC HALIBUT INDIVIDUAL BYCATCH QUOTA (IBQ) – NON-RETENTION

Provisions and Options

►IBQ for Pacific halibut bycatch in the trawl fishery will be established. Such IBQ will be issued on the basis of permit specific logbook information and fleet bycatch rates applied to the target species quota shares an entity receives. IBQ will not be geographically subdivided.

Interlinked Elements

IFQ Management Units – The management unit options would not apply to IBQ, unless specified by the Council.

Initial Allocation – Initial allocation of IBQ would be similar to the allocation of overfished species IFQ in the non-whiting fishery (Option 2). That method includes determining a fleet average halibut bycatch rate and then tying that to the target species QS allocations. Initial allocation of IBQ could not be based on landings of halibut, because Pacific halibut is a prohibited species and is not landed in the trawl fishery.

Annual Quota Pound Issuance – Surplus or deficit IBQ would not likely be carried over.

Tracking, Monitoring and Enforcement – IBQ discard would be required in all options.

Adaptive Management – Adaptive management would not likely be applied to IBQ.

Rationale and Policy Issues

As in all IPHC management areas, Area 2A (off Oregon and Washington) has a Total Constant Exploitation Yield[79] (TCEY), and the estimated amount of trawl bycatch of halibut is taken off the top of the Area 2A TCEY. The trawl caught halibut subtracted from the TCEY is expressed in pounds of legal-sized halibut mortality. Currently the trawl fleet has no cap on the amount of halibut caught, discarded or killed. Under the trawl rationalization program, actual bycatch will likely be accounted for within the year. If the trawl bycatch of halibut increases, or is greater than current estimates, then the trawl sector bycatch may constrain directed halibut fisheries inseason and/or in the future. If the trawl sector mortality is stabilized or reduced then the likelihood of the trawl fishery pre-empting directed halibut fisheries is minimized. Conversely, if it increases, the allocation to the directed fisheries goes down. For these reasons, it is prudent to create catch accountability down to the individual trawl harvester for Pacific halibut.

Pacific halibut IBQ would essentially function in the same way and according to the same rules as IFQ for other species, except that retention and landing of halibut would be prohibited. In other words, discard at sea of Pacific halibut would be required. In order to allocate IBQ, the limited entry trawl sector total allocation must be specified, which has not been done in the past. Defining the sector total allocation would allow that amount to be divided up into quota shares. There are various ways to define the trawl sector allocation, and those methods may best be described and dealt with in the Intersector Allocation process, also called FMP Amendment 21.

The IBQ provision addresses the following goals and objectives: reduce nongroundfish mortality (FMP Objective 4); reduce bycatch (Amendment 20, Objective 3); and account for total mortality (Amendment 20, Constraint 4).

[79] TCEY is expressed in terms of legal-sized halibut, since the primary target halibut fishery (using gear other than trawl) can only retain and land legal-sized halibut.

Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
X										

Analysis

The International Pacific Halibut Commission (IPHC) manages the conservation and sustainability of the Pacific halibut resource by conducting an annual coastwide stock assessment, and developing and setting directed fishery catch limits. IPHC accounts for bycatch mortality in an area prior to setting the catch limits for the directed halibut fisheries. Halibut individual bycatch quota (IBQ) could provide a way to proactively and effectively account for bycatch of halibut in the trawl fishery during the year, which is an objective of the trawl rationalization program.

In November 2007, the Council decided to "allocate" a percent of the Area 2A (i.e., all waters off Washington, Oregon, and California) total constant exploitation yield (CEY) of Pacific halibut to the limited entry trawl sector based on either the 2005 or the 2006 estimated bycatch mortalities. The bycatch rate estimates are generated by National Marine Fisheries Service (NMFS) Northwest Region using West Coast Groundfish Observer Program (WCGOP) halibut bycatch information, stratified by season, depth, latitude and amount of arrowtooth flounder, and multiplied by effort in each stratum using Oregon and Washington logbook information. Halibut bycatch rates may be different in different areas; however, according to the IPHC, there is no biological reason to divide Area 2A into finer scales of management. The Council may wish to base initial allocation of IBQ on the different rates of bycatch in different areas, but after initial allocation IBQ would be tradable to anywhere in Area 2A and tracking IBQ by sub-area would add an additional tracking and monitoring feature to the rationalization program.

In order to allocate IBQ, the total sector allocation must be specified. The IPHC specifies annual catch limits for Area 2A directed fisheries, but these catch limits are specified in late January of the fishing year, which is likely too late for deciding trawl limits for the same year. This timing issue also occurs in the status quo fishery, but the status quo LE trawl fishery does not have a cap on halibut. Washington Department of Fish and Wildlife (WDFW) developed a draft proposal on how to link the limited entry trawl sector total allocation under rationalization to the Area 2A directed fishery catch limit. This proposal was provided in the supplemental briefing book materials for the June 2008 Council meeting. The Council may opt to establish the halibut IBQ pool under the Intersector Allocation process (FMP Amendment 21) because it has implications for other fisheries, rather than through the trawl rationalization process.

The Council expressed the intent to further reduce trawl bycatch of Pacific halibut in future fisheries to provide more yield for directed Area 2A halibut fisheries. It is anticipated that the bycatch of Pacific halibut will decrease under trawl rationalization due to reduced active capacity and fewer trips to attain quotas. The estimation of discard mortality of trawl caught halibut could potentially be based on observed condition upon release, if observer coverage is at close to 100 percent, as proposed under rationalization. For Area 2A, the current discard mortality rate (DMR) is 50 percent of total catch. IPHC studies have found that discard mortality in trawl fisheries is dependant on the size of the fish, the target fishery, and the duration and size of the trawl haul. Under the status quo fishery, the percentage of

observer coverage is not extensive enough to estimate a DMR based on condition/release data collected by observers. In British Columbia, where the trawl fleet has near 100 percent observer coverage, the DMR is based on observed condition and in some instances is lower than 50 percent. A similar circumstance has the potential to occur in the U.S. groundfish trawl fishery.

The broader experiences of our Canadian counterparts is relevant to this trawl rationalization analysis. Up until 1995, before Canadian groundfish trawl rationalization, the B.C. trawler fishery was estimated to have taken 1.5 to 1.7 million pounds of halibut bycatch mortality annually (all sizes). At the onset of the Individual Vessel Quota (IVQ) program, a cap of 1 million pounds was set by Canada's Department of Oceans and Fisheries for the B.C. trawl sector. In 1996, after implementation of the trawl IVQ management program and an IBQ program for managing the halibut bycatch, bycatch was just under 300,000 pounds. Reasons for this large reduction include: the concurrent decline of the cod fishery; avoidance behavior by harvesters; and slower conduct of fishing operations. In addition, 100 percent observer coverage allowed quick and accurate feedback to the skipper of pounds of halibut caught and discarded each trip. The IPHC staff recommends that U.S. tradable quota pounds or IBQ apply to all halibut of any size in order to be fully effective at managing bycatch, same as the B.C. IVQ program.

Observed Catch of Pacific Halibut in the Trawl Fishery

Observations of Pacific halibut bycatch in the west coast limited entry trawl fishery show some distinct patterns. In particular, Pacific halibut bycatch tends to be closely associated with the catch of arrowtooth flounder, petrale sole, lingcod, and skates. The association with arrowtooth, petrale, and skates is not unexpected as these species exhibit similar preferences to habitat and have similar life-history characteristics as with Pacific halibut. However, the association with lingcod is somewhat surprising and unexpected. Other patterns clearly exist including associations with depth and with latitude. Pacific halibut tend to be encountered more frequently by vessels fishing off the northern Washington coast (north of 47.5° N. lat) and differences exist on a depth basis. The majority of Pacific halibut observed in the trawl fishery was caught at depths less than 115 fathoms, though a large percentage was caught at deeper depths as well. This information is illustrated in the following table.

Table A-118 Amounts of species catch (retained + discard weight) and bycatch ratios between Pacific halibut and two flatfish species on observed limited-entry bottom trawl hauls during 2003 to 2006.

	Depth Stratification		
	< 115 fm	> 115 fm	All depths
Area North of 47.5o N. lat Number of observed hauls	1,487	724	2,211
Observed catch of species (lbs) Petrale sole	314,471	450,562	765,033
Arrowtooth flounder	1,648,667	753,976	2,402,643
Petrale + Arrowtooth	1,963,138	1,204,538	3,167,676
Pacific halibut	230,090	73,092	303,182
Ratio of halibut lbs to arrowtooth lbs	**0.140**	**0.097**	**0.126**
Ratio of halibut lbs to combined petrale + arrowtooth lbs	**0.117**	**0.061**	**0.096**
Area between 40o10' and 47.5o N. lat Number of observed hauls	4,646	4,395	9,041
Observed catch of species (lbs) Petrale sole	1,353,420	1,457,496	2,810,916
Arrowtooth flounder	958,221	1,361,180	2,319,402
Petrale + Arrowtooth	2,311,642	2,818,676	5,130,318
Pacific halibut	161,217	85,553	246,769
Ratio of halibut lbs to arrowtooth lbs	**0.168**	**0.063**	**0.106**
Ratio of halibut lbs to combined petrale + arrowtooth lbs	**0.070**	**0.030**	**0.048**
Total Area North of 40o10' Number of observed hauls	6,133	5,119	11,252
Observed catch of species (lbs) Petrale sole	1,667,891	1,908,058	3,575,949
Arrowtooth flounder	2,606,889	2,115,156	4,722,045
Petrale + Arrowtooth	4,274,780	4,023,214	8,297,993
Pacific halibut	391,307	158,645	549,952
Ratio of halibut lbs to arrowtooth lbs	**0.150**	**0.075**	**0.116**
Ratio of halibut lbs to combined petrale + arrowtooth lbs	**0.092**	**0.039**	**0.066**

Observer information also indicates that Pacific halibut bycatch occurs south of 40° 10 N lat. The tool for allocating Pacific halibut bycatch (described in Appendix C) does not provide a mechanism for allocating Pacific halibut to vessels in this southern area, due in part to the lack of observations for informing a bycatch rate calculation. However, provisions should be made for managing and allocating Pacific halibut to vessels in this southern area.

A-5 ALTERNATIVE SCOPE FOR IFQ MANAGEMENT (OPTION)

Provisions and Options

Option: IFQ will be required to cover all groundfish catch except for bycatch species taken on whiting sector trips.

If this option is selected sections above would be modified as follows.

Section A-1. Replace "QP will be required to cover catch of all groundfish (including all discards" with "for non-whiting trips, QP will be required to cover catch of all groundfish (including all discards), for whiting trips, QP will be required to cover catch of all whiting (including all whiting discards but not incidental catch of nonwhiting groundfish species)." If the three sector option is selected in Section A-1.3, then in the previous sentence replace "non-whiting trips" with "shoreside trips" and replace "whiting trips" with "trips delivered at sea."

Section A-1.3 Under the three sector option (shoreside, mothership, and catcher-processors) this alternative scope does not apply to the shoreside sector. For all catch destined for shoreside delivery QP would be required, including catch on trips targeted on whiting.

For catch destined for at-sea delivery, QP would be required for whiting but not bycatch species. Under the four sector option, shoreside whiting trips would be included among those for which QP is required to cover whiting and not required for bycatch species.

Section A-1.5. Whiting trip bycatch species will not be managed with IFQ but will be pooled and managed with bycatch caps. Select one of the following options for incorporation in Section A-1.5:

Bycatch Management Option 1: A single bycatch caps covering all whiting sectors. All sectors and co-ops will close as soon as the whiting fishery bycatch cap is reached for one species; a controlled pace may be established if the sectors choose to work together cooperatively, potentially forming an intersector/interco-op cooperative.

Bycatch Management Option 2: A single bycatch caps covering all whiting sectors and seasonal releases. Same as Option 1, including the potential for forming co-ops, except there will be seasonal releases of bycatch allocation.[80]

Bycatch Management Option 3: A separate bycatch caps for each sector. Each sector closes when its bycatch cap is reached.

Bycatch Management Option 4: A separate bycatch cap for each sector and a roll-over. Each sector closes when its bycatch cap is reached. Unused bycatch may be rolled over from one sector to another if the sector with unused bycatch has used its full allocation of whiting or participants in the sector do not intend to harvest the remaining sector allocation.

Interlinked Elements

Interlinked elements are identified in the text of the option.

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[80] At the outset, it is envisioned that the seasonal approach will be used to manage widow rockfish bycatch; for canary rockfish and darkblotched rockfish, status quo management will be maintained (i.e., no sector allocation and no seasonal apportionment).

A seasonal release bycatch management program will be implemented through regulation. For reference, a similar program is used to manage halibut bycatch in NPFMC-managed flatfish and Pacific cod fisheries, see 50CFR679.21(d).

In practice, seasonal releases protect the next sector entering the fishery. For example, a May 15-June 15 release will be used by the catcher-processors and motherships, but it protects the shoreside fishery; the June15-September release will be used by shoreside and whatever catcher-processors and motherships are still fishing whiting, and to protect a fall at-sea season after September 15; the final release in September will again be shared by the catcher-processors and motherships, assuming shoreside is done.

For example:

1. No sector bycatch allocations.
2. Status quo for canary and darkblotched rockfish; i.e., no seasonal or sector allocation.
3. May 15 - June 15; 40% of widow hard cap released.
4. June 15 - August 31; an additional 45% of widow hard cap released.
5. Sept. 1 - Dec. 31; final 15% of widow hard cap released.
6. Once a seasonal release of widow rockfish is reached, the whiting fishery is closed to all three sectors for that period. The fishery re-opens to all three sectors upon release of the next seasonal release of widow rockfish.
7. Unused amounts from one seasonal release rollover into subsequent release periods.

(Note: percentages are for illustration purposes only, actual release percentages will be developed through the PFMC process).

Rationale and Analysis

The rationale and analysis covering this topic is included in section A-1 and within Appendix B. Therefore, the reader is referred to these analyses when considering the effect of this alternative scope.

A-6 DURATION: FIXED TER (AND AUCTION) (OPTION)

Provisions and Options

Fixed Term Option: The term of all QS issued will be limited to 15 years (except that the Term-1 QS may last 15 or 16 years, depending on when the biennial specification period ends). Starting with Term-2 of the program, **Reallocation Option 1:** QS will be reallocated to holders at the end of the term, unless the program is otherwise modified. **Reallocation Option 2:** Starting with Term-2 of the program, every two years up to 20% of all QS will be returned to NMFS for reissuance via an auction, unless the program is otherwise modified.

If the fixed term option is selected, sections above would be modified as follows.

Section A-2.3.4. Add the following. The initial allocation of QS will be valid for a period of 15 or 16 years (ending at the end of the second year of the biennial specification period). Thereafter, in the absence of actions to end or amend the program, QS will be issued for 15 year terms (i.e. all QS will expire every 15 years) on the following basis.

Section A-2.1.6. Add the following.

Reallocation Option 1: After initial issuance, for the start of each subsequent term of the program, QS will be reallocated to current QS holders (those holding the QS on the day the term expires), in proportion to the amounts they held on the day of expiration, unless the program is otherwise modified,

Reallocation Option 2: After initial issuance, for the start of each subsequent term of the program, up to 20% of the QS will be reallocated in an auction with the remainder going to the current QS holders (those holding the QS on the day the term expires), in proportion to the amounts they held on the day of expiration, unless the program is otherwise modified. Additionally, every two years during the term up to 20% of each holder's QS will return to NMFS for redistribution via an auction. All auctions for the QS to be redistributed will be held at least one year in advance of the actual redistribution. When the redistribution occurs, the QS will come from those holding it at the time of the redistribution and go to the winners of the auction.

The specific form of the auction will be decided by the Council in the period between trawl rationalization implementation and the first auction. It will be designed to achieve the goals of the trawl rationalization program, including reducing bycatch, increasing operation flexibility, measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry.

Interlinked Elements

The option is a variation on Section A-2.3.4 Program Duration and Modification.

Rationale and Policy Issues

An initial auction is not proposed because of the need for a transition during a period of economic stress. Participants in the current fishery could not afford an auction. After 15 years, the fishery should be in much better shape and 15 years would provide fishermen a long time to get used to the IFQ program without having to pay for the QS. The general reason for 15 years is to provide a substantial amount of stability for industry to make their fishing decisions. The term of 15 years was also chosen because of the rebuilding time periods for overfished species. Within 15 years, Boccaccio, canary, POP and widow would all be rebuilt. With the exception of darkblotched, the other species are not projected to rebuild for a substantially longer period of time. An auction should not be included in the period of time during which the Council is exploring how it will handle allocation when species are rebuilt.

Holding an auction every year would be too much annual change and administrative costs therefore it was proposed that the auction occur every two years in conjunction with the biennial specifications. There should be a transition at the end of the 15 years, therefore, an auction of 20% of the QS every two years was specified. The Council could chose to do less than 20% and that could come out of the analysis. The auction could be designed to provide for new entrants and protect communities by setting aside specific amounts to go to small fishermen, communities etc.

The 15 year limit and auction was also intended to add to the assurance that IFQ not be viewed as property rights. The largest investors in the fishery are the citizens of the US and that needed to be more strongly recognized, at least as an option for analysis. There are a variety of other public natural resources for which use rights are auctioned.

Funds collected in the auction would go into the new fund specified in the MSA which, subject to appropriations, could come back to the fishery.

Analysis

Analysis is provided in Appendix F.

A-7 GEAR CONVERSION (OPTION)

Provisions and Options

The scope of the IFQ program allows trawl vessels to use other types of gear to harvest groundfish quota pounds. At its June 2008 meeting, the Council added the following option for consideration. ***This option is not necessarily a preferred option.***

Gear Conversion Option: allow a permit holder to use an alternative legal gear for a two-year period after which the permit holder decides whether to continue to use the alternative gear or trawl gear.

Rationale and Policy Issues

In the current groundfish fishery, when trawl vessels use a non-trawl gear their groundfish catch is attributed to the trawl sector allocation. Section A-1.1 specifies the scope of the trawl rationalization program, which implicitly allows vessels to switch back and forth between trawl and other gears. The purpose of a gear conversion provision would be to make a permanent reduction in the amount of groundfish catch taken with trawl gear, change the fishing footprint on bottom habitat, and provide an additional option to harvesters on gear usage. Gear conversion would be voluntary. Permanent gear conversion would not change the scope of the IFQ program but, depending on how it is implemented,

gear conversion would not allow vessels to convert back to trawl gear. In other words, some of the trawl permits, vessels, and/or QS/QP would be prohibited from being used with trawl gear.

Gear switching and gear conversion would both allow harvesters to have greater flexibility though to differing degrees. In order to achieve gear conversion, incentives would likely be required to encourage trawlers to permanently convert gear types. Adaptive management quota pounds in the shoreside non-whiting trawl sector could be used to reward or encourage bottom trawlers to convert to fixed-gears.

Additional guidance is needed to fully specify this gear conversion provision. Specifically there is question as to what will be constrained or converted to "fixed-gear only" after the two-year period. Choices appear to include:

- the permit,
- the vessel,
- all QS/QP used with the vessel (including QS/QP taken with trawl gear)
- only certain QS/QP used with the vessel (partial conversion)

With respect to "what will be constrained," constraint of the permit would be unlikely to achieve the purpose of the provision until a sufficient number of permits had been converted to constrain the fleet's ability to use trawl gear to take the full amount of the available harvest. Until such time, QS could be moved from the converted trawl permits (trawl IFQ sector permits) to regular trawl permits, such that no permanent conversion to nontrawl gear is achieved. Constraint of the vessel would be even less likely to achieve the desired end because there are even more substitute vessels available than there are trawl permits. Requiring the conversion of all QS/QP used with the vessel would provide a substantial disincentive for a vessel to opt for conversion unless it was the vessel's intent to use only nontrawl gear. In addition to the constraint on the vessel's activities with full conversion of all a vessel's QS, the loss of flexibility to use that QS with trawl gear would reduce the market value of that QS. Partial conversion, requiring the conversion of only that QS representing the QP used with the converted gear, would substantially reduce the disincentive for participating in conversion at the end of the second year. The choice between conversion and returning to the use of a trawl gear would likely depend on the benefits the vessel experienced through the use of the nontrawl gear compared to the amount of time it would be required to forgo use of that gear before it would be once again allowed to engage in gear switching.

Both the complete and partial QS conversion approaches could present tracking problems with determining what QS would be converted. First, the QP used on a vessel may not be from QS owned by the harvesting company. Second, the QS from which a vessel receives its QP may be different from one year to the next. One possible approach would be to require that QS to be converted be assigned to the vessel, along with the QP and left there for two years in order to trigger the conversion provision. For this approach to work, there would have to be an incentive for harvesters to want to permanently convert their QS to non-trawl gear, otherwise most harvesters would probably prefer to take advantage of the gear switching opportunities without committing to permanent conversion. There may be some possibility that at-sea monitoring with cameras instead of observers is more feasible with nontrawl gear than with trawl gear. If this is the case, providing an opportunity to fish their QS without having to pay observer costs which using converted QS might provide incentive for some harvesters to commit to the conversions. Another incentive might be to use some of the adaptive mangement QP to bump up the QP allocated to QS that have been converted. Another approach for addressing the tracking problem would be to not require the identification of the QS to be converted, until the end of the two year period. At that time, if the harvester wants to continue to use nontrawl gear it would be required to submit QS to NMFS for conversion.

- Because the gear conversion option needs further development, two analytical options are provided. These options focus on the conversion of QS rather than the vessel or permit. Under these options, vessels would either be provided a positive incentive to permanently switch QS from trawl to non-trawl gears (Option 1) or a disincentive for not switching after using a non-trawl gear for two years (Option 2). Under the second gear conversion option, the disincentive would be a restriction on a vessel's ability to switch gear-types for a period of time. The design of these options takes into account that under the program as it is currently designed only QP is associated with a vessel (QS is held in separate accounts which may be held by processors, crew members, communities as well as individuals that happen to be vessel owners).

Analytical Option 1: Incentive for Permanent Gear Conversion, No Constraint on Gear Switching

Adaptive management quota pounds could be utilized as an incentive to permanently convert to fixed-gear. Gear conversion is a long-term prospect. To provide sufficient incentive, either the amount of the adaptive management quota pounds provided as incentive would have to be high enough to compensate for the longer term commitment, or there would have to be a longer term commitment of the adaptive management quota pounds. If the 10 percent set-aside of adaptive management quota pounds is to be fished only by vessels that have permanently converted to fixed-gear, this would require an extra element of tracking of adaptive management QP to make it was caught with fixed-gear.

Analytical Option 1a: QS Acquired In Advance and Designated for Conversion

At the start of a two-year period, a harvester interested in permanent conversion would assign to a vessel the QS it intends to convert to another gear. At the end of the two-year period, the harvester would be required to choose between permanently converting that QS to an alternate gear or not receiving the incentives in the following period. Incentives would be provided for permanent conversion of all QS the vessel designated for conversion. Examples of possible incentives include additional quota for the following two-year period and/or ability to use some lower cost at-sea monitoring technologies (e.g. electronic monitoring) if deemed to meet the program's monitoring standards. Vessels that gear switch but do not assign QS to the vessel for purpose of conversion would not have to make a gear conversion choice after two years, but would receive no incentives for switching.

All other provisions of the IFQ program would continue to apply, including the requirement that a trawl permit must be held in order to fish in the rationalization program. Harvesters who assign QS for conversion but opt out within two years must wait two years before having an opportunity to again take advantage of the conversion incentives.

Analytical Option 1b: QS Acquired At End of Two-Year Period

Same as Option 1a except, instead of acquiring the QS in advance, in order to receive the incentives a vessel would acquire the QS at the end of the two year period and submit the request to NMFS for permanent conversion of that QS. The amount of QS a vessel would be required to acquire and designate for permanent conversion would be the amount that is equivalent to the average amount of QP it used with non-trawl gear during the previous two year period.

Analytical Option 2: Disincentive for Not Switching After Two Years

Same as Option 1b except, there would be no incentives and a vessel that used nontrawl gear and at the end of that period did not permanently convert the required amount of QS would be prohibited from using the nontrawl gear again for two years.

The goals and objectives addressed by the gear conversion provision include; reduce bycatch and minimize adverse impacts on EFH; contribute to reducing capacity; maximize the value of the groundfish resource by providing further flexibility to harvesters; and minimize negative impacts resulting from localized concentrations of fishing effort if fixed-gears access different locations than trawl gears.

Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Sector Health	Labor	Communities	Small Entities and New Entrants	General Public	Program Performance
X	X				X		X			

Interlinked Elements

Tracking and Monitoring (A-2.3) - At the permit level, NMFS may need track which permits/QS/QP had permanently converted to fixed-gear usage. Tracking of the specific gear type used to catch quota pounds would not necessarily occur.

Adaptive Management (A-3) - Adaptive management quota shares could be utilized to develop gear efficiencies, which might include incentives for permanent gear conversion in the shoreside non-whiting fishery.

Regional Landing Zones (A-8) – The need to track additional types of QS is multiplicative. If regional landing zones are adopted, the 30 or different IFQ management units would be subdivided, possibly resulting in well over 100 different categories to track. If some QS and QP are designated as "converted" that number would double.

Analysis

The conservation consequences of gear conversion include a potential reduction in bottom trawl contact in areas where trawl gear is allowed to fish, a potential increase in fixed-gear bottom contact both in areas where trawlers can fish and in areas where only fixed-gear types are allowed to fish, and a change in the volume and species mix of fish taken by the limited entry trawl fishery. Fixed gear is better able to avoid certain bycatch species, but fixed gear can also access and impact more sensitive (rocky relief) habitat, which trawl gear cannot fish on. Should ten percent of trawl gear be converted to fixed-gear, there would likely be a decrease in bottom disturbance from trawl gear and a corresponding (but not equivalent) increase in bottom disturbance by fixed gear.[81] Fixed-gear impacts benthic habitat differently than trawl gear.

[81] The 10% switching number is mentioned because the Council requested an analysis based on the assumption that there would be a 10% switch from trawl to other gears. Unfortunately we are not able to provide quantification of the impacts from this switch.

As noted in the "gear switching" analysis in Section 4.7.2.1, some trawlers in southern-central California coast have expressed an interest in using fixed-gear due to public demand for fixed-gear caught product. Fishing effort could increase south of Eureka, an area where there currently is little trawling, if fixed gear is utilized to a greater extent because fixed-gear is more workable in that area of the west coast. That analysis also suggests that harvesters in areas that encounter constraining bycatch species at a higher rate than other areas of the west coast may be more likely to utilize gear switching (and perhaps, by extension, gear conversion) to avoid those stocks. Those areas of higher constraining species bycatch rates are northern Washington and southern Oregon.

The Chapter 4 gear switching analysis states that market prices of certain species – like fixed-gear caught sablefish – may incentivize the switch to fixed-gear. Gear switching would also provide flexibility to the harvester to catch all of the QP in a vessel account in a given year (modifying the mix of gear used based on conditions and the mix in the trawl harvest in a particular year). However, these advantages for gear switching would not be an incentive to commit to permanent gear conversion.

The permanence of gear conversion may deter some trawlers who want to use fixed-gear but do not want to fully convert with no provision to convert back. A Natural Resources Defense Council funded study {Jenkins, 2008 1691 /id} of west coast trawlers regarding gear conversion, noted that "because of the long-term commitment, some trawlers, especially those with the highest volume, are not likely to convert to an alternative gear." Absent adequate incentives, the likelihood of trawlers permanently converting to fixed gear may be low because non-permanent gear switching would already be allowed (see Section A-1). Without an incentive or prohibition otherwise, a trawler could use fixed-gear for two years, come to the point of making a decision whether to convert to fixed-gear or not, choose not to, and still use whatever gear type they choose. If a requirement is specified such that after two years of using an alternative gear if a trawler chooses not to permanently convert then it must only fish with trawl gear, trawlers would be forced to use trawl gear when they might have preferred to continue to use non-trawl gear. This could reduce the amount of gear switching and the associated benefits.

While permanent conversion to fixed-gear would provide lesser flexibility than gear switching it may provide other advantages. For example, camera monitoring could be more feasible with fixed gear than with trawl gear. Incentives could also be provided by charging different annual renewal fees or transaction fees for QS that has been converted or by providing a supplemental amount of QP from the adaptive management program. These differences and incentives could contribute to differences in the overall cost and revenue of fishing with the alternative gear, encouraging use of that gear.

Gear conversion may create imbalances in the multi-species mix necessary for prosecution of the trawl fishery. Species targeted by trawlers include flatfish and the Dover sole-Thornyhead-Sablefish (DTS) complex. Flatfish cannot be effectively harvested by fixed-gear, and that market would be sacrificed by trawlers that convert to fixed-gear. Sablefish caught by fixed-gear could yield a higher price than sablefish caught by trawl gear. For example, in response to multiyear duration cyclical swings in price, relative availability and/or species mixes, conditions may favor the conversion of some of the trawl sablefish QS to nontrawl gear, reducing its availability for use in the DTS fishery. Then if conditions change back, favoring targeting of the sablefish harvest with trawl gear, the switch back would not be possible without a regulatory change. This could reduce the net economic value derived from the fishery. While permit holders or vessel owners may consider that conditions in the fishery vary over time the effect of those conditions on their decisions will depend on their planning horizon and the planning horizon needed to appropriately organize production in the fishery may be longer than that of the individual fishermen, (i.e. decisions based on short term conditions may be suboptimal as fishery conditions change).

A-8 REGIONAL LANDING ZONE

A-8 Regional Landing Zone

Provisions and Options

Under the preferred alternative, the Council will choose between creating a split in the management units at 40°10' N latitude and the regional landing zones option (see Section A-1.2). The following describes the regional landing zone option as presented in the WDFW proposal:[82]

►Regional Landing Zone Option:

1. Two basic types of QS would be issued for target species:
(a) zone-specific QS and
(b) zone-free QS.
Zone specific QS would not be required for incidentally caught overfished bycatch species.
2. The Council would decide the overall split between zone-specific and zone-free QS (e.g., 80% zone-specific, 20% zone-free). Each permit owner or processor would be allocated the same split of zone-specific and zone-free QS.
3. Zones would be limited in number (i.e., two to six per state with a coastwide maximum of ten), designed and nominated by the states, and approved by the Council. The states could design individual zones to encompass a single port or group of ports.
4. QP from zone-specific QS could only be landed in the zone for which the QS is issued. However, the zone designation would not restrict the catch area. Zone-specific QS would be transferable to holders outside the zone, but the QP associated with that QS would have to be landed within the specified zone.
5. QS would be issued to permit owners and processors based on the allocation formulas specified in Section A-2.1. These formulas use a 1994-2003 allocation period. The QS issued to each recipient would be designated for a particular zone based on the recipient's landings history over a time period chosen to reflect recent conditions (e.g., 2005-2007). For each target species, zone-specific QS would be issued to a recipient based on the proportion of landings history in each zone during the recent period.
6. The Council could adaptively manage the system by varying the split of zone-specific to zone-free QS, redistributing QS among zones, permitting limited transfers between zones, adding or subtracting zones, etc.

Rationale and Policy Issues

Rationale for the Option

The Council included the regional landing zone option for consideration in the preliminary preferred alternative out of concern over the potential destabilizing effects the transition to the IFQ system could have on certain groundfish dependent fishing communities. The option would attempt to provide stability to these communities by requiring that a percentage of the non-whiting groundfish trawl sector's catch be landed within designated regional landings zones.

The regional landings zone option is aimed at both short-term and long-term objectives. Over the short-term, the option is intended to reduce the risk that a port would lose a substantial amount of its landings by preventing quota recipients from completely transferring their QS/QP out of the region. Over the long-term, the option would seek to prevent excessive geographic consolidation in the fishery, promote sustained participation from communities, and ensure that economic benefits of the program are broadly dispersed along the coast.

[82] PFMC, June 2008 Briefing Book: Agenda Item F.6.f, WDFW Supplemental WDFW Attachment 1.

The analysis available for the Council's consideration in June 2008 predicted that the transition to an IFQ system would cause the non-whiting trawl fleet to consolidate by 50-66 percent or more depending on the additional costs associated with at-sea monitoring requirements (section 4.7.2.1). This consolidation is expected to improve the cost effectiveness of the fleet and be accompanied by an increase in the value of the fishery, yet at the same time, cause substantial redistribution of fishing effort and landings. As seen in other IFQ programs, this consolidation can happen quite rapidly. The concern is that the degree and speed of this redistribution would disproportionately harm certain communities that have relied on non-whiting trawl vessels and their landings to support their fishing infrastructure.[83]

In June 2008, the Council received testimony from the processing industry about the importance of trawl-caught groundfish to their businesses and the potential consequences of losing vessels and landings after the transition to the IFQ program. The year-round volume of groundfish landings have been an important infrastructure and businesses relied upon by other fisheries. Thus, there could be a ripple effect in communities that lose their vessels and landings and the total economic impact could be much more than just the loss of the exvessel groundfish revenues (see also Section 4.6.1.1).

Another intended characteristic of the regional landings option is that it is risk adverse and designed to preserve options. It may be employed at the start of the program as a precautionary measure and found to have ongoing utility, or lifted at a later time if its purpose has been served or if the option's impacts prove unsatisfactory. The Council could relax or extinguish the zone restrictions without substantial administrative difficulty. Some loss of economic efficiency and operational flexibility would be expected, yet the harm from those are of a different nature than the impacts faced by communities under an IFQ system. If extinguished, harvesting efficiency and operational flexibility would likely increase to what they have been if the IFQ system were implemented without the regional landing zones in place. There is concern that the reverse would not be true. In other words, the harm to communities caused by consolidation and geographic shifts in fishing activities could be very difficult and costly to redress or perhaps even irreversible.

Policy Guidance and Previous Consideration of Area Landings Requirements

Section 303A(c)(5)(B) of the MSA requires consideration of "regional or port-specific landing or delivery requirements" and policies with [similar objectives] during development of a limited access privilege program.[84] The option is also consistent with GF FMP Objective 14, which seeks to accomplish change with the least disruption to current domestic fishing practices, marketing procedures, and the environment. In general, the Council is supposed to consider the importance of its conservation and management recommendations to communities in order to provide their sustained participation and to minimize adverse impacts (MSA National Standard 8, GF FMP Objective 16, Amendment-20 Objective 5).

Many of these same considerations were discussed during the NEPA scoping process. As captured in the NEPA Scoping Results Document, the question was raised "as to whether or not an individual fishing quota (IFQ) program might increase the need for regional area management to address biological

[83] The potential impacts on west coast communities are discussed in Section 4.15.2 and the regional comparative advantage model in Appendix C.

[84] MSA section 303A(c)(5)(B) requires the Council to consider "the basic cultural and social framework of the fishery" during the development of a limited access privilege program; "especially through—

(i) the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and

(ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery."

or socioeconomic concerns."[85] It was suggested that an IFQ program might result in "a greater potential for effort to be concentrated within some areas than there would be under other types of catch control tools." The "[m]aintenance of fishing opportunities and protection of local community interests and processing infrastructure could be potential socioeconomic reasons for dividing OYs by area." Regional area management was recognized as having the potential to: (i) prevent regional depletion and set catch levels for areas based on stock assessments; (ii) distribute economic benefits of catch along the coast; and, (iii) ensure that certain communities receive economic benefits. (p. A-1). The NEPA Scoping Results Document also contrasted the catch area restrictions (e.g., geographic subdivision at the 40º 10' N latitude line.) vs. landing area restrictions (e.g. the regional landings zone option):

> *Catch area restrictions on IFQs would more precisely address biological concerns and would likely keep landings more geographically dispersed than might be the case without such restrictions. Landing area restrictions on IFQs would more precisely address socioeconomic concerns and would likely keep catch more geographically dispersed than might be the case without such restrictions. (p. A-1)*

As captured in the NEPA Scoping Results Document, after consideration of the potential biological and socioeconomic impacts of a transition to an IFQ system, the TIQC rejected landings areas endorsements and recommended that regional area management measures "should be based solely on the need to address stock conservation concerns":

> *Minimizing restrictions, such as catch area restrictions, will increase operational flexibility and increase the value of the IFQ. Given flexibility, vessels will go to areas where they can fish the cleanest.*
>
> *Landing area endorsements should be rejected. With respect to protection for ports, the TIQC felt that there are not enough groundfish to support processing facilities in every port that has historically had such fisheries. The economics of the trawl fishery do not allow vessels to travel far from the fishing grounds to deliver their catch. Where fish should be landed cannot be accurately forecasted and is worked out through negotiations between vessels and processors. The potential for geographic redistribution is a reality for market driven systems. Nothing in the current system prevents vessels from migrating between ports. (p. A-2).*

Interlinked Elements

The objectives of the option for a regional landings zone provision somewhat overlap with those of the proposed adaptive management program yet the structure and approach of the two provisions are substantially different, and hence potentially compatible.

The proposed structure of the geographic subdivision option of Section A-1.2 and this option for a regional landings zone provision are redundant. If both options are implemented, the combination of the two would expand program complexity and costs but might do little to improve the achievement of goals and objectives.

[85] PFMC (2005), "Appendix A: Management Regime Design" in NEPA SCOPING RESULTS DOCUMENT: INDIVIDUAL FISHING QUOTAS (A KIND OF DEDICATED ACCESS PRIVILEGE) AND OTHER CATCH CONTROL TOOLS FOR THE PACIFIC COAST LIMITED ENTRY TRAWL GROUNDFISH FISHERY (http://www.pcouncil.org/groundfish/gfifq/ScopFin_ApdxA.pdf).

Analysis

This analysis examines how a regional landing zone provision would modify and integrate into the IFQ system. There are several design elements that make up the provision. The first of these concerns how zone restricted QS/QP would be issued and assigned to zones at initial allocation. Other design elements that would have to be considered by the Council include the actual number and configuration of regional zones and the overall percentage of quota to be designated with the zone restriction. There are many possible permutations of these design elements making it difficult to analyze anything but the broad scale dynamics of the elements and the provision as a whole. More fine-scale dynamics could potentially be examined using a narrower range of these possible permutations but these were not looked at in detail because of the need for additional direction and specificity. However, this section does attempt to evaluate the likelihood of the provision achieving its stated objectives and outlines possible tradeoffs in economic efficiency and operational flexibility. The provision would also create a number of new stock area combinations of QS/QP. We examine what that number might be and identify two possible methods for tracking and enforcing the regional landing restrictions.

Design elements of the regional landings zone option that would need to be considered by the Council:

- Number and location of the regional landing zones.
- Method for assigning zone restricted QS/QP to the zones and for tracking and enforcement of the landings obligation.
- The overall ratio between zone free and zone restricted QS/QP.
- Identifying the IFQ management units to be covered by the landings restriction.
- Framework for adaptive management.

Assigning and Tracking QS/QP under a Regional Landings Zone Program

❖ Assigning Zone Restricted QS/QP

This regional landings zone provision would divide QS issued for a set of IFQ management units in the shoreside non-whiting trawl fishery into two categories: zone restricted QS and zone free QS. Zone free QS would be identical to the IFQ Management Units described in Alternative A.1-2. Zone restricted QS would not alter the standard IFQ Management Units but rather place a restriction on where some of the harvest could be landed by applying a designated regional landing zone to some of the QS and QP.[86]

Zone restricted QS would be marked with a zone "designator" at initial allocation and the landings requirement would "run with" the QS through transfers. That is, zone restricted QS/QP would be transferable subject to the IFQ Transfer Rules chosen in Alternative A-2.2.3, yet the transferee would still be subject to the landings requirement. The landings restriction would be attached to the QS/QP until it is extinguished through regulation.

[86] The IFQ management units are based on stocks and catch areas. They ensure that acceptable levels of fishing morality are not exceeded. The landing area restrictions place on the QS will not alter the amount of QP issued or directly change the areas where the harvest is taken. The landing area restrictions may, however, influence the areas of harvest due to costs associated with travel distances.

Table A-119 illustrates the basic process of how this assignment would occur. Initial allocation of QS would still occur under the Initial Allocation and Direct Reallocation rules chosen under Alternative A-2.1. In other words, those receiving quota shares at initial allocation would receive the same overall amount of QS they would receive in the absence of the regional landings zone provision. In the examples shown in Table A-119 Company X receives a *Sablefish N. of 36* QS amount of 0.02.

Table A-119. Illustration of the process for assigning a quota recipient's ("Company X") zone restricted QS/QP. The example is based a 40/60 split between zone free/restricted QS. Initial QS, landings history, and "Trawl OY" present a reasonably plausible—yet purely illustrative—initial allocation scenario.

Company X -- "Sablefish N. of 36" IFQ				
[Step 1] QS Split Initial QS ***0.0200***	**[Step 2] Zone Assignment (based on window period 200X-200Y)**			
Zone Free QS ***40%*** *x 0.0200* ***= 0.008***	Total Landings		*150 mt*	
Zone QS ***60%*** *x 0.020* ***= 0.012***	Landings by Zone	*Zone 1* 8.4 mt	*Zone 2* 125.1 mt	*Zone 3* 16.5 mt
	% of Total Landings	*= 6%*	*÷ 150 mt* *= 83%*	*= 11%*
	→		*x 0.012*	
	Zone Restricted QS	***= 0.00067***	***= 0.01001***	***= 0.00132***

[Step 3] QS/QP Portfolio in Year				
	Zone Free	***Zone 1***	***Zone 2***	***Zone 3***
QS	***0.00800***	***0.00067***	***0.01001***	***0.00132***
Trawl OY in Year	7,000 mt			
QP for Year	123,458 lbs	10,370 lbs	154,445 lbs	20,371 lbs

In the first step, all QS for each IFQ management unit covered by the provision would be designated as either zone free or zone restricted based on a proportion recommended by the Council. The example in Table A-119 uses a 40/60 split, meaning that 40 percent of everyone's quota is zone free and 60 percent is zone restricted. In other words, Company X's *Sablefish N. of 36* QS (0.02) would be divided into 0.008 zone free QS and 0.012 zone restricted QS.

In the second step, recipient's zone restricted QS would be assigned zone "designators" based on the recipient's landings or processing history. This assignment would be based on a window or "zone assignment" period chosen by the Council. In the Table 1 example, Company X made 6 percent of its

Sablefish N. of 36 landings in Zone 1; 83 percent in Zone 2; and 11 percent in Zone 3 during the zone assignment period 200X-200Y(period to be designated). Applying these percentages to Company X's overall zone restricted QS (0.012) would then yield Company X's QS for each zone.[87]

Additional zone assignment rules may be necessary to address the issuance of *de minimis* amounts of zone restricted QS to quota recipients. Some quota recipients may have made, or purchased a permit with, relatively minor landings within a zone during the zone assignment window period. The amount of zone restricted QS resulting from this minor amount of landings could be so small that the quota holder would not bother to land within the zone and may even have difficulty trading it on the market. A minimum threshold percentage (e.g., 5 percent) would be one method of addressing this issue. Landings not meeting this percentage threshold could be assigned to QS for to an adjacent zone or to zone free QS.

Lastly, depending on which method is used to track the zone landings requirement, the zone restricted QS would either: (1) be converted into QP using the same IFQ Annual Issuance process chosen under Alternative A-2.2.2 used for all IFQ management units; or (2) converted into zone assignment QS ratios. These two methods are discussed immediately below. Neither method would involve an annual sub-allocation of the trawl sector OY to the regional zones. Unless altered through the Council process, the QP received by each zone would be based solely on QS assigned to the zone at initial allocation.

❖ Tracking Zone Restricted QS/QP

There are two potential methods for tracking zone restricted QP. The first method would track zone restricted QP in the same manner as all other QS. In a particular vessel QP account the zone restricted QP for a particular species would be tracked separately from zone free QP for that species, just as the QP for different species are tracked separately. The same Permit/IFQ Holding Requirements described in Alternative A-2.2.1 would apply. All landings would have to be covered by QP. When a vessel makes a landing of a particular species in a particular area, the vessel would have to designate how much of each species should be credited against its zone specific QP and how much would be credited against its zone free QP.

A second approach would not require the vessel to make any additional designations when a landing is made. When a vessel makes a landing of a particular species in a particular area, the landing would go against its zone specific QP for that species first, then against the zone free QP in its account.

The potential downside to the first method is that there would be significantly more types of QP categories to track than there would be in the absence of the zone landings requirement. For species landed coastwide during the zone assignment period (e.g., *Sablefish N. of 36*) the number of additional QP designators would be equal to the number of zones designated by the Council plus one for the zone free QP. For species not landed coastwide, the number of QP designators would be something less. The potential number of QS/QP combinations are explored further below in the discussion of which species to cover with zone restricted QS/QP.

Under the second method, data collection would be the same as it would be in the absence of the regional landings requirement. Quota holders would only need the amount and location of each landing to track their cumulative landings in each zone.

[87] The zone assignment could be based on species-by-species basis, as shown in Table 1, or based on all groundfish landings in aggregate during the window period.

Design Elements and Other Considerations

❖ a. IFQ Management Units Covered by the Regional Landings Zone Requirement

As described in the WDFW proposal, the regional landings zone requirement would apply to all non-whiting groundfish IFQ stock management units except the overfished stocks. This potential universe of stocks is identified in Table 2-5. Table A-120 provides a list of those species that tend to be trawl targeted and are within the scope of the Council's preliminary preferred alternative.[88]

Table A-120. The shoreside non-whiting IFQ stock managed units that would potentially be subject to the regional zone landings restriction under the Council's preliminary preferred alternative.

1	Lingcod N of 42º	12	Dover Sole
2	Lingcod S of 42º	13	English Sole
3	Pacific Cod	14	Petrale Sole
4	Sablefish N of 36º	15	Arrowtooth Flounder
5	Sablefish S of 36º	16	Starry Flounder
6	Chilipepper Rockfish	17	Other Flatfish
7	Splitnose Rockfish	18	Other Fish
8	Yellowtail Rockfish	19	Longnose Skate
9	Shortspine Thornyhead - N of 34º27'	20	Minor Rockfish North
10	Shortspine Thornyhead - S of 34º27'	21	Minor Rockfish South
11	Longspine Thornyhead - N of 34º27'		

The total number of QS units in the zone landings option cannot be precisely enumerated until the zones are designated because that number depends on the configuration and number of zones and the landings into those zones during the zone assignment window period. The number of QS units would be something less than:

> [(*the # of stock units subject to the restriction*) * (*number of zones* + 1)] + [the # of *overfished stocks management units* / *other stocks not subject to the restriction*].[89]

It would be "something less than" because not all IFQ management units would have coastwide landings history. Very few stocks (e.g., Dover sole, petrale sole) would have landings history for every zone. As evident in Table A-120, several stocks are already subject to some geographical subdivision. These stocks would not have a significant amount, if any, overlapping landings history in a zone. In addition other stocks, like arrowtooth flounder and Pacific cod, are not geographically subdivided as management units yet would only have landings history within a limited number of zones because of the natural geographic distribution, for these stocks.

[88] The Council's preliminary preferred alternative would not require QS/QP for: longspine thornyhead south of 34°27' N latitude, minor nearshore rockfish north, minor nearshore rockfish south, black rockfish (WA), black rockfish (OR-CA), California scorpionfish, cabezon, kelp greenling, shortbelly rockfish, other rockfish, and spiny dogfish.

[89] The "plus 1" accounts for the zone free QS.

Even so, the regional zone landings option would likely add a considerable number of stock-area QS units. To illustrate, if the Council designated a total of 8 zones and all 21 stock units in Table A-120 were subject to the zone restriction, and on average those stock units had landings history in 4 different zones, then the zone landings option would create 105 QS units (including one unit each for the zone free QS) for a total of 112 management units (~7 QS/QP units for the overfished stock).[90] If the average number of zones was 5, then the number of quota share units created by the option jumps to 126 for a total of 133 management units. For comparison, the area management by geographic subdivision of QS/QP option would increase the number of management units from about 35 to 58. The British Columbia IVQ groundfish program allocates and manages 55 species-area quota management units.

Another factor to consider in subdividing QS into regional units would be the potential risk posed by the pools of quota becoming too small. In other words, for species with a relatively small trawl sector allocation to begin with, the subdivision of pools of zone restricted quota might create thin market conditions and potentially erode some of the efficiency gains expected under an IFQ program (*see* discussion of thin markets in Section 4.7.2.3).

The Council could choose to designate a smaller set of stocks with the zone restriction. Given that a relatively few target species drive the non-whiting groundfish trawl fishery, the outcome of the regional landings zone option could be more or less the same if only those key target species were designated with the zone restrictions. Yet covering only a limited number of target stocks would still have the potential to create a considerable number of new species area management units. Covering the top-5 target stocks would be similar to the area management by geographical subdivision option in terms of the total number of additional QS/QP units. For example, assuming 8 zones and an average of 6 zones per stock (target stocks tend to be more widely distributed), the total number of management units would be 58. Table A-121 identifies the most economically significant stocks based on approximate average annual ex-vessel value, 2004-2006.[91]

Table A-121. Top 12 non-whiting, groundfish species in terms of average ex-vessel value, 2004-2006 (PacFIN).

	Species	Approx. value (thousand $)
1	Sablefish	~$6,200
2	Dover sole	~$5,200
3	Petrale sole	~$5,200
4	Shortspine thornyhead	~$1,000
5	Pacific cod	~$900
6	Longspine thornyhead	~$700
7	English sole	~$700
8	Arrowtooth Flounder	~$500
9	Rex Sole	~$500
10	Lingcod	~$450
11	Pacific sanddab	~$300
12	Unspecified. Skate	~$300

[90] 105 = 21 * 5 = (# of stock management units) * (average # of zones + 1 zone free).

[91] There may be other significant target species that have been targeted in the past, and may again be targeted under the IFQ system, that do not have recent landings history because of overfished species constraints (e.g., chilipepper rockfish, yellowtail rockfish).

Another potential way of reducing the number of QS units in the program would be to endorse certain zone restricted QS units with multiple zone designations (e.g., Dover sole QS eligible for landing Zone 1,2, or 3). For the British Columbia IVQ program, there are 8 groundfish management areas and 27 stocks that are managed with quota shares yet there are only 55 total species area groups quota units.[92]

❖ b. Designating the Regional Landings Zones

The configuration of the regional landings zones—their number and location—is perhaps the key design element of the option. The decision to split between zone free and zone restricted QS and the decision on the IFQ management units covered by zone restrictions affect market incentives. The zones define the geographic scope of the market. In addition, the ultimate configuration of the zones would also be the primary factor for determining how the option would affect economic efficiency and operational flexibility in the fishery. Some possible configurations may be highly constraining to some areas of the coast whereas other configuration could conceivably have negligible impact on overall efficiency and flexibility.

As described in the WDFW proposal adopted by the Council as part of the preliminary preferred alternative, the regional landings zones would be designed and nominated by the states and approved by the Council. The proposal suggests that there would be no more than 10 total zones. The borders of each zone would be delineated by a north and south latitude line. Zone borders could either coincide with state borders or cross them. In addition, a regional landing zone could conceivable be designed to cover a single port or port group in order to provide strong protection to that community. On the other hand, zones could be designed to encompass multiple ports in order to increase competition and operational flexibility. It would also be possible to create overlapping zones so that a single port or port group would be eligible to receive multiple sets of zone restricted QS/QP.

There are multiple sections in this document that could be used to inform the design of the zones. The regional comparative advantage analysis in Section 4.7.2.1 and Appendix C discuss some of the initial conditions (e.g., distribution of QS/QP at initial allocation) that are expected to influence geographic shifts in fishing effort and landings under an IFQ program. The regional geography of processing infrastructure is examined Section 4.10.2.2. Possible impacts to fishing communities from the proposed action fleet are detailed in Section 4.15.2. Section 3.7 discusses the current status and vulnerability of individual fishing communities based on their dependence on and engagement in the groundfish fishery and other fishing activities.

❖ c. Designating the Zone Free/Restricted QS Split

The Council would need to determine the ratio between zone free and zone restricted QS. The WDFW proposal suggested that the percentage split would be uniform across the program; however, it would also be possible to vary the split between IFQ stock management units (e.g., 40/60 for Dover sole, 25/75 for petrale sole).

[92] The BC trawl IVQ species area units can be viewed in Appendix 8 of the 2008/2009 Groundfish Trawl Commercial Harvest Plan: Fisheries and Oceans Canada, Pacific Region Amended Integrated Fisheries Management Plan: Groundfish, March 8, 2008 to February 20, 2009. (http://www-ops2.pac.dfo-mpo.gc.ca/xnet/content/mplans/mplans.htm#Groundfish).

The zone free/zone restricted QS split essentially determines the degree of independence of the regional zone QS/QP markets. Because competition between zones for QS/QP is limited to the available zone free QS/QP, the strength of this independence would be proportional to the percentage of zone restricted QS/QP designated by the Council. At the same time, the independence of zone QS/QP markets would remain limited as long as overfished stocks are tradable coastwide.

Buyers and processors within regional landings zones would be expected to leverage their zone restricted QS/QP to attract zone free QS/QP. Yet to remain whole in terms of landings, each zone would have to leverage its zone restricted QS/QP up to the amount of the zone free QS ratio. The chances of this happening would presumably increase with higher percentages of zone restricted QS. At the same time, restricting QS to a zone does not necessarily mean that all the associated QP will be landed every year. As is the case with the status quo, harvesters may not be able to access the full trawl sector OY because of overfished species constraints.

❖ d. Designating the Zone Assignment Window Period.

As discussed above and illustrated in Table A-119, the Council would need to identify a zone assignment window period to assign each quota recipient's zone restricted QS to actual zones.

To achieve the goal of providing communities with stability during the transition to the IFQ program, this window period should be chosen to reflect recent landings patterns. A window period that goes too far back might increase the tradeoffs in operational flexibility because the permit holder receiving the initial allocation of QS may have purchased the permit, or changed the location of their operations, outside of or at the tail end of the window period.

Given that the zone assignment window would not influence the overall amount of QS issued to quota recipients, and that the objective of the option is to mitigate against substantial disruption to the fishery, the Council could consider designating a window period that extended to the present and beyond (e.g., 2004-2010). Doing so would allow those eligible to receive QS some influence over their potential portfolio of zone restricted QS. The weight of this influence would of course depend upon the overall length and duration of the window period. Under such circumstances, harvesters would likely begin to switch their landings into their most preferred zones prior to implementation. This would give the Council an early indication of the amount and direction of the geographic shift that may be expected with implementation of the program. The early signal could facilitate the development of plans for immediate use of the adaptive management program or other adjustments prior to implementation.

Further examination of potential window periods or alternative zone assignment rules would likely reveal the need for additional procedures for assigning the initial allocation of QS to zones. For example, if a recent window period is chosen, there may be permits receiving an initial allocation of QS/QP that have no landings history. There are known latent limited entry permits that will receive little QS/QP other than what may be distributed from the buyback history (see Table 4).

❖ e. Adaptive Management Features

The WDFW proposal suggests that the regional landings zone program could be managed adaptively by altering the design elements of the program. As seen above, there is considerable flexibility in the design elements of the program. For example, stocks could be added to or subtracted from the zone requirement, the zone free/restricted QS percentage split could be reduced or increased, the boundaries of zones could be re-designated to add or subtract ports, etc. The Council would presumably make such

changes in response to new information about the performance of the fishery. Some adaptive features could be built into the framework of the program, yet significant alterations to one of the design elements would likely need to be analyzed and implemented through the regular Council regulatory process.

There would be varying administrative complexity and cost associated with changing design elements. The simplest change to the program would involve converting zone restricted QS to zone free QS, either wholesale or for a certain percentage (e.g., converting 25 percent of zone restricted Dover sole QS to zone free).[93] This conversion to zone free could be made on a permanent basis or temporarily in response to inseason conditions. Increasing the number of zones in which a QS unit could be landed (e.g., permitting Zone 1 QS to be landed in Zone 2 as well) would also be relatively simple in terms of administrative complexity. In contrast, re-designating zone boundaries or increasing the amount of zone restricted QS from the pool of zone free QS would be more administratively complex and require the use of some zone assignment window period or formula.

Biological effects of the Regional Landings Zones

Although the objectives of the regional landings zone provisions are exclusively socioeconomic in nature, any shift in fishing activity induced by the landings restrictions could have biological implications as well. Many of these implications are discussed in the analysis of the latitudinal area management provision in A-1.2. The biological effect of the regional landing zone would be similar to that of the area management provision—i.e., precautionary and expected to decrease the likelihood of localized stock depletion—to the extent that the regional landing zone provisions were successful at preventing geographic consolidation of fishing activity. If, however, the design of the zones somehow increased concentration of fishing effort in certain regions, then the risk of localized depletion in those regions would be higher. A major difference between area designations and the landing zone provisions is that the landing zone designations do not necessarily force vessels into particular catch areas if the fish are not there. The vessels can fish anywhere along the coast as long as they meet the landing area requirements on their zone designated QP.

Influence of the Regional Landings Zone on the IFQ system

The regional landings zone provision would not amount to a fundamental alteration of the IFQ mechanism. Therefore the tradability of QS/QP and individual accountability for total catch and discards, would still be expected to result in changes to the behavior and composition of the fleet. However, the regional zones would be expected to alter the scale at which these dynamics operate, and in turn, to impact the geographic redistribution of landings under the program. Markets for zone restricted QS/QP would maintain some degree of separation from one another yet would remain connected through trade for zone free QS/QP. Competition for overfished species QS/QP in particular would be expected to remain high.

❖ Potential Benefits to Fishing Communities

By implementing landings restrictions tied to recent conditions in the fishery, the regional zone provision would preclude wide scale redistribution of QS/QP under the IFQ program. Over the long run, the regional zones would be expected to prevent excessive geographic consolidation of landings

[93] If the regional landings boundaries coincided with the 40° 10’ N latitude line (e.g.. if Zones 1-4 were north of 40 , and Zones 5-8 south), then it would also be relatively simple to convert to the area management option.

and promote broader distribution of benefits from the IFQ program. However, the degree to which individual ports and communities would benefit from these protections would depend largely on the configuration of the zones. The provision provides communities disadvantaged under the IFQ system some protection by reducing coastwide competition for QS/QP and by dampening down the influence of initial conditions (e.g., port infrastructure) on the redistribution of QS/QP. The converse is that communities that stood to gain the most from increased coastwide competition would lose some of their advantages under the zone requirement.

Yet ports and communities within zones would still face competition from one another, and thus fishing activities and QS/QP could still shift within zones. If a port is placed into a zone with its major competitor, then the zone provision might not provide much protection at all. In addition, nothing in the regional landings zone option provision would prevent new entrants into the zones. Over the long run, businesses within a zone would be expected to face competition from new businesses. As happens now, competitors could enter a zone with little or no capital investment in the region by sending mobile buyers into a zone to purchase fish and transport them to another area for processing.

In addition, the regional landings zone program would also present some risk of undermining overall economic efficiency and long-term benefits to the fishery. In 2004, the GAO evaluated landings restrictions as part of a report evaluating various community protection measures for IFQ programs and concluded that:

> *Requirements to bring catch into ports in a particular geographic area . . . may not be healthy for a community's economy in the long term. For example, such a requirement may subsidize inefficient local fish processors that cannot compete on the open market. With reduced competition, these processors may offer less money for the catch, thus reducing the fishermen's income and ultimately harming the community. According to Shetland Islands fishery managers we spoke with, had fishermen been required to land their catch in the Shetland Islands, they would have been forced to sell their catch at a price far below the market value and the processor would have had no incentive to restructure into the competitive business it is today.{GAO, 2004}*[94]

Although conditions on the west coast are much different than those of an isolated archipelago like the Shetland Islands, and thus new entrants into the processing sector within zones more likely, the potential for the zone landings provision to reduce competition within zones would still exist. As discussed elsewhere in Appendix A and also in Appendix E, there are issues of market power and competitiveness in the processing and harvesting sectors related to the transition to an IFQ system and the initial distribution of QS/QP. These would be important factors for the Council to consider during the design of the regional zones.

❖ Potential Impacts in the Harvesting Sector

The IFQ program would be expected to produce gains in the economic condition over the status quo even with the regional landings zone option in place. For zone restricted QS/QP, any additional costs associated with the landing restriction would be internalized into the IFQ mechanism. As explained in Section 1.3.1, given that the zone restricted QS/QP would still be divisible and tradable, harvesting

[94] GAO. 2004. Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation. GAO-04-277.

efficiency within each zone would be expected to improve over time as the quota accrues to those able to harvest and land fish within the zone most profitably.

At the same time, there is some risk that economic improvement in the fishery would be less than it would be with no landings restrictions in place. This risk can be weighed by examining the potential impact of the landings restriction on the two sources of expected economic improvement under the proposed IFQ system: (1) reductions in overall and per-vessel harvesting costs; and, (2) increased access to target species from improved avoidance of overfished species bycatch. The risks posed by the regional landings zone option to improvements in these two areas are weighed separately.

- Risk to Expected Reductions in Harvesting Costs

Reductions in harvesting cost alone are expected to bring significant economic benefit to the fishery, with fleet consolidation being a major the source of these savings. This consolidation would occur as less efficient vessels transfer quota to more efficient vessels and exit the fishery. As more vessels exit, overall harvesting costs in the fishery are reduced as fixed costs and capitalization decrease and the proportion of efficient vessels in the fleet increases.

Assuming that market conditions for zone restricted QS/QP remain competitive and transaction costs not too high, then consolidation and the associated cost savings would still be expected within the regional landings zones. However, the geographic pattern of consolidation would most likely differ under the regional landing zone program and would ultimately depend on the configuration of the zones. The degree of the consolidation and cost savings could vary between zones, and could be less overall than it would be in the absence of the zone structure, depending on economic conditions within the zones. Vessel efficiency is determined by its harvesting capacity and its cost structure. Harvesting capacity would not be expected to differ over the long run, yet a vessel's cost structure depends in part on port infrastructure. Therefore regional zones that contain only high cost ports would hamper overall cost savings of the vessels within that zone.

Bycatch is expected to be a major contributor to harvesting costs in the IFQ program. As described in Appendix C, there are regional differences in the distribution and abundance of overfished species. If a regional zone locked vessels into fishing in one of the known high bycatch areas, the cost of harvesting a given volume of target species would be higher in this zone because of the overfished species QP costs. Yet this would be true only to the extent that higher bycatch rates could not be avoided within the zone or cost of travel to harvest in lower bycatch rate areas outside the zone is too high. If the zones were large enough to provide multiple fishing grounds and landings locations, high bycatch areas could be avoided. Over the long term, harvesters would be expected to attempt to reduce their bycatch rates by changing fishing locations and strategies, switching gears, etc. The incentives produced by individual accountability together with improved at-sea data collection should allow harvesters to identify and avoid bycatch hotspots at a much finer scale than is possible under the status quo management structure. At the same time, if the only available bycatch avoidance strategy involved farther travel to fishing grounds within or outside a zone, then the increased travel distance would be a forced inefficiency and an undesirable outcome of the program.

- Risk to Potential Increased Access to Target Stocks

Increased access to target stocks is expected to occur under the IFQ program as regulatory discards are eliminated and individual accountability increases the incentive to avoid bycatch and reduces overall bycatch rates in the fishery. The regional landings zones program could therefore potentially reduce this amount of increased access if it somehow hampered improvement in bycatch rates.

This incentive to avoid bycatch might lead to coastwide differences in target strategies, and in turn, regional differences in the amount of bycatch needed to access a given volume of target species. If zone restrictions prevented QS/QP from flowing to those areas where target stocks could be accessed for the least amount of bycatch QP, then bycatch rates would not decrease to what they could have in the absence of the landings restriction. Yet, as mentioned above, this would only be true to the extent that the bycatch avoidance techniques used to achieve the lower bycatch rate would not be effective everywhere. As long as bycatch rates can be lowered through improved fishing techniques, the amount of target stock QP accessible per QP of bycatch would be expected to even out among zones over the long run.

Increased access to target stocks would also depend on there being demand for the increased volume of raw fish product. Therefore, differential market conditions for raw fish product between zones could also be a factor in how large the increase in volume will be under a zone restricted IFQ program. For example, assume Zone 1 received zone restricted QS/QP for a species that had little or no market for the raw fish product within the zone. With no zone restrictions in place, the QS/QP for this locally unmarketable species would flow to a region where demand for the species did exist. With zone restrictions in place, this transfer could only occur up to the percentage of zone free QS/QP that was allocated and the asset value of the zone restricted QS/QP within Zone 1would be zero. However, given that the assignment of QS to zones would be based on recent conditions in the zones, such situations should not be common because significant landings of a species would not have been made in the zone if there was no market for the fish. Moreover, even if such market disconnections did occur, they might only be a short-term problem. If enough demand existed for the raw fish product, processors or buyers would be expected to enter the zone to capture the profits.

Landing Patterns and Implications for Potential Zone Restricted QS Portfolios

Vessels in the non-whiting groundfish trawl fleet show a high degree of port fidelity, thus most permit owners receiving a quota allocation based on their trawl permit landings history would likely have their zone restricted QS/QP assigned to a single zone. Yet those that visited multiple ports during the zone assignment window period could potentially have their zone restricted QS assigned to several zones.

We examined current permit ownership and landings patterns associated with those permits during 2004-2006 to give a sense of how many recipients would have their zone restricted QS assigned to multiple zones.[95] As shown in Table A-122, 59.5 percent of permit owners hold limited entry permits with landings history in only one port group, nearly 25.6 percent hold permits with landings history in two or more port groups, and 14.9 percent hold permits with no landings history at all. Considering just the permits with landings during 2004-2006, nearly 70 percent hold permits with history in a single port, 12.6 percent in two ports, 10.7 percent in three ports, and 6.8 percent in four or more. Given that zones would likely be designed to cover multiple ports, it would be expected that over 80 percent of quota recipients would receive zone restricted QS for a single zone.

Quota recipients with history in multiple port groups could have very small portions of their zone restricted QS assigned to a certain zone. Table A-123 shows that permit owners with landing history in multiple ports still tend to make the majority of their landings into a single port group. Those with landings history in three or more port groups made, on average, less than 10 percent of their landings

[95] Quota recipients The port groups used in this analysis are based on the PacFIN W-O-C port groupings (e.g., Eureka Area, San Francisco Area, Coos Bay Area; see *www.psmfc.org/pacfin*) except that Washington's north coast (e.g., Neah Bay) and Puget Sound ports were combined into a single port group based on the WDFW proposal's indication that those ports would likely be covered by a single zone.

into that third port group. Those with landings history in four or more port groups show even smaller percentages. Some of these small numbers could be artifacts of one-time business transactions or the transfer of permits between vessels and thus not reflective of regular business practices. If so, then the regional zone landings provision could force additional transactions on quota recipients as they attempt to divest themselves of quota assigned to unwanted zones.

Those processing business that would receive initial allocation of quota based on processing history would also potentially receive zone restricted QS for multiple zones. Almost two-thirds of the QS will go to processors that have processing history in more than one port group. However, processing history is more likely to be reflective of recent business practices than vessel landings history. In other words, if the zone assignment window period reflects recent conditions in the fishery, then the zone restricted QS received by processors should tend to match the location of their processing operations. Nonetheless, depending on the zone assignment window period processors could still receive zone restricted QS quota for a zone where they no longer, or no longer wish to, do business.

Table A-122. Profile of limited entry trawl permit owners' non-whiting groundfish landings history, 2004-2006, including count of port groups where landings were made. Ports consisting of less than 1 percent of a permit owner's landings were excluded.

	# of Port Groups with Landings					
	0	*1*	*2*	*3*	*4+*	Total
Count of Permit Owners	18	72	13	11	7	121
% of total	14.9%	59.5%	10.7%	9.1%	5.8%	--
	Permits Active during 2004-2006					
	1	*2*	*3*	*4+*	Total	
Count of Permit Owners	72	13	11	7	103	
% of total	69.9%	12.6%	10.7%	6.8%	--	
Cumulative %	--	82.5%	93.2%	100.0%	--	
Total landings (mt)	13,765	2,466	1,388	1,253	18,871	
% of total landings	72.9%	13.1%	7.4%	6.6%	--	
Landings per permit owner (avg. mt)	191.2	176.1	242.0	179.0	--	

Table A-123. Distribution of groundfish landings history, 2004-2006, by permit owner and port group. The percentages in the table signify the average, maximum, and minimum percentages of permit owners' total landings made into their primary port group ("1st port"), secondary port group ("2nd port"), etc. Ports consisting of less than 1 percent of a permit owner's landings were excluded.

Permit owners with landings history in 4 or more port groups	1st Port	2nd Port	3rd Port	4th Port	5th Port +
Avg.	55.1%	16.1%	9.4%	5.1%	1.3%
Max.	90.3%	37.3%	23.5%	21.7%	1.8%
Min.	30.4%	3.0%	1.4%	1.3%	1.0%

Permit owners with landings history in 3 port groups	1st Port	2nd Port	3rd Port
Avg.	69.5%	21.4%	8.8%
Max.	95.9%	36.0%	26.7%
Min.	44.0%	3.0%	1.2%

Permit owners with landings history in 2 port groups	1st Port	2nd Port
Avg.	83.3%	16.7%
Max.	98.9%	42.6%
Min.	57.4%	1.1%

APPENDIX A: LIST OF REFERENCES

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Appendix B
ANALYSIS OF COMPONENTS, ELEMENTS, AND OPTIONS FOR THE HARVEST COOPERATIVE ALTERNATIVE
COOPERATIVE COMPONENTS ANALYSIS

RATIONALIZATION OF THE PACIFIC COAST GROUNDFISH LIMITED ENTRY TRAWL FISHERY PRELIMINARY DRAFT ENVIRONMENTAL IMPACT STATEMENT

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An Introduction to Harvest Cooperatives and the Pacific Whiting Cooperative Alternative

A cooperative is used to describe a collective arrangement among a like-minded group of individuals. Cooperatives are entities that are controlled by the people who use them. They differ from other business entities because they are member owned and operate for the benefit of members. The general activity of cooperatives being considered under the council's rationalization program is the harvest of fish, so these types of cooperatives are best described as "harvest cooperatives" and a harvest cooperative can be defined as an entity which acts to coordinate the harvest of its members.

Harvest cooperatives are organizations made up of vessels that work together to harvest a fishery resource. We can categorize this broad definition into two different possible models. One may be made up of vessels that negotiate catch-sharing arrangements among themselves without agency involvement. The Pacific Whiting Conservation Co-op is an example of this type of cooperative—a voluntary association of catcher-processors that have negotiated catch sharing arrangements among themselves without agency and Council involvement. This cooperative depends on an allocation of whiting to the sector and a barrier to entry by other catcher-processors that are not part of the arrangement.

The second model is created by vessels with catch history assignments (a percentage of allowable catch) that each vessel brings to the cooperative organization. The collective catch history then comprises the pool of catch available to that cooperative. This catch history can be leased to another vessel in the same cooperative through a private agreement without needing agency involvement, and the motivations and outcomes from doing so may be similar to those motivations and outcomes that exist when transferring quota pounds in an IFQ program (the reader is referred to Appendix A and E for a further elaboration on such incentives and outcomes). The administration and enforcement of harvest activities among member vessels is primarily done through the cooperative organizations and through private contracts governing the operation of those organizations. The regulatory activities of the agency are generally limited to reviewing and approving or disapproving cooperative contracts, monitoring for sector or co-op catch levels, and closing when a sector or co-op reaches their allocation. The mothership and shorebased cooperative proposals are examples of this type of cooperative. Each catcher vessel permit would have a percentage of the allowable catch based on their catch history and those catcher vessels would form cooperative arrangements with other catcher vessels. The cooperative organization would coordinate harvest activities of its member vessels and these activities would include leasing of shares between member vessels without agency involvement.

The primary difference between the two examples is the assignment of catch history. In cooperative programs with a relatively diverse set of harvesters, catch history assignments may be necessary in order to solve allocation disputes that may arise between vessels over catch sharing. In cooperative programs with harvesters that are less diverse, catch history assignments may not be necessary because vessels have similar historic participation in the fishery and similar historic catch levels, and find it relatively easy to reach catch sharing arrangements.

In some cooperative programs, catch history assigned to each vessel is linked to a processing entity. This linkage provision can trace its roots to the American Fisheries Act (AFA) which rationalized the Bering Sea Pollock fishery. The American Fisheries Act cooperatives were designed to "ensure that both harvesters and processors benefited from rationalization" {Stevens and Gorton, 1999; in Matulich, 2000} and one outcome was to establish a partial link between catcher vessels and shoreside processors. Catcher vessels and mothership processors are not linked in the Pollock fishery. Binding a vessel to a processor creates a system that takes on many characteristics of a vertically integrated firm. Harvesters cannot operate without a simultaneous action on the part of a processor and vice versa. With a harvester-processor linkage provision, harvesting entities and processing entities must negotiate with one another,

and both are in a similarly powerful negotiating position. Neither the processing entity nor the harvesting entity can operate independent of the other, and therefore the goals and operations of both entities become more aligned, partly out of necessity. This type of mutual dependence places both entities in a relatively strong negotiation stance resulting in the sharing of profits that accrue as a result of harvesting and processing activity. Furthermore, a processor linkage provision takes on some of the characteristics of a limited access privilege because those linkages are somewhat defensible and are somewhat transferable (at least in the model envisioned for Pacific whiting cooperatives). Processors with an established linkage have catch available to them from linked catcher vessels and other processors cannot take that catch in the current year[1]. When combined with processor limited entry and the fact that processors can transfer their permits and/or associated linkages to another processor, this tool tends to decrease the amount of competition that exists among processors for catch, making it possible for the processing sector to rationalize itself to a certain degree, leading to the generation of greater profits from participation in processing activity than may otherwise be the case.

Although harvesters and processors have been linked in other harvest cooperative programs, that linkage can be broken. Two possibilities are analyzed in the existing cooperative alternatives for breaking or switching a linkage. Under one option, harvesters can break the linkage by electing to fish in a non-cooperative fishery that is designed as a derby fishery. Harvesters in this non-cooperative fishery compete with one another for the catch allotted to the non-co-op, and the non-co-op is closed when the allowable non-co-op catch is attained. The reason for including a non-cooperative portion of the fishery is because it makes the linkages to processors that may exist in cooperative systems voluntary. Harvesters may elect to not participate in a cooperative and deliver to any processor as long as the harvester remains in the non-co-op fishery. Structuring the non-co-op as an Olympic fishery is intentional. This manner of fishing has proven to be less beneficial to participants in a fishery economically, thereby providing an incentive for harvesters to remain in a cooperative and maintain the existing processor linkage, and this increases the chances that processors can benefit from rationalization.

The other option assessed for switching processors is similar to one that occurs in the shoreside Pollock fishery where vessels in a cooperative can switch processors by delivering the majority of their catch to a different processor in the previous year. The method envisioned for doing this would be fishing the unlinked portion of catch history of other vessels in a cooperative through a lease agreement and delivering the majority of one's catch to another processor in that way. If that vessel delivers the majority of his catch to another processor through that mechanism, then a new linkage is formed the following year without ever participating in the non-cooperative fishery. If cooperatives must be formed around processors, this would mean that the vessel would need to join a new cooperative when it switches processors. Requiring that a catcher vessel also switch cooperatives may make it somewhat difficult for catcher vessels to switch processors by using this tool because it essentially relies on other catcher vessels agreeing to let that catcher vessel (and its associated catch history) leave the co-op. In the existing alternatives for whiting cooperatives, this processor-switching tool may be combined with an option that does not require co-ops to be formed around processors, and if this is the case, the outcome is one where the effect of a processor tie is substantially reduced, if not eliminated. If a single cooperative is formed for a sector, vessels can fish the catch history and associated linkages of other vessels in that cooperative and effectively switch processors simply by leasing another's catch history. Overall, this approach for switching processors would tend to decrease the amount of time harvesters spend in the non-cooperative fishery, but could result in a much different relationship between catcher-vessels and processors with catcher-vessels assuming greater leverage in negotiations over profits and other matters.

[1] Provisions exist for breaking the linkage in subsequent years. The decision to break the linkage ultimately rests with the catcher vessel, meaning the processor cannot defend the linked catch history from other processors over the longer term. This condition violates one of the principal definitions of a property right and is one principal reason why the processor linkage is not a resource access privilege.

One tool proposed in the Pacific whiting cooperative alternatives that does not exist in the Bering Sea Pollock fishery is the "mutual agreement exception". In cases where a processor elects to not participate in the fishery, this tool allows processors and catcher vessels the ability to enter into a mutual agreement that allows a catcher vessel to deliver to another processor without permanently breaking the existing processor linkage. Upon the original processor's return to the fishery, the original linkage is re-established. If such a mutual agreement exception did not exist, and a processor did not participate in a fishery in a given year, it is possible that processor would permanently lose its linked catcher vessels. This mutual agreement exception allows the processing sector the ability to increase or decrease the number of active processors in the fishery so that the amount of processing capital present in any one year is appropriate to the available harvest. If this provision did not exist, it is more likely that the amount of processing capital in the fishery would remain relatively constant even as the allowable catch varies, leading to years where excess processing capital exists in the fishery and cost inefficiencies are present. This would tend to occur because processors would risk losing their linked catcher vessels if they did not participate in the fishery, even if the allowable catch level was relatively low and may not justify the presence and activity of all qualifying processors in that year.

History on the Development of the Cooperative Alternative

The development of the non-catcher processor cooperative alternatives began with discussions among participants in the mothership fishery. Beginning in 2004, mothership catcher-vessel participants, mothership processor participants, and their technical advisers engaged in over 100 hours of discussion and deliberation to develop a rationalization alternative for Council consideration that was palatable to participants in the mothership sector. The objectives of these deliberations were that the alternative:

- Recognize historical participation in the mothership sector
- Ensure that rationalization benefit those that have participated in the mothership fishery (both harvesters and processors),
- That it strive to treat everyone fairly so that there were "no big winners and no big losers" {Paine, 2007. Personal communication}.

These discussions began with deliberations over the structure of a possible IFQ-based fishery that could accommodate the existing participants in the mothership sector and bring that fishery successfully into a rationalization program. However, the possibility of developing an agreed upon IFQ-based alternative with "no big winners and no big losers" was quickly abandoned due in large part to the friction created over allocation issues and how much IFQ mothership catcher-vessels and mothership processors would receive. Participants in the mothership fishery then turned to their experiences in the Bering Sea Pollock fishery and the cooperatives that were enacted in that fishery through the American Fisheries Act. The cooperatives developed through that legislation were constructed with the goal that "both processors and harvesters benefit from rationalization" {Stevens and Gordon, 1999; in Matulich, 2000}. Participants in the mothership fishery felt that a harvest cooperative model could be successfully applied to the Pacific whiting fishery (with some notable differences) because the whiting fishery is, in many ways, operationally similar to the Bering Sea Pollock fishery where cooperatives have been used successfully. Participants in the mothership sector also felt that a harvest cooperative model with processor linkage provisions could successfully accommodate existing participants in the fishery and ensure that all sides benefited from rationalization.

The mothership cooperative alternative developed by participants of the mothership fishery was intended to protect the interests of mothership processors and mothership catcher vessels. This was done by granting catcher vessels harvest privileges and linking those privileges to mothership processors. The

proposed alternative was intended to be relatively inclusive by considering the granting of permits to those that had participated in the mothership portion of the fishery after the separation of the two at-sea sectors (which occurred in 1997) and by considering the granting of catch history to catcher vessels with history since the introduction of limited entry (1994). This initial proposal was supported by the membership of United Catcher Boats (a trade association representing, at the time, 15 active catcher vessels in the fishery) and five of the six mothership entities operating in the fishery.

At the September 2006 Council meeting, representatives of the mothership sector presented their proposal for a harvest cooperative alternative in the mothership portion of the whiting fishery. The Council adopted the mothership sector cooperative proposal for analysis, officially moving the concept of a harvest cooperative alternative forward as one means of rationalizing portions of the limited entry trawl fishery.

In November 2006, the Trawl Individual Quota Committee (TIQC) discussed the newly added mothership cooperative alternative and the possibility of expanding the harvest cooperative model to the shoreside portion of the Pacific whiting fishery. The TIQC recommended modifications to the mothership cooperative alternative, including the consideration of additional harvest privilege qualification criteria, and an option to not have a mothership/catcher-vessel linkage provision. Several of these suggested additions and modifications took into account the concerns of those mothership sector participants that did not fully support the original mothership sector proposal. The TIQC also recommended that the Council consider a cooperative alternative for the shoreside portion of the whiting fishery, based largely on the mothership cooperative alternative.

Following this meeting, members of the shoreside whiting industry discussed the structure of a shoreside whiting harvest cooperative, with the intention of developing an industry-preferred alternative. The shoreside whiting industry members consulted with the National Marine Fisheries Service, members of the mothership whiting industry, and participants in the Bering Sea Pollock fishery.

At the March 2007 Council meeting, representatives of the shoreside whiting harvesting and processing industry presented a proposal for a shoreside whiting cooperative which included many similarities to the mothership sector alternative, but with differences in processor linkages and processor limited entry. These differences were based, in part, on the possibility that a shoreside processor limited entry program with shoreside processor linkages might not be allowable under the Magnuson-Stevens Act. During Council discussion on the alternative, General Counsel reaffirmed this. The Council voted to move all harvest cooperative alternatives forward for analysis.

At the November 2007 Council meeting, General Counsel again confirmed that the processor licensing requirements and linkage elements of the shoreside cooperative alternative went beyond the authority of the Magnuson-Stevens Act. Following this guidance, deliberation reverted to an IFQ-based model for rationalization of the shoreside whiting fishery, due in part to the notion that the lack of processor licensing and linkage provisions in a cooperative-based fishery could mean that processors would not benefit from rationalization. At this meeting, the Council also made several refinements to the options that comprised the mothership cooperative alternative. In particular, the option to not have a mothership linkage provision was discussed and the Council decided to drop that option from analysis because the lack of such a linkage was believed to mean that processors would not benefit from rationalization.

At the June 2008 Council meeting, the Council adopted their preliminary preferred alternative which included harvest cooperatives with processor linkages for the mothership sector, and a shoreside whiting cooperative program with processor linkages (pending Congressional approval). This motion came about after much public testimony from the harvesting and processing sectors of the fishery on the potential benefit and drawback of rationalizing the fishery. This motion to adopt a cooperative program in the

shoreside fishery appears to have been spurred by the idea that a harvest cooperative system with processor linkages may benefit both harvesters and processors while avoiding the friction created by a harvester and processor allocation issue found within an IFQ program. However, the Council also adopted an alternative that would manage the shoreside whiting fishery with IFQs if Congressional approval of a cooperative program with processor linkages does not occur.

Description of Approach for Components Analysis

The cooperative alternatives contain multiple elements and sub-options. This appendix is intended to address each of those elements and options that potentially make up the pieces of a cooperative-based fishery by including rationale and analysis of each of the elements of the alternative. The analysis for each option includes a description of related issues, and whether those issues are related in such a way that the selection of one element necessitates the selection of another. This appendix also includes a description of rationale and policy issues that are associated with each of the options and elements of the alternatives. Policy issues may include legal or implementation issues that are associated with each of the elements. Rationale includes the reasons, or basis, for considering each of the elements. Finally, an analysis that describes the effect of each of the options and elements is included.

The analysis in this section draws heavily on several different sources. In addition to economic and social theory, these sources include two National Research Council publications (Sharing the Fish and Drama of the Commons), multiple documents published by the North Pacific Fishery Management Council and the National Marine Fisheries Service Alaska Region relevant to cooperative-based management, and proceedings of the Tenth Biennial Conference of the International Institute of Fisheries Economics and Trade.

B-1 Whiting Sector Management under Co-ops

In the cooperative alternatives, all catcher vessels have a choice of whether to participate in a co-op or opt-out (non-cooperative) portion of the fishery. For catcher-processors, no formal co-op fishery would be established but rather a closed class would be established and a vessel could, at its option, decide not to participate in a co-op with other members of that fishery.

The existing allocation of whiting between the shoreside whiting, mothership, and catcher processor sectors remains under this alternative (42%, 24%, and 34%, respectively). Within each sector, this allowable catch is assigned each year to co-ops or to the non-co-op portion of the fishery. Co-ops will then be responsible for monitoring and enforcing the catch of the organization and of co-op members, and NMFS will monitor the catch of each sector and in the non-co-op fishery, as well as the overall catch by all three sectors. NMFS will make the following closures if limits are reached: close a co-op fishery if co-ops have collectively reached their limit; close the non-co-op fishery if it reaches its limit; and/or close the combined co-op and non-co-op fishery if that whiting sector reaches its limit.

Provisions may also address the catch of bycatch species (overfished species and non-target species). The Council is considering whether or not to make bycatch limits apply to the entire whiting fishery, individual whiting sectors, or to individual cooperatives and to which species bycatch limits will be developed. NMFS may close the whiting fishery, whiting sectors, or cooperatives, if a bycatch limit is reached.

B-1.1 Whiting Management

Under the co-op options for the mothership and shoreside sectors, catcher vessel permits will be endorsed for deliveries to these sectors and amounts of history assigned to each catcher vessel permit based on past harvest in the fishery.

The whiting catch history calculation for each mothership-endorsed catcher vessel permit [CV(MS)] and shoreside-endorsed catcher vessel permit [CV(SS)] will be assigned to a pool for the co-op in which the permit will participate or a pool for the mothership or shoreside non-co-op fishery. Co-ops are responsible for monitoring and enforcing the catch limits of co-op members. NMFS will monitor the catch in the non-co-op fishery, the co-op fisheries, and the overall catch of all three sectors. NMFS will close these fisheries when their catch limits have been achieved.

❖ Rationale and Policy Issues

Establishing a system of cooperatives is intended to rationalize the Pacific whiting fishery. Cooperatives create many of the same benefits attributed to other types of rationalization programs including slower paced fishing practices, consolidation of capital, and greater net economic benefits to participants in the fishery. In order for harvest cooperatives to achieve this outcome several necessary ingredients need to exist including a barrier to entry, an allocation of fish[2], and the establishment of a catch sharing arrangement among cooperative members (either through voluntary or regulatory means).

Endorsements for deliveries to the mothership and shoreside sectors are intended to stabilize participation in these sectors and act as a barrier to entry to these sectors. Catch histories are a harvest privilege which grant the holder of that catch history a defensible resource access privilege so long as they become part of a cooperative. If a participant elects to participate in the non-cooperative portion of the fishery, that catch history is not a defensible harvest privilege because other non-cooperative participants may compete for the catch available in that fishery. The presence of a non-cooperative fishery is intended to ensure that cooperative membership and the processor linkages that exist when vessels are part of cooperatives are voluntary. Voluntary membership of cooperatives is necessary to insure that cooperative members are of a like mind and can operate together successfully. Furthermore, structuring the non-cooperative fishery as an Olympic fishery is intended to act as a deterrent to catcher vessels that may be contemplating the departure from a cooperative and/or the breaking of a linkage to a processor. This deterrent is intended to stabilize relations between harvesters and processors and also stabilize cooperative membership and help foster longer term relationships among cooperative members. Longer term relationships tend to help the operation and success of cooperatives as those cooperatives rely heavily on relations between members.

Catch history designations, when combined with a "golden rule" provision, help solve resource sharing arrangements among participants in a cooperative managed fishery. Catch history assignments combined with a golden rule provision solves resource sharing for fishery participants ahead of time and helps ensure that cooperative agreements do not suffer due to negotiations and potential disagreements over catch sharing.

Making cooperatives responsible for the monitoring and enforcing of catch limits of co-op members is intended to accomplish several items. One rational for requiring cooperatives to self monitor and enforce is that it reduces the administrative workload on management agencies. In addition to this, self

[2] Options exist for which species sectors would be responsible for covering with catch history or IFQ. This issue is covered under Appendix A.1. The allocation of non-whiting species to various sectors of the trawl fishery will be established through the inter-sector allocation process.

monitoring and self enforcement allows for cooperatives to engage in other types of self management that may not be possible (or that may take much longer to implement) through a regulatory process. Self monitoring and self enforcement are necessary ingredients in order for cooperatives to implement fishing restrictions such as bycatch performance standards and area closures. Without self monitoring and self enforcement (and access to the data necessary to self monitor and self enforce), cooperatives would not be able to verify and enforce management goals of the cooperative and, by extension, may not be able to adequately meet the goals specified by the Council.

Having NMFS close appropriate portions of the fishery is intended to ensure that overall management levels are adhered to. This ensures that catch levels do not exceed ABCs and OYs and that other fishery sectors are not impacted by higher than intended catch levels in sectors managed by cooperatives.

The consideration of factors in this subsection addresses several aspects of MSA and groundfish FMP guidance. Specifically, factors discussed here are related to guidance, goals, and objectives related to conservation, net benefits, harvester and sector health, and small entities and new entrants. These factors are outlined more specifically in the next section which serves as the analysis of this component.

	Related Category of Goals and Objectives									
Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Divisibility of catch history and harvest cooperative stability	X	X				X			X	
Resource sharing and the golden rule	X	X				X				
Intra and Inter-cooperative management and responsibility	X	X				X				
Non-cooperative fishery	X	X				X				

❖ Interlinked Elements

Golden rule provision. This provision assures catcher vessels in a cooperative that they have access to their catch history, but no more (unless a private arrangement is developed for sharing catch differently). This is necessary in order for resource sharing arrangements to be solved. The lack of such a provision may make it difficult for some cooperatives to form.

Inter-cooperative agreements. An inter-cooperative agreement allows multiple cooperatives to enter into contractual arrangements for sharing catch with one another. This allows for harvest flexibility and risk sharing that may increase the potential for achieving economic benefits in the fishery while spreading the risk of unexpected bycatch events across more fishery participants.

❖ Analysis

Catcher vessels in the mothership and shoreside sectors would receive a non-divisible "catch history[3]" designation as well as a sector endorsement which assigns that permit to either the shoreside or mothership sector. The whiting catch history for each catcher-vessel permit will be assigned to a co-op where it is pooled with the catch history of other permits in that co-op, or assigned to the non-co-op fishery where it is pooled with other permits in the non-co-op fishery.

● Divisibility of Catch History and Harvest Cooperative Stability

Making these catch history assignments non-divisible[4] fosters stability in terms of entities participating in the cooperative structure because it tends to reduce turnover in the fishery. As discussed in Chapter 4, stability in participation and relations is necessary for the successful operation of a cooperative. The written contracts governing the operation of a cooperative are a joint agreement among cooperative members, who will have arrived at that agreement through deliberation and negotiation. Having divisible catch history assignments makes it likely that new participants will be relatively frequent. These newer participants may not find the governing contracts agreeable, meaning that cooperative contracts may need to be frequently re-written. Alternatively, new entrants may elect not to join a cooperative, instead participating in the non-cooperative portion of the fishery. This would make participation in the non-cooperative fishery greater than it would be if catch history were not divisible and fishery participation were more stable.

Although non-divisible catch history may restrict new entry, historical information indicates that new entry in the mothership portion of the fishery is limited under status quo conditions, and that the criteria used for including/excluding participants from the fishery would be far more inclusive than exclusive under the existing alternative. When examined on a permit-by-permit basis, the number of permits that have participated in the fishery that would *not* receive a CV(MS) permit is two to three, depending on which criteria are used for granting a CV(MS) permit and catch history. All other catcher vessel permits that have engaged in mothership activity would be eligible to receive a CV(MS) permit with catch history, and would be allowed to participate in the fishery. This suggests that the restriction on new entry by having non-divisible catch history is slight, in part because many other barriers to entry into the whiting fishery exist. One such barrier is the cost of acquiring a catcher vessel with the equipment and capacity necessary to engage in whiting activity. These vessels typically have large horsepower and tend to range in size from 70 to over 100 feet in length, making them costly and acting as a barrier to entry to the fishery in and of themselves.

Cooperative institutions rely on close-knit relationships for success. Divisible catch history assignments make it more likely that new participants will enter and leave the fishery, possibly making cooperative operations more difficult and less successful, or making participation in the non-cooperative fishery more common than if relations were more stable. The reader is referred to Chapter 4 for more discussion of cooperative institutions and relationships in those institutions.

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[3] "Catch history" is a term used to describe a share of the allowable catch. The term "quota share" is not used in the cooperative analysis because quota share is divisible down to a single pound or percentage, while catch history is not divisible.

[4] While catch history is not formally divisible, harvesters can enter into agreements with other harvesters in a cooperative and share all, or portions, of catch history through a private mutual agreement. In the absence of this agreement, each harvester has access to his/her catch history, but no more.

Enhanced cooperative stability may help foster fishery management and conservation for a variety of reasons. If a lack of cooperative stability results in more frequent participation in the non-cooperative portion of the fishery (which acts similar to an Olympic fishery), fishery participants may behave in a less "rational" way, resulting in higher bycatch or other impacts that are not beneficial to management. Cooperative stability depends on a relatively stable set of participants, for the reasons described above and in Chapter 4. Since cooperative stability is closely tied to having a non-divisible catch history designation, the creation of such non-divisible catch history helps foster conditions that are consistent with MSA – 303A(c)(1)(C)(ii) MSA – 303A(c)(1)(A) and Amendment 20 objectives 1 and 3.

In addition to conservation guidelines, the granting of non-divisible catch history to fishery participants appears to achieve net benefit and efficiency guidelines and guidelines referring to sector health. A fishery with a cooperative fishery structure that is relatively stable can be assumed to have a limited number of participants engaged in the non-cooperative portion of the fishery. If participation in that non-cooperative portion of the fishery is limited to a substantial degree, the behavior of participants in that portion of the fishery may continue to resemble the behavior of participants in a rationalized fishery. This is because with a limited number of participants in the non-cooperative fishery they are not likely to feel as threatened, or in as much competition, with one another. Less participation in the non-cooperative portion of the fishery equates to more participation in the cooperative portion of the fishery. The result of high degrees of cooperative membership and low participation in the non-cooperative fishery are operations that are "rational" and such rational behavior results in fishing operations that are relatively cost efficient, creating a net economic benefit. Such net economic benefits, and the consideration of such benefits, are consistent with the groundfish FMP objective 6, with groundfish FMP goal 2, and MSA National Standard 5. Such improvement in the cost efficiency of participants is also consistent with Amendment 20 objective 2, and with groundfish FMP goal 2.

The fact that catch history designations are not divisible may make it more difficult for new entrants to acquire permits. This is because new entrants would be required to purchase the entire catch history associated with a permit which is likely to be relatively costly. If new entrants cannot acquire the capital necessary to purchase a permit with catch history, then they are constrained in their ability to become the owner/operator of a vessel in a cooperative fishery. However, other means of becoming a new entrant may be available. A cooperative system in a high volume, capital-intensive fishery (like Pacific whiting) may be more conducive to the creation of fishing *corporations,* where multiple individuals have an ownership stake in fishing and processing operations, rather than a smaller volume, less capital-intensive fishery where independent owner operators are more common. Under a corporation-like structure, new entrants may purchase an ownership stake in a fishing company that is part of a cooperative-based fishery, work their way up the ranks in the business, and in this was become new entrants into the fishery.

- Resource Sharing and the "Golden Rule"

The amount of catch each vessel/permit in a cooperative can access may be the same as the catch history they bring to the cooperative, or it may be different if agreements are made among cooperative members for leasing catch history. In the absence of a leasing arrangement, the "Golden Rule" applies, where a vessel has access to the catch history associated with that permit even though catch history of vessels in a cooperative are pooled. This "Golden Rule" provision is intended to resolve resource-sharing arrangements if cooperative members cannot agree to sharing arrangements among themselves. If sharing arrangements are not resolved, participants may have trouble forming cooperative agreements, or (if an agreement is reached), a cooperative may de-stabilize as members continually deliberate over the sharing of catch. Therefore, allowing each vessel access to its own catch history in the absence of some other mutual arrangement helps foster stability among cooperatives and their members. In the absence of a Golden Rule, certain members could hold out against other cooperative members for a larger catch share

than they historically harvested (sometimes referred to as the "last man standing" effect). In the worst case scenario (where a group of individuals that cannot agree to catch-sharing arrangements), cooperative agreements can break down and members may move to the non-co-op fishery.

Non-divisible catch history and the Golden Rule both help ensure the stability of cooperative organizations. This affects the economic status of cooperative participants and the successful management of fishery resources. In the most extreme example of a cooperative structure without catch history assignments, participants might not be able to form or maintain cooperative agreements. In this event, fishing behavior would likely become more competitive, with more participants in the non-co-op fishery, and with higher rates of bycatch and less economically efficient fishing practices (for reasons explained above). As a result, the application of the "Golden Rule" to sectors of the fishery where catch history designations are necessary to form cooperative agreements is consistent with MSA – 303A(c)(1)(A), MSA – 303A(c)(1)(C)(ii), Amendment 20 Objective 1 & 3, MSA - 303A(c)(1)(B), groundfish FMP Goal 2, Amendment 20 Objective 2, and groundfish FMP Goal 2. However, it should be noted that catch history assignments and the Golden Rule provision are not always necessary for the successful operation of a harvest cooperative, as evidenced by the existing catcher-processor cooperative.

Intra and Inter-Cooperative Management and Responsibility
One likely outcome of having NMFS close cooperatives or sectors when catch limits are reached (and therefore treat participants in those cooperatives or sectors equally) means that cooperatives will manage individual members and develop procedures that shut down members when they have harvested their allowed catch. This reduces the burden on management agencies, but it also influences the agreements and governing contracts developed among cooperative members, simply because the cooperatives must be responsible for managing their members.

Since the cooperative is held responsible for a given amount of catch, more than the expected amount of catch by one member will reduce the catch available to other members. This fosters the development of rules for managing individual catches, and may include enforcement and penalty provisions that discourage behavior that may result in more catch than expected by a single cooperative member. Furthermore, because this arrangement requires cooperatives to self monitor and self manage, cooperatives and their members have a strong reason to require quality catch monitoring on board vessels so that one vessel is not at a relative advantage over others, and so that trust regarding catch levels is maintained. The lack of quality monitoring will erode trust in members' catch levels, adversely impacting the cooperative.

Inter-cooperative agreements can be established for sharing bycatch or whiting harvest opportunities across cooperatives. Inter-cooperative agreements can be constructed to transfer catch history of whiting if one cooperative finds that it will not catch the rest of its available whiting and another cooperative has an interest in doing so. Inter-cooperative transfers of bycatch can also occur if one cooperative finds it needs more bycatch than another. The result of inter-cooperative bycatch agreements may lead to more "risk sharing" of bycatch species across fishery participants and greater utilization of available whiting. Inter-cooperative agreements can also be used by cooperatives to cover catch deficits if one cooperative has harvested more than its available catch history and another cooperative has catch history available. If an inter-cooperative agreement is formed between two cooperatives, NMFS will monitor the two cooperatives as one and close both cooperatives when the collective catch limit has been reached.

- Non-Cooperative Fishery

The presence of a non-cooperative fishery provides a way for catcher vessels to switch processors, while creating incentives for them to remain linked to their obligated processor. In order to switch processors, it

may be necessary for catcher vessels to participate in the non-cooperative fishery, which is expected to be less economically beneficial to participants for the reasons described above. Because of this, there is a strong incentive for catcher vessels to remain in the cooperative fishery, which entails retaining the existing processor linkage. This protects the interests of processors because it provides them with some certainty that catcher vessels and their deliveries will remain linked with their processing operations. This allows processors to engage in behavior that resembles a form of processor sector rationalization, leading to more profitability from processing activities.

Requiring that catcher vessels fish in the non-cooperative fishery before switching motherships will mean that catcher vessels will participate in a year (or more) of relatively economically inefficient production in order to do so. Harvesters may still generate revenue in the non-cooperative fishery, but they may also lose money. In any case, the net revenue generated by participants in the non-cooperative fishery is expected to be less than the net revenue generated by the cooperative fisheries.

The fact that the non-cooperative portion of the fishery is structured as an Olympic fishery means that non-cooperative fishery participants are likely to behave less "rationally" than they would in the cooperative fishery. Theory suggests that participants in the non-cooperative fishery would engage in a pure "race" for available catch. As a result, economic performance would deteriorate, bycatch would increase, and management performance of the fishery would suffer. In order to validate or invalidate this theory, it is useful to examine the operation of catcher vessels and processors in the existing fishery, which operates as a sector-wide non-cooperative fishery. In the current fishery, motherships are able to influence the behavior of catcher vessels that deliver to that mothership. It is possible that shoreside processors also influence the behavior of catcher vessels delivering to them, but it may be to a lesser degree. It is not unreasonable to expect this influence to temper the behavior of a catcher vessel in a non-cooperative mode and result in greater economic and bycatch performance in the non-cooperative fishery than may be expected based on theory.

When considering the operations of catcher vessels and processors in a cooperatively managed fishery with processor ties, the effect of the processor tie will to influence the operations of a catcher vessel even if a catcher vessel is in a non-cooperative mode. This is because during this non-cooperative mode, catcher vessels and processors attempt to establish new linkages. In order to establish a new linkage, the non-cooperative catcher vessel must deliver the majority of its catch to a new processor in the year it participates in the non-cooperative mode. To do this, the catcher vessel will need to coordinate with the new processor and be folded into the processor rotation with other catcher vessels delivering to that processor. This tempers the speed and timing at which that catcher vessel harvests fish, translating into a more modest amount of effort exerted on the part of the catcher vessel and a more rational pace of fishing.

Differences exist between the mothership and shoreside sectors of the whiting fishery. In general, more coordination occurs between motherships and mothership catcher vessels than between shoreside processors and shoreside processing catcher vessels. In the mothership sector, catcher vessels must follow a mothership operation in order to make routine deliveries to that mothership and to coordinate the transfer of codends (codends are often owned by the mothership, while shoreside processors do not provide codends to harvesters). The mothership tries to optimize the economics of harvesting and processing operations, including measures to help ensure that catcher vessels linked to the mothership do not encounter bycatch problems that can prematurely shut down fishing and processing activity (especially if the catcher vessels linked to that mothership operation are in the same cooperative). By default, the non-cooperative catcher vessel will take on many of the same behaviors as the cooperative catcher vessels that deliver to that same mothership because it fishes the same general area and delivers in a rotation with those catcher vessels operating in the cooperative mode, and in this way the "race for fish" behavior expected of that non-cooperative vessel will be tempered. The shoreside sector appears to be slightly different in that harvesters operate more independently of shoreside processors, though some

coordination still occurs. While this information is largely anecdotal, several factors support this notion, including the fact that catcher vessels in the shoreside sector fish independently of the shoreside processor (except they fish within close enough proximity that they can make deliveries). Industry members have indicated that successful shoreside catcher vessels can leap another shoreside vessel that is in the same rotation. This means that participants in the non-cooperative portion of the mothership fishery may have more measured and paced fishing practices than shoreside catcher vessels in a non-cooperative mode. However, catcher vessels in both sectors may have their pace of fishing tempered to some degree by coordination with the processor.

Occurrences of catcher vessel participation in the non-cooperative fishery are expected to be relatively infrequent in an appropriately designed cooperative fishery. However, information suggests there may be more occurrences of shoreside vessels participating in a non-cooperative portion of the fishery than mothership catcher vessels. Supporting information is illustrated in the following tables. These tables show an ad-hoc vessel identifier and the associated processing company where that vessel delivered in 2004 through 2006. It is apparent that catcher vessels in the shoreside sector deliver to more processing entities than catcher vessels in the mothership sector. This may reflect the motivation catcher vessels in each sector have for switching processors, and by extension, participating in the non-cooperative fishery. If this shows motivation for switching processors, then there may be more frequent participation of shoreside whiting vessels in the non-cooperative fishery compared to catcher vessels in the mothership portion of the whiting fishery. Therefore, the performance of the shoreside sector would be less than that for the mothership sector, if both are managed with harvest cooperatives. This may be especially true when considering the influence processors have over catcher vessel activity in those sectors, and the effect this influence has on fishing behavior.

Table B-1. Mothership catcher vessel activity to mothership processing entities (2004 – 2006).

MS Catcher Vessel	MS Processor	2004	2005	2006
1	Supreme Alaska	X	X	X
2	Premier Pacific		X	X
3	Supreme Alaska		X	X
4	Premier Pacific		X	X
5	American Seafoods			X
6	Premier Pacific		X	X
7	Arctic Storm	X	X	X
8	Arctic Storm		X	
8	Premier Pacific			X
9	Supreme Alaska	X	X	X
10	American Seafoods		X	X
	Arctic Storm	X	X	X
11	Supreme Alaska	X	X	X
12	Arctic Storm	X	X	X
13	Arctic Storm			X
14	Arctic Storm		X	X
15	American Seafoods	X	X	X
16	Arctic Storm			X
	Premier Pacific			X
17	American Seafoods			X
18	Arctic Storm	X	X	X
19	American Seafoods		X	X
20	American Seafoods	X		
21	Arctic Storm	X	X	X

Table B-2. Shoreside catcher vessel activity to shoreside processing entities (2004 – 2006).

		YEAR		
SS CATCHER VESSEL	SHORESIDE WHITING PROCESSOR	2004	2005	2006
A	OCEAN GOLD SEAFOODS INC			X
B	PACIFIC	X	X	
	BORNSTEIN			X
	DA YANG			X
	JESSIES ILWACO FISH CO INC			X
C	OCEAN GOLD SEAFOODS INC	X	X	X
D	PACIFIC		X	
	OCEAN BEAUTY	X	X	X
E	JESSIES ILWACO FISH CO INC			X
F	PACIFIC	X	X	
	BORNSTEIN			X
G	PACIFIC	X	X	X
H	PACIFIC		X	X
I	PACIFIC	X	X	X
	JESSIES ILWACO FISH CO INC			X
J	PACIFIC			X
K	PACIFIC	X		
	OCEAN GOLD SEAFOODS INC		X	X
L	PACIFIC	X		
	DEL MAR		X	
	OCEAN GOLD SEAFOODS INC	X	X	X
M	BORNSTEIN			X
	DA YANG			X
N	TRIDENT	X	X	X
O	PACIFIC	X		X
	TRIDENT	X	X	
P	PACIFIC	X	X	X
	SHORELINE		X	
	WF ALBER	X		X
Q	TRIDENT	X	X	X
R	PACIFIC	X		
	TRIDENT	X	X	X
S	JESSIES ILWACO FISH CO INC		X	X
T	OCEAN GOLD SEAFOODS INC	X	X	X
U	JESSIES ILWACO FISH CO INC	X	X	X
V	PACIFIC	X	X	X
W	OCEAN GOLD SEAFOODS INC	X	X	X
X	DEL MAR			X
	OCEAN GOLD SEAFOODS INC			X
Y	DA YANG			X
	DEL MAR			X
	JESSIES ILWACO FISH CO INC			X
Z	PACIFIC	X	X	X
	DEL MAR		X	
AA	PACIFIC	X	X	X
BB	PACIFIC	X	X	X
	JESSIES ILWACO FISH CO INC		X	
	WF ALBER			X
CC	OCEAN GOLD SEAFOODS INC		X	
DD	PACIFIC	X	X	X
EE	SHORELINE		X	
	TRIDENT		X	X
FF	PACIFIC	X	X	X
GG	PACIFIC	X	X	X
HH	OCEAN GOLD SEAFOODS INC			X
II	PACIFIC	X	X	X
JJ	OCEAN GOLD SEAFOODS INC	X	X	X
KK	HALLMARK			X
	OREGON BRAND			X
LL	TRIDENT	X	X	X

	Related Category of Goals and Objectives									
Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Divisibility of catch history and harvest cooperative stability	X	X				X			X	
Resource sharing and the golden rule	X	X				X				
Intra and Inter-cooperative management and responsibility	X	X				X				
Non-cooperative fishery	X	X				X				

B-1.2 Annual Whiting Rollovers

► **Whiting Rollover Option 1**: There will not be a rollover of unused whiting from one whiting sector to another.
Whiting Rollover Option 2: Each year rollovers to other sectors may occur if sector participants are surveyed by NMFS and no participants intend to harvest remaining sector allocations in that year. Current provisions for NMFS to re-allocate unused sector allocations of whiting (from sectors no longer active in the fishery) to other sectors still active in the fishery will be maintained (see 50CFR660.323(c)—Reapportionments).

❖ Interlinked Elements

Bycatch limits. The interaction of bycatch limit management and a roll over provision may prove controversial if a sector is closed because of attainment of bycatch and has not harvested its full whiting allocation. That sector may plan to petition the Council for an increase in the bycatch limit at a later date, and if so, consideration would need to be given regarding the time at which a roll over of that sector's whiting to another should occur.

❖ Rationale and Policy Issues

A roll-over mechanism is intended to facilitate the attainment of the Pacific whiting OY if one or more sector does not intend to harvest the full allocation of Pacific whiting. If a rollover mechanism is not established, harvestable amounts of the whiting OY are likely to be foregone, resulting in less revenue than would otherwise be the case.

The consideration of a roll-over mechanism is related to MSA and groundfish FMP guidance that are related to net benefits, harvester and processor sector health, and labor. The rationale for considering this provision is largely economic, and the intention to allow a roll-over is to allow for greater economic

activity than would otherwise occur without a roll over. This ties into harvester and processor sector health because it stimulates economic activity and may be expected to facilitate a healthier economic status of harvesters and processors. Labor is affected by the same reasons.

	Related Category of Goals and Objectives									
Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Roll over		X				X	X			

❖ Analysis

A rollover provision provides a mechanism for the Pacific whiting fishery OY to be fully taken if one or more directed whiting sectors does not intend to harvest their full allocation. Rolling over a sector's allocation to another sector grants access to harvestable surplus that otherwise may be foregone if such a rollover does not occur, and a sector does not intend to harvest their entire allocation. Under status quo conditions, this action occurs if NMFS determines that one sector does not intend to harvest their full allocation. Upon such a determination, NMFS reapportions the unused amount of whiting to a sector that is still active in the fishery. This action has occurred several times in recent years, as some sectors have failed to harvest their allocation. In a cooperative program, the rollover of one sector's whiting to another will likely require NMFS to calculate the available catch that is to be allocated to each cooperative in the sector that is the recipient of the rollover. Presumably, this will be done on a pro-rata basis. This is an additional administrative step above that which occurs under status quo.

If bycatch is managed at the sector, a sector may close due to bycatch limit attainment, but still have whiting available. In this case, a sector may petition the Council for an increase in the bycatch limit in order to re-open the fishery. Through the roll-over provision, that sector's whiting may be rolled-over to another sector before that sector can petition the Council for an inseason increase to the bycatch limit. Therefore, if a roll-over mechanism is adopted and a sector is closed because of attainment of a bycatch limit, the possibility of an inseason increase to the bycatch limit may need to be considered before rolling the closed sector's whiting to another sector.

Not having a rollover provision from one sector to another is a change from status quo. Not allowing a rollover may mean that the available harvest is not realized in some years, potentially reducing economic activity.

As discussed above, bycatch management is related to a carryover provision. It is not clear how a carryover provision would work if a sector is closed upon attainment of bycatch, but wants to increase its bycatch limit at a later date. If bycatch is managed at the sector level, it is possible that a sector may be shut down upon bycatch limit attainment. However, if a sector intends to lobby for an increase in the bycatch limit, it is not clear when NMFS would roll the unharvested whiting over to another sector. If

bycatch limits are set at the fishery-wide level, this concern does not exist.

B-1.3 Bycatch Species Management

The whiting fishery will be managed under bycatch limits for select groundfish species.

B-1.3.1 Bycatch Allocation Subdivision

Subdivision Option A (No Subdivision): Do not subdivide bycatch species.

Subdivision Option B (Subdivide by Sector): Subdivide bycatch species allocation among each of the whiting sectors (sector allocations will be determined in the intersector allocation process).

Subdivision Option C (Subdivide by Sector and Co-op/Non-co-op Fisheries): Subdivide bycatch species allocation among each of the whiting sectors, and within the sectors subdivide between the co-op fishery and non-co-op fishery (subdivision for the non-co-op fishery does not apply to the catcher-processor co-op program).

► **Subdivision Option D** (Subdivide by Sector, Co-op/Non-co-op Fisheries, and Among Co-ops): Same as C, but in addition subdivide bycatch among the co-ops.

B-1.3.2 Bycatch Management

► *Under the Council's preliminary preferred alternative, the references to "seasonal releases" would be eliminated from the following paragraph*.

> All sectors and co-ops will close as soon as the whiting fishery bycatch cap is reached for one species. The Council may use *seasonal releases* of allocations and area closures (seasonal or year-round) to manage overfished stocks in the co-op and non-co-op fisheries. The *seasonal releases* and area closures may be the same or different for different species. Area closures may be year-round, seasonal, or triggered automatically by the attainment of certain levels of catch.[5]

For Subdivision Option A (No Bycatch Subdivision): If bycatch species are not allocated among the sectors, then:

> **Bycatch Management Option 1**: Initially, the Council will not use seasonal releases and a controlled pace may be established if the sectors choose to work together cooperatively, potentially forming an inter-sector/inter-co-op cooperative.
>
> **Bycatch Management Option 2**: There will be seasonal releases of bycatch allocation. At the outset, it is envisioned that the seasonal approach will be used to manage widow rockfish bycatch; for canary rockfish and darkblotched rockfish, status quo management will be maintained (i.e., no sector allocation and no seasonal apportionment).
>
> A seasonal release bycatch management program will be implemented through regulation.[6]
>
> In practice, seasonal releases protect the next sector entering the fishery. For example, a May 15-June 15 release will be used by the catcher-processors and motherships, but it protects the shoreside fishery; the June 15-September release will be used by shoreside and whatever catcher-processors and

[5] The Council asked for analysis of *seasonal releases* and area management at the sector, individual, and co-op levels (if here is an inter-co-op agreement).

[6] For reference, a similar program is used to manage halibut bycatch in NPFMC-managed flatfish and Pacific cod fisheries, see 50CFR679.21(d).

motherships are still fishing whiting, and to protect a fall at-sea season after September 15; the final release in September will again be shared by the catcher-processors and motherships, assuming shoreside is done fishing.

For example:

1. Status quo for canary and darkblotched rockfish; i.e., no seasonal or sector allocation.
2. May 1-June 15: 40 percent of widow hard cap released.
3. June 15-August 31: An additional 45 percent of widow hard cap released.
4. September 1-December 31: Final 15 percent of widow hard cap released.
5. Once a seasonal release of widow rockfish is reached, the whiting fishery is closed to all three sectors for that period. The fishery re-opens to all three sectors upon release of the next seasonal release of widow rockfish.
6. Unused amounts from one seasonal release rollover into subsequent release periods.

   (Note: percentages are for illustration purposes only, actual release percentages will be developed through the Council process).

For Subdivision Options B, C, and D (Bycatch Subdivision Among Trawl Sectors):

► **Rollover Option 1**: If each sector has its own allocation of bycatch, unused bycatch may be rolled over from one sector to another if the sector's full allocation of whiting has been harvested or participants in the sector do not intend to harvest the remaining sector allocation.
Rollover Option 2: **Rollovers are not allowed.**

For Subdivision Options C, and D (Bycatch Subdivision Among the Co-op and Non-cop Fisheries):
A sector's bycatch allocation will be divided between the co-op and non-co-op fishery of the sector, in proportion to the whiting allocated to each fishery. The co-op fishery will close based on attainment of its allocation.

Option 1: For the non-co-op fishery there will be a bycatch buffer. When only the buffer remains, the fishery would close temporarily while a determination is made as to a possible re-opening. If the fishery is reopened it will close based on attainment of its allocation. The buffer amounts considered will be:

Sub-option i: 20 percent
Sub-option ii: 10 percent
Sub-option iii: 5 percent

► **Option 2**: For the non-co-op fishery there will not be a buffer. The fishery will close based on projected attainment of its allocation.

For Subdivision Option D (Bycatch Subdivision Among Co-ops):

Bycatch will be allocated to each co-op pro rata in proportion to its whiting allocation. Each co-op will cease fishing when its bycatch allocation is reached.

❖ Interlinked Elements

Roll over. See previous.

❖ Rationale and Policy Issues

Bycatch limits in a cooperative program are put in place as a catch management tool in order to prevent exceedance of ABCs and OYs, and also to prevent harm to other fishery sectors that may be impacted by higher than expected catch amounts of bycatch species. The appropriate level of bycatch management is a trade-off between the appropriate level of individual accountability, and the appropriate level of risk sharing across fishery participants. For stocks with low OYs and highly variable and uncertain catch events, the risk posed to fishery participants and their fellow cooperative members may be quite high if bycatch is managed at the cooperative level and there is a potential for relatively few tows to catch the full bycatch limit of that cooperative. However, the spreading of bycatch management across a relatively wide enough number of participants may mean that those participants cannot agree on bycatch management conditions and successfully manage that bycatch collectively. Therefore, the appropriate balance is a mix of risk spreading and individual accountability.

A seasonal release of bycatch acts similarly to a sector-specific allocation to each of the whiting sectors, but with more flexibility, and with less risk to individual harvesters. If a common bycatch limit is specified and a bycatch limit is reached (and the fishery is closed) all three sectors can again prosecute the fishery after the subsequent release. This seasonal release acts like a sector allocation because each fishery operates at different times of the year. Depending on how bycatch is released, it may play more into the hands of some sectors during specific times of the year and less into the hands of another sector during that same time period.

Area management of bycatch is intended to minimize the encounters of bycatch species through a regulatory mechanism which would close areas where bycatch is relatively high.

A bycatch roll-over gives other sectors access to bycatch that may not be necessary to another sector. This provides increased certainty to the sectors receiving the bycatch that they will not be closed due to attainment of a bycatch limit and increases the chance that the whiting OY will be attained.

A non-cooperative fishery bycatch buffer is intended to serve as a risk-mitigating factor that protects cooperative fishery participants from the actions of non-cooperative fishery participants.

Management of bycatch in a cooperative fishery meets conservation goals because it restricts the harvest of a non-target species and provides some assurance that management targets will not be exceeded. This helps rebuild overfished species, promotes conservation and management, and reduces bycatch (compared to no bycatch management). As a result, bycatch management in a cooperative program is consistent with MSA-303A(c)(1)(A), MSA-303A(c)(1)(c)(ii), and Amendment 20 Objective 1&3.

The type of bycatch management can have an effect on the operations of a sector, the economic status and operation of that sector, and the net benefits associated with engaging in fishing operations. In particular, if bycatch is managed across the three whiting sectors, it is possible that a race for fish would ensue because of the common bycatch limit (often described as a "race for bycatch"). Such behavior is contrary to goals of capacity reduction and efficiency. However, it is not necessarily the case that a common bycatch limit would lead to such behavior, although it is possible. A common bycatch limit has the effect of spreading the risk of unexpected bycatch events across a wider number of participants, thus relating bycatch management to equity concerns contained in the MSA.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Bycatch Management	X	X			X	X				X
Bycatch Subdivision	X	X			X	X				X
Seasonal Releases and Area Management	X	X			X	X				X
Bycatch Buffers	X	X			X	X				X

❖ Analysis

● Bycatch Management and Bycatch Subdivision

As shown above bycatch limits can be imposed in several ways, including a common bycatch limit for the entire directed whiting fishery; a specific limit for each sector; a specific limit for each sector where each sector's limit is divided between the cooperatives and the non-cooperative portion of the sector; and a limit applied to each cooperative and to the non-cooperative portion of the fishery.

Bycatch limits in the whiting fishery introduce several types of risk. As noted above, bycatch limits (and the successful management thereof) require that harvesters agree to management conditions. As bycatch limits are spread across more participants, the possibility that those participants can agree decreases. In the worst case scenario, harvesters will not be able to agree to bycatch management terms. Because attainment of a bycatch limit means closure of the fishery, sector, or cooperative (depending on the level of management), harvesters may fear preemption of their target opportunities if a bycatch limit is attained. If they cannot successfully agree to bycatch management conditions, they are therefore liable to begin engaging in Olympic-style behavior, potentially eroding the gains typically attributed to rationalization. Such behavior may mean faster-paced harvest activity, more capital used in the fishery, and lower quality products, among other things.

Bycatch limit management at a smaller, cooperative scale may mean that harvesters are more likely to agree to bycatch management terms. However, it also increases individual risk and makes it less likely that a large and unexpected catch event can be absorbed by the collective. This may lead to a bycatch-induced closure that would be limited to the cooperative (rather than the entire fishery) but the impact on the individual harvester would be greater than if bycatch management were spread across a wider collective because it would be more likely to eliminate the future harvest opportunities for that individual.

One factor that may mitigate the risk to individual harvesters if bycatch is managed at the cooperative level is the presence of an intercooperative agreement to manage bycatch. An intercooperative agreement can allow individual cooperatives to develop relationships between one another for successfully managing

bycatch species and sharing the amount of bycatch between them, thus spreading the risk across a wider array of participants. Since intercooperative agreements rely on each cooperative agreeing to enter into that relationship, the development of such relationships is likely to rely heavily on each individual cooperative having a successful management plan for their own cooperative members. This provides greater certainty to the other cooperative that management is likely to be successful and therefore, mutually beneficial.

The following table illustrates the type and level of risk associated with each level of bycatch management starting with the lowest level (IFQs) and ending at the highest level (fishery wide bycatch limits). This table is also found in Chapter 4 of the EIS. This table illustrates two forms of risk faced by harvesters when dealing with bycatch species, particularly for overfished rockfish where relatively large and unexpected tows can occur. This table shows that if bycatch is managed at a small level, the implication of an unexpected catch event spilling over and affecting other harvesters is relatively small compared to a case where bycatch is managed at a relatively large level. Inversely, if bycatch is managed at a low level, the burden faced by individuals from an unexpected catch event is large relative to a case where bycatch is managed at a larger level.

Level of Bycatch Management	Collective Risk (risk of a race for bycatch)	Individual Risk (risk posed to individuals from catch uncertainty and individual accountability)
IFQ	Low	High
Co-op level	Med-Low	Med-High7
Sector Level	Med-High	Med-Low
Fishery Level	High	Low

- Seasonal Releases and Area Management

Seasonal releases of bycatch can have a similar affect to sector-specific allocations of bycatch. The difference, however, is in the amount of risk spread across fishery participants. In a seasonal release strategy, risk is spread across a wider number of participants, while in a sector-specific allocation, risk is spread across fewer participants.

Seasonal releases are one method of protecting one sector from another (since the sectors operate at different times) and minimizing the risk of bycatch in one sector affecting opportunities in another sector. If the amount of bycatch allocated to each season is well structured, such releases may allow successful prosecution of whiting activity while insuring that the sector that starts later in the year is not pre-empted by the attainment of a bycatch limit from sectors operating earlier in the year. However, a seasonal release tool will almost certainly have an allocative effect. Depending on how the seasonal release is structured, it may benefit some sectors more than others. For example, if a substantial portion of widow

[7] If inter-cooperative agreements are formed for managing bycatch across co-ops, a co-op level allocation of bycatch species may have a low level of risk posed by individual accountability and catch uncertainty, while also having a low level of risk that a race for bycatch could develop. This is because a co-op level allocation of bycatch forces the cooperative to internalize bycatch management and this would be evident in the cooperative agreement signed by harvesters in that cooperative. Such internalization of bycatch management in the co-ops would tend to foster the development of high levels of individual accountability for bycatch by members. Allowing inter-cooperative agreements to form would allow cooperatives to spread the risk of catch uncertainty across cooperatives (thus reducing individual risk) if those cooperatives can agree to terms.

rockfish is released in May and then released again in September, the shoreside sector may be at a relative disadvantage. This is because the at-sea sectors could benefit from the first release before the shoreside sector opens, and would then benefit from the September release when the shoreside sector begins losing access to the whiting resource. The following figure illustrates the average catch of widow rockfish by month and sector in 2006 and 2007.

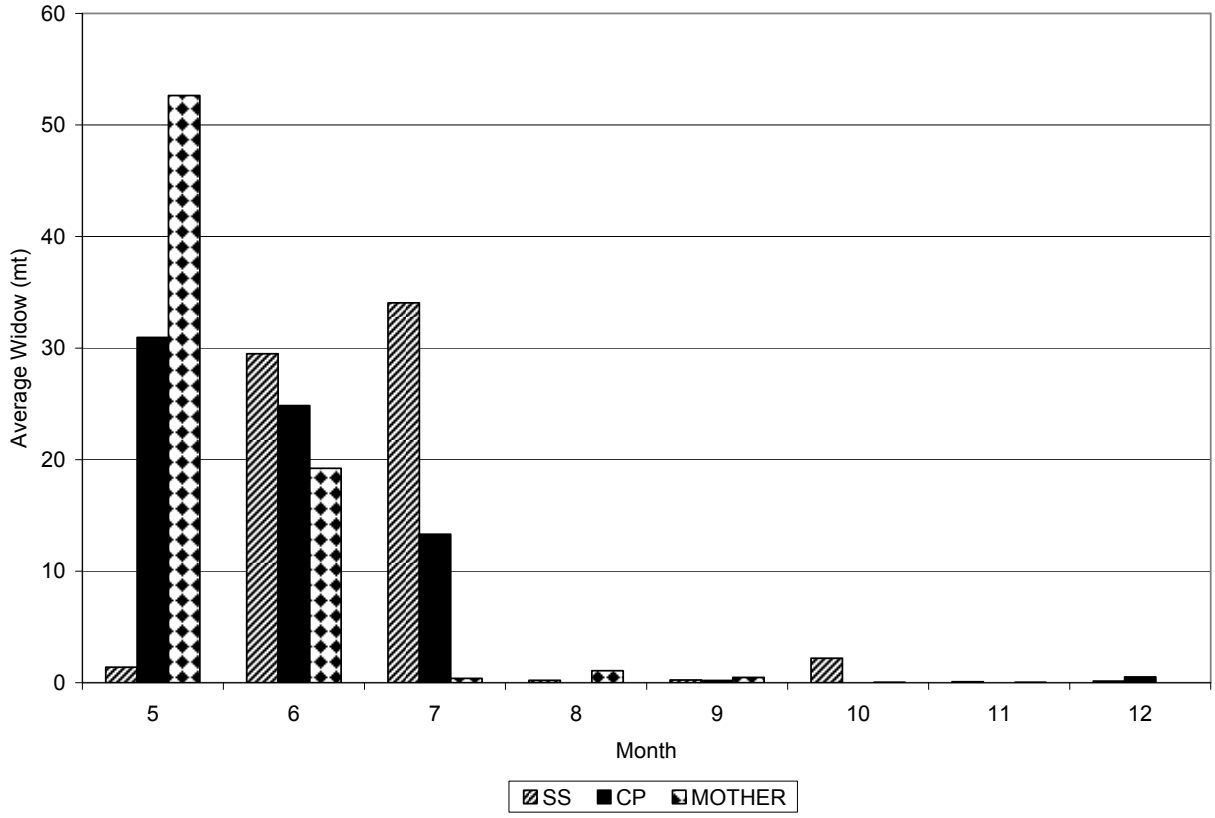


Figure B-1. Average monthly catch of widow rockfish by month and sector (2006 and 2007).

Seasonal releases of bycatch may make it more difficult for harvesters to change the timing of their fishing activity. If, for example, 50 percent of the widow rockfish is allocated between May and June based on past fishing practices, that allocation may preserve fishing opportunity based on past practice. If one sector wants to spend more time fishing in the fall months, however, that widow allocation may make it difficult for harvesters to fish later in the year (because there would presumably be less widow later in the year than would otherwise be the case). In contrast, if each sector or cooperative has its own bycatch limit, harvesters can time their activity for when they find it most appropriate, and use the allocated bycatch during that time. In this case, changing harvest timing may be relatively simple compared to having seasonal releases of bycatch.

One benefit of the seasonal release strategy is that (assuming it is applied to a fishery-wide bycatch limit), the seasonal release strategy will continue to minimize the risks faced by individuals (as would be the case under a fishery level bycatch allocation) while preserving fishing opportunity throughout various times of the year. For example, if a fishery-wide bycatch limit is used and harvesters cannot agree to a bycatch management plan, then a seasonal release strategy would continue to protect the shoreside whiting sector from the at-sea sectors (which start earlier). In addition, harvesters who encounter large and unexpected catch events would face a relatively low burden for doing so because the covering of that

catch event would be spread out across the multiple participants in the fishery instead of being concentrated on that one harvester or that one harvester's cooperative.

Area Management is a tool that can be described as one used to reduce the risk of unexpected tows of bycatch species. It may be reasonable to expect that a successful bycatch management plan from a cooperative would include provisions for area management, and therefore establishing area management through regulation and implementation by the agency would be used to reduce risk if bycatch limits are set at the fishery level, or to mitigate the risk that a harvester in the non-cooperative portion of the fishery will unexpectedly encounter a large amount of a bycatch species. Area management may be necessary if bycatch is managed at the fishery level because individual cooperatives would not be internalizing management of their own bycatch and would still be sharing some of the burden with other cooperatives. If cooperatives are internalizing the management of their own bycatch, bycatch management provisions in the cooperative agreements are likely to be relatively more robust. As cooperatives become less responsible for their own bycatch, it is not unreasonable to expect that the cooperative agreements, and the bycatch management plans contained therein, would be less robust, possibly making the implementation of area management restrictions through regulation more necessary.

- Bycatch Buffers

Bycatch buffers can be used to protect co-op fishery participants from unexpectedly large bycatch events in the non-co-op fishery. If buffers do not exist and a non-cooperative fishery exceeds the amount of bycatch allocated to it, then that overage would need to come from other fishery participants. If bycatch is managed at the co-op and non-co-op level with aggregate limits on each sector, then an overage in a non-co-op fishery can restrict opportunities for co-ops in that same sector. If the non-co-op fishery has a buffer, then that buffer would hedge against the possibility of a bycatch overage restricting the fishing opportunities for co-op fishery participants.

The appropriate buffer size is likely to vary by species. Empirical evidence from the fishery under status quo conditions provides one example of catch uncertainty and the magnitude of buffers that may be necessary for a non-co-op fishery. This is a non-co-op fishery may act similarly to the existing fishery. Based on evidence from past recent years, canary rockfish and darkblotched rockfish appear to be subject to less variability or less potential for "disaster tows". However, in one of the last four years, a large tow of canary rockfish occurred which jeopardized the continued operations of all three whiting sectors. In this event, there is not likely to be a buffer large enough to matter. However, ignoring that particular event, other data suggests that canary rockfish encounters are less variable and therefore less likely to need a large buffer. Darkblotched rockfish appears to exhibit a similar pattern with less variable catch events. Widow rockfish is different from these two species because there is substantial variability in catch events. Some tows encounter relatively little, while others may encounter several dozen metric tons. In the case of widow rockfish, a large buffer on the non-co-op fishery may be necessary to minimize the risk to the co-op fisheries posed by the presence of a non-co-op fishery. In any event, there does not appear to be a "one size fits all" buffer and therefore if buffers are used, a range of available buffer sizes to be used on a case by case basis may be the best approach.

B-1.4 At-sea Observers/ Monitoring

❖ Provisions and Options

The Council has not determined provisions and options specific to the co-op design components; however, the Council has fleshed out extensive provisions for Tracking, Monitoring, and Enforcement for trawl sector management under the IFQ alternative. See Section A-2.3.1 for a description of the provision

and options pertaining to discard, at sea catch monitoring, shoreside landings monitoring, catch tracking mechanisms, cost control mechanisms, program performance measures, and cost recovery.

❖ Interlinked Elements

Self monitoring and self enforcement of cooperative members by the cooperative organization is related to the type of observers/monitoring in place for the fishery and access to information reported by the observation/monitoring system. In addition to having access to catch information from the observation/monitoring system, self monitoring and self enforcement relies on relatively robust monitoring systems. The lack of a robust monitoring system may make it problematic to self enforce if cooperative members can successfully question the accuracy of the data and avoid enforcement penalties that may be brought by the cooperative organization. Furthermore, the lack of robust data may decrease the confidence that individual cooperative members have in the actions of other members and this can begin to compromise the success of the cooperative agreement. In addition to the need to support self enforcement, management of the fishery throughout the year (such as cooperative-imposed area restrictions to minimize bycatch) can be compromised if monitoring of the fishery is not relatively robust, largely for the same reasons that enforcement is compromised. A cooperative manager could, for example, suggest area closures be put in place mid season, but if catch data is questionable then the ability for that cooperative manager to implement management measures may be compromised.

❖ Rationale and Policy Issues

At sea monitoring is necessary to support a rationalization program that manages total catch (retained catch and discards) because it documents events at sea which may not be documented by fish tickets alone (such as discard events). If at sea monitoring was not in place in a rationalized fishery intended to manage total catch, then individual harvesters would have a large incentive to misreport catches of species that may constrain harvest activities. If such misreporting were to occur, the total mortality attributed to fishing activity would not be known, thus compromising the ability to successfully manage fisheries within ABCs and OYs. Futhermore, such misreporting may tend to benefit those that misreport (in an economic sense), but if such misreporting is eventually accounted for, it may affect all fishery participants equally.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
At Sea Observers/Monitoring	X	X			X	X				

❖ Analysis

The following paragraph and table describing status quo was excerpted from Appendix A, Section 2.3.1 on Tracking, Monitoring and Enforcement.

Vessel monitoring systems (VMS) are employed by all vessels except motherships. Paper logbooks are in place in all harvest sectors - they are mandatory for shoreside vessels but voluntary for the at-sea motherships and catcher-processors. The state fish tickets and logbooks are integrated into a single fish ticket database by the Pacific States Marine Fisheries Commission and are supported by a federal grant to the Pacific States Marine Fisheries Commission and by state funding. The industry pays for the cameras while NMFS pays for review and analysis of the resulting video. Observer coverage in the Non-whiting fishery is about 25 percent which is funded through NMFS while the at-sea motherships and catcher processors use hire observers from a private company. The equipment, training, and data collection and analysis associated with these observers is paid for by NMFS. Plant monitors and electronic fish tickets are currently employed in the shoreside whiting fishery. Plant monitors are paid for by the industry where as NMFS covers the cost of their equipment, training, and collection and analysis of the data developed by the plant monitors.

Status Quo	Shorebased Non-Whiting Trawl	Shorebased Whiting Trawl	At-Sea Mothership Trawl	At-Sea Mothership Processor	At-Sea Catcher-Processor
VMS	X	X	X		X
Logbooks	X	X	X	X	X
Cameras		X			
Observers	25% WCOP		2	2	2
Fish Tickets	X	X			
Electronic Fish Tickets		X			
Plant Catch Monitors		1			

Catch monitoring is a necessary tool for cooperative function. In order to hold the overall fishery, each sector of the fishery, and each cooperative to a catch limit, catch monitoring must be in place to verify catch relative to that catch limit. Furthermore, catch monitoring must be applied in a manner that is substantially equal to all participants harvesting fish in a fishery that is managed with cooperatives. Equal application of catch monitoring to all participants in a fishery is arguably necessary because it puts all participants on an equal footing, and this equality is necessary for self management of the fishery by the cooperative and their governing contracts. If catch monitoring was not applied equally, cooperative members may "second guess" the reported catch of other cooperative members, or feel that other cooperative members are at a relative advantage in some fashion. This second guessing among cooperative participants would tend to result in a destabilization of a cooperative because of an erosion of trust among cooperative members. If substantial second guessing, or questioning, of other participants' catch reporting comes into play, it may begin to break down the strength of the cooperative and the strength of the cooperative contract.

One necessary component to a catch monitoring program in a cooperative based fishery is that cooperative members have access to catch data. This is necessary in order for the cooperatives to self manage and enforce the catch quantities of the cooperatives and the cooperative members. It is also necessary so that cooperatives can develop responsive management tools, such as voluntary area management closures, to reduce bycatch. Without access to catch information, it may prove quite difficult for cooperative members to self manage and enforce the actions of cooperative members.

Catch monitoring will likely cost fishery participants. Estimates for an at sea observer range from approximately $300 to $400 per day, and video cameras are generally less. Participants in the whiting fisheries already have observer coverage, or are expected to be required to comply with monitoring requirements prior to the implementation of a rationalization program (because of Amendment 10). Therefore, rationalization itself is not expected to substantially change the cost that fishery participants bear, but successful management of a cooperative-based rationalization program is likely to require that participants have access to catch data.

The cost to the agency of monitoring a fully rationalized trawl fishery may be somewhere on the order of $5.2 million. Most of this additional cost can be attributed to the non-whiting sector because of the number of vessels and days spent at sea and the relative change of that fishery from status quo to rationalization. Costs to the agency that are not attributed to a change in the observer program may be on the order of $2 million if all sectors of the trawl fishery are rationalized.

The sector specific monitoring costs for sectors that may be managed with cooperatives are as follows:

- For the shoreside whiting portion of the fishery, the cost may be on the order of $0.9 to $1.1 million, with roughly half of that cost being directly attributed to rationalization.
- The cost of monitoring the mothership sector may be on the order of $600,000 to $800,000, with much of that being attributed to status quo conditions where observers exist on processing vessels, and because of the cost of the cost of placing cameras or observers on catcher vessels (which is being implemented prior to rationalization). Therefore, minimal cost is expected to be attributed to rationalization.
- The cost of rationalizing the catcher processor sector is expected to be minimal, if at all. The existing cost of monitoring that fishery is on the order of $400,000. Rationalization may add up to $60,000 depending on whether additional features are added to the monitoring system.

The following paragraphs excerpted from Appendix A, Section 2.3.1 and speak to catch monitoring, catch tracking, landings monitoring, cost control.

Catch Monitoring: Under status quo, mothership processing vessels and catcher-processors currently carry two observers. This monitoring requirement would remain for these vessels under trawl rationalization. However a new requirement would be the placement of observers, possibly supplemented by cameras, on catcher-vessels that deliver to motherships. (Note that for the 2009-10 Groundfish Harvest Specifications and Management Measures the Council is proposing video monitoring for these vessels.) Cameras are currently employed as an electronic monitoring system (EMS) in the shoreside whiting fishery as a monitoring tool. The EMS system employed under the EFP for Pacific whiting allows shoreside vessels to dump unsorted catch directly below deck and would allow unsorted catch to be landed, providing that an electronic monitoring system (EMS) is used on all fishing trips to verify retention of catch at sea. The EMS is an effective tool for accurately monitoring catch retention and identifying the time and location of discard events. Catch monitors are already employed in the shorebased whiting fishery. The addition of observers and EMS monitoring measures for catcher-vessels that deliver to motherships is to assure that all fish including discards are delivered to the mothership. See also discussion under Program Costs.

Catch Tracking: Other than the declaration reports and the processor production reports, these catch tracking mechanism are largely the conversion of existing state paper-based systems. Converting to electronic reporting is seen as aid for improved accuracy of reported data and better quota monitoring at the individual vessel, co-op, and sector level. Declaration reports and processor production reports are seen as tools that improve ability to enforce regulations. One of the issues facing the implementation of

these reporting systems is how best to adapt the existing state paper-based systems to the needs of the Trawl Rationalization Program.

Landings Monitoring: For shoreside nonwhiting trips there is a proposed requirement for 100 percent observer coverage on vessels and for shoreside whiting trips, observers in addition to or as a replacement for video monitoring. Note that the Council's preferred alternative is for the Shoreside Whiting and Nonwhiting Fisheries to be managed under an individual fishing quota (IFQ) system and as a single combined sector. However, if Congress provides the needed legislation, the shoreside whiting fishery may be managed as a co-op with processor linkages rather than with IFQs. In addition to 100 percent observer coverage, there is also being proposed a 100 percent shoreside monitoring as the sorting, weighing, and reporting of any ITQ or IBQ species must be monitored by a catch monitor.

Cost Control: All trawl sectors (shorebased non-whiting, shorebased whiting, mothership catcher vessels and processors, and catcher-processors) would require certification or licenses that show they meet the monitoring requirements. In order to reduce costs, landing hours could be restricted.

Many of the other requirements will be similar to those currently specified as part of the 2008 Pacific Whiting Shoreside Fishery Maximized Retention and Monitoring Exemption Program (see http://www.pcouncil.org/bb/2008/0308/F1a_SUP_ATT2.pdf). This program outlines the reporting requirements, equipment needs, and vessel and plant responsibilities including relationships with plant monitors, notification and declaration procedures, and the requirement of a NMFS monitoring plan. For ITQ and co-op fisheries, these elements would have to be expanded to include existing observer requirements including safety requirements as well as the responsibilities of the crew to assist the observer in the weighing and sorting of catch and responsibilities of the captain to assure that vessel operations do not hinder observer efforts. For ITQ vessels, there is likely to be a need to purchase appropriate scales to meet these requirements. The actual design of these reports are under development and most likely be more fully analyzed for public comment under the rule making process which converts the Council's preferred alternative into regulation. This process includes addressing reporting issues under the Paperwork Reduction Act process and under the Regulatory Flexibility Act (regulatory reporting burden on small businesses).

With respect to a catcher-processor voluntary co-op, it is not clear that the sector as it currently operates is a LAPP as the management alternatives developed by the Council do not include a special permit or endorsement. In the MSA, the term "limited access privilege:"

> (A) means a Federal permit, issued as part of a limited access system under section 303A to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person; and
>
> (B) includes an individual fishing quota; but
>
> (C) does not include community development quotas as described in section 305(i).

However, under the tracking and monitoring provisions vessels are to be certified and under the catcher-processor provisions, there are fall-back ITQ processes in case the voluntary co-op breaks up. It is not clear if these requirements can be deemed a limited access privilege. In addition, NMFS is in the process of developing formal LAPP guidance which may affect this determination. (See http://www.nmfs.noaa.gov/sfa/PartnershipsCommunications/lapp/LAPPguidance.htm)

The tables and text below were excerpted from Section A-2.3.1 and they show current tracking and monitoring costs by sector and what the costs of additional observers, plant monitors, and cameras may be as a result of the trawl rationalization program.

*Mothership Whitin*g: This analysis follows a similar approach to the shoreside whiting analysis (A-2.3.1). Under status quo, mothership processors are required to carry two observers and the catcher vessels have no direct monitoring, therefore the costs are about $250,000. Adding observers to the catcher vessels increases the costs to $672,000 and adding observers and cameras to $828,000.

	Mothership Whiting			
Catcher Vessels				
Number	20			
Season Length	60			
observer days	1200			
observer variable cost per day	$350			
Observer Cost		$420,000		
Camera unit cost	$6,000			
Camera Cost		$120,000		
Processor				
Number	6			
Season Length	60			
Operating Days	360			
Number observers	2			
Observer cost per day (1)	350			
Total monitor variable cost		252000		
Camera Unit cost	6000			
Camera cost		36000		
Status Quo -Observers Processors				**$252,000**
T&M Alternative 1 Observers Catcher vessels and Processors				**$672,000**
T&M Alternative 2 Observers, Monitors, and Cameras				**$828,000**

Catcher-Processor Whiting—Unless cameras are required, there will be no change to industry costs of tracking and monitoring as catcher-processors already carry 2 observers. If cameras are also required, industry costs rise from $378,000 to $432,000.

	Catcher-Processor Whiting		
Processor			
Number	9		
Season Length	60		
Operating Days	540		
Number observers	2		
Observer cost per day (1)	350		
Total monitor variable cost		378000	
Camera Unit cost	6000		
Camera cost		54000	
Status Quo		**378000**	
Alternative 1 observers		**378000**	
Alternative 2 observers and cameras		**432000**	

To read a summary of the comparison of costs and revenues, see the summary at the end of Section A-2.3.1.

□ *B-1.5 Mandatory Data Collection (Option)*

- Mandatory submission of economic data for LE trawl industry (harvesters and processors).
- Voluntary submission of economic data for other sectors of the fishing industry.
- Include transaction value information in a centralized registry of ownership.
- Formal monitoring of government costs.

Mandatory Provisions: The Pacific Fishery Management Council and the National Marine Fisheries Service shall have the authority to implement a data collection program for cost, revenue, ownership, and employment data, compliance with which will be mandatory for members of the West Coast groundfish industry harvesting or processing fish under the Council's authority. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA.

A mandatory data collection program shall be developed and implemented as part of the groundfish trawl rationalization program and continued through the life of the program. Cost, revenue, ownership, employment and other information will be collected on a periodic basis (based on scientific requirements) to provide the information necessary to study the impacts of the program, including achievement of goals and objectives associated with the rationalization program. This data may also be used to analyze the economic and social impacts of future FMP amendments on industry, regions, and localities. The program will include targeted and random audits as necessary to verify and validate data submissions. Data collected under this authority will be treated as confidential in accordance with Section 402 of the MSA. Additional funding (as compared to status quo) will be needed to support the collection of these data. The data collected would include data needed to meet MSA requirements (including antirust).

The development of the program shall include: A comprehensive discussion of the enforcement of such a program, including discussion of the type of enforcement actions that will be taken if inaccuracies are found in mandatory data submissions. The intent of this action will be to ensure that accurate data are collected without being overly burdensome on industry in the event of unintended errors.

Voluntary Provisions: A voluntary data collection program will be used to collect information needed to assess spillover impacts on non-trawl fisheries.

Central Registry: Information on transaction prices will be included in a central registry of whiting endorsed permit and processor permit owners. Such information will also be included for sales and lessees.

Government Costs: Data will be collected and maintained on the monitoring, administration, and enforcement costs related to governance of the rationalization program.

❖ Interlinked Elements

There do not appear to be any elements substantially interlinked with data collection.

❖ Rationale and Policy Issues

The goal of the Council's rationalization alternatives involves several economic components. One stated goal of the program is to:

> *Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability of catch and bycatch*

The Council has also enumerated several objectives and constraints for the program that involve economic components and monitoring of the program.

The Magnuson-Stevens Fishery Conservation and Management Act (as amended through January 2007) also places importance on social and economic outcomes resulting with a rationalization programs. Sec. 303A.(c)(1)(C) states that any limited access privilege program (LAPP) to harvest fish submitted by a Council or approved by the Secretary under this section shall promote social and economic benefits.

The Act also contains a monitoring requirement to determine whether a LAPP is meeting its goals. Sec. 303A.(c)(1)(G) states that any LAPP shall:

> *include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal review 5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequent than once every 7 years).*

In order to meet the monitoring requirements for the economic goals, improved and expanded economic data would be needed for the trawl IFQ fishery. One of the current trawl rationalization alternatives

provides for a mandatory economic data collection provision. Regardless of whether the economic data collection is mandatory or voluntary, the types of data necessary to monitor the effects of the program are the same. However, the choice of mandatory or voluntary data collection will likely have a large effect on the Council's and the NMFS' ability to consistently and systematically collect the necessary data.

Despite the NWFSC's recent progress in voluntary economic data collection, economic analysis of the limited entry trawl fishery has historically been severely constrained by a lack of economic data. Incomplete cost-earnings data on vessels and processors has been a particular problem. While PacFIN provides data on most, but not all, earnings sources for limited entry trawlers, little data on the cost of operating harvesting vessels has been available. Data on the costs and earnings of processing plants has not been available to NMFS or Council economists. This lack of economic data has hampered attempts to measure economic performance, build regional economic input-output models, assess overcapacity, and build models which predict economic behavior.

The first attempt to collect economic data from limited entry trawl vessel owners occurred in 1999 and 2000. This mail survey utilized a lengthy questionnaire asking for considerable fishery specific information, but obtained a response rate well below 20%. Because of the low response rate and non-respondent bias, data collected through this survey was of limited value. A processor survey conducted at about the same time obtained an even lower response rate.

A second voluntary economic survey of limited entry vessel owners was conducted in 2005-2007. In order to obtain higher response rates, this second survey utilized a much shorter questionnaire and collected data through in-person interviews. This survey obtained a fairly high response rate of over 70%, but at the cost of considerably less data collection from each respondent due to the shorter questionnaire. While this second survey provides much data of value for assessing industry economic performance and regional economic impacts, our ability to evaluate the contribution of individual fisheries (such as groundfish) to vessel economic performance is limited by the reduced questionnaire length. Collecting data through in-person interviews helped to substantially increase the response rate, but at considerably increased survey cost.

Mandatory economic data collection offers the advantages of reduced non-response bias, the ability to collect more detailed fishery specific data, and reduced survey fielding costs. These advantages would apply to data collection from both the harvesting sector and the processing sector.

The collection of such data is related to several aspects of MSA and groundfish FMP guidance on rationalization. These include the categories of net benefits, fairness and equity, and harvester and processor sector health. To a large degree these broad categories are addressed by data collection because such data collection allows for the measurement of these categories. The measurement of these categories may help inform future decisions on the part of the Council.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Data Collection		X			X	X				

❖ Analysis

The effect of a data collection program includes the effects of increased ability to monitor and measure the economic performance of the industry, as described in the rationale above. Other effects include the burden on agencies involved in the data collection and analysis, and the burden on industry members in the form of time spent reporting data.

The NWFSC has gone through two voluntary survey efforts. The first effort resulted in a relatively low response rate which minimized the ability to use the survey. The second effort used face to face interviews and resulted in a response rate of over 70 percent. This relatively high response rate has resulted in several pieces of analysis utilized in the rationalization process and may prove useful for other means as well. While this survey has largely been considered to be successful, the face to face interview technique is estimated to have cost somewhere on the order of $700 to $800 per interview. This cost does not include the time and cost of developing the survey and analyzing the data. Given that the trawl fishery is over 100 vessels, the field cost of conducting a voluntary survey using a face to face technique could be on the order of $100,000 to the agency each year it is conducted.

On the other hand, a mandatory survey may be able to avoid the need for face to face interviews. Face to face interviews were used in the voluntary survey for several means including as a means of returning a favorable response rate. If a survey is mandatory, a face to face technique may not be necessary. However, differences may exist between a mandatory and a voluntary survey which can make the burden on the industry greater for a mandatory survey than a voluntary survey.

Factors affecting the response rate of a voluntary survey include the length of the survey and the difficulty of the questions. If a survey is viewed as being overly lengthy and/or requests information that is not readily available and that may take time to uncover, the response rate is likely to suffer. The response rate from a mandatory survey may not suffer in the same fashion. Therefore, it is reasonable to expect that a voluntary survey may (at least at times) be simpler and shorter than a mandatory survey simply to get a favorable response rate. If this is the case, a mandatory survey may impose a larger burden on industry than a voluntary survey. In the worst case scenario (one where the survey is highly burdensome), industry members may at times respond with a "protest response" or information that is of poor quality. This can affect the ability to use the survey responses even if the response rate is high.

The collection of economic data relates to several aspects of policy guidance from the MSA, the Groundfish FMP, and Amendment 20 goals and objectives. If better data collection leads to more informed decisions relating to net benefits and efficiency, then data collection is related to MSA-National

Standard 5, MSA – 303A(c)(1)(B), Amendment 20 objective 2 and 6, and potentially others. In particular, Amendment 20 objective 6 (Promote measurable economic benefits) is related to data collection because data collection allows economic benefits to be measured. Many benefits may not be able to be measured without the acquisition of additional economic data. If additional data collection helps in the development of policies, then such data collection may also relate to policy guidance on sector health including Amendment 20 objectives 2 and 6, GF FMP goal 2, and GF FMP objective 7 and 15. Finally, data collection is directly related to several aspects of policy guidance that related to program performance monitoring and modification. MSA – 303A(c)(1)(G) calls for a regular review and monitoring of the program for progress in meeting goals.

B-1.6 Adaptive Management (Option)

► During the biennial specifications process, up to 10 percent of the available aggregate harvest pounds for the co-op program (including harvest potentially available both to co-ops and the non-co-op fisheries) will be set aside for use in an adaptive management program that could create incentives for developing gear efficiencies, or community development or to compensate for unforeseen outcomes from implementing the trawl rationalization program. Examples of unforeseen outcomes include, but are not limited to, unexpected geographic shifts in the distribution of catch or landings, unexpected effects on certain segments of the industry (e.g. processors), or an unexpected barrier to new entry into the fishery. This provision will apply to the overall trawl sector (whiting and non-whiting) but the allocation set aside from each trawl sector would be specific to that sector.

❖ Interlinked Elements

There do not appear to be other cooperative components substantially interlinked with the adaptive management provision. However, if adaptive management is used to facilitate new entry into a cooperatively-managed fishery, it is likely that such new entry will mean greater participation in the non-cooperative fishery, as those new entrants may not immediately become cooperative members. This new entry may cause some disruption to the particular sectors in which it occurs.

❖ Rationale and Policy Issues

The adaptive management provision is intended to be used to respond to unforeseen consequences or to achieve goals and objectives for the rationalization program that may not be seen as being adequately met. Therefore, by definition the adaptive management provision is not clearly specified because clear specificity implies that one would know the potential unforeseen consequences that may occur.

The consideration of an adaptive management provision is related to multiple categories of guidance related to the MSA and the groundfish FMP that are related to rationalization. Ultimately the degree to which adaptive management is related to these categories of guidance depends on how the program is used. Several uses have included conservation, assisting new entrants, and assisting disadvantaged communities. These potential uses are arguably related to issues of fairness and equity.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Adaptive Management	X				X			X	X	

❖ Analysis

As noted above, an adaptive management provision can be used to achieve multiple objectives. The outcome of the provision depends on the objective and manner in which the provision is used to achieve these objective(s). In order to facilitate analysis, we assume that the adaptive management provision is used for several different outcomes in the whiting fishery including salmon bycatch reduction; overfished species bycatch reduction; community protection; and to facilitate new entry into the fishery, where new entry is defined as the establishment of new vessel owner-operators.

The use of adaptive management to facilitate salmon bycatch reduction may benefit harvesters who have a demonstrated ability to reduce bycatch, or harvesters who plan to experiment with new gear designs to reduce salmon bycatch. If the latter approach is used, the testing of new gears may eventually be followed up by a regulatory amendment requiring whiting harvesters to use a different gear type that has demonstrated success in reducing salmon bycatch. It should be noted that the Council has given no indication that this is the process that would be followed. However, assuming this is the process that would be followed is useful to illustrate the possible effects of this provision.

If the adaptive management provision is used to encourage the development of new gears, it is likely that any benefit to harvesters from experimenting with new gears would be short-term. As the success of experimental gears is determined, the need to direct adaptive management to those harvesters would lessen because the next logical action would either be a regulation designed to implement those gears, or a determination that the gear is not successful. In either case, it may not be necessary to continue directing adaptive management quota toward those harvesters after a particular goal has been achieved, thus freeing up the quota for another use. However, the original recipients of that adaptive management quota would have future opportunities to receive adaptive management quota by attempting to achieve other, future objectives specified by the Council.

If adaptive management quota is used to reward those with a demonstrated ability to reduce salmon bycatch, then the quota may be allocated on a longer-term basis, depending on the long-term success of harvesters in reducing salmon bycatch. If harvesters demonstrate a continued ability to reduce salmon bycatch more than others, then they may continue to receive adaptive management quota. However, this also depends on the way the measures used to achieve the objectives are specified. For example, if the adaptive management quota is distributed to the top five harvesters (in terms of salmon bycatch reduction), then harvesters could receive the quota on a long-term basis. However, if the objectives set a benchmark for reducing salmon bycatch to a specified rate, then more and more harvesters may begin meeting that benchmark, thus reducing the amount of adaptive management quota available to each

harvester meeting the benchmark.

Using adaptive management for overfished species bycatch reduction may work in the same way. Again, the specific effects depend on the objectives of the program and the manner in which they are achieved. The effects may be short- or long-term. If the program objectives are to allow harvesters to benefit over the long-term from adaptive management, harvesters who alter fishing practices in order to achieve overfished species bycatch reduction may receive adaptive management quota over the long term. However, if adaptive management quota is used to encourage the development of new gears, which are then put into regulation if successful, then recipients are likely to receive that quota only for as long as it takes to determine whether a new gear design is successful.

The use of adaptive management quota for community protection will almost certainly have positive effects for recipient communities. However, it may have differing effects for fishery participants, processors, and fishing-dependent businesses. For example, since the at-sea fishery does not make routine deliveries to shoreside processors and does not make routine stops into port, except perhaps cities in the Puget Sound region, it is not clear how the adaptive management provision could be used for community protection for the at-sea fishery. In the shoreside whiting fishery, activity is more closely aligned with a geographic place. Using adaptive management quota in the shoreside whiting fishery could be used to direct landings of whiting to certain ports, thus spurring fishing-related activity in a distinct area. It is unclear how the specific mechanisms would work in order to achieve this outcome, but one method could tie adaptive management to vessels that home-port in specific locations, thus increasing the chances that whiting would be landed in those ports.

The use of adaptive management to facilitate new entry (in the form of new owner-operators) may achieve that very outcome. This could be accomplished by allocating the adaptive management shares to entities that desire to enter the fishery. However, there is some question about how this would work, since catch history assignments made to CV(MS) permits are not divisible and not separable from the permit. Thus, a new entrant to the fishery would still need to acquire a CV(MS) permit with catch history to remain in the fishery. Adaptive management quota may make it easier for a new entrant to acquire the CV(MS) permit since that new entrant would have access to the catch associated with the CV(MS) permit, as well as to the catch attributed to him/her from the adaptive management provision. This would tend to increase revenues (both gross and net) to the new entrant, increasing the ability of that new entrant to purchase the new permit.

Although the adaptive management provision could be constructed in a manner that facilitates new owner-operators, cooperatives rely on close-knit and long-term relationships for success. This means that some barriers to new entry are necessary in order to maintain stable relationships between harvesters in a cooperative. As discussed in Chapter 4, collective institutions – like cooperatives – often develop complex relationships and/or function in complex systems effectively. The ability to work within these complex systems requires that participants be stable, and that entry and exit be limited, in order for relationships to develop and for knowledge to be shared across participants. Fostering the entry of new owner-operators into a cooperative system may inject uncertainty and instability into cooperative relationships. This instability, in the worst case scenario, may jeopardize the success of cooperatives. Therefore, while an adaptive management program could be used to assist new entrants, a relatively large number of new entrants could compromise the operation of harvest cooperatives which rely on relationships among participants who are familiar with one another.

□ **Unresolved Issue – Length Endorsement for Catcher Vessels in a Cooperative-Based Fishery**

Within this analysis there are discussions regarding the effect of retaining or eliminating the length endorsement. As part of the preliminary preferred alternative, the Council decided to eliminate the length

endorsement for vessels operating in an IFQ-based fishery. It was inferred from this decision that the Council's intention was to eliminate the length endorsement for catcher vessels in a cooperative-based fishery as well, but this issue will need to be specifically addressed through Council action.

B-2 Whiting Mothership Sector Co-Op Program

Overview. Qualified permits will be endorsed for mothership (MS) co-op participation. Each year the holders of those permits will choose whether their vessels will fish in the co-op fishery, in which individual co-ops will direct harvest, or fish in a non-co-op fishery that will be managed by NMFS as an Olympic style fishery. The co-op will be obligated to deliver its fish to specific mothership processors based on the obligations of each permit in the co-op. LE permits will be issued for motherships and required for a mothership to receive whiting from catcher vessels.

B-2.1 Participation in the Mothership Sector

a. Catcher Vessels

Vessels with CV(MS)-endorsed permits may participate in either the co-op or non-co-op portion of the mothership fishery. They will choose annually which fishery they will participate in for the coming year. Additionally, any groundfish LE trawl permitted vessels may participate in the co-op portion of the fishery if they join a co-op (as described in Section B-2.3.3).[8] No other catcher vessels may participate in the mothership fishery.

► **Option:** A vessel may not engage in the processing of whiting during any year in which a catcher vessel (mothership) (CV(MS)) endorsed permit is registered for use with the vessel.

b. Processors

Only motherships with a mothership LE permit may receive deliveries from catcher vessels participating in the co-op or non-co-op portions of the mothership sector whiting fishery. (Note: motherships may acquire such permits by transfer; see Section B-2.2.2.)

c. Vessels Excluded[9]

Motherships also operating as a catcher-processor may not operate as a mothership:

► **Option 1**: During a year in which it also participates as a catcher processor.
Option 2: During a month in which it also participates as a catcher-processor.
Option 3: At the same time it is participating as a catcher-processor.

[8] When such permits participate in a co-op the co-op will not be allocated any additional fish based on participation by such a vessel.

[9] A vessel that has been under foreign registry after the date of the AFA and that has participated in fisheries in the territorial waters or exclusive economic zones of other countries will not be eligible to participate as a mothership in the mothership sector of the Pacific whiting fishery, as per Section 12102(c)(6) of the AFA.

❖ Interlinked Elements

CV catch history. Catcher vessel license limitation and catch history designations are both necessary for rationalizing the harvesting side of the fishery. Without these provisions, other catcher vessels could enter the fishery and compete with existing catcher vessels. Such competition runs counter to the ingredients necessary for rationalization. The issuance of catch history to catcher vessels must be implemented alongside a license limitation program in order for the amount of catch available to each cooperative to be calculated and to ensure that members of that cooperative do not compete with other vessels for that catch.

Processor linkage. Processor license limitation and processor linkages work in concert to help insure that processors will achieve some benefit from rationalization. Processor license limitations and linkages restrict other processors from entering the fishery and reduce competition between existing processors for deliveries from catcher vessels.

❖ Rationale and Policy Issues

- Mothership Sector Licensing

    - ♦ *Catcher Vessels*

Limiting participation of catcher vessels in the mothership sector is one component necessary for the rationalization of a fishery managed with harvest cooperatives. Limitation means that only those participants with appropriate licensing may harvest or process fish in the sector, creating a barrier to entry which is necessary for rationalization – and associated benefits – to occur. If other vessels were able to harvest fish in the sector, this would introduce competition that would tend to eliminate the rational type of behavior expected from setting up a cooperative based fishery. Furthermore, allowing other vessels to harvest fish in the sector would lead to more fishing capital than necessary, eroding the potential economic gains induced through fleet consolidation and associated cost savings. However, if other licensed trawl vessels are allowed to join cooperatives, and therefore be subject to legally binding agreements which would manage the participation of those vessels, this would give participants in the mothership sector additional tools for harvesting the catch available to them while also managing the participation of those non-CV(MS) endorsed vessels through the cooperative contract.

Restricting a vessel from engaging in mothership opportunities if it has been registered to a CV(MS) permit during the year is intended to maintain the distinctions between motherships and catcher vessels and also prevent opportunities for participants in the mothership sector from engaging in catcher processor activity.

    - ♦ *Motherships*

Since there are two possibilities for licensing motherships (one would license motherships and one would not), the rationale for both possibilities is described here. The rationale against establishing a mothership limited entry program is that under status quo, vessels are not required to have a permit to operate as a mothership and there is no limit on the number of vessels that can participate as a mothership. Under these unrestricted conditions, the entire mothership sector allocation is often not harvested completely, so limiting the number of motherships would limit the ability for realizing the full economic potential of the mothership sector harvest. Furthermore, establishing a mothership limited entry provision would limit the number of motherships that catcher vessels can deliver to.

A mothership limited entry program is intended to stabilize participation of motherships in the mothership sector. This is an important component of a fishery managed with cooperatives, especially if the fishery includes processor linkages; linkages require relationships between catcher vessels and motherships, and will affect the behavior of catcher vessels and the operation of the cooperatives. Allowing unfettered participation in the mothership sector would cause instability in mothership participation, affecting the entire fishery. Furthermore, it would negatively affect existing motherships. Because of the competition that could occur between motherships if a limited entry mothership program were not implemented, existing mothership processors might not benefit from rationalization.

Restricting catcher processors from also engaging in mothership activity is intended to protect existing mothership processors in the sector and help ensure that they benefit from rationalization in addition to catcher vessels. Catcher processor vessels may have the ability to attract catcher vessels from other motherships due to their relatively greater efficiency and the ability to pay higher prices for raw fish deliveries as a result.

One policy issue that exists in the current alternatives is that there would be no restrictions on who could hold a mothership processor endorsed permit. Although it is not necessary to specify any restrictions, this is different from those who could hold quota where restrictions do exist.

License limitation for mothership catcher vessels and mothership processors arguably is intended to help achieve net benefits and efficiency guidance contained in the MSA and groundfish FMP and to foster a healthy catcher vessel and mothership sector. Furthermore, license limitation of catcher vessels is a necessary ingredient for rationalization through a harvest cooperative structure. The result of such successful rationalization tends to achieve such things as bycatch reduction, thereby relating to conservation goals found within the MSA and groundfish FMP. Considering the allowance of catcher-processors to also operate as a mothership addresses several aspects of policy guidance on rationalization from the MSA, the Groundfish FMP, and Amendment 20 goals and objectives. In particular, allowing catcher processor to operate as motherships would arguably increase the efficiency of the program and would contribute toward achieving the greatest benefit to the nation, thus meeting MSA Standard 5, GF FMP objective 6, and GF FMP objective 2. However, allowing catcher processors to operate as motherships may cause disruption in mothership sector participation, which is contrary to GF FMP objective 14. Allowing catcher processors to operate as motherships is also related to policy guidance referring to sector health - GF FMP goal 2 in particular.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Catcher vessel license limitation	X	X				X				
Mothership license limitation		X				X				
Catcher-processors operating as a mothership		X	X			X				

❖ Analysis

● Catcher Vessel Participation in the Mothership Sector

Catcher vessels participating in the mothership sector must be a limited entry trawl vessel. Only those vessels that have a CV(MS) endorsement are able to fish in either the co-op or in the non-co-op portion of the fishery. Vessels with a limited entry groundfish trawl permit may participate in a co-op and harvest the catch available to that co-op, but those vessels that do not have a CV(MS) endorsement cannot participate in the non-co-op fishery. These participation requirements effectively limit participation in the sector, but mechanisms exist that allow capital in the fishery to change and adapt to varying conditions by allowing non CV(MS) vessels into a cooperative Allowing any limited entry trawl vessel to participate in a co-op allows the cooperatives the flexibility to determine the amount and type of capital appropriate for harvesting the fish available to the cooperative. This also provides a greater certainty that the harvest available to the cooperative will be realized. If a situation occurs where CV(MS) endorsed vessels in a cooperative all travel to the Bering Sea to participate in the Pollock fishery and cannot leave the Bering Sea without foregoing Pollock catch, that mothership whiting cooperative can use other licensed trawl vessels on the west coast that are members of that cooperative to harvest their allowable catch, thus providing a mechanism to cooperative members for harvesting the cooperative catch while not foregoing other harvest opportunities. For those motherships that may be relying on harvest from mothership whiting cooperatives, allowing licensed trawl vessels without a CV(MS) permit to harvest cooperative fish provides a greater certainty that the catch in that cooperative will be realized and the motherships will be able to expect delivery activity from the catch attributed to those cooperatives.

● Mothership Processor Limited Entry

Establishing a mothership limited entry program stabilizes participation of motherships in the mothership sector. In addition to stabilizing the capital involved in the processing of whiting, a mothership limited entry program will tend to stabilize the relations between motherships and catcher vessels. This is because it restricts the ability for different mothership participants to enter into the fishery. As described previously, and in Chapter 4, cooperatives rely heavily on close knit relationships between participants. While mothership entities are not members of a cooperative, the relationships established between motherships and catcher vessels will almost certainly have an effect on the prosecution of the fishery and

influence cooperatives, especially in a fishery where processor/catcher vessel linkages are established. By extension, the relationships between motherships and catcher vessels will tend to influence the relationships present in a cooperative. It may be reasonable to expect that more stable relations between individual catcher vessels and individual motherships will affect the stability of relationships that exist among catcher vessels in a cooperative.

The stability in mothership participation created through a mothership limited entry program may lead to longer term and more stable relationships between catcher vessels and motherships compared to a case where there is no limited entry for motherships. If mothership participation is not limited, new motherships may enter into the fishery. If catcher vessels are allowed to freely deliver to any mothership, this would lead to increased competition between motherships for catch from catcher-vessels. This is likely to play into the catcher-vessels favor because it is likely that catcher vessels would receive higher prices as a result of bidding among motherships for catcher vessels. However, if switching motherships requires that a catcher vessel fish in the non-cooperative fishery, having new motherships enter into the fishery may make it more likely that catcher vessels will move into the non-cooperative portion of the fishery in greater numbers, or on a more frequent basis. Increased participation in the non-cooperative portion of the fishery may decrease the management performance of the fishery because of increased probability of bycatch events or other matters. This may occur because this non-cooperative portion of the fishery is a competitive, derby fishery and behavior in that type of a fishery may be less rational.

If new motherships were allowed to enter into the fishery, the effect on existing motherships would tend to be adverse. New motherships would likely reduce the number of catcher vessels (and therefore catch) delivering to the average mothership, which would lead to reduced revenue being generated by each mothership operation. Limiting the number of motherships would work in the opposite direction with more catcher vessels delivering to the average mothership. When combined with processor linkages, processor limited entry may also allow processors to rationalize, similar to what may occur among the catcher vessel portion of the fishery.

● Catcher Processors Operating as a Mothership

Several factors determine the effect of allowing a catcher-processor to also operate as a mothership. These include institutional factors affecting participation in both activities, and the marginal amount of revenue generated by catcher-processor activity and mothership activity. These are outlined briefly below with additional explanation following.

- Institutional factors
    - Through the catcher processor cooperative governing contract, catcher processors have a defensible harvest privilege that may allow them to be flexible and accommodating to mothership catcher vessels without giving up access to fish in the catcher processor sector. Catcher processors that operate in BSAI Pollock also have a defensible harvest privilege that allows them to be flexible because they do not risk losing BSAI Pollock opportunities.
    - Mothership vessels may not be able to be as flexible and accommodating because the mothership sector does not have linkages in BSAI Pollock, meaning they compete with other mothership vessels for deliveries and can lose potential deliveries if they accommodate a whiting catcher vessel and (as a result) show up late to the BSAI Pollock fishery.
    - A mothership sector managed with cooperatives and processor linkages allows motherships to realize benefits from rationalization, but those linkages can be broken by catcher vessels. This means that motherships do not have defensible resource access

even with processor linkages, and can lose those linkages to other processing vessels.

- Mothership vessels could participate in catcher processor activity (if they acquire the necessary license), but flagging requirements make several mothership vessels unable to participate in the harvesting of fish. This means that only three existing motherships would be able to engage in catcher processor activities, but all catcher-processors would be able to engage in mothership activities (subject to appropriate licensing).

- Cumulative and marginal revenue
  - A vessel that engages in both catcher processor and mothership activity may be able to take a smaller profit margin in the mothership sector than a vessel that operates exclusively as a mothership vessel and still generate cumulatively more revenue. This means that a catcher processor could pay catcher vessels higher prices (and attract catcher vessels from other motherships) and still be more profitable than a mothership which processes the same volume through mothership activity exclusively.

♦ *Catcher Processors Operating as a Mothership, the Potential Attainment of Cost Minimization, and the Effect on Efficiency*

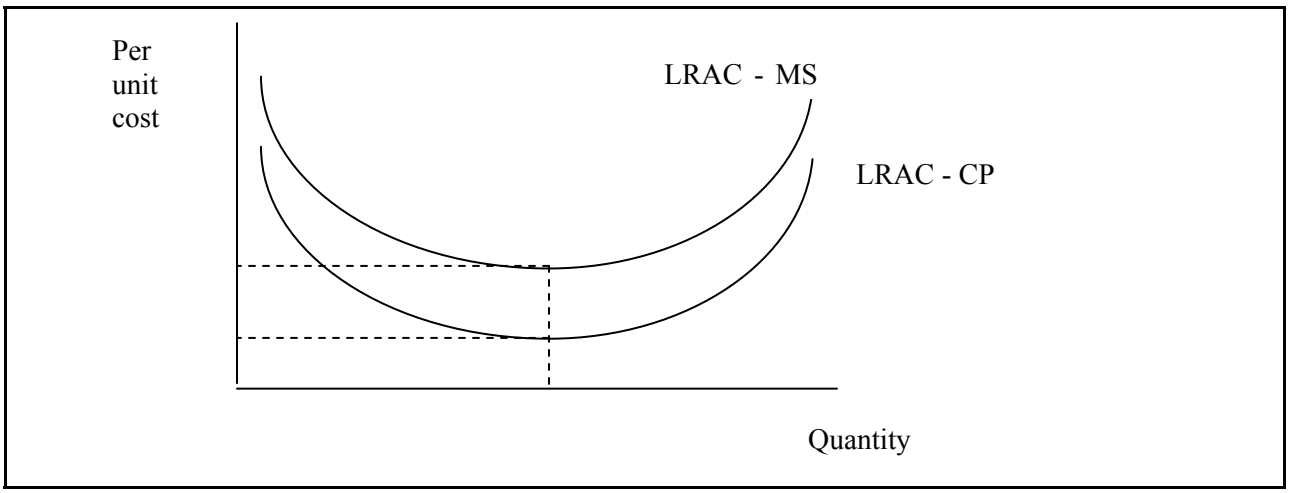
Allowing catcher processors to operate as a mothership is a change from status quo, and breaks down some of the barriers created through the division of the mothership and catcher processor sectors (created in 1997). This allows both motherships and catcher processors to access greater volumes of whiting. Assuming both motherships and catcher processors have a limited entry program restricting access, then some catcher processors are likely to acquire mothership permits and some motherships acquire catcher processor permits, resulting is consolidation in both sectors.

Assuming motherships can engage in catcher processor activity and vice versa, then the least efficient motherships will theoretically drop out of the fishery as catcher processors move into the mothership sector, and the least efficient catcher processors will theoretically drop out of the fishery as motherships move into the catcher processor sector. Vessels that remain would participate in both sectors of the fishery simultaneously (if allowed), and the outcome would be an improvement in the economic efficiency of the fishery. However, because of flagging requirements restricting the ability of some motherships to harvest fish, just three existing motherships would be able to operate as catcher-processors, meaning that several others would be restricted from operating as catcher processors even if they were the more efficient vessels. Catcher processors would not be restricted from operating as motherships (so long as they hold a mothership permit). This means that most existing motherships would not be able to capitalize on this breakdown in sector divisions, and would be more likely to be consolidated out of the fishery even if they are more efficient.

♦ *Catcher-Processor and Mothership Cost Structure Comparison*

The cost structure associated with catcher-processing activity is generally acknowledged to be different than that cost structure associated with mothership activity. While a catcher processor and a mothership platform may be made up of entirely the same capital, a mothership operation must pay for fish deliveries from catcher vessels, while a catcher-processor operation does not. A mothership operation uses more capital than a catcher-processor operation because of the involvement of catcher vessels. This additional capital arguably makes mothership operations more costly than catcher-processor operations (assuming a catcher processor vessel and a mothership vessel are made up of the same capital). The higher cost associated with mothership operations may come in the form of purchasing fish from catcher vessels, or (if the mothership and CV are vertically integrated), higher operational costs from operating both a catcher vessel and a mothership. The following figure illustrates, conceptually, the difference between a

mothership operation's cost structure, and a catcher-processor's cost structure. Both operations could theoretically have the same minimum cost point of production quantity, where the same production quantity is their minimum cost level, but the cost of producing at that minimum point is less for a catcher processor operation than a mothership operation.



When a catcher processor operates as a mothership, it may have the same variable cost per unit of production as a mothership that only operates as a mothership. However, when combined with catcher processor activity, the cumulative amount of revenue generated will be greater, because the catcher processor portion of the operation is more profitable. Revenue from combined catcher processor and mothership activity will be greater than revenue from producing the same volume only through mothership activity. This allows a catcher processor operating as a mothership to make a smaller return on mothership activity than a mothership vessel that only engages in mothership activity, while still generating more net revenue. This is simply because the rate of return attributed to catcher processor activity is greater than mothership activity and the catcher processor that also operates as a mothership may be able to assume a smaller rate of return in mothership activity (to some degree) and still realize greater total net revenue. To illustrate this concept, we develop a simple conceptual example illustrating the return on catcher processor and mothership operations:

> Assume that a catcher processor vessel generates a 15% return on catcher processor activity, while a mothership vessel that only operates as a mothership processor generates a 10% return on mothership activity. Now suppose that both the mothership and the catcher processor vessel handle the same volume and the catcher processor vessel generates $1.5 million and the mothership vessel generates $1 million. The catcher processor vessel may elect to participate in the mothership sector and operate at a 10% return. However, if that catcher processor /mothership vessel increases payments to catcher vessels, and subsequently decreases its mothership sector return to 8%, that catcher processor /mothership vessel could theoretically induce all mothership sector catcher vessels to deliver to it over the long term because it is paying more than the other mothership processing vessels. If that catcher processor vessel is able to double total production through mothership activity by paying higher prices to catcher vessels and subsequently decreasing its mothership sector return to 8%, that catcher processor/mothership vessel could generate a cumulative return of $2.3 million, with $1.5 million coming from catcher processor activity plus $800,000 from mothership activity.

This is compared to a mothership vessel that doubles production at a 10% rate of return and generates $2 million.

This example shows that a catcher-processor vessel also operating as a mothership can generate cumulatively more revenue, even if they pay more for catcher vessel catch, than other motherships. The effect is that those motherships that do not, or cannot, engage in catcher-processor activity may be at a disadvantage when bidding over prices to attract mothership catcher vessels.

♦ *Institutional Factors and Catcher-Processors Operating as a Mothership*

The ability for a catcher-processor/mothership vessel to acquire deliveries from mothership catcher vessels is related to the time at which a catcher-processor can engage in mothership activities. Since a catcher-processor vessel has a defensible harvest privilege in its participation in the catcher-processor sector (either in the form of an IFQ, or as part of the cooperative agreement), it can elect to harvest its share of the catcher-processor allocation at a time of its choosing without fear that another catcher-processor will take its catch. This is different from a mothership operation, which is not granted a defensible resource access privilege, but is granted a linkage to a vessel with a harvest privilege in a cooperative program that can be broken over the long term. This structure takes on some of the characteristics of a limited access privilege in the short term, but means the mothership linkage is not ultimately defensible because it can be broken and moved to another processing vessel.

While motherships with processor linkages have more stable and predictable production volumes than motherships without linkages, they must negotiate arrangements with catcher vessels in order to accept deliveries from those vessels. Such negotiations will undoubtedly take into account the timing of opportunities in Bering Sea Pollock and the shoreside whiting sector. At times, the objectives of the two vessel types may be at odds. If an agreement is not reached, a mothership can lose that catcher vessel, if not in the current year, then in the subsequent year. This is different from the catcher-processor sector, where a catcher-processor does not risk losing catch privileges if it participates in other fisheries or sectors. A catcher-processor's catch privileges are protected by a cooperative contract. This allows catcher-processors to better accommodate the harvest timing of mothership catcher vessels, because they do not risk losing their catcher-processor opportunity. This flexibility may make a catcher-processor/mothership operation more attractive than a pure mothership operation that is constrained by its participation in other fisheries, especially since not participating in those other fisheries may mean foregoing deliveries from catcher vessels. For example, motherships that participate in the BSAI Pollock fishery do not have processor linkages, so arriving late to the Pollock fishery as a result of accommodating catcher vessels in the whiting fishery would mean losing potential deliveries to other motherships that do participate in the Pollock fishery at the start of the season. This timing advantage is true regardless of whether catcher-processors can operate as a mothership simultaneously, or cannot operate in the same month, though the timing advantage is certainly larger if a catcher-processor can operate as a mothership simultaneously.

♦ *Motherships Operating as a Catcher-Processor*

One way in which a mothership could more easily attain a cost minimization strategy, and attain a cost minimization structure that is comparable to a catcher processor, would be to acquire a catcher-processor endorsed permit and also operate as a catcher-processor. In this way, the mothership would take on the (arguably more efficient) operation of a catcher-processor model for a portion of that vessel's production. If the cost efficiency that vessel can attain is greater than the cost of the catcher processor permit, that vessel would find participation in the catcher processor sector profitable and effectively generate rents.

However, a mothership also operating as a catcher processor raises a question about how that participant may impact the existing catcher-processor cooperative. Depending on the catcher processor cooperative agreement, a mothership that acquires a catcher-processor permit and participates in the catcher-processor sector may introduce some aspect of "new entry" that causes instability in that voluntary cooperative. However, it is important to note that this instability is no different than that caused by any other new participant that acquires a catcher processor permit. Another possible model is the lease of a catcher-processor permit by a mothership capable of engaging in catcher processor activity. This could occur if a catcher processor company does not desire to participate in the whiting fishery and instead allows a mothership operation to fill their role in the catcher processor sector. This may prove less disruptive to the existing catcher processor cooperative because, presumably, the cooperative agreement would still apply to the entity leasing a catcher processor permit from an entity that has signed the cooperative agreement. However, only two existing motherships would be allowed to engage in catcher processor activities because of flagging requirements. Other existing mothership operations cannot engage in the harvest of Pacific whiting[10]. This is contrary to the catcher processor vessels that exist in the fishery – all of which could potentially engage in mothership activity.

- *Entities Qualifying for Catcher Processor and Mothership Permits*

The qualification rules for receiving a catcher-processor endorsed permit and a mothership permit result in one entity receiving both a catcher-processor permit and a mothership permit. Other entities involved in the catcher-processor or mothership sectors would receive a mothership permit, a catcher-processor permit, but no other entity would receive both. This means that other entities that may desire to participate in the other sector would face a barrier to entry in the form of the cost of a permit.

- *Effect on Efficiency from Allowing Catcher Processors to Engage in Mothership Activity*

While the information above indicates that allowing catcher processors to operate as a mothership may tend to benefit vessels capable of engaging in catcher processor activity at the expense of some pure mothership vessels, net benefits and the efficiency of a rationalization program are expected to be greater if catcher processors are allowed to engage in mothership activity. This increase in net benefit and efficiency is a result of breaking down the barriers between the 2 sectors that will tend to eliminate less efficient vessels in favor of the more efficient vessels and result in consolidation overall. Unfortunately no empirical information is readily available with which to estimate the relative effect on net benefits and efficiency.

B-2.2 Permits/Endorsement Qualification and Characteristics

B-2.2.1 Catcher Vessel Mothership Whiting Endorsement (CV(MS) Whiting Endorsement)

a. Endorsement Qualification and History Assignment

Permits with a qualifying history will be designated as CV(MS) permits through the addition of an endorsement to their LE groundfish permit. At the time of endorsement qualification, each permit will

[10] Since 1995, 11 vessels have engaged in mothership activity. 6 vessels have participated between the years of 1997 and 2004.

also be assigned a catch history that will determine the share of the mothership whiting allocation associated with that permit.

Qualifying for a CV(MS) Whiting Endorsement. A LE permit will qualify for a CV(MS) whiting endorsement if it has a total of more than 500 mt of whiting deliveries to motherships from:

► **Qualification Option 1**: 1994 through 2003
Qualification Option 2: 1997 through 2003

Catch History Assignment (Identification of Endorsement Related Catch History). The following are options for the initial calculation to be used in determining NMFS distribution to co-op and non-co-op fishery pools. A CV(MS) whiting endorsement calculated catch history will be based on whiting history during the related permit's:

Catch History Assignment Option 1: best 6 out of 7 years from 1997 through 2003.
► **Catch History Assignment Option 2:** best 8 out of 10 years from 1994 through 2003.

(Note: for vessels qualifying in both the shoreside and mothership co-op programs, the same year must be dropped.)

For the purpose of the endorsement and initial calculation, catch history associated with the permit includes that of permits that were combined to generate the current permit.

b. Whiting Endorsement Transferability and Endorsement Severability

Transfer Option 1: The CV(MS) whiting endorsement (together with the associated catch history) *may not be* severed from the groundfish LE trawl permit.
► **Transfer Option 2:** The CV(MS) whiting endorsement (together with the associated catch history) *may be* severed from the groundfish LE trawl permit and transferred to a different LE trawl permit. Catch history associated with the whiting endorsement may not be subdivided.

c. Accumulation Limit

CV(MS) Permit Ownership: No individual or entity may own CV(MS) permits for which the allocation totals greater than:

Option 1: 10 percent,
Option 2: 15 percent, or
Option 3: 25 percent
► **Option 4:** the amount of the largest current owner (no grandfather clause) of the total mothership sector whiting allocation.

d. Combination

CV(MS) Permit Combination to Achieve a Larger Size Endorsement. When a CV(MS)-endorsed permit is combined with another permit, the resulting permit will be CV(MS) endorsed, except when the CV(MS) permit is combined with a CP permit, in which case the CV(MS) endorsement will not survive on the resulting permit.[11]

[11] Specifically, a CV(MS)-endorsed permit that is combined with a LE trawl permit that is not CV(MS) endorsed or one that is CV(Shoreside) [CV(SS)] endorsed will be reissued with the CV(MS) endorsement. If the other permit is CV(SS) endorsed, the CV(SS) endorsement will also be maintained on the resulting permit. However,

❖ Interlinked Elements

Permit length endorsement. If the permit length endorsement is eliminated, bullet D above is irrelevant.

The definition of "largest current owner" should be better defined. If "current" is interpreted to mean the date immediately before rationalization goes into effect, there will likely be a race to accumulate permits prior to the implementation of the rationalization program. Existing ownership data can support a date up to January 1, 2008.

❖ Rationale and Policy Issues

- Qualifying years formula

Two options exist for years making up the catch history formula. One option includes the time period between the separation of the at-sea sectors (1997) and the control date (2003), while the other includes the time between the establishment of limited entry (1994) and the control date. Both options require at least 500 metric tons of deliveries to motherships in order to insure that the permit has substantially participated in the fishery.

- Catch history formula

Two options exist for years making up the catch history formula. One option is intended to reflect participation during the years between the time the at sea sectors were separated and the control date. This time period is intended to be more reflective of existing mothership fishery participation patterns while taking into account the control date. The second option (1994 to 2003) is intended to reflect participation in the mothership sector between the time of limited entry and the control date. This option reflects participation by catcher vessels delivering to processing vessels after limited entry. Going back to 1994 is arguably reasonable because catcher vessels that delivered to processing vessels prior to 1997 still operated in mothership activity, and the separation of the at sea sectors in 1997 affected mothership vessels and catcher processors, not catcher vessels necessarily.

Dropping the worst year, or worst two years, is intended to excuse a poor year or two a vessel may have had for a variety of issues including the possibility that a vessel may have broken down within the catch history calculation period.

A variety of other dates were considered but dropped. These other options included the years 2004 as the end year for the qualifying period, and 1998 as the start year for the qualifying period. The year 2004 was dropped because it was after the control date, while the year 1998 was dropped because the at sea sectors were separated in 1997, not 1998. Further explanation of other catch history formulas and supporting rationale can be found in Appendix A, section 2.1.3.a.

CV(MS) and CV(SS) catch histories will be maintained separately on the resulting permit and be specific to participation in the sectors for which the catch histories were originally determined. If a CV(MS) permit is combined with a CP permit, the CV(MS) endorsement and history will not be reissued on the combined permit. The size endorsement resulting from permit combinations will be determined based on the existing permit combination formula.

- Endorsement Transferability and Endorsement Severability

The rationale for not allowing endorsements to be severed from the limited entry trawl permit is that it stabilizes the membership of harvesters in the mothership sector and this helps foster better relationships among cooperative members.

Allowing endorsements to be severed from the permit is a mechanism which allows for more fluid transfer of access to the mothership sector while retaining a limitation on participation. If an existing bottom trawl vessel were to desire to participate in the mothership fishery, that vessel could participate by purchasing a CV(MS) endorsement, and this may be less costly than having to purchase the entire CV(MS) endorsed permit.

- Accumulation limits

Limits on the accumulation of catch history are intended to prevent excessive control by any single entity. A range from 10 percent to 25 percent analyzes the effect of requiring a minimum of 10 to 4 entities controlling harvest privileges in the fishery. Establishing an accumulation limit that is equal to the amount of the largest current owner is intended to recognize existing ownership and participation in the fishery, but not allow an entity to acquire more. In order to implement an accumulation limit that is equal to the amount of the largest current owner, the term "current" will need to be defined, presumably as a particular date.

- CV(MS) Permit Combination to Achieve a Larger Size Endorsement

In cases where permits are combined to achieve a larger size endorsement, the permit will be CV(MS) endorsed (except if a permit is combined with a CV(SS) permit, in which case it will have both endorsements). This is intended to insure that a permit cannot become dually endorsed and be able to participate in another sector. This restriction is intended to act as a capacity control measure.

The consideration of permit qualification years and catch history years is related to disruption and fairness and equity goals found within the MSA and groundfish FMP because it grants permits and catch history to certain entities based on historic participation in the fishery. Endorsement transferability is related to disruption, fairness and equity, and harvester and sector health, while accumulation limits are related to excessive share guidance found with the MSA and groundfish FMP.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Qualifying years formula			X		X					
Catch history formula			X		X	X				
Endorsement transferability and severability			X		X	X				
Accumulation limits				X						

❖ Analysis

● Endorsement Qualification and History Assignment

The issuance of permits with CV(MS) endorsements is necessary to limit access to the mothership sector. A limitation on participation in the mothership sector is necessary for a cooperative-based fishery to rationalize itself, otherwise new participants may enter the fishery and introduce an element of competition which is intended to be eliminated through rationalization. This was described in more detail under section B.2.1. Catch history assignments are a resource access privilege. The collective catch history of a cooperative determines the pool available to that cooperative, while the collective catch history of participants in the non-cooperative fishery determines the pool available to that fishery. Catch history assignments help solve resource sharing problems among cooperative members, thus helping to stabilize relations among participants in cooperatives. This effect was described previously under section B.1.1.

● Qualification for a CV(MS) Endorsement and Catch History

In order to receive a CV(MS) endorsement, vessels must have a total of more than 500 mt of whiting deliveries to motherships from either 1994 through 2003, or 1997 through 2003. Applying a 500 metric ton filter excludes two permits that participated in the fishery. One participated in 1994, while the other participated in 1995. Of those permits that harvested more than 500 metric tons, only one permit is affected by the choice of qualification formulas. The inclusion of this permit and associated catch history into the initial allocation does not appear to substantially affect the total amount of catch history available to the other permits because the amount of quota allocated to this permit is small. However, these other permits are affected by the years upon which catch history calculations are made.

Table B-3. Permit level participation in the mothership whiting fishery and the effect of qualification years (only includes permits that meet the minimum metric ton threshold for CV(MS) endorsement qualification).

		Qualification Years Considered for Receiving a Mothership CV Endorsement									
	AD-HOC PERMIT ID	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Permits Included/ Excluded by Formula	A		X								
Permits Not Affected by Formula	B		X		X						
	C			X	X	X					
	D			X			X	X			
	E	X		X	X						
	F	X	X		X	X					
	G	X			X	X					
	H	X	X	X	X		X		X		
	I	X			X	X	X				
	J			X	X	X	X	X			
	K					X	X	X	X		
	L					X	X	X	X	X	X
	M	X	X	X	X	X	X	X			
	N	X	X	X	X	X	X	X			
	O	X		X	X	X	X	X	X		
	P	X	X	X	X	X	X	X			X
	Q	X	X		X	X	X	X	X		
	R	X		X	X	X	X	X	X	X	
	S	X	X	X	X	X	X	X	X		
	T					X	X	X	X	X	X
	U	X	X	X	X	X	X	X	X		X
	V	X	X	X				X	X	X	X
	W	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X	X	X
	Y	X		X	X	X	X	X	X	X	X
	Z	X	X	X	X	X	X	X	X	X	X
	AA	X	X	X	X	X	X	X	X	X	X
	BB	X	X	X	X	X	X	X	X	X	X
	CC	X	X	X	X	X	X	X	X	X	X
	DD		X	X	X	X	X	X	X	X	X

● Effect of Catch History Calculation Formulas

The effect of the two catch history calculation formulas is shown in the figure below. The results of both formulas are plotted against the average catch share for each permit during the years 2003 to 2006. This compares the allocation of catch history to status quo participation, and shows that both allocation formulas grant catch history to more permits than were active over the 2003 to 2006 time period. The difference between the two catch history formulas is slight for most permits, though some permits see differences of several percentage points. When compared to catch during the 2003 to 2006 period (the period after the control date), some permits receive catch shares that differ very little, while others receive catch shares that are several percentage points different.

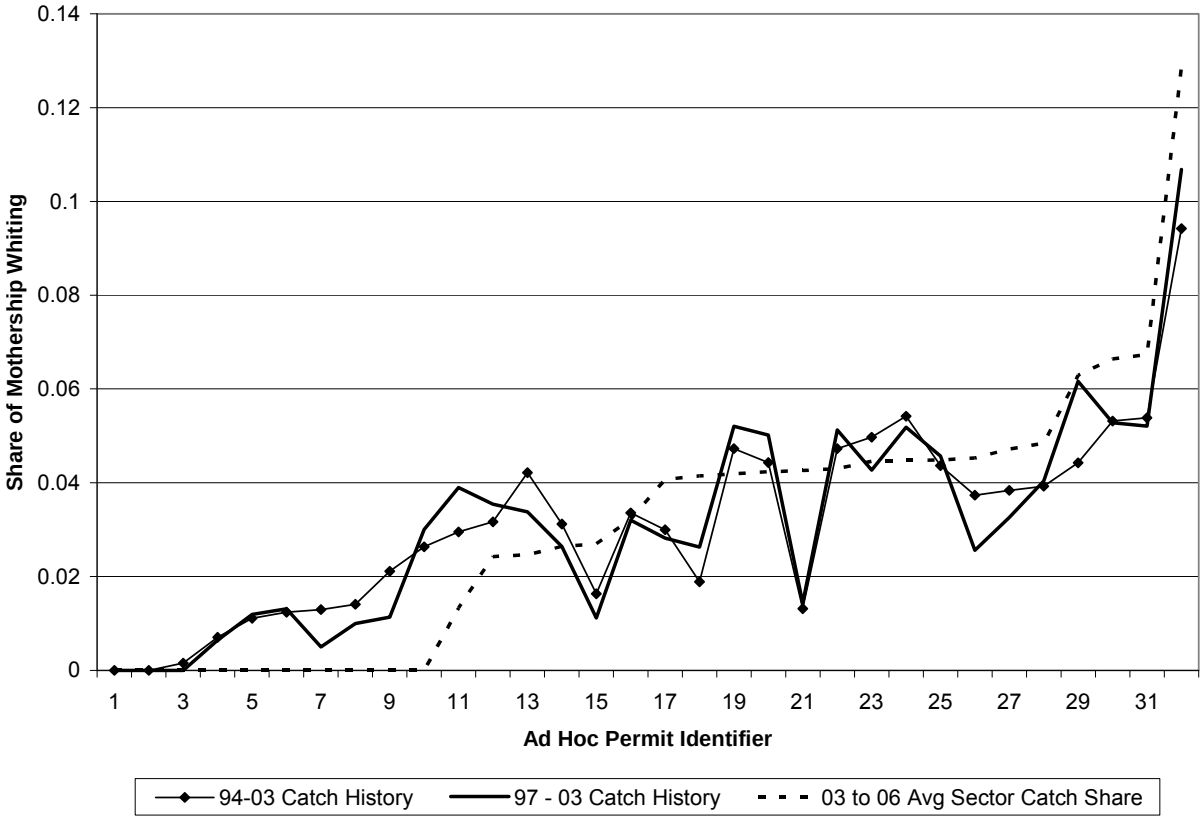


Figure B-2. Catch history distributions to permits by calculation formula.

When catch history distributions are estimated at the business entity level, the effect is somewhat different than when examined at the permit level. Like the permit level, only one entity exceeds the 10 percent accumulation limit (because it only holds a single permit), but the distribution across entities looks different than the distribution across permits. Some entities receive catch histories that are several percentage points different than their recent catch shares regardless of the allocation formula.

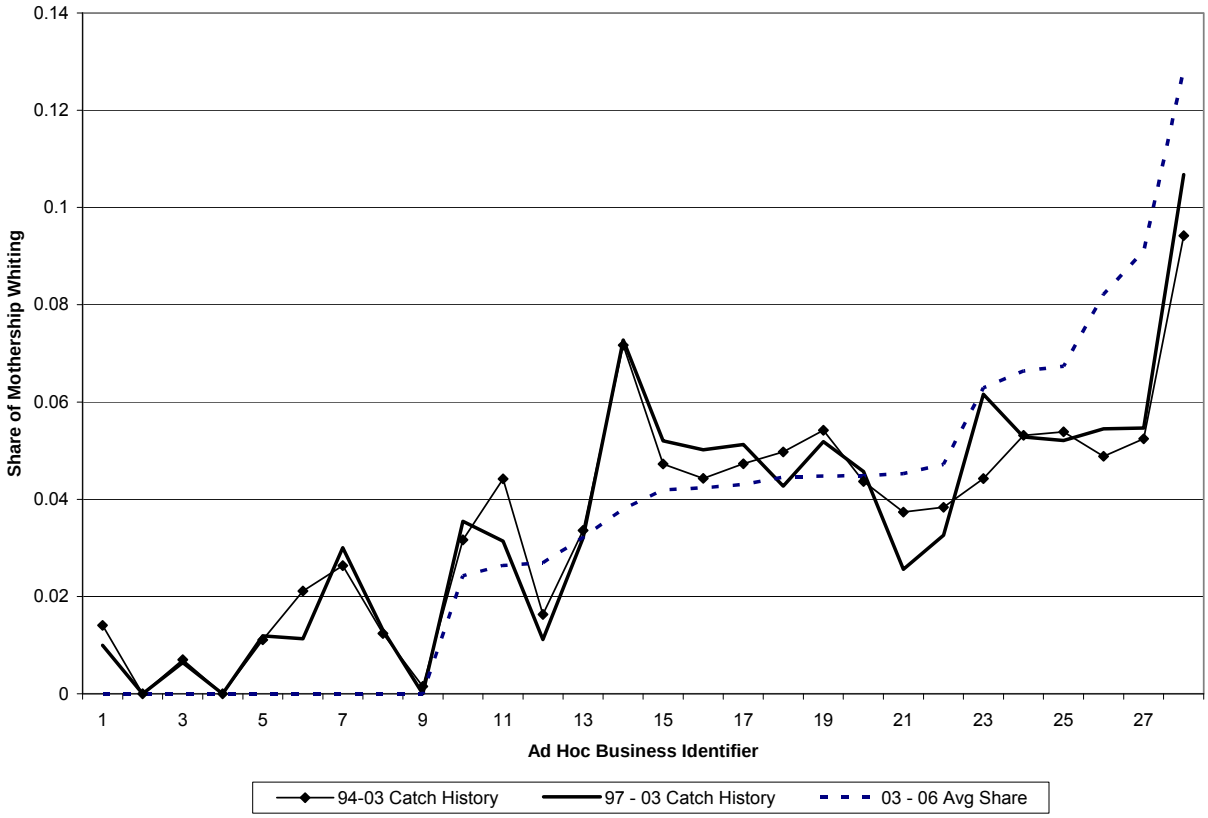


Figure B-3. Catch history distributions to business entities by calculation formula.

- Endorsement Transferability and Endorsement Severability

Making the CV(MS) endorsement transferable makes the endorsement, or the permit to which it is tied, take on value that is reflected by the amount of revenue that could be generated from CV(MS) activity. Transferability means that the market will be able to determine the participants in the fishery as the more efficient operators purchase those permits and less efficient operators drop out. Transferability also helps ensure that there are harvesters engaged in the fishery over the long run. If, for example, the owner of a permit is deceased, allowing the estate to transfer that permit to another owner will ensure that participation in the fishery remains. If permits could not be transferred, participation in the fishery may eventually disappear.

While a restriction on endorsement severability is intended to maintain stability in the participation of catcher vessels in the sector, it is not immediately clear that restricting the endorsement from being severed from the permit would make participation in the fishery more stable. To the extent that holding endorsements and permits together creates "stickiness" in the market and makes it more difficult for those permits to be transferred, then restricting endorsement severability may make participation more stable.

❖ Accumulation Limits

The accumulation limits of 10 to 25 percent could allow for a minimum of 10 to 4 entities to control the mothership sector allocation of Pacific whiting. Under the 97 to 03 catch history calculation, one permit may be restricted by the 10 percent accumulation limit. Other accumulation limits do not appear to be restrictive. However, when past catch quantities are compared to catch quantities that would be restricted by the accumulation limits under a status quo whiting OY (of 269,545) the effect is somewhat different. One expected effect of rationalization is fleet consolidation. This is expected to occur because doing so reduces the cost of engaging in fishing opportunity. Past information is useful for illustrating the annual catch capability that harvesters in the mothership sector have, and this information is useful for illustrating one potential effect of the accumulation limits.

Since 1995, several vessels have caught more than 4,600 metric tons of whiting in the mothership sector. When compared to the metric tonnage that would be restricted by a 10 percent limit under a US whiting OY of 269,545, the catch of some of these vessels would exceed that accumulation limit. It is reasonable to expect that the average catch of mothership catcher vessels would increase as a result of rationalization and the associated fleet consolidation. An accumulation limit of 15 to 25 percent does not appear to be as restrictive.

When considering these accumulation limits at the entity level (and the possibility that fewer entities will likely control catch history in a rationalized fishery), it may be reasonable to expect that both the 15 percent and 25 percent accumulation limit could be restrictive to some entities since it appears that some individual vessels have caught more than the tonnage associated with those accumulation limits.

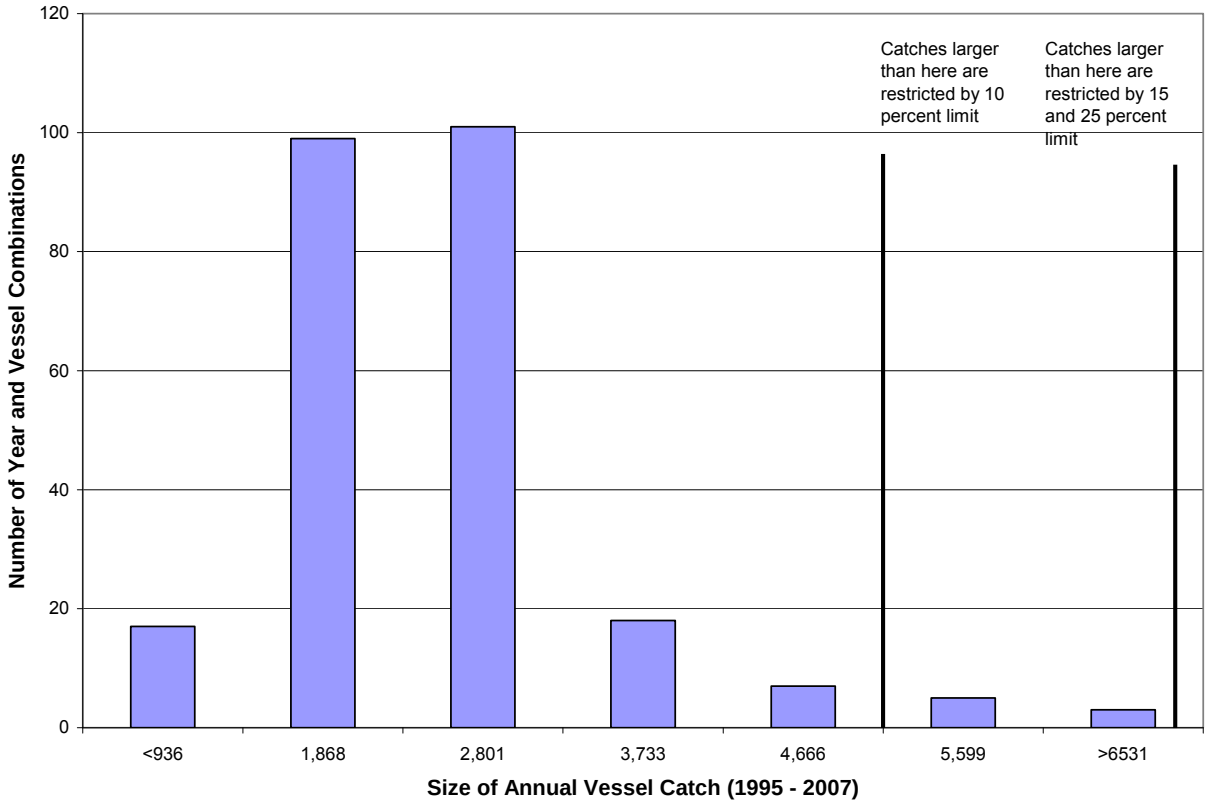


Figure B-4. Frequency of annual vessel catches by metric tonnage category (1995 through 2007).

The information shown above can be complimented with information showing the tonnage associated with the various accumulation limits and two possible whiting OYs. These OYs reflect a range of future whiting OYs based on ranges specified in the recent past. This information shows that in years where the whiting OY is relatively large, each of the accumulation limits is larger than the annual size of catch by vessels over the past several years. When the OY is relatively small, the 10 percent accumulation limit may restrict some vessels, but the other accumulation limits are not substantially restrictive.

When viewed in the context of consolidation, the effect of accumulation limits may be quite different. It is difficult to determine the degree to which rationalization will affect accumulation of catch history at the entity level. However, the accumulation limits of 10, 15, and 25 percent would result in a minimum of 10, 7, and 4 entities owning the CV catch history in the mothership sector.

Table B-4. Mothership catcher vessel accumulation limits and associated metric tonnage based on two hypothetical whiting OYs.

		Accumulation Limit and Associated Metric Tonnage		
Hypothetical mothership Sector Allocation (mt)	Associated US Whiting OY (mt)	10%	15%	25%
63,120	300,000	6,312	9,468	15,780
34,320	170,000	3,432	5,148	8,580

B-2.2.2 Mothership Processor Permit

a. Qualifying Entities

► **Option 1**: The owners of qualifying motherships will be issued MS permits. In the case of bareboat charters, the charterer of the bareboat will be issued the permit.
Option 2: The owners of qualifying motherships will be issued MS permits.

b. Qualification Requirements

A qualifying mothership is one which processed at least 1,000 mt of whiting in each of any two years from 1997 through 2003.

c. Transferability

1. MS permits will be transferable, and
2. MS permits may be transferred to a vessel of any size (there will be no size endorsements associated with the permit)
3. ► **Option 1**: MS permits **may not** be transferred to a vessel engaged in the *harvest* of whiting in the year of the transfer.
   Option 2: MS permits **may** be transferred to a vessel engaged in the *harvest* of whiting in the year of the transfer.
4. Limit on the Frequency of Transfers:
   Option 1: MS permits may not be transferred during the fishing year.
   Option 2: MS permits may only be transferred one time during the fishing year.
   ► **Option 3:** MS permits may be transferred two times during the fishing year.

d. Usage Limit

No individual or entity owning a MS permit(s) may process more than:
Option 1: 20 percent,
Option 2: 30 percent,
► **Option 3**: 40 percent, or
Option 4: 50 percent
of the total mothership sector whiting allocation.

❖ Interlinked Elements

There do not appear to be any components that are substantially interlinked with the mothership permit provisions. However, the sub-options may have a wide ranging array of effects depending upon which sub-option is chosen. The reader is referred to the subsequent options for a more in depth discussion of these effects.

❖ Rationale and Policy Issues

- Owner of the Vessel or Bareboat Charterer

Eligible entities may include the bareboat charterer of a mothership or the owner of the mothership. The rationale for granting permits to the bareboat charterer is that the chartering entity has engaged in effort

and operation of the vessel that has generated historical participation. Therefore, if a permit is to be granted to historical participants, it is the bareboat charterer that has participated in the fishery and that participation should be recognized. Furthermore, granting a permit to the bareboat charterer does not necessarily mean that the charterer will seek out another mothership vessel, so granting a permit to the charterer does not imply the owner of the vessel will be adversely affected.

The rationale for granting the permit to the owner of the vessel is that the owner of the vessel has made an investment in that vessel, and that investment should be recognized and protected by granting a permit to the owner. Granting such a permit to the owner increases the likelihood of that vessel remaining in the fishery and/or protecting the investment of the vessel owner.

- Processing of 1,000 metric tons between 1997 and 2003

Minimum processing requirements are intended to recognize those participants that have substantially participated as a mothership in the Pacific whiting fishery. Using the years 1997 to 2003 is intended to reflect the time period between the date the catcher-processor sector and the mothership sector were separated in regulation (1997) and to be consistent with the control date (2003).

- Transferability

The ability to transfer to a vessel engaged in the harvest of whiting is covered in previous sections documenting the effect of allowing a catcher-processor to operate as a mothership.

The ability to transfer a mothership permit to another mothership may be necessary if, for example, a mothership vessel breaks down. It may also allow mothership vessels to take advantage of unexpected opportunities in other fisheries (such as BSAI Pollock). Allowing a mothership to transfer its permit to another mothership in such a case would provide a way for one mothership to fill the role of the original mothership.

A restriction on the number of transfers insures that participation in the mothership processing portion of the fishery remains limited. This helps maintain stable relations between motherships and catcher vessels. In a fishery managed with processor linkages, stable relations between processors and catcher vessels translates into more stable operation of cooperatives.

- Usage Limit

A usage limit protects against excessive control of processing and fish purchases. The range of usage limits of 20 to 50 percent examine the effect of allowing a minimum of two to five entities to process the entire mothership sector whiting allocation in a season.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Owner of the vessel or bareboat charterer			X		X					
Minimum processing requirements					X	X				
Transferability		X				X				
Usage limit				X						

❖ Analysis

● Qualifying Entities

Two options exist for identifying a qualifying entity. One grants the permit to the "bareboat charterer," while the other grants the permit to the owner of the mothership vessel. The decision of which entity to allocate the permit to is, to a large degree, a distributional decision. However, there are some implications associated with this decision, described below.

As described previously, a cooperative program relies heavily on relationships between participants in a cooperative. Relationships between motherships and catcher vessels will likely affect relationships among catcher vessels in a cooperative. The charterer of a mothership vessel operates the mothership, and in this capacity has established relations with catcher vessels. Maintaining this relationship helps make the transition to a cooperative-based fishery more seamless, while disrupting the relationship may make the transition to a cooperative fishery (especially one where linkages are established based on past delivery patterns) more difficult. Therefore, granting a permit to the bareboat charterer of a mothership should help make the transition to a cooperative-based fishery easier than it would be if the permit were granted to the owner of the mothership. Granting a permit to the mothership owner means a different entity could operate that mothership, and could have different objectives or relationships with catcher vessels than the previous mothership operator.

On the other hand, granting a permit to the mothership owner makes it more likely that the owner will continue to see his/her investments (in the form of the mothership) participate in the whiting fishery. If the owner is not granted the permit, the charterer could move the permit to another mothership vessel, and the mothership owner could find his/her mothership investment less active, or inactive, in the fishery. This could lead to a loss of revenue and a de-valuation of the mothership as an asset. The likelihood of this outcome is unknown.

Qualification Requirements

The requirement that a mothership must have processed at least 1,000 mt in each of any two years between 1997 and 2003 means that six motherships, owned by five different entities, would qualify. The following table shows the participation of vessels and entities that have taken deliveries from catcher vessels from the years 1995 to 2007. This indicates that five of those vessels would not receive a mothership permit. Two of these vessels may be better described as catcher-processors that have taken deliveries from catcher vessels in the past, two other vessels are no longer present on the west coast, and the remaining vessel only participated in a single year, after the control date. Based on the information shown below, the qualification requirement eliminates one mothership that only participated in a single year after the control date. Other vessels that have received deliveries from catcher vessels have either left the west coast or are better defined as catcher-processors, meaning the qualification formula does not affect their activities.

Table B-5. Historic participation and mothership qualification.

			Year												
Company	Vessel Name	Qualify/ Does Not Qualify	95	96	97	98	99	00	01	02	03	04	05	06	07
All Alaskan	Heather Sea	Does Not	X												
	Saga Sea	Does Not	X												
American Seafoods	American Dynasty	Does Not		X											
	American Triumph	Does Not		X											
	Ocean Rover	Qualifies	X	X	X	X	X	X	X	X	X	X	X	X	X
Arctic Storm	Arctic Fjord	Qualifies	X	X	X	X	X	X	X	X	X	X	X	X	X
	Arctic Storm	Qualifies	X	X	X	X	X	X	X	X	X	X	X	X	X
Peter Pan/ Nichiro	Golden Alaska	Qualifies	X	X	X	X	X	X							X
Premier Pacific	Ocean Phoenix	Qualifies	X	X	X	X	X	X	X				X	X	X
MV Savage Inc/ Cascade Fishing/ Suisan	Sea Fisher	Does Not												X	
Supreme Alaska	Excellence	Qualifies	X	X	X	X	X	X	X	X	X	X	X	X	X

Transferability

Making an asset transferable allows it to take on value. A transferable mothership permit acts as a capital asset to the permit holder. The value of the permit is theoretically equivalent to the net present value of a future stream of profits associated with engaging in activities allowed by that permit. Unfortunately, no data is available with which to calculate the potential value of a transferable permit. Furthermore, the amount of value a processor permit can generate depends on whether processor linkages exist, and to what degree. Greater processor linkages will tend to make the transferable permit more valuable, as they

provide more certainty over future deliveries and grant processors more leverage in negotiations with catcher vessels over profit sharing.

Wide-spread transferability of mothership permits can affect the relations between catcher vessels and motherships, with repercussions to a fishery managed with harvest cooperatives if processor linkages exist. As stated previously, harvest cooperatives rely heavily on long-term, stable relationships among catcher vessels. In a cooperative-based fishery with processor linkages, catcher vessels must negotiate arrangements with processors. When negotiating arrangements with other catcher vessels in a cooperative, each catcher vessel implicitly brings the interests and arrangements made with the processing entity to the cooperative. In order for the arrangements made with the processing entity to work, it is important that the cooperative agreements allow for those arrangements between the catcher vessel and the processor. If mothership permits are transferred frequently, this can lead to a change in arrangements between processors and catcher vessels, and may change or disrupt the relationships and agreements made among catcher vessels in a cooperative. Therefore, fewer transfers of mothership permits during a fishing year will help stabilize relations between processors and catcher vessels, leading to more stable operations among cooperative members if processor linkages exist.

Allowing a permit to be transferred to a vessel of any size allows capital in the mothership portion of the fishery to be determined by market conditions, rather than by regulation. This makes it more likely that capital in a rationalized fishery will attain a level that is near, or at, a cost efficient condition (so long as processor ties exist in the program). This is different than an Olympic fishery, where excess capital is more likely to exist. However, if limited entry is put in place but processor linkages are not established, competition would occur among processors for catcher vessel deliveries and this may inhibit the ability of processors to effectively match capital to production volume due a variety of reasons. One reason is because processors will not be able to plan for delivery volumes as effectively because they will have relatively uncertain expectations about those delivery volumes in any given year.

Allowing a permit to be transferred to a vessel engaged in whiting harvest is covered under the section describing the effect of allowing catcher-processors to also operate as a mothership. While it is theoretically possible for a catcher vessel to acquire a mothership permit and engage in mothership activities, the most likely type of vessel that would engage in harvesting and mothership activities (if allowed) is a catcher-processor, because of the amount of capital required to process and handle deliveries of Pacific whiting.

- Transfer Restrictions

Restricting mothership permits from being transferred during the fishing year helps foster stability in relationships between motherships and catcher vessels, and by extension, to the cooperatives. This is especially true if arrangements have been made between motherships and catcher vessels prior to the start of the fishing period. If a mothership permit is transferred during the fishing period to another entity, there is no certainty that the arrangements initially made between the mothership and catcher vessel would remain in place. If those arrangements are not maintained, that can cause instability in the plans of the catcher vessel and the new owner of the mothership permit, especially if linkages between the mothership and the catcher vessel are established, and those linkages follow the permit when it is transferred. By extension, allowing mothership permits to be transferred twice during a fishing year would cause greater instability than a single transfer during a year.

If a mothership experiences a breakdown or other similar event, the ability to transfer permits would allow for another mothership to take its place.

- Usage Limit

A usage limit affects the amount of consolidation that can occur in the mothership processing portion of the whiting fishery. Consolidation can affect exvessel price negotiations and/or revenue sharing. The fewer mothership processors, the more leverage each mothership processor has in negotiating over exvessel prices or profit sharing arrangements. In addition, consolidation can improve the efficiency of the mothership processing sector. If greater quantities per mothership vessel result in greater cost efficiencies, then consolidation may result in a more efficient use of capital resources and greater net benefits to society. Consolidation also depends on fluctuations in the whiting OY. During a low OY year, it may be appropriate to allow fewer motherships to process whiting compared to a year when the whiting OY is relatively high.

Assuming the entire mothership whiting allocation is attained, then the four options for usage limits of 20%, 30%, 40%, and 50% could result in a minimum of 5, 4, 3, and 2 mothership vessels processing in the year respectively. Unfortunately no data is available with which to estimate the cost efficiencies associated with this number of vessels, nor is data available with which to estimate the potential leverage over exvessel prices and profit sharing arrangements that may be associated with these numbers of vessels.

The following information, which uses a reasonable high and low bound for mothership sector allocations of whiting based on the range of Pacific Whiting OYs specified in recent years, may help determine the appropriate usage limit. Historical fishery information was reviewed in an attempt to establish a potential amount of daily mothership capacity (estimated at 450 mt), and this was used to establish an estimate of season length based on a) a possible number of motherships, and b) two possible mothership sector allocation tonnages. For reference purposes, the mothership fishery predominately operates over a month and a half. From this information it appears that a single mothership may mean the season could last nearly five months long in years where the whiting OY is large, though this seems unlikely given that catcher vessels may not be able to access whiting during the fall months. With two motherships, the season may last just over two months during years when the whiting OY is large. With three motherships, the season may last just over a month if all motherships operated at daily capacity. This is similar to status quo, though the season length under status quo occurs with four to five mothership vessels, suggesting that every mothership is not operating at capacity. If this is true, then establishing an accumulation limit restricting the minimum number of motherships to three may still result in/allow for some consolidation among motherships.

Therefore, even if consolidation limits are set at a level that allows for a single mothership, it is likely that more than one mothership would continue to participate. This is because it is unlikely that a single mothership would have the capacity to handle that volume within the seasonal time constraints. However, even if more than one mothership participates under an accumulation limit system that allows for a single entity to purchase all of the mothership whiting, it is possible that those motherships operating could be owned by a single company. Therefore, an accumulation limit that allows for a single entity to process all of the whiting may result in that entity engaging two motherships to do so.

Table B-6. Potential mothership sector season length based on number of motherships and two hypothetical mothership sector allocation amounts.

Hypothetical Mothership Sector Allocation (mt)	Associated US Whiting OY	Season Length with 1 mothership (in days)	Season Length with 2 mothership (in days)	Season Length with 3 mothership (in days)
63,120	300,000	140	70	47
34,320	170,000	76	38	25

Even if aggregate consolidation occurs among motherships, individual mothership entities may be restricted by the accumulation limits. Past information shows the amount of volume handled by mothership processing entities/companies, and shows the potential constraint on mothership processing activity from each of the usage limits depending on the mothership whiting allocation. From this information, it is apparent that even with a usage limit of 50 percent, some mothership entities may have their historic production volumes restricted. This is especially true in years when the whiting OY may be relatively low.

Table B-7. Range of mothership usage limits in metric tons based on two hypothetical mothership sector allocation amounts - compared to historic mothership company usage amounts.

		Usage Limit and Associated Metric Tonnage				Historic Mothership Activity	
Hypothetical mothership Sector Allocation (mt)	Associated US Whiting OY (mt)	20%	30%	40%	50%	Max mothership company % (1997 - 2006)	Average mothership company mt (1997 - 2006)
63,120	300,000	12,624	18,936	25,248	31,560	36%	9,764
34,320	170,000	6,864	10,296	13,728	17,160		

B-2.3 Co-op Formation and Operation Rules.

B-2.3.1 Who and Number of Co-ops

Co-ops will be formed among CV(MS) permit owners.

Co-op Formation Option 1 (Multiple Co-ops): *Multiple co-ops would be organized around motherships*. Permit owners choosing to participate in the co-op fishery must form a separate co-op based on the mothership where the CV(MS) permit holders delivered the majority of their most recent year's catch.

► **Co-op Formation Option 2**: Multiple co-ops are not required. Catcher vessels may organize a single co-op or multiple co-ops but are obligated to deliver to the processors as proscribed in B-2.4.

B-2.3.2 When

Each year at a date certain prior to the start of the fishery, mothership and CV(MS) permit holders planning to participate in the mothership sector must register with NMFS. At that time CV(MS) permit

holders must identify which co-op they will participate in or if they plan to participate in the non-co-op fishery.

□ B-2.3.3 Co-op Agreement Standards

These cooperative agreement standards are being reviewed by the NWR and NOAA GC. Comments and suggested modifications will be provided prior to the November 2008 Council meeting if necessary.

a. **Submissions to NMFS and the Council**

Co-op agreement. Co-op agreements will be submitted to NMFS for approval. Signed copies of the cooperative contracts must be filed with the Council and NMFS and available for public review before the co-op is authorized to engage in fishing activities. (DURING COUNCIL DISCUSSION THIS WAS FLAGGED BY NOAA GC AS A POTENTIAL LEGAL PROBLEM) Any material changes or amendments to the contract must be filed annual with the Council and NMFS by a date certain.

Letter to Department of Justice. Co-ops must also file with the Council and NMFS a copy of a letter from the co-op requesting a business review letter on the fishery cooperative from the Department of Justice and any response to such request.

b. **Number of Participants in Each Co-op (Including Inter-co-ops)**

Two or more permits may form a co-op for harvesters but participation must conform to the requirements of Section B-2.3.1. Co-ops may form co-ops with other co-ops. Within one of the whiting sectors, these co-ops may be formed to manage directed catch and/or bycatch.

c. **Catch History Distributions Among Permits**

Co-op agreements must stipulate that catch allocations to members of the co-op be based on their catch history calculation distribution to the co-op by NMFS.

d. **Participation by Non-CV (mothership) Endorsed Permits**

Through temporary arrangements a co-op allocation may be harvested by any catcher vessel holding a valid limited entry trawl permit which has joined the co-op (including one that does not have a CV(MS) endorsement).[12]

e. **Other Required Co-op Agreement Provisions**

1) a list of all vessels and permit holders participating in the co-op and their share of allocated catch which must match the amount distributed to individual permit holders by NMFS,
2) signature by all permit holder owners participating in the co-op
3) a plan to adequately monitor catch and bycatch,
4) adequate enforcement and penalty provisions to ensure that catch and bycatch [for] overages do not occur,
5) measures designed to reduce bycatch of overfished species
6) obligation to manage inseason transfers of catch history,
7) a requirement that at least a majority of the members are required to dissolve a co-op, (DURING COUNCIL DISCUSSION THIS WAS FLAGGED BY NOAA GC AS A POTENTIAL LEGAL PROBLEM)
8) an obligation to produce an annual report to the Council and NMFS by a date certain documenting the co-op's catch and bycatch data and inseason transfers (the report is to be available for review by the public),
9) identification of a co-op manager who will
    a. serve as the contact person with NMFS, the Council and other co-ops,
    b. be responsible for the annual distribution of catch and bycatch,
    c. oversee transfers,

[12] As a member of the co-op, such a vessel would be subject to paragraph B-2.4 and the indicated processor obligations.

d. prepare annual reports and
e. be authorized to receive or respond to any legal process against the co-op.

10) provisions that prohibit co-op membership by permit holders that have incurred legal sanctions that prevent it from fishing groundfish in the Pacific Fishery Management region,

11) a provision that requires new owners to comply with membership restrictions in the co-op agreements.

f. **Additional Provisions for Inter-co-op Agreements**

1) In the case of two or more cooperatives entering into an inter-cooperative agreement, the inter-co-op agreement must incorporate and honor the provisions of the individual co-op agreements unless all such agreements (or modifications thereof) are resubmitted for approval.

2) The requirements of paragraph a through e apply to the inter-co-op agreement, except that for the purpose of subparagraph e.7, the members of the inter-co-ops are the co-ops and not the participants in each co-op.

❖ Interlinked Elements

The requirement that at least two entities are required to form a cooperative may conflict with some of the cooperative agreement standards shown above. In particular, the requirement that a cooperative file a report at the end of the season documenting catch and bycatch may violate the confidentiality provisions of the Magnuson-Stevens Act. If at least three entities are required to form a co-op, the requirement to file a report may not violate MSA confidentiality provisions.

A requirement that cooperatives are/are not required to form around the motherships to which they deliver is related to processor ties and movement between processors. If a catcher vessel can switch processors simply by switching the processor to which they deliver the majority of their catch, then not requiring cooperatives to be formed around motherships may erode the benefits motherships can realize from a processor tie. If a single cooperative is formed for the mothership sector, then a catcher vessel with linkages to processor B can lease catch history from a catcher vessel linked to processor A. Through that simple voluntary lease agreement, the catcher vessel could switch processors because it will have delivered the majority of its catch to another processor in that year. Compared to a requirement that catcher vessels fish in the non-cooperative portion of the fishery in order to change processors, this simple switching arrangement provides little disincentive to catcher vessels considering switching processors and may reduce the benefits processors see from rationalization.

Other interlinked elements may be identified by NOAA GC and NMFS – NWR.

❖ Rationale and Policy Issues

- Who can form co-ops

Cooperatives are intended to coordinate the harvest of members. Allowing entities that are not harvesters to join a cooperative may affect the performance of those cooperatives. This may mean a different manner of harvesting than if just left up to harvesters. In order to optimize the harvesting performance (both bycatch and economic) of those cooperatives, it is important that those cooperatives be formed by those engaged in harvesting. Therefore, cooperatives should be formed by catcher vessels.

- Number of co-ops

Requiring cooperatives to form around motherships helps ensure that cooperatives are formed by a like-minded group of individuals, and protects the interests of the mothership by allowing more certainty about who is providing deliveries. This helps motherships facilitate delivery coordination and timing, allowing the mothership to optimize business operations.

Allowing harvesters to form cooperatives that are not necessarily associated with a particular mothership allows harvesters to determine the most appropriate composition of the cooperatives and ensures that they are comprised of like-minded individuals.

Ensuring that cooperatives are formed by like-minded individuals is important to their success. Since cooperatives are voluntary and rely on agreed-upon standards by members, having like-minded members increases the potential for cooperative success and long-term cohesion. This helps ensure optimal performance of the cooperative and of the fishery as a whole.

- When

Requiring harvesters to state their intention to participate in a cooperative or in the non-cooperative portion of the fishery by a particular date facilitates the administration of the cooperative program on the part of the agency.

- Cooperative agreement standards

Requiring standards for cooperative agreements (and requiring that they be filed with and reviewed by NMFS) assures that goals and objectives specified by the Council are being met through a legally binding agreement by cooperative members. Requiring these agreements be filed with NMFS assures that a review process exists to verify that the Council's goals and objectives are likely to be met by the agreement.

Requiring that cooperatives develop a report that is made publicly available aids in the transparency of the cooperative program and allows the Council and NMFS to verify the success of management tools used by the cooperative. If those tools are specified as part of a cooperative agreement, the production of annual reports allows the public and NMFS to determine whether the tools described in that cooperative agreement are likely to be successful in meeting the cooperative's intentions. This helps inform future approval/disapproval decisions on the part of NMFS reviewers and whether particular elements of the cooperative agreement are likely to meet the goals specified by the Council.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Who can form co-ops	X	X	X			X				
Number of co-ops	X	X	X			X				
When co-ops must be formed										
Cooperative agreement standards	X	X	X	X	X	X	X	X	X	X

❖ Analysis

● Who Can Form Co-ops and Number of Co-ops

Two options exist for co-op formation. One option requires that co-ops form around the mothership processor to which they deliver to, while the second option allows a single cooperative to form among all catcher vessels in the sector, but participants in that single cooperative may deliver to several different motherships.

One intention of establishing the multiple co-op requirement was the idea that if multiple co-ops were required, they would be more likely to be made up of like-minded individuals. Other rationale was that operational timing between the mothership and associated catcher vessels would be improved if multiple co-ops were required.

In regards to the first rationale, theory would indicate that requiring multiple co-ops to be formed may actually restrict the ability for like-minded individuals to co-op with one another. This is because harvesters may have more in common with other harvesters that deliver to another mothership, but those harvesters may have formed a relationship with different motherships for business reasons. Contrary to theory, the logistical operations of the mothership sector will likely lead to a set of catcher vessels that deliver to a mothership to be fairly similar in their goals and objectives and in their relationships with that mothership. Such similarities would tend to lead to those catcher vessels belonging to the same cooperative. This is because cooperatives are formed among parties that can agree to a set of terms. If those parties are similarly minded, it is much more likely they will form cooperatives and agree to terms. The reason similarly minded catcher vessels are likely to have the same mothership in common is because of the relative degree of coordination that occurs among motherships and catcher vessels; in order for the entire mothership operation to be successful, that coordination activity must be successful and be reasonably agreed-upon by both catcher vessels and motherships. Furthermore, agreed-upon delivery timing and delivery rotation is related to coordination of harvest activity among catcher vessels. If catcher vessels delivering to the same mothership also belong to the same cooperative, those catcher

vessels can engage in catch history leasing agreements that align with the coordination that occurs with the mothership.

However, allowing catcher vessels to form a broader cooperative that stretches across multiple mothership operations may further enhance the ability of catcher vessels to optimize their operations. A broad cooperative that includes vessels linked to multiple motherships would allow catcher vessels delivering to various motherships to coordinate harvest activity across a wider number of participants. Enhanced flexibility in harvest activity coordination may lead to more desirable results. However, this enhanced flexibility could also be achieved through an inter-cooperative agreement.

In addition to the above factors, not requiring that cooperatives form around motherships may make it more difficult for the mothership to engage in coordination with catcher vessels and this may reduce the ability for motherships to successfully plan business activities for the year. If cooperatives are formed around motherships, those motherships know which entities and catcher vessels they should expect deliveries from during the year, and they know which entities and catcher vessels to coordinate with over operational issues. If catcher vessels form a single cooperative that stretches across the entire mothership sector, motherships may not know which catcher vessels are delivering to them. This is because of the private lease agreements that exist as part of the cooperative and the ability that gives catcher vessels to have another vessel(s) fish their catch and deliver to their obligated processor. This type of uncertainty may make it difficult for the mothership to plan and coordinate delivery activity with catcher vessels. In addition, this makes the processor tie obligations (and the catcher vessels which have those obligations at any given time) less visible. This may reduce the ability for motherships to negotiate with catcher vessels over delivery timing and prices because they may not know who is planning to fish those obligated deliveries. The result may be a reduction in the benefits motherships may otherwise expect to see from rationalization.

- Co-op and Non-Co-op Fishery Declaration

Filing the intention to fish in the co-op or non-co-op portion of the fishery is likely to be a necessary rule for administration and implementation of a cooperative-based fishery. In addition, requiring that harvesters state their intention to fish in the cooperative or non-cooperative portion of the fishery for that entire season means that cooperative membership will be more stable. Stability in membership during a year increases the incentives for harvesters in a cooperative to work with one another to resolve any potential issues. If harvesters could leave cooperatives or enter cooperatives as the season progresses, substantial administrative work-load could result in order to track and modify membership, track appropriate catch histories, and attribute ongoing catch to appropriate cooperatives. In addition, if membership of cooperatives can change throughout the year, there is far less incentive for cooperative members to jointly resolve any unforeseen and problematic issues.

- Cooperative Agreement Standards

In general, requiring that cooperative agreements meet certain standards increases the chances that cooperatives will operate in a manner that achieves objectives stated by the Council. For example, requiring that cooperatives have a bycatch management plan which includes monitoring and penalty provisions means that harvesters in that cooperative will be striving to reduce bycatch. This behavior is consistent with objectives specified by the Council and found in the MSA. In addition, requiring that cooperative agreements be validated by NMFS ensures that those standards are being met. NMFS and GC are reviewing the proposed list of cooperative agreement standards and will provide proposed revisions, if necessary, prior to the November 2008 Council meeting.

B-2.4 Processor Ties

Permits will be obligated to deliver:

Option 1: all
► **Option 2**: 90 percent
Option 3: 75 percent
Option 4: 50 percent

of their catch (the permits' "obligated deliveries") to certain motherships, as specified in the following sections. Catch that is not so obligated may be delivered to any mothership with an MS permit.

NOTE: During discussion of processor linkage provisions at the Council's June 2008 meeting, the Council members expressed that by selecting a 90 percent linkage option as part of their preferred alternative it was their intent to provide a means for vessels to move between motherships without entering into the non-co-op fishery. In order to achieve this intent, additional modifications will be required. Specifically, in the last paragraph of the following section, the sentence

> *"*Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the same mothership to which they were obligated in the previous year."

would need to be changed to read:

> *"*Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the mothership to which they delivered the majority of their catch in the previous year."

B-2.4.1 Formation and Modification of Processor Tie Obligations

In the first year of the program, the CV(MS) permit owner's choice will be between delivering in the non-co-op fishery and making deliveries as part of a co-op. If the permit chooses to participate in a co-op its obligated deliveries must go to the licensed mothership to which the permit delivered the majority of its whiting catch in:

Option 1: The most recent year that it fished before the program was implemented
Option 2: From 1997 through 2004
Option 3: From 1994 through 2003
► **Option 4:** If the permit chooses to participate in a co-op its obligated deliveries must go to the licensed mothership to which the permit made a majority of its whiting deliveries in 2009

If a mothership does not qualify for an MS permit in the first year of the program,[13] the catcher vessel which delivered to that mothership in the previous year may deliver its obligated catch to the qualified mothership to which it last delivered the majority of its catch. If none of the motherships to which the permit would be obligated qualify for an MS permit, the permit may participate in the co-op and deliver to a licensed mothership of its choosing. Alternatively, the permit may choose to participate in the non-co-op fishery.

[13] If a mothership that does not qualify for a permit acquires such a permit (i.e., arranges for the transfer of a permit) by the time co-ops are established for the first year of the program, would it be the Council's intent that such the catcher vessel obligation to that mothership remain in place?

Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the same mothership to which they were obligated in the previous year. However, if the CV(MS) permit owners chose to participate in the non-co-op fishery in the previous year, or did not participate in the mothership whiting fishery, they are released from their obligation to a particular mothership and may deliver to any mothership with an MS permit.

Mothership Permit Transfer. If a mothership transfers its MS permit to a different mothership or different owner, the CV(MS) permit obligation remains in place and transfers with the MS permit to the replacement mothership unless the obligation is changed by mutual agreement or participation in the non-co-op fishery.

B-2.4.2 Flexibility in Meeting Processor Tie Obligations

a. Temporary Transfer of the Annual Allocation Within the Co-op or from One Co-op to Another

When CV(MS) permit owners transfer co-op allocations from one co-op member to another within the co-op or from one co-op to another within an inter-co-op, and the allocation that is transferred is part of the obligated deliveries, such allocations must be delivered to the mothership to which the allocation is obligated, unless released by mutual agreement.

b. Mutual Agreement Exception

By mutual agreement of the CV(MS) permit owner and mothership to which the permit is obligated, and on a year-to-year basis, a permit may deliver its obligated deliveries to a licensed mothership other than that to which it is obligated. Such an agreement will not change the permit's future-year obligation to the mothership (i.e., the permit will still need to participate in the non-co-op fishery for one year in order to move its obligated deliveries from one mothership to another).

B-2.4.3 Mothership Processor Withdrawal

Mothership Withdrawal. If a mothership does not participate in the fishery and does not transfer its permit to another mothership, or does not agree to transfer delivery to another mothership, the CV(MS) permit holders obligated to that mothership may

- **Option 1:** participate in the non-co-op fishery
  Option 2: join a different co-op and deliver their obligation to a different mothership; or the entire co-op which delivered to that mothership may deliver its obligated catch to a different mothership. The permits will not be required to participate in the non-co-op fishery in order to shift from one mothership to another.
    SubOption 2a: If the mothership returns within two years, any permit with an obligation to that mothership prior to its departure will have the obligation reinstated, unless the permit has participated for one year in the non-co-op fishery. After two years, the permit's obligation will become linked to the mothership to which it most recently delivered its obligated catch.
    SubOption 2b: The permit will become obligated to the mothership that it delivers its obligated catch to subsequent to the withdrawal of the mothership to which it was previously obligated.

❖ Interlinked Elements

Processor limited entry. See earlier section on processor licensing

Processor ties are associated with the mutual agreement exception and whether a catcher vessel must fish in the non-cooperative fishery in order to switch motherships, or whether a vessel can fish the unlinked portion of catch history of other vessels in his cooperative and establish a new linkage without ever going into the non-cooperative fishery. While each of these elements can technically work together, there may be a substantial cumulative effect that occurs through the combined selection of a number of these sub-options.

Processor ties and the ability for catcher vessels to move processors by delivering the majority of their catch to a different processor in a given year is substantially related to the decision of whether to require cooperatives to be formed around motherships or whether a single cooperative could form which delivers to multiple motherships. If a single cooperative is allowed and a catcher vessel can switch motherships by delivering the majority of their catch to a different mothership in a given year, then catcher vessels could simply lease catch history (and the associated linkages) between one another regardless of the processor those catch histories are tied to. Through a simple voluntary lease agreement with catcher vessel B (whom is connected to another processor), catcher vessel A could switch processors because it will have delivered the majority of its catch to another processor by leasing catcher vessel B's catch history. If cooperatives are required to be formed around motherships to which they deliver, but can still switch processors by delivering the majority of their catch to a different processor, then movement is relatively more difficult (though still easier than if a vessel is required to fish in the non-cooperative fishery). This movement would require a catcher vessel desiring to switch processors to fish the unlinked portion of other vessel's catch history in that cooperative and deliver to a different processor. If that catcher vessel does so, it would need to leave the original cooperative in order to join the new cooperative linked to that new processor and effectively reduce the pool of catch available to that original cooperative. This means that catcher vessels in the original cooperative may be against the idea of a catcher vessel switching motherships because it would involve a departure from the cooperative and a reduction in the pool of catch available to that cooperative. Therefore, other catcher vessels in a cooperative may be reluctant to allow a single catcher vessel to fish their unlinked catch history in order to switch motherships and this may make it more difficult for processor switching to occur.

Mothership withdrawal and the mutual agreement exception are inter-related. The selection of sub-option 2b for mothership withdrawal may affect the good faith negotiations over a possible mutual agreement exception. This could be avoided through the selection of sub-option 2a for mothership withdrawal.

Mutual agreement and the ability for processors to switch motherships by fishing the unlinked portion of other catcher vessels are inter-related and may directly conflict with one another. A mutual agreement allows a catcher vessel to deliver all of its catch to a different processor during the year a mutual agreement is in effect. However, if catcher vessels can switch processors by fishing the unlinked portion of other vessel's catch histories, then language regarding the establishment of a mothership linkage would state:

> "Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the mothership to which they delivered the majority of their catch in the previous year." (for more detail the reader is referred to B-2.4 above)

This language is in direct conflict with the intention of a mutual agreement exception. A mutual agreement would allow another vessel to deliver the majority of its catch to another processor, but the

quoted language shown above would imply that doing so would result in the permanent switching of processor linkages. This result would be in conflict with the intention of a mutual agreement exception. In order to resolve this issue, staff is interpreting the intention to be the following:

> If a mutual agreement is established between a catcher vessel and a mothership, that linkage is not permanently broken regardless of the mothership(s) which the catcher vessel delivers to during the year(s) the mutual agreement exception is in place. Those linkages may be broken, however, if the catcher vessel participates in the non-coop fishery. This provision effectively supersedes the language above describing the rules for switching motherships by delivering the majority of one's catch in a given year to another mothership.

Mothership withdrawal and the subsequent treatment of processor linkages if the processor returns is related to the ability for catcher vessels to switch processors by fishing the unlinked portion of catch history of other catcher vessels. If the language shown above is used for determining the processors to which a catcher vessel is linked to, then this could be in direct conflict with some of the processor withdrawal and return provisions. Council staff is interpreting the interlinkage of these two provisions as the following:

> If a mothership withdraws from the fishery, and option 2a is chosen for the mothership withdrawal topic, then the linkages will be re-established with the original mothership if that mothership returns within two years. Other sub-options would result in a permanent switching of processor linkages. This provision effectively supersedes the language above describing the rules for switching motherships by delivering the majority of one's catch in a given year to another mothership.

If a provision to allow mutual agreement exceptions is selected, these mutual agreements may need to be filed with NMFS prior to a date certain. This may be necessary in order to adequately monitor the fishery.

❖ Rationale and Policy Issues

- Processor ties

Processor ties help to insure that processors benefit from rationalization in addition to harvesters. Processor ties increase the certainty that processor have over deliveries from catcher vessels and helps ensure that both processors and harvesters have negotiation power when deliberating over profit sharing arrangements.

- Formation and Modification of Processor Tie Obligations

The years considered for processor tie formation reflect periods intended to match with catch history assignments and also to reflect recent relationships that exist in the fishery prior to rationalization. Maintaining recent relationships is intended to make the transition to a rationalized fishery easier, while aligning linkages to catch history calculation years is intended to match processor participation and receipt of linkages to the catch history that catcher vessels receive.

Making mothership permits transferable while maintaining the linkages that exist during that transfer is intended to help ensure that processors have a means of benefiting from rationalization and that the purchaser or seller of a mothership permit has a reasonable expectation of having catcher vessel deliveries associated with that permit.

- Flexibility in Meeting Processor Ties

Requiring that ties remain in effect even if catch histories are leased to another catcher vessel in a cooperative, or to another cooperative through an inter-coop agreement, helps to maintain the relative degree of certainty motherships have over whiting deliveries in the current year. If catcher vessels could avoid ties by temporarily leasing catch history to another vessel, the relative certainty that ties are intended to provide to processors would not be meaningful because the ability to avoid processor obligations would be relatively easy.

The mutual agreement exception is a tool intended to allow mothership participation to vary appropriately according to the size of the whiting OY while also allowing catcher vessels to temporarily fish for a different mothership vessel without having to go into the non-cooperative fishery. Motherships with a mutual agreement exception option are not liable to find it necessary to participate in the fishery during years when the whiting OY is low, and potentially lose money as a result, just to maintain the existing linkages with catcher vessels. Inversely, catcher vessels with a mutual agreement option can deliver to another mothership temporarily while still being part of a cooperative and realizing the benefits of cooperative membership.

- Mothership withdrawal

The options for dealing with the withdrawal of a mothership from the fishery are intended to reflect different potential ways of handling such a situation. One way would require that the catcher vessel fish in the non-cooperative fishery in order to deliver to another mothership. The other option explores different ways of leaving the catcher vessel relatively harmless from such a withdrawal.

Element of Cooperative Alternative	Conservation	Net Benefits	Disruption	Excessive Shares	Fairness and Equity	Harvester and Processor Sector Health	Labor	Communities	Small Entities and New Entrants	General Public
Processor ties			X		X	X				
Formation and modification of processor ties	X		X		X	X				
Flexibility in meeting processor ties		X	X		X	X				
Mothership withdrawal		X	X			X				

❖ Analysis

● Processor Ties

Processor ties act differently than an initial allocation of quota shares. Where an initial allocation of quota shares to processors can directly reduce the quota share that may otherwise be allocated to harvesters (or to some other potential group), a processor tie provision does not impact the amount of catch history, or quota share, a harvester may receive. Furthermore, a processor linkage takes on some of the characteristics of a defensible resource access privilege (like quota shares), but with less "defensibility" on the part of the processor. This is because catcher vessels can switch motherships and break that tie.

Through a processor tie, mothership processors become a more interested party in the harvesting activities of a linked catcher vessel. This linkage provides the processor more certainty over delivery volumes and more leverage in negotiations with catcher vessels over delivery timing and profit sharing compared to a case where no tie or no initial allocation of quota shares exists. The arrangements created between the catcher vessel and the linked processor may influence the manner in which the catcher vessel prosecutes fishery resources, and because of this influence, the creation of processor linkages means that processors have some indirect bearing on the operations of members of a harvest cooperative. However, because that linkage can be broken by the actions of the catcher vessel, such a linkage does not appear to resemble the conditions of a property right (like a quota share does) where assets must be defensible from the actions of others. In other words, the mothership processor cannot "defend" and maintain the linkage if a catcher vessel wishes to switch mothership processors.

Processor ties in a cooperative program may serve several different purposes. One goal of the American Fisheries Act was to construct a rationalization system that benefited both harvesters and processors, and the processor tie provision that exists in the shoreside portion of the Pollock fishery appears to have been one means of achieving that goal. The cooperative structure possible under the mothership alternative resembles those created for the shoreside sector of the Pollock fishery under the American Fisheries Act. Establishing a processor tie makes the harvester and processor both strong entities in the negotiation over profits and the likely outcome is one where profits are shared between both the harvester and processor. In addition, a processor linkage creates a relationship between a harvesting and processing operation that takes on the characteristics of a vertically integrated firm where the harvester and processor work in concert toward a similar goal. However, as the degree of the processor tie diminishes it is reasonable to expect the amount of profit sharing to move more toward the harvesters favor because the harvester has more influence over negotiations and can "shop around" for the highest price for the un-tied catch history.

In addition to profit sharing, processor ties influence stability in the relationships between harvesters and processors. It may also affect the willingness of a catcher vessel to remain in a co-op if a catcher vessel and a mothership are at odds, and this may influence the manner in which the fishery is prosecuted. This issue is addressed in more detail in a following sub-section.

The effect of processor ties, and the appropriate degree of processor ties, should be considered along with the degree of vertical integration that exists in a sector. Relatively high degrees of vertical integration may reduce the need for processor ties since a processor that owns a catcher vessel effectively buys fish from itself and can direct the harvest activity of that catcher vessel. In the mothership sector, available information indicates that 5 trawl permits are "owned" by mothership processing companies and these 5 permits catch approximately 25 percent of the sector's catch in any year. Anecdotal information indicates that partial ownership of other permits and vessels exist, making vertical integration even larger.

- Effect of Processor Ties on Profit Sharing

If properly constructed, processor ties are likely to result in profits being shared between harvesters and processors. This appears to have been one objective of the AFA and the cooperative structure formed through that legislation. The mothership and shoreside whiting cooperative alternatives resemble AFA cooperatives. One of the most notable differences between processor ties and an initial allocation of shares to processors is the fact that issuing ties results in an outcome between harvesters and processors that begins to resemble the operation of a vertically integrated firm. This is because both the harvester and processor are bound to one another and cannot operate independently, at least in one year. The processing entity cannot process fish without an action on the part of the harvester, and the harvester cannot sell fish without an action on the part of the processor. Furthermore, the harvesting entity cannot move to another processor, and the processor cannot acquire harvest from a vessel that is linked to another processor. This construct leads to two powerful entities involved in negotiation over profits generated by the collective harvest and processing activity, and this type of mutual negotiation power may result in profits being shared between both harvesters and processors. However, over the long term, the harvester can fish in the non-co-op fishery and break the tie, thus potentially leaving the initial processor or mothership with no guaranteed catch. This ability on the part of the harvester to un-link themselves from a mothership by participating in the non-co-op fishery provides some long term flexibility and also provides some negotiation power over motherships simply through the threat of breaking the linkage.

Establishing a partial tie between and harvester and a mothership or processor can alter the relationship that results in profit sharing by playing toward the hands of the harvesters. If shares are allocated to harvesters and processors in an IFQ program, both harvesters and processors can attempt to reach an agreement, but if one is not made, then both the processor and harvester can walk away and fish their quota share independently. In a cooperative system with a processor tie, the processor and harvester cannot walk away from negotiations unless the harvester participates in the non-co-op fishery. If that tie is only partial, then the harvester can fish the un-tied portion of the allowable catch and deliver to any processor or mothership. However, both the harvester and the processor are still linked to one another through the tied portion of the catch. Such a situation with a partial mothership tie is likely to shift the balance of power into the harvester's favor, and that balance of power will increase as the percent of linked catch history decreases. The harvester gains power by being able to "shop around" with the un-tied portion of the catch history and to leverage higher prices from mothership processors. Motherships are likely to bid among one another for the un-tied catch history, resulting in higher prices paid to harvesters and eroding profits motherships might otherwise realize if all catch history is linked. Inversely harvesters are likely to realize greater profits and operational flexibility if less catch history is linked to a mothership.

Degree of Mothership Linkage	Benefit to Catcher Vessel	Benefit to Mothership	Effect on Mothership/Catcher vessel relationship
100%	Smallest price negotiation scenario to catcher vessel	Greatest certainty over deliveries and price negotiation	Most stable relations between mothership and catcher vessel
90%	Moderately low price negotiation	Moderately high	Moderately high stability in relations
75%	Moderately high price negotiation	Moderately low	Moderately low stability in relations
50%	Greatest price negotiation scenario to catcher vessel	Lowest certainty over deliveries and price negotiation	Lowest stability over mothership and catcher vessel relations

- Effect of Processor Ties on Cooperative and Fishery Stability

Stability in the relationship between the catcher vessel and mothership has an economic effect through increased levels of business planning. Establishing a full processor tie creates a relationship that resembles a vertically integrated firm, and operations between the harvester and processor become more aligned as a result. However, reducing the degree of processor tie may stabilize cooperative membership and make it less likely that a catcher vessel will fish in the non-co-op fishery in order to break the tie with a mothership. If a catcher vessel is at odds with a mothership, but needs to fish in the non-co-op fishery in order to break that tie, the catcher vessel may continue to remain in the co-op if that catcher vessel can deliver part of his catch to someone else. Since the non-co-op fishery is inherently less stable than the co-op fishery (because of competition among non-cooperative participants), increasing the chances that a catcher vessel will remain within a cooperative may result in more rational fishing practices among participants in a fishery.

On the other hand, if a catcher vessel is engaged in a non-cooperative mode, but is intending to establish a linkage with a new mothership, that mothership and catcher vessel will have established relations even though that catcher vessel is in the non-cooperative mode. This will undoubtedly affect the behavior of a catcher-vessel in that non-co-op fishery and may temper some of the irrational behavior theoretically expected of participants in the non-cooperative fishery. This is simply because that catcher vessel will need to take into account the needs of the to-be-linked mothership, and that mothership will effectively pace the operations of the catcher vessel to some degree by folding that vessel into its delivery rotation.

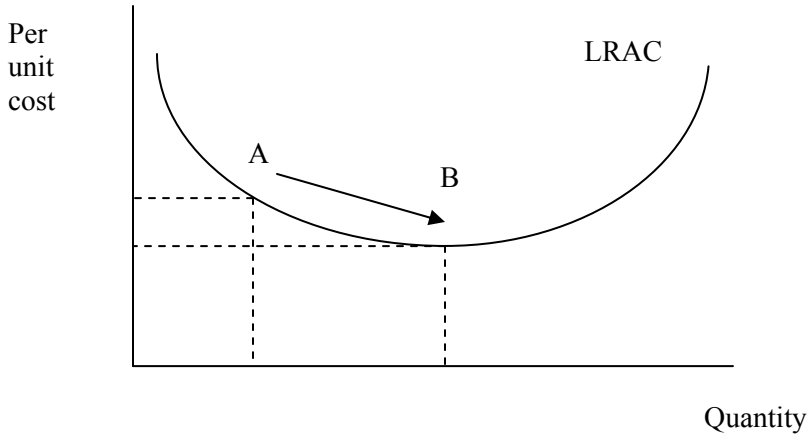
Therefore, a cooperative fishery with processor linkages helps ensure that processors benefit from rationalization by giving processors some negotiation power. Furthermore, processor linkages affect the operations of catcher vessels in a cooperative based fishery because negotiations between catcher vessels and processors will include such topics as delivery timing. These linkages also affect the behavior of participants in the non-cooperative fishery if those catcher vessels are attempting to establish new relations with processors, and these participants are likely to fish in a more paced manner than simple theory would suggest.

Degree of Linkage	Effect on Profits and Stability
Full processor linkage	Profits likely to be shared between harvesters and mothership processors. Stability exists between the harvester and mothership leading to paced harvest timing Increases the probability that a catcher vessel will fish in the non-co-op fishery to break a processor linkage if the catcher vessel and mothership are at odds
Partial processor linkage	Profits may be shared, but more heavily weighted toward the harvester than in the case of a full linkage Reduces the probability that a catcher vessel will fish in the non-co-op fishery if they are at odds with a mothership because that catcher vessel can deliver some catch to someone else.

- Processor Ties and the Potential for Rationalization of the Processing Sector

The issuance of harvest privileges grants fishery participants, and their invested capital, the potential to reach the minimum point on the long run average cost (LRAC) curve. Long run average cost is defined as the total cost in the long run divided by output. As shown in the diagram below, a potential cost structure for capital in a fishery prior to rationalization is to the left of the lowest point on the long run average cost curve (depicted as point A). This is because of overcapitalization in the fishery. With the

implementation of rationalization, excess capital drops out of the fishery and remaining capital is able to increase production, tending toward the point of cost minimization (point B). Production beyond the minimum point is possible, but is in the realm of "diseconomies to scale" where increasing production begins to increase cost.



Generally speaking, the ability for participants in a rationalized fishery to move toward the minimum point on their long run average cost curve is one principal factor determining the reduction of capacity in an over capitalized fishery. Participants in a rationalized fishery can acquire shares of the allowable catch (either through IFQ transfers or through sharing of catch history), and match production volume to capital capacity. This is possible because those privileges are defensible from others and this eliminates the aspect of competition in the fishery that was originally responsible for build up of excess capital. The tendency is for the amount of capital in a fishery to decrease in order for capital to move toward a point of cost minimization, reflected as the minimum point on the long run average cost curve. This is done by reducing the amount of capital in the fishery so that the remaining capital experiences an increase in production. The amount of capital remaining in the fishery after it is rationalized is partially determined by the tendency toward the point where cost is minimized in the fishery.

The combination of processor ties, transferable mothership limited entry permits, and a mutual agreement exception allows cost efficiencies to be created in the processing portion of the fishery. The effect of these three elements works at reducing the amount of competition among processors for deliveries from catcher vessels and allows processing capital to vary appropriately with variations in the Pacific whiting OY. In a highly competitive structure with no linkages, processing entities would have incentives to participate in the fishery up to a point where economic profits for processing entities approach zero (processors would continue to enter as long as profits can be generated from doing so). The result would be more processing capital than necessary for the fishery. This is cost inefficient. The establishment of a linkage provision with mothership limited entry and a mutual agreement exception makes it possible for processing capital to vary according to conditions in the fishery and tend toward a more cost efficient level. This occurs for a handful of reasons:

- Due to processor limited entry, processors are not concerned that a new processor may enter into the fishery and compete with them for deliveries,
- Processors have more certainty over delivered catch levels through the linkage provision,

- Processors can stack more than one mothership permit, and associated linkages, onto a single mothership, thus allowing consolidation to occur while retaining some certainty over the volume of catcher vessel deliveries
- Processors can agree to allow catcher vessels to deliver to other processors through the mutual agreement thereby allowing processor B to take deliveries from processor A's linked catcher vessels without processor A permanently losing those linked catcher vessels and their future deliveries.

This structure starts to resemble the conditions often necessary to confer a defensible and transferable limited access privilege, though it does not meet these requirements fully because the processor linkage can be broken by the catcher vessel. Nevertheless, these similarities facilitate the development of a more cost efficient level of participation among processors in a fishery because it reduces competition among processors for catcher vessel deliveries. This makes it possible for motherships to reduce costs through consolidation (if necessary) and better business planning. Implied in this concept is that linkages exist between the mothership permit and the catcher vessel permit, rather than the physical mothership vessel and catcher vessel.

● Switching Motherships

Different ways exist for allowing catcher vessels to switch motherships. One option would be to require that catcher vessels participate in the non-cooperative portion of the fishery for one year. Another option is related to the unlinked portion of a catcher vessels catch history. This second option would give catcher vessels the ability to switch processors without participating in the non-cooperative fishery. Catcher vessels could fish the unlinked catch history of other vessels in a cooperative. If that unlinked catch history resembles the majority of catch of that vessel, and it is delivered to another processor, that catcher vessel is linked to that new processor in the following year, effectively switching processors without participating in the non-cooperative portion of the fishery. The effect of this provision is that less participation in the non-cooperative portion of the fishery may occur. This can have an impact on the success of bycatch management since the non-cooperative fishery is a derby fishery and harvesters in such a mode may be less likely to fish cleanly. However, the logistics of a mothership sector operation may mean that the potential for a catcher vessel in a non-cooperative fishery to race for fish (and therefore not fish cleanly) is minimized if that catcher vessel is attempting to establish a new linkage with a mothership. This concept was discussed in the above sub section. A catcher vessel in the non-cooperative fishery attempting to establish a new linkage with a mothership would still need to operate alongside other catcher vessels that may be in a cooperative fishery but delivering to that mothership. In doing so, that non-cooperative fishery catcher vessel would be subject to delivery rotations and would need to travel with that mothership and the cooperative fishery catcher vessels as that mothership operation moves. Furthermore, a catcher vessel attempting to establish a new linkage with a mothership will undoubtedly take into account the needs of the mothership even while that catcher vessel is in a non-cooperative fishery mode where they are competing with other catcher vessels for catch. These conditions would tend to pace the fishing effort of the catcher vessel to some degree and result in less "irrational" behavior than may be theoretically expected.

Switching Motherships and the Requirement to Have Multiple Cooperatives are Substantially Related
If catcher vessels can switch processors by delivering the majority of their catch to another processor rather than fishing in the non-cooperative fishery, then the decision of whether to require multiple cooperatives around motherships can have a substantial effect. If a cooperatives can be formed around multiple processors, and catcher vessels can switch processors by simply delivering the majority of their catch to another processor in a year, then the effect of a processor tie may be substantially reduced. Under this scenario, a catcher vessel could enter into a lease agreement with another catcher vessel that is

linked to another mothership. If deliveries from that catcher vessel to that other mothership constitute the majority of that vessel's catch, then the catcher vessel (and associated catch history) would be linked to that new mothership in the following year. This provides little disincentive to a catcher vessel considering the possibility of switching motherships and substantially reduces the effect of a processor tie. The outcome is one where catcher vessels have substantially more leverage in negotiations over prices and other matters. Some processor leverage could be established if cooperatives are required to form around the mothership to which they are tied and even more processor leverage could be established if catcher vessels must fish in a non-cooperative fishery to switch processors.

- Summarization of the Effect of Processor Ties on Mothership and Catcher Vessel Relations and Profit Sharing

In summary, a cooperative system with processor ties should theoretically result in two powerful entities negotiating over profits in the fishery. The outcome is likely to be one where the operation of the mothership and the catcher vessel resemble the operation of a vertically integrated firm, and profits are shared between the harvester and processor. Furthermore, when combined with processor limited entry and a mutual agreement exception, linkages decrease the amount of competition among processors and make it possible for the processing sector to rationalize itself and to match the amount of processing capital in the fishery to the whiting OY.

If processor tie provisions are less than 100 percent, harvesters are likely to experience greater negotiation power over mothership processors when negotiating over profits. As the tie provisions decrease from 100 percent, negotiation power on the part of harvesters is likely to increase.

If harvesters are able to switch processors without participating in the non-cooperative portion of the fishery, processor switching may be more likely, reducing the certainty that processors have over future deliveries, increasing the negotiation power that catcher vessels have over profit sharing arrangements, and therefore skewing profits more toward the harvesters favor. However, not requiring that catcher vessels participate in the non-cooperative fishery in order to switch processors is likely to lead to fewer occurrences of vessels in the non-co-op fishery. While theory would suggest that minimal participation in the non-cooperative fishery will improve the performance of the fishery, the effect of processor linkages may carry into the non-cooperative fishery and influence catcher vessel behavior in that fishery. The likely result is a more measured pace of fishing among non-cooperative fishery participants than theory would suggest. However, it is still likely that the non-cooperative fishery will have a lower degree of economic, bycatch, and general fishery management performance compared to the cooperative fishery.

If catcher vessels catch switch processors without participating in the non-cooperative fishery as described above, and single cooperatives can span multiple motherships, then the effect of the processor tie may be minimal. Through simple leasing of catch histories, catcher vessels can move processors by "delivering the majority of their catch" to another processor in a year through that lease agreement. The result is one where the processor tie may be largely ineffective in helping processors benefit from rationalization, but on the other hand, is likely to result in greater economic benefits and flexibility to harvesters.

Method of switching motherships	Effect on Catcher Vessel	Effect on Mothership
Requirement to fish in non-co-op fishery	Results in less negotiation power over prices and other aspects of mothership/CV relationship	Provides motherships relative certainty over future deliveries and some leverage over negotiations with CVs
Can switch motherships by fishing unlinked catch history of other co-op participants	Increases CV negotiation power over prices and other aspects of mothership/CV relationship	Reduces certainty over deliveries and minimizes leverage over negotiations with CVs
Can switch motherships by leasing a catcher vessel's catch history that is linked to another mothership	Increases CV negotiation power over prices and other aspects of mothership/CV relationship to a greater degree than above method	Minimizes the potentially beneficial outcome processors may realize from processor ties

- Formation and Modification of Processor Ties

Each option for tie formation creates a relationship between a catcher-vessel and a mothership based on patterns that exist prior to the implementation of a rationalization program. Implementing a system that maintains past relationships between harvesters and motherships may ease the transition from status quo management to a rationalized fishery. However each of these options may result in some implications that, although short term, may have mixed effects.

Option 1 has potential benefits in that it maintains the most recent relationships between motherships and catcher-vessels, and therefore the transition from status quo management to a rationalized fishery may be made easier, at least theoretically, by option 1. However, option 1 may inadvertently result in a race for catch history among motherships in the year immediately prior to the implementation of the rationalization program. This could mean that harvesters receive higher prices for their fish in the year immediately prior to the rationalization program, but it also may end up stimulating race for fish conditions in the mothership sector above those which already exist. Futhermore, those vessels that are less active in the fishery but stand to gain catch history because of historic participation in the fishery will find it necessary to participate in the fishery prior to rationalization in order to establish a processor linkage. Such participation by participants relatively unfamiliar with the fishery may make bycatch management in the fishery in the year prior to rationalization problematic. However, a failure for these participants to make a delivery to a mothership prior to rationalization may mean that participation in the non-cooperative portion of the fishery is necessary for these vessels to establish a linkage with a mothership and participate in a cooperative. Option 4 is likely to result in the same outcome, except that the competitive behavior described above would tend to occur in 2009.

Potential ways of avoiding such a scenario are to allow vessels that do not fish in the year prior to rationalization, or in 1999, to establish a linkage with a mothership through a mutual agreement at the start of the program. A second method is to allow vessels that do not fish in the year prior to rationalization to join a cooperative and to deliver to a mothership of its choosing in the first year of the rationalization program. The processor linkage would be established in the second year of the program based on the mothership which that vessel delivered the majority of its catch in the first year of rationalization. This type of situation would avoid the race for fish potential in years prior to rationalization as well as avoid the relatively high rate of participation in the fishery by unfamiliar operators in years prior to implementation. The outcome may be more successful management of bycatch in years prior to implementation of a rationalization program.

Options 2 and 3 implement a program that maintains historic relations between motherships and catcher-vessels, however these historic delivery patterns will be several years removed by the time a rationalization program goes into effect. If the rationalization program goes into effect in 2011 for example, option 2 would be 7 years removed, while catch patterns under option 3 would be 8 years removed. These options may not result in the possibility of race for history conditions like under option 1, but the relationships established under options 2 and 3 may not be the same as those that exist immediately prior to the implementation of a rationalization program, potentially making the transition to rationalized fishery conditions somewhat difficult.

- Mothership Permit Transfers

Maintaining the mothership tie between catcher-vessels and motherships during the transfer of a mothership permit provides additional certainty to the purchaser of the mothership permit and increases the certainty a potential buyer has regarding the expected returns associated with that permit. This also provides a mechanism for mothership entities to trade linked catch history among one another, and if permits are stacked on more than one mothership, to allow for consolidation in the processing portion of the fishery.

As stated previously, constructing a cooperative-based system with processor ties implicitly makes mothership interests part of the harvesting activity. This implicit interest becomes evident because of the relationships that exist between the owner or operator of the catcher-vessel and the owner or operator of the mothership. When a new owner acquires a mothership permit, that owner's interests will influence the relations between the catcher-vessel and mothership. If interests and objectives are similar to the old owner of the mothership permit, then the transition from the old mothership permit owner to the new mothership permit owner - and the effect that transition has on linked catcher-vessels – may be relatively seamless. However, if the new owner of the mothership permit has substantially different interests and objectives than the old owner of the mothership permit, then the sale of a mothership permit may cause some adverse effects on catcher-vessels linked to that permit and make the transition to the new owner somewhat difficult. Since linkages make processing interests implicit in the behavior of cooperative members, a difficult transition could adversely affect the operation of a cooperative.

- Flexibility in Meeting Processor Tie Obligations

If CV(MS) permit owners transfer catch privileges to another participant in the same co-op, or one co-op establishes an inter-cooperative agreement with another cooperative to transfer catch, then the original processor tie obligation still remains. Requiring that the original tie be adhered to retains the mothership's expected deliveries and allows processors to realize other benefits from rationalization described previously, while also allowing harvesters the flexibility to share and transfer catch history in order to maximize harvest potential and net revenues.

♦ *Mutual Agreement Exception*

By mutual agreement the processor tie can be broken temporarily. If both the CV(MS) permit owner and the mothership agree, then the catcher-vessel may deliver its catch to another mothership. This mutual agreement exception is temporary and allows catcher-vessels to deliver to another mothership if a case arises where the original mothership does not elect to participate in the fishery. The fact that the mutual agreement exception is temporary means that the future expectation of catch being received by the first mothership can still be reasonably expected if that mothership returns to the fishery.

This mutual agreement exception allows capital in the processing portion of the fishery to be more in line with the available harvest in the fishery. This is due to the fact that processors with linkages to catcher vessels do not fear losing those catcher vessels if they can temporarily release them to another mothership through that mutual agreement. This means that the processor linkage is somewhat "defensible" even if the mothership does not participate in the fishery. The presence of this defensibility means the mothership is at a minimized risk of losing linked catcher vessels and can elect to not participate in the fishery during years where the available harvest of whiting is low. Instead, some motherships may allow another mothership to take the deliveries of their linked catcher vessels. In effect, this allows the amount of capital in the processing side of the fishery to become more aligned with the available harvest, and this results in the minimization of processing costs (relative to the available harvest) and enhanced efficiency. If such a mutual agreement does not exist, it would be more likely that all motherships would be engaged in the fishery in each year, at times leading to excess processing capacity and cost inefficiencies. Inversely, if motherships did not participate in the fishery and a mutual agreement provision does not exist, catcher vessels linked to that mothership may be required to fish in the non-cooperative fishery, though not necessarily (the reader is referred to the next section on processor withdrawal for further discussion of this topic).

In the event that a processor withdrawal would otherwise require catcher vessels to fish in the non-cooperative fishery to deliver to another mothership, then the mutual agreement exceptions allow catcher vessels to continue operating in cooperatives if a mothership does not wish to participate in the fishery. This would tend to maintain the benefits catcher vessels have from rationalization of the fishery.

- Mothership Processor Withdrawal

A mothership's withdrawal from the fishery without a permit transfer or without a mutual agreement exception can affect catcher vessels with catch history that is linked with that mothership's permit. Several options exist for catcher vessels that are linked with a mothership that withdraws from the fishery without transferring its permit or engaging in a mutual agreement exception. One option would require that the catcher vessel participate in the non-cooperative fishery. The second option would allow the catcher vessel to join another cooperative and deliver to another cooperative. Two sub-options to the second option exist in the event the original mothership returns. One option states that if the original mothership returns within two years, the original linkages would be re-established, while the other option states that the catcher vessel will be linked to a new mothership and will not be affected if the original mothership returns.

The effect of these provisions impact catcher vessel linked to the withdrawn mothership in several ways depending on the option. If the catcher vessel is forced to participate in the non-cooperative fishery, then the mothership withdrawal from the fishery effectively penalizes the catcher vessel because that vessel must fish in a competitive fishery. On the other end of the spectrum is the option which would allow the catcher vessel to stay within the cooperative fishery and deliver to a mothership of its choosing. This leaves the catcher vessel harmless, but it may mean that a catcher vessel is not as liable to engage in a mutual agreement if a mothership does not wish to participate in the fishery, but is seeking out a mutual agreement with a catcher vessel. If, for example, a mothership does not plan to participate in the whiting fishery and seeks out a mutual agreement with a catcher vessel, that catcher vessel may be more inclined to refuse any agreement. If that mothership then withdraws from the fishery anyway, that catcher vessel would then free to deliver to any mothership and be released from the linkages to the prior mothership. In the middle of the spectrum is one which would allow the catcher vessel to continue participating in the cooperative fishery if a mothership withdraws, but require that the original linkage be established if a mothership returns. This may make it more likely that both catcher vessels and motherships would seek out mutual agreements in good faith because they would both expect to be re-linked in the future if a

mothership withdraws from the fishery. However, this option would not penalize the catcher vessel if the mothership withdraws from the fishery. Therefore, option 2a for mothership withdrawal may help maintain good faith in relationships between catcher vessels and motherships (and good faith in dialog over mutual agreement exceptions) while avoiding any penalizing impacts on catcher vessels in the event a mothership withdraws from the fishery.

B-2.5 NMFS Role

B-2.5.1 Permit and Endorsement Issuance

NMFS will issue all necessary permits and endorsements under the rules specified under this program. Appeals processes will be provided as appropriate and necessary.

B-2.5.2 Fishery Registration and Co-op Approval

NMFS will announce a deadline before which all co-op agreements must be received for the coming year. NMFS will review and approve or reject co-op agreements based on standards provided here and other standards which it deems necessary to achieve the policy intent of the Council's actions.

B-2.5.3 Annual Allocation to Co-ops and the Non-co-op Fishery

a. **Co-op Allocation.**
Each year NMFS will determine the percent of the mothership sector's harvest allocation to be given to each co-op based on the catch history calculation of CV(MS) permits registered to participate in the co-op that year. NMFS does not allocate to the individual permit holder, rather, allocates an aggregate amount of harvest tonnage annually to the co-op, based on the catch histories associated with the members of the co-ops.

b. **Non-co-op Allocation.**
Each year NMFS will determine the distribution to be given to the non-co-op fishery based on the catch history calculation of permit holders registered to participate in that fishery.

c. **Adaptive Management Allocation**
In determining the amounts available for co-ops and the non-co-op fishery, subtractions will be made, as necessary for the adaptive management set aside described in Section B-1.6.

B-2.5.4 Fishery Management and Co-op Monitoring

a. NMFS will track all permit and endorsement transfers (if endorsement transfers are allowed) and the invocation of mutual agreement exceptions. Permit and endorsement transfers will not be valid until registered and acknowledged by NMFS.
b. NMFS will monitor catch and close segments of the fishery as necessary to ensure catch limits are not exceeded for:
1. the whiting mothership co-op fishery
2. the whiting mothership non-co-op fishery
3. the mothership whiting sector as a whole
c. NMFS will not necessarily monitor but will investigate and enforce as it deems necessary the permit and co-op obligations to processors
d. NMFS will not necessarily monitor or enforce (except as it deems necessary)
1. an individual permit's progress towards its catch allocations (permit level catch

control will be at the co-op level and enforced through execution of the private contract)
2. a co-op's progress toward its catch allocation[14]
3. actual performance on the co-op agreement (the parties to the contract will resolve through private contract and remedies any deviation from provisions such as that requiring that a vessel have the opportunity to harvest the catch allocated to the co-op based on that vessel's permit, Section B-2.3.3.c)

e. NMFS will monitor other program provisions as needed. In some situations, there may need to be a declaration procedure for determination where a permit is delivering its obligated catch, for example, if a mothership withdraws without transferring its permit or reaching a mutual agreement for the transfer of obligated deliveries to a different mothership.

f. NMFS will administer the adaptive management program, allocating the set aside for that program as needed based on the adaptive management goals, objectives and adjustment measures recommended by the Council.

❖ Rationale, Policy Issues, and Analysis

The current Pacific whiting fisheries are managed at the sector and fleet level. Managers monitor fleet harvests attempting to time their closure announcement with either the full harvest of the sector allocation of OY, or the attainment of a common bycatch limit (beginning in 2009, bycatch limits will be managed at the sector level). The level of management specified in the mothership sector cooperative alternative would require that the agency monitor catches at a lower, cooperative level, and take action when a cooperative, or inter-cooperative, is projected to reach its allocation. Furthermore, season timing is expected to change under rationalization and agencies will need to modify resources to monitor the fisheries over different time periods than what occurs under status quo.

The implementation of a cooperative system for the mothership sector will require that agencies develop resources necessary for reviewing cooperative agreements, developing infrastructure and programming necessary for estimating the collective catch history of various cooperatives, estimating the amount of catch each cooperative is available to catch each year, and debiting the appropriate amount of catch from the various cooperative pools as the fishery progresses.

The role of the NMFS as specified in the options assures that the agency remains in a relatively strong position over the management of fishery resources and assures that the objectives of the Council are being met by participants in a cooperative-based fishery.

In order to administer the program effectively, it is necessary to establish a date by which cooperative agreements must be submitted and participants must state their intention to fish in a cooperative or in the non-cooperative portion of the fishery. Establishing a date by which such filings must be made allows the agency the time necessary to review and approve/disapprove cooperative agreements prior to the start of the fishery and set up the appropriate systems for tracking catch and managing the fishery.

B-3 Whiting Shoreside Sector Co-Op Program

The cooperative alternative for the shoreside whiting fishery is identical, in many respects, to the mothership sector alternative which was analyzed in the previous section. Therefore, analyses of many elements of the shoreside whiting alternative are not repeated here. However, some differences do exist

[14] This assumes that there is an inter-co-op agreement in place that covers the entire co-op fishery. If such an agreement is not in place covering both catch and bycatch, NMFS may need to monitor catch by each individual co-op (but not by the individual vessels in the co-op).

between the shoreside whiting alternative and the mothership whiting alternative, most notably in the processor licensing and linkage provisions. The principal differences between the shoreside whiting cooperative proposal and the mothership proposal include:

- Shoreside processor licenses expire after two years
- Shoreside processor linkages may link a catcher vessel to more than one processor
- Any shoreside processor may receive deliveries from vessels in the non-cooperative fishery during the first two years of the program
- The number of years a catcher vessel must participate in the non-cooperative fishery in order to break a processor linkage may be one to five years.

The effects of a shoreside whiting cooperative alternative may differ from the effects of a mothership whiting cooperative alternative, particularly when considering the behavior of catcher vessels in a non-cooperative fishery. This is due, in large part, to the characteristics and logistical differences that exist in the shoreside and mothership sectors of the whiting fishery. Much of this difference was illustrated in previous sections at the start of this document, so these effects are mentioned only briefly here:

- Participation in a non-cooperative portion of the fishery may be more frequent in a shoreside cooperative program than a mothership cooperative program. This appears to be the case because of the apparent frequency at which shoreside catcher vessels tend to switch processors under status quo conditions. If this frequency underlies motivation for switching processors under a cooperative fishery, the result may mean more frequent participation of shoreside catcher vessels in a non-cooperative fishery. This can have implications for economic performance of the sector as a whole and for management concerns if behavior in such a fishery is less "rational" and leads to higher bycatch than in the cooperative side of the fishery.

- The relations that exist between mothership catcher vessels and mothership processors may temper the behavior that catcher vessels in the non-cooperative portion of the fishery have in that sector. This may mean greater economic and bycatch performance in the mothership non-cooperative fishery than pure theory would indicate. It is possible that such a tempering effect exists in the shoreside fishery as well, but information indicates that it may not exist to the same degree in the shoreside whiting sector, if at all.

- When the above factors are combined with a requirement that a shoreside catcher vessel may need to participate in the non-cooperative fishery for more than one year in order to switch processors, the economic and bycatch performance of the shoreside fishery as a whole is likely to be less than the performance of the mothership fishery operating under a similar cooperative structure.

Before considering the particular elements of the shoreside whiting cooperative program that differ from the mothership cooperative program, it is important to point out several factors that are related to the decision of whether to manage the shoreside sector with cooperatives. These include:

- Shoreside processor licensing and linkages do not appear to be authorized under Magnuson-Stevens Act. This differs from the mothership sector because a legal opinion has identified mothership operations as fishing whereas shoreside processing is not defined as fishing.
- The selection of harvest cooperatives as a tool for rationalizing the shoreside whiting fishery necessitates the selection of four distinct trawl sectors as opposed to three trawl sectors (which would be possible if the shoreside whiting and non-whiting sectors were both managed with IFQs).

B-3.1 Participation in the Shoreside Whiting Sector

a. Catcher Vessels

Vessels with CV(SS)-endorsed permits may participate in either the co-op or non-co-op portion of the shoreside fishery. They will choose annually which portion of the fishery they will participate in for the coming year. Additionally, any groundfish LE trawl permitted vessels may participate in the co-op portion of the fishery if they join a co-op (as described in Section B-3.3.3).[15] No other catcher vessels may participate in the shoreside whiting sector.

b. Processors

Any processor may receive fish from vessels participating in the shoreside non-co-op fishery. In the first 2 years, only co-op qualified shoreside processors[16] that have declared their intent to participate may receive deliveries from catcher vessels in a shoreside co-op (Section B-3.3). Thereafter, any shoreside processor may receive deliveries from co-ops.

c. Catcher Vessels and Processors in the Nonwhiting Fishery

This program does not affect vessels or processors receiving whiting taken incidentally in the nonwhiting fishery.

B-3.2 Permits/Endorsement Qualification and Characteristics

B-3.2.1 Catcher Vessel Shoreside Whiting Endorsement (CV(SS) Endorsement)

a. Endorsement Qualification and History Assignment

Permits with a qualifying history will be designated as CV(SS) permits through the addition of a CV(SS) endorsement to their LE groundfish permit. At the time of endorsement qualification, each permit will also be assigned a catch history that will determine the share of the shoreside whiting allocation associated with that permit.

Qualifying for a CV(SS) Endorsement. A LE permit will qualify for a CV(SS) endorsement if it has a total of more than 500 mt of whiting deliveries to shoreside processors from 1997 through 2003.

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[15] When such permits participate in a co-op the co-op will not be allocated any additional fish based on participation by such a vessel.

[16] **A shoreside processor** is an operation, working on U.S. soil, that takes landings of trawl-caught groundfish that has not been processed at-sea or previously processed shoreside, and that thereafter subjects those groundfish to shoreside processing. Entities that received fish that have not undergone at-sea processing or shoreside processing (as defined in this paragraph) and sell that fish directly to consumers shall not be considered a processor for purposes of the shoreside co-op program.

"Shoreside processing" is defined as any activity that takes place shoreside; and that involves:

a) cutting groundfish into smaller portions; or
b) freezing, cooking, smoking, drying groundfish; or
c) packaging that groundfish for resale into 100 pound units or smaller for sale or distribution into a wholesale or retail market.

Catch History Assignment. An initial calculation will be used to determine NMFS's distribution to co-op and non-co-op fishery pools. A CV(SS) permit calculated landings history will be based on whiting history during the related permit's best 6 out of 7 years from 1997 through 2003. (Note: for vessels qualifying in both the shoreside and mothership co-op programs, the same year must be dropped.)

For the purpose of the endorsement and initial calculation, landing history associated with the permit includes that of permits that were combined to generate the current permit.

c. Accumulation Limits

CV(SS) Permit Ownership. No individual or entity may own CV(SS) permits for which the allocation totals greater than 15 percent of the total whiting shoreside allocation.

❖ Analysis

A total of 54 permits have reported deliveries of shoreside whiting during the 1997 – 2003 window period. Of these, 45 permits have made landings larger than the 500 metric ton minimum for qualification of a CV(SS) permit. When examined on a year to year basis, the number or permits in the fishery is much smaller. During this period a range of 38 to 29 permits participated in the fishery in any given year. Of the 54 permits that reported deliveries between 1997 and 2003, only 15 reported deliveries of shoreside whiting in each of the 7 years. On average, the 54 permits reporting deliveries were active 4 out of the 7 years.

Table B-8. Summary statistics on shoreside whiting permit participation from 1997-2003.

Total number of permits reporting SS whiting deliveries (1997 – 2003)	Total number of permits delivering at least 500 metric tons (1997 – 2003)	Number of permits active in the fishery in any given year (1997 – 2003)	Number of permits active in all 7 years	Average number of years each permit was active in the fishery
54	45	29 to 38	15	4

The number of active permits in the fishery over the time period appears to be affected by the variations that existed in the Pacific whiting OY and the Pacific whiting market during that time period. During 2002 and 2003 the fewest number of permits were active in the fishery compared to the previous years and this was a time of relatively low whiting OYs and poor market conditions.

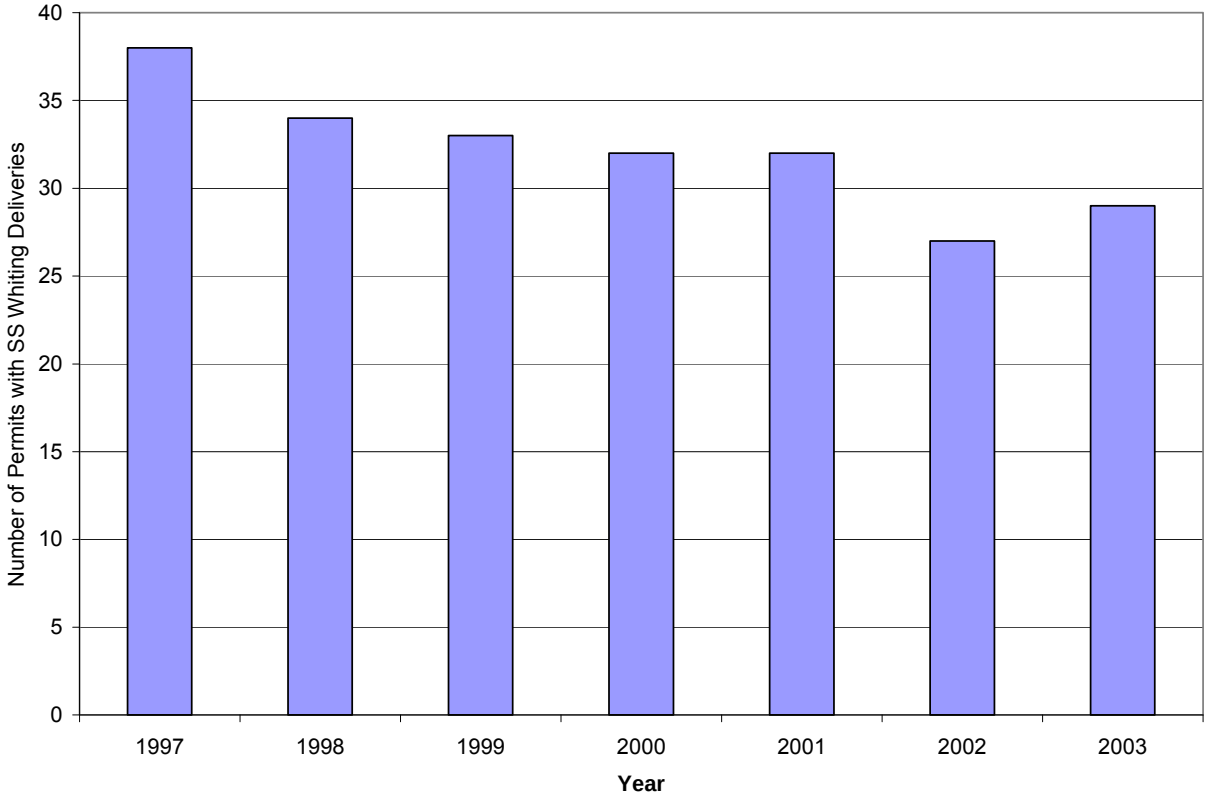


Figure B-5. Number of permits reporting shoreside whiting deliveries by year.

The following table is a more detailed set of information indicating the years particular permits have participated in the fishery and whether or not those permits qualify under the year and minimum metric tonnage criteria. This information includes data through the year 2006. From this data it is apparent that several permits recently entered the fishery (in 2006) that would not qualify and this is most likely due to the improvement in market conditions for Pacific whiting.

Table B-9. Participation of limited entry trawl permits in the shoreside whiting fishery by year and qualification criteria.

		Year									
Qualification Category	Ad Hoc Permid	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	1										x
Does Not Qualify	2								x	x	x
	3										
	4							x			
	5										x
	6	x									
	7		x								
	8					x	x		x		
	9										x
	10					x					
	11			x							
	12		x								
	13	x									
	14	x									
	15										x
	16										x
	17				x	x					
	18										
Qualifies	19	x	x	x	x	x	x	x	x	x	x
	20	x	x	x	x	x	x	x	x	x	x
	21	x	x	x	x	x	x	x	x	x	x
	22	x	x	x							
	23	x									
	24	x	x	x		x		x	x	x	x
	25	x	x								
	26	x	x	x	x	x	x	x	x	x	x
	27						x		x	x	x
	28	x	x	x	x	x	x	x	x	x	x
	29	x	x	x	x	x	x	x	x	x	x
	30		x	x	x	x	x	x	x	x	x
	31	x	x	x	x	x					
	32	x	x	x	x	x	x	x	x	x	x
	33		x	x		x	x	x	x	x	x
	34	x	x	x	x	x	x	x	x	x	x
	35	x		x	x						
	36	x	x		x			x	x	x	x
	37	x	x	x	x	x	x	x		x	x
	38	x	x	x	x	x	x	x	x	x	x
	39	x	x	x	x	x	x	x		x	x
	40	x	x	x	x	x	x	x	x	x	x
	41	x		x	x	x	x	x	x	x	x
	42	x	x			x	x		x	x	x
	43	x	x	x		x	x	x			
	44					x	x	x	x	x	x
	45	x	x		x	x	x	x	x	x	x
	46	x									
	47	x	x	x	x	x	x	x	x	x	x
	48	x			x	x	x	x	x	x	x
	49	x	x			x		x			x
	50	x		x				x			
	51	x	x	x	x						
	52			x	x						
	53	x	x	x	x	x	x	x	x	x	x
	54	x	x								
	55	x	x	x	x	x	x	x	x	x	x
	56	x			x						
	57	x	x	x	x						x
	58			x	x						
	59	x		x	x	x	x		x	x	x
	60					x		x	x	x	x
	61		x	x	x	x	x	x	x	x	x
	62		x	x	x						
	63	x	x	x	x						

The effect of the catch history formula is relatively inclusive of past participants in the fishery. The majority of permits reporting directed landings of Pacific whiting qualify to receive catch history designations. The assignment of catch history to permits ranges from just under 6 percent of the shoreside allocation to approximately 0.1 percent of the shoreside whiting allocation. When examined on a business entity level, the high to low distribution is more pronounced with the largest entity receiving over 12 percent of the shoreside whiting allocation. This indicates that the accumulation limit may not be restrictive if compared to existing ownership, but when considering the possibility of fleet consolidation (making it likely that fewer entities will hold permits) the accumulation limits may become restrictive to some entities.

When examined next to the catch shares that have occurred over the 2004 to 2006 time period, the catch history assignments deviate substantially (in some cases) from the percent of catch generated by some permits during this period. This can be explained by the recent increase in interest in the whiting fishery, driven in large degree by improvements in market conditions, but also because several permits have not participated in the fishery in recent years.

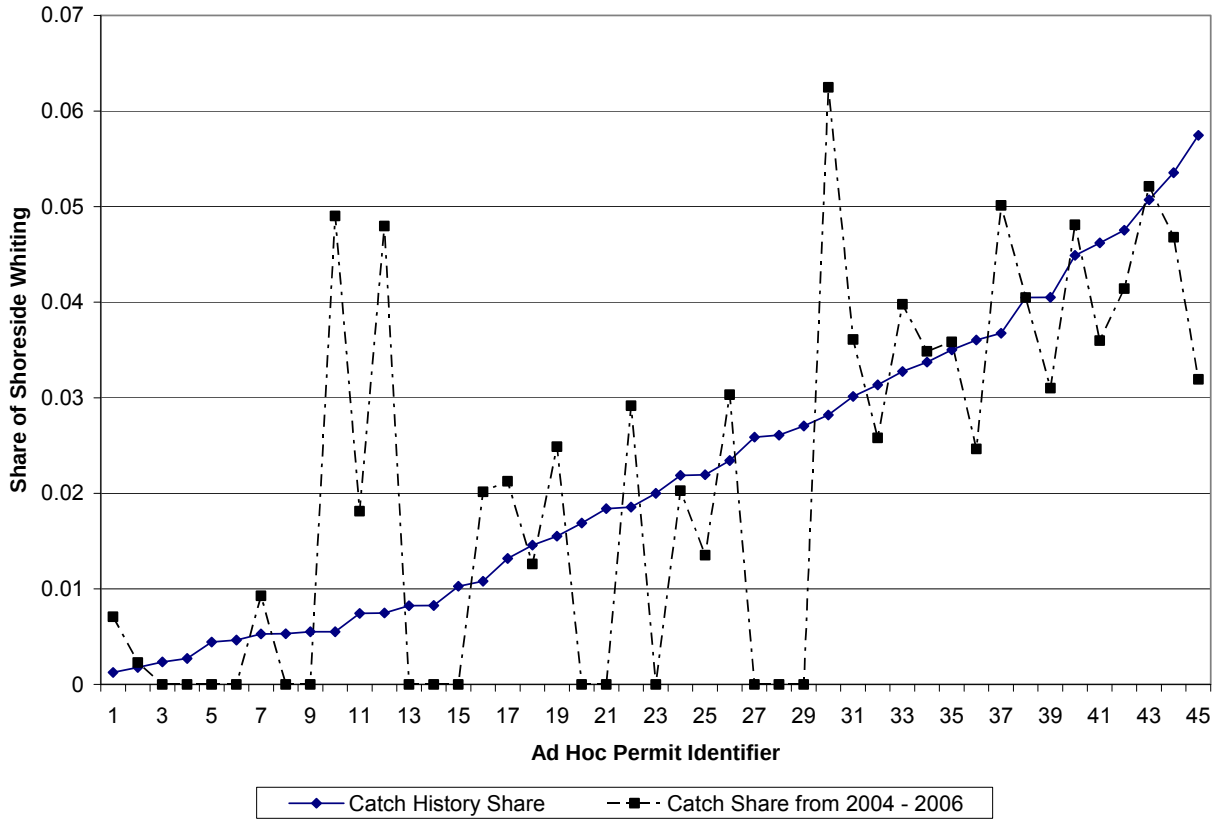


Figure B-6. Share of shoreside whiting allocated to permits.

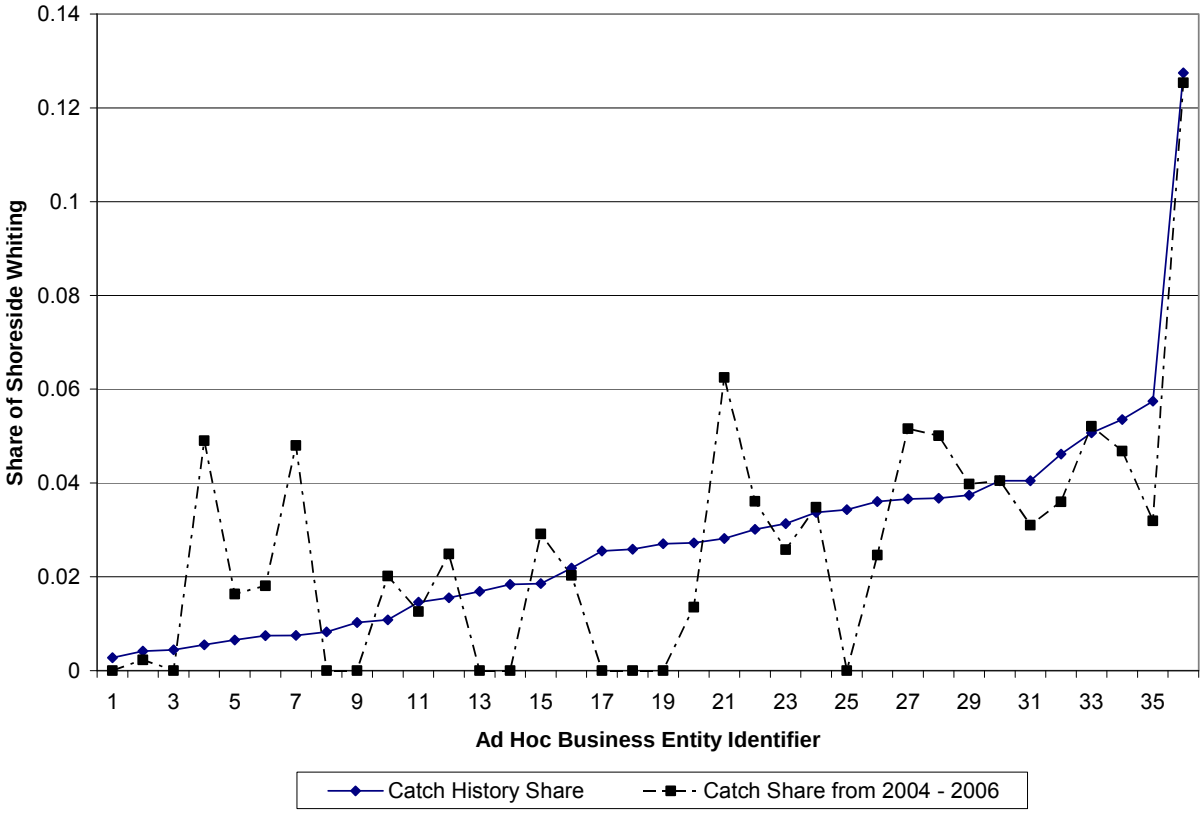


Figure B-7. Share of shoreside whiting allocated to business entities.

B-3.2.2 Shoreside Co-op Eligible Processor Permit

a. Activities Requiring this Permit

Only processing entities with a shoreside co-op processor permit (SSP) are eligible to receive whiting fish from whiting cooperatives in the first 2 years of the program. Thereafter, any processing corporation could be eligible to receive whiting from participants in a whiting cooperative, subject to the other provisions of this plan. Processors without SSPs may receive whiting from participants in the non-co-op fishery and whiting harvested incidentally in the nonwhiting fishery at any time, including within the first 2 years of the program.

b. Qualification Requirements

An initial co-op-qualified shoreside processing entity is one that processed at least 1,000 mt of whiting in each of any two years from 1998 through 2003.

d. Duration of this Section

Since SSP permits are only in effect for the first 2 years of the program, this section is also in effect only for the first 2 years of the program.

❖ Rationale and Policy Issues

The justification for processor licensing is so that the interests of processors are protected when the fishery moves to rationalization. Such licensing would restrict the ability for new processor participants to come into the fishery and compete with existing processors which may tend to result in excess processing capacity. Limiting this competition would tend to protect the interests of existing processors for several reasons including; A) volume per processor would not risk being diminished due to new processors entering the fishery, and B) fewer numbers of processors would tend to enhance processor leverage during negotiations over exvessel prices and other matters.

The licensing restrictions described here, which are only in effect for two years, were originally meant to serve the role of a transition period for processors with the idea that processors would have ample time to adapt and change business plans to work with the newly rationalized fishery. The original intention of the two year time limit established as part of the licensing program was based on the notion that such a provision may be able to be implemented under the authority of the Magnuson-Stevens Act; however it appears that is not the case.

❖ Analysis

The effect of processor licensing would be relatively inclusive of those processors that have participated in the fishery on a relatively steady basis, but would exclude many processors that have not participated in more recent years, or have recently entered into the fishery. In total, 18 companies have participated in whiting activity, with 3 non qualifying companies participating in 2006. Under the qualification criteria, 8 processing companies would receive licenses to process shoreside whiting. This information is illustrated in the table below.

Table B-10. Shoreside whiting processing company participation by year and qualification criteria.

Qualification Filter	Ad Hoc Processor ID	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Qualifies	A	x	x	x	x	x	x	x	x	x	x	x	x	x
	B	x	x		x	x	x	x	x	x	x	x		
	C	x	x	x	x	x	x	x	x	x	x	x	x	x
	D	x	x	x	x	x		x	x		x	x	x	x
	E	x	x	x	x	x		x	x	x	x	x	x	x
	F				x	x	x	x	x	x	x	x	x	x
	G					x	x	x						
	H	x	x	x	x	x	x		x					
Does not qualify	I													x
	J													x
	K			x										
	L		x	x	x									
	M										x			x
	N							x						
	O	x	x	x	x	x	x	x	x					
	P	x	x	x										
	Q								x					
	R					x								

In general, instituting processor licensing and linkages allows the processing sector to rationalize itself to some degree and generate higher levels of revenue than would be the case without such provisions. This topic was discussed in more detail in previous sections describing the effect of this provision on mothership processors. When processor licensing requirements are only in effect for two years, the ability for processors to realize some gains as a result of rationalization will begin to erode at the end of that two year window, and that erosion should occur gradually over time. After those licensing provisions expire, processor engagement in the fishery will almost certainly change. Competition among processors should be expected to increase over time as new companies enter the fishery, the amount of capital processing Pacific whiting may increase if new processors enter into the processing sector, and catcher vessels may assume greater leverage in negotiations with processors over prices and other matters as a result of that competition among processors. The result is likely to be one where processors assume less revenue from processing activity over time compared to a case where processor licenses are in effect over the long term. As a result, the expiration of processor licenses is likely to mean that processors will not benefit as greatly from rationalization of the fishery compared to a case where processor licenses exist over the long term.

B-3.4 Processor Ties

B-3.4.1 Initial Formation of Ties

During the first 2 years of co-op formation, permit owners that join a co-op shall be required to deliver their whiting catches to the co-op qualified processors that were the basis of their landing history during the period:

Years Option 1: **2001**
Years Option 2: **2000**
Years Option 3: **2000-2003**

on a pro rata basis. Determination of the processor(s) to which a permit owner is obligated will take into account any of the processor's(s') successors in interest.

□ *Note: Several permits would not be tied to processors under the above options. It is unclear how ties would be established for those permits*

Processor Successor In Interest. In determining the processor to whom a permit owner that participates in a co-op is required to deliver in the first 2 years of the program, a processor's successor in interest will be taken into account. If a processor's assets were purchased and the landing history expressly identified as an asset in the purchase agreement, then any permit owner obligation based on those landings will accrue to the processor making the purchase. For landings history associated with a defunct or non-qualifying processor, that portion of a permit's allocation will be linked to the permit's initially-assigned landing history on a pro rata basis.

B-3.4.2 Duration and Modification of Processor Ties (Options 1 and 2)

A permit's obligation to a processor will remain in place from one year to the next unless modified through the following process.

Option 1: Once a CV(SS) permit has participated in the non-co-op fishery for [***Options: 1 to 5 consecutive years***], it is released from its delivery obligations to the processor(s) that were the basis of its history, and may join any of the various co-ops, or join with other permit holders who have also been released from delivery obligations to form a new co-op, and deliver to any shoreside processor in the subsequent years after the SSPs have expired.

Option 2: Any CV(SS) permit participating in a co-op is linked indefinitely to the processor they are delivering to under the initial linkage requirements. The permit can sever that linkage by participating in the non-co-op fishery for a period of [***Options: 1 to 5 years***] years. After completing their non-co-op obligation, the permit is then free to re-enter the co-op system and deliver to a processor of their choosing. Once the permit re-enters the co-op system and elects to deliver their fish to a processor, a new linkage is then established with that processor. Should the permit later choose to break that new linkage, the non-co-op participation requirements again apply.

Should a permit elect to enter the non-co-op fishery within the first two years of this program, that permit must participate in the non-co-op fishery for a minimum of [***Options: 2 to 5 years***], regardless of other non-co-op participation requirements applying elsewhere in this document. Once the permit meets that obligation and later elects to enter a co-op, all provisions of co-op participation, including the processor linkage provisions, apply.

❖ Interlinked Elements

The possibility that a catcher vessel could be linked to more than one processor potentially creates complexities in bycatch management and in breaking and establishing new linkages with processors.

If a catcher vessel is linked to more than one processor and the fishery is closed upon attainment of a bycatch limit, there may be conflict over whether a permit's obligations to various processors have been met. At this time it is unclear whether a processor could seek compensation from a harvester if a harvester is tied to more than one processor, but fails to deliver the specified proportion of deliveries to all obligated processors. Even if a processor could not seek such compensation, being tied to multiple processors may still create unintended consequences. If processors believe there is likely to be a premature closure of the fishery because of the attainment of a bycatch limit, those processors may fight over the timing of deliveries from that catcher vessel, resulting in a variety of effects outlined in more detail in the analysis section of this element.

Modifying and breaking processor ties are related to the possibility of a catcher vessel being linked to more than one processor. If a catcher vessel desires to break a tie with one of its linked processors, that catcher vessel would need to undergo the same action as if it wanted to break ties with all linked processors by fishing in the non-cooperative fishery. Furthermore, when a new tie is established, that catcher vessel will only be tied to a single processor. This means that if a catcher vessel wants to break a tie with a single processor, it would need to fish in the non-cooperative fishery and the participation of that catcher vessel in the non-cooperative fishery would put all processor ties connected to that vessel at risk. Therefore, the relationships between one processor and that catcher vessel may indirectly affect the ties that exist between that catcher vessel and other processors.

❖ Rationale and Policy Issues

The rationale for establishing processor ties is largely the same as that rationale found in the parallel section on the mothership alternative. The years for establishing processor ties in the shoreside sector are different from those years used in the mothership sector. The rationale for shoreside sector ties are based on the idea that the processors and harvesters engaged during each of the possible time periods for establishing linkages are the processors that have been most engaged in the fishery and/or elected to knowingly participate during years when conditions were poor. During the possible time periods for establishing ties, the market for whiting was depressed and the whiting OY was low. Initial ties based on

patterns during this period recognize the participation of processors that have consistently participated in the fishery, especially during times of relatively little economic benefit from participating in the fishery.

- Successor in Interest

The rationale for recognizing a successor in interest is that the purchase of assets by a processing entity may have included in the purchase price the historical involvement of that original processing entity in the fishery. If the buyer and the seller believe such historic participation may lead to the receipt of quota, a license, or processor linkages, that historic participation is likely to influence the sales price of those assets. In order to get a return on the investment made in those assets, it is therefore necessary for the successor in interest to be the recipient of the processor tie. Furthermore, recognizing a successor in interest of the processing assets would result in the recognition of the current owner of those assets, and this is consistent with the concept of granting quota share or catch history to the current owner of a limited entry trawl permit.

- Duration and Modification of Processor Ties

The rationale behind the requirement to participate in the non-cooperative fishery in order to break processor ties is largely the same as that rationale provided in the analysis of the mothership cooperative alternative. However, the shoreside whiting alternative includes a possible range of years (one to five) in which a vessel would need to participate in the non-cooperative fishery in order to break the processor linkage. Furthermore, if the vessel elects to break processor ties in the first two years of the program, that vessel would need to participate in the non-cooperative fishery for a minimum of two years. These years are intended to provide a range of possible disincentives to vessels for breaking ties. Requiring that vessels participate in the non-cooperative fishery for one year has the lowest relative disincentive (although that disincentive may be relatively large), while requiring that vessels participate for five years provides the highest degree of disincentive to a vessel that is considering breaking a tie with a processor.

❖ Analysis

- Initial Formation of Ties

The options for processor linkages result in a varying degree of linked catch history percentages to each qualifying processing entity. This information is shown in the figure below. Using the years 2000 – 2003 assures that all of the qualifying processors receive some linked catch history. Using 2000 or 2001 results in one qualifying processor not having linked catch history.

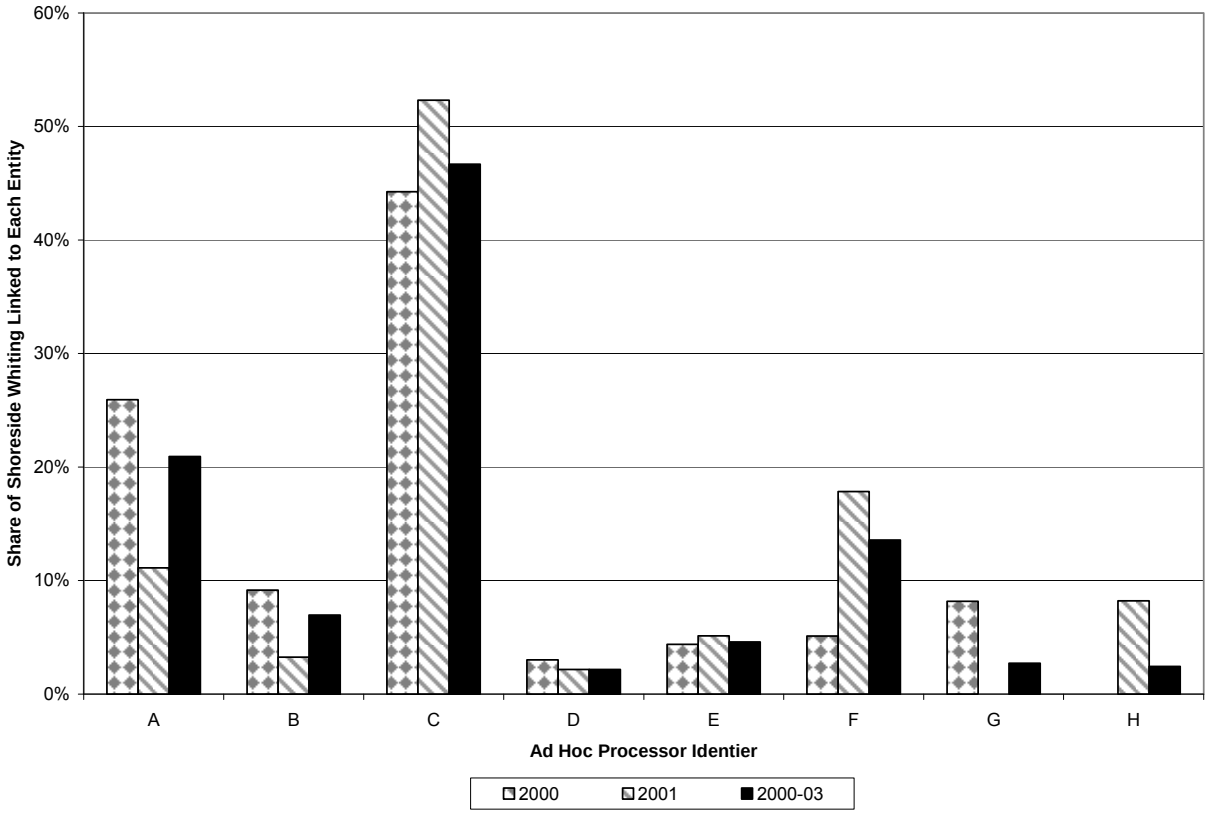


Figure B-8. Share of linked shoreside whiting catch history by processing entity and linkage formula.

The number of catcher vessels linked to each processing entity is shown in the following figure. Based on this information, the number of catcher vessels linked to each processing entity varies widely depending on the formula used for establishing initial linkages. In addition, catcher vessels can be linked to more than one processing entity if the 2000 – 2003 processor linkage formula is used. Using the other two linkage formulas means that those catcher vessels that have linkages established appear to only be linked to one processing entity. However, multiple permits that receive catch histories would not be linked to processors through application of the 2000 or 2001 processor tie formula. As illustrated previously, 45 permits would receive shoreside whiting catch histories, yet according to information shown below, 3 permits would not be linked through the 2000-2003 formula, 15 permits would not be linked through the 2000 formula, and 16 would not be linked through the 2001 formula.

The effect of choosing these years for establishing linkages means that linkages may be created for permits and processors that have had relationships prior to the implementation of a rationalization program. However, the years used for these linkage formulas may be more than 10 years old by the time rationalization is implemented, and if catcher vessels and processors have not had relations since that time, re-establishing them through a linkage provision may introduce disruption to the fishery. This can have important implications for a fishery managed with cooperatives as cooperatives rely heavily on relationships to operate successfully. Even though processors are not cooperative members (unless they own a permit which is part of a cooperative) the relationships between catcher vessels and processors may affect the way in which catcher vessels prosecute fishing activity.

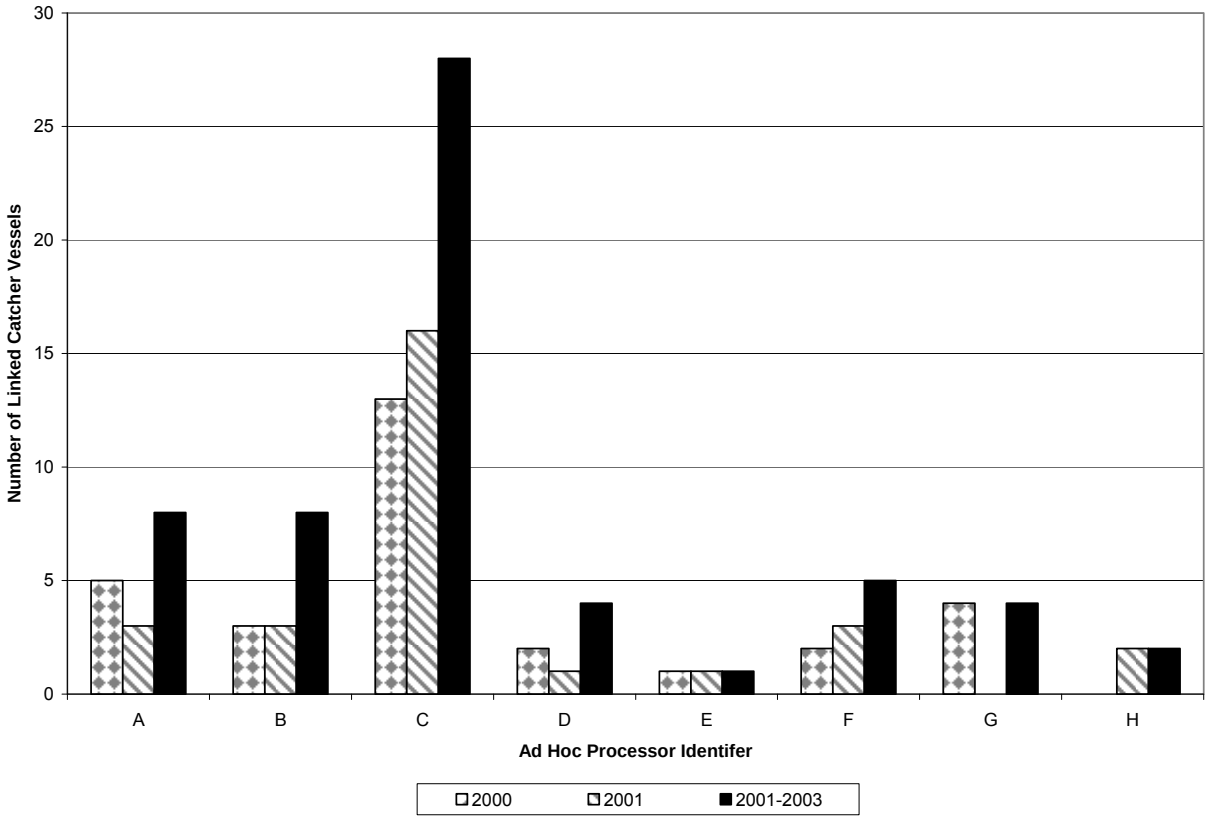


Figure B-9 Number of linked catcher vessels by processing entity and linkage formula

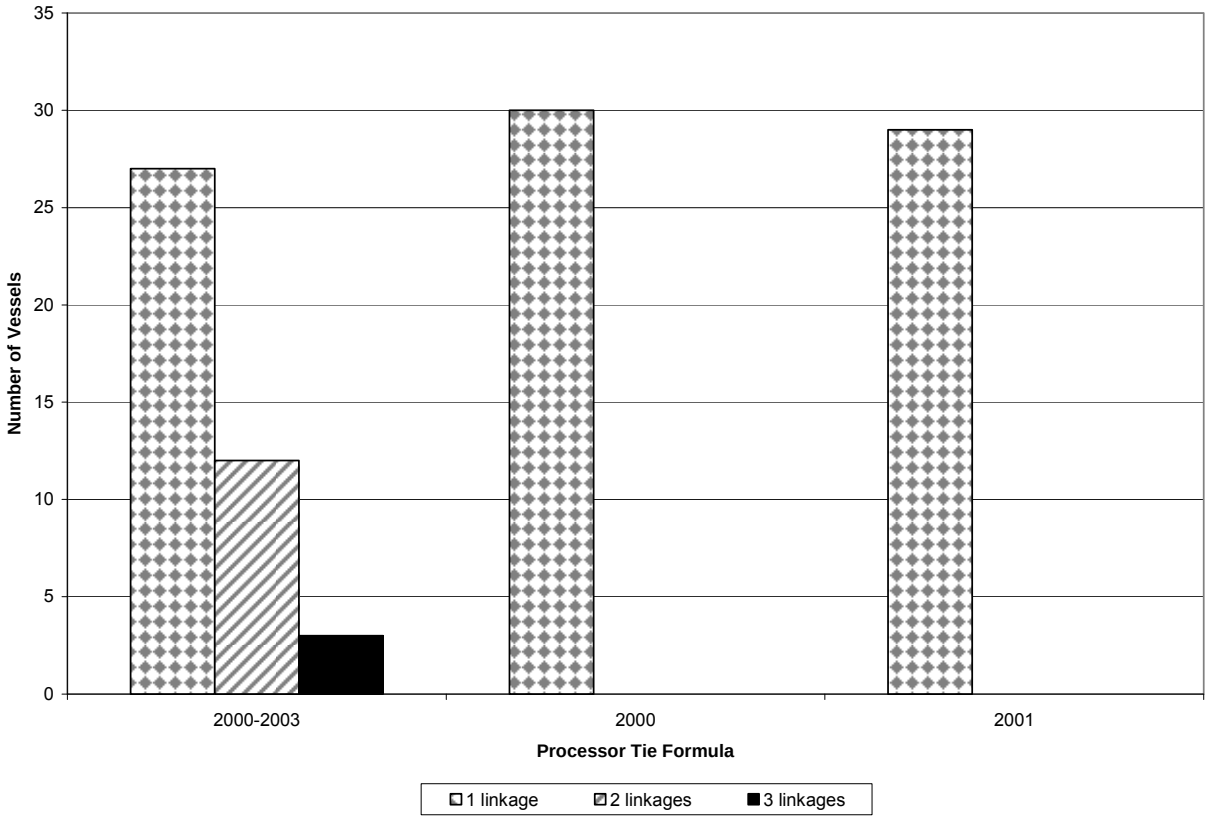


Figure B-10 Count of vessels by number of processing linkages and processor linkage establishment formula

♦ *Potential Implications of Having a Catcher Vessel Tied to Multiple Processors*

The possibility of having a catcher vessel tied to more than one processor means that the activities of one processor can put all processors tied to that catcher vessel at risk if that catcher vessel wants to abandon a tie with only one of those processors. In order to break a processor tie a catcher vessel would need to participate in the non-cooperative fishery, and when the catcher vessel rejoins the cooperative fishery, that catcher vessel will be tied to one processor. When that catcher vessel engages in the non-cooperative fishery, that catcher vessel could elect to permanently abandon ties with all of its tied processors and develop a tie with a completely different processor. In addition to this concept, establishing ties between a catcher vessel and more than one processor could mean that processors tied to that catcher vessel will try to influence delivery patterns in a way that benefits them. When there are more than one processors tied to that catcher vessel, this could result in processors competing over the timing of deliveries, especially if they are all interested in receiving deliveries during the same time window. In the worst case scenario, processors may desire to have their deliveries during a particular time window, and if the catcher vessel is pressured to a great enough degree by those processors, that catcher vessel may elect to engage in a type of race, or excessive effort, to accommodate and appease the multiple processors that are seeking deliveries during a specific time window. When compared to a case where a single processor is tied to a catcher vessel, the pressure that catcher vessel has to meet the desired timing of a single processor may be less than the pressure a catcher vessel has in meeting the desired timing of multiple processors.

In addition to the above examples, having catcher vessels tied to more than one processor raises several questions about what would happen in the event that a fishery is closed based on attainment of a bycatch limit before the sector allocation is reached. Closing on the attainment of a bycatch limit will mean that catcher vessels have not harvested their full quota for the year and this means that the deliveries various processors may have expected during the year would not be achieved. If a catcher vessel is linked to more than one processor, but delivers catch to only one processor prior to the closure of the fishery, other linked processors may not feel that their obligated deliveries have been received. This raises some questions about whether those processors would pursue some financial compensation from that catcher vessel since it will have delivered all of its catch to one processor even if it was scheduled to deliver to multiple processors later in the season. Even if this type of compensation cannot be sought, the fear of not catching quota or of receiving obligated deliveries may induce a race for fish spurred by the processors as well as the catcher vessel in order to catch their whiting quota before the fishery is closed. This is likely to have negative implications to the performance of the fishery.

- Duration and Modification of Processor Ties

The general rationale for allowing vessels to break processor ties by participating in the non-cooperative fishery is that it makes the processor ties voluntary to some degree while providing a strong incentive to keep processor ties in tact. It is acknowledged that participation in the non-cooperative fishery is less economically beneficial (and may indeed be costly) to those engaged in that mode. Furthermore, because of the structure of the fishery, participants in a non-cooperative mode may fish less carefully and this may result in higher rates of bycatch. Because of reasons explained in the introductory portions of this document, the potential for this type of behavior to occur may be higher for a non-cooperative fishery vessel in the shoreside sector than a non-cooperative fishery vessel in the mothership sector. This means that the requirement that vessels in the shoreside sector participate in a non-cooperative fishery to break a processor tie is likely to result in diminished economic and bycatch performance compared to a vessel in a cooperative fishery. When considering that a vessel may be required to participate in a non-cooperative fishery for several years in order to break a tie, the situation is exacerbated. The result of requiring that vessels participate in the non-cooperative fishery for several years in order to break a tie is likely to be one of much greater participation in that mode in any given year, resulting in lower economic benefits and diminished bycatch performance. This outcome would tend to be exacerbated as the required number of years of non-cooperative fishery participation in order to break a processor tie is increased.

- Implications of Multiple Years of Non-Cooperative Participation in Breaking a Processor Tie

In addition to the above factors, the ability for catcher vessels to realistically break a processor tie may be necessary for the successful operation of a fishery managed with cooperatives. As mentioned previously, harvest cooperatives are formed by harvesters and it is important to maintain this distinction in order for the fishery to operate successfully. It is ultimately the harvesters that eliminate the race for fish currently responsible for much overcapitalization and inefficiency, and it is ultimately the harvesters that achieve other benefits such as bycatch reduction.

Processor ties help ensure that processors benefit from rationalization, but the establishment of such ties implicitly make the processing entity an involved party in the fishing practices of the linked catcher vessel. This is because processor ties result in a type of mutual dependence on the part of the harvester and the processor, and the outcome is one where the activities of the harvester and processor take on the characteristics of a vertically integrated firm. Through these characteristics of vertical integration, the processor tie makes the processor an influential party in the harvesting activities of a catcher vessel. If a relationship between the catcher vessel and a processor become strained, this can have a negative effect

on the fishing practices of the catcher vessel, and this can mean less economic efficiency and less improvement in other management goals. It is because of this potential that the catcher vessel be able to break the tie. Being able to realistically break the tie and form a new tie with another processor allows catcher vessels and processors the ability to find other processors and catcher vessels with goals and similarities that make for the efficient operation of both the catcher vessel and the processor. Being able to establish ties between processors and catcher vessels that are similarly minded makes for a more efficient operation for both parties.

While processor ties provide a disincentive to vessels that are considering switching processors (and therefore help ensure that processors benefit from rationalization), switching processors must be a realistic possibility to those catcher vessels. This is necessary to ensure good faith and balanced relations between catcher vessels and processors and operating in good faith may be important to the overall economic health and performance of participants in the fishery. Good faith relations may be affected if a processor knows that a catcher vessel cannot realistically break the tie. This can result in increasing demands placed on a catcher vessel in the form of delivery timing, profit sharing, and other matters that may be at odds with other goals of that catcher vessel. If a catcher vessel is required to participate in the non-cooperative fishery for more than one year, it is likely that the ability to switch processors will become increasingly unrealistic, and at some point, switching processors may not be a realistic possibility at all, especially if participation in the non-cooperative fishery results in a loss of revenue.

B-3.6 Exclude Processor Ties and Processor Licensing (Option)

Option: Exclude from the above all references to processor ties and processor licensing.

This option includes the following changes to Section B-3:

Section B-3.1.b. Processors. Delete "non-co-op" from the first sentence and delete the remainder of the section. This section constrains processor participation in the first two years of the program.
Section B-3.2.2. Shoreside Co-op Eligible Processing Permit. Delete the entire section.
Section B-3.3.4 Annual Allocation transferability. Delete the last sentence (refers to the handling of permit obligations to processors when allocations are transferred).
Section B-3.4. Processor Ties. Delete the entire section.
Section B-3.5.2.b. Delete the entire paragraph (addresses preseason registration of processors with shoreside processing permits)
Section B-3.5.3.a. Delete the last sentence (refers to the NMFS need to make determinations on permit links to processors)
Section B-3.5.3.c. Delete "and co-op obligations to processors."

❖ Rationale and Policy Issues

Dropping processor linkages from the cooperative program is intended to serve as an analysis of a cooperative based fishery that can be implemented under the authority of the Magnuson Stevens Act. Based on input from NOAA General Counsel, the processor licensing and linkage provisions specified in earlier portions of this alternative are outside the existing authority of the MSA.

❖ Analysis

Processor licensing and linkages are a tool intended to protect the interests of processors that exist in the fishery. The lack of processor licensing and linkages would therefore be expected to have an opposite effect where processor interests are not protected. The expected outcome would be one where new processors may enter the fishery and processors would compete with one another for catch from catcher vessels. Processors would theoretically enter into the fishery as long as profits can be generated from doing so. The result may be one where there is more processing capital in the fishery than is necessary to process the available harvest. However, establishing a cooperative-based management program without processor ties is expected to result in efficiencies at the catcher vessel level from slower paced harvest activity and fleet consolidation, among other factors described earlier in this section and in Chapter 4. Furthermore, the lack of processor ties would tend to result in more processor competition than a case with processor ties and harvesters can use that competition to their advantage when negotiating over exvessel prices and other matters. The result is one where harvesters see benefits from increased cost efficiency and also from enhanced negotiation power over exvessel prices.

One additional outcome of not having a processor linkage provision is that the non-cooperative fishery may not exist. While catcher vessels could still elect to participate in the non-cooperative portion of the fishery, it is highly unlikely they would do so because catcher vessels would not need to break any processor linkages and because participation in the non-cooperative fishery is expected to be relatively inefficient. The lack of participation in the non-cooperative fishery may improve some management goals of the fishery related to management performance, bycatch performance, and economic efficiency.

B-4 Co-ops for Catcher-Processors

Catch by the catcher-processor sector will be controlled primarily by closing the fishery when a constraining allocation is reached. As under status quo, vessels may form co-ops to achieve benefits that result from a slower paced more controlled harvest. The main change from status quo is the creation of a limited number of catcher-processor endorsements. A new entrant will have to acquire a permit with a catcher processor endorsement in order to enter the fishery.

B-4.1 Participation in the Catcher-Processor Sector and Endorsement Qualification.

Catcher-Processor (catcher processor) Endorsement. The class of catcher processor endorsed permits (catcher processor permits) will be limited by an endorsement placed on a limited entry permit. Limited entry permits registered to qualified catcher-processor vessels will be endorsed as catcher processor permits. A qualified permit is one that harvested and processed in the catcher-processor sector of the Pacific whiting fishery sometime from 1997 through 2003. Only catcher-processor vessels with a catcher processor endorsed limited entry permit will be allowed to catch and process whiting at-sea. Limited entry permits with catcher processor endorsements will continue to be transferable.

Catcher processor Permit Combination to Achieve a Larger Size Endorsement. A catcher processor permit that is combined with a limited entry trawl permit that is not catcher processor endorsed will result in a single catcher processor permit with a larger size endorsement (a CV(MS) or CV(SS) endorsement on one of the permits being combined will not be reissued on the resulting permit). The resulting size endorsement will be determined based on the existing permit combination formula.

B-4.2 Co-op Formation and Operation Rules

No annual registrations or declarations are required. As under status quo, co-op(s) will be formed among holders of permits for catcher-processors. Participation in the co-op will be at the discretion of those permit holders. If eligible participants choose to form a co-op, the catcher-processor sector will be managed as a private voluntary cooperative and governed by a private contract that specifies, inter alia, allocation of whiting among catcher processor permits, catch/bycatch management, and enforcement and compliance provisions. Since NMFS will not establish an allocation of catch or catch history among permits, if any permit holder decides not to participate, the potential co-op benefits will diminish and a race for fish is likely to ensue. Similarly, if more than one co-op forms, a race for fish could likely ensue, absent an inter co-op agreement.

Annual Reporting Requirements. The catcher processor cooperative will submit an annual report to the Pacific Fishery Management Council at their November meeting. The report will contain information about the current year's catcher processor fishery, including the catcher processor sector's annual allocation of Pacific whiting; the catcher processor cooperative's actual retained and discarded catch of Pacific whiting, salmon, rockfish, groundfish, and other species on a vessel-by-vessel basis; a description of the method used by the catcher processor cooperative to monitor performance of cooperative vessels that participated in the catcher processor sector of the fishery; and a description of any actions taken by the catcher processor cooperative in response to any vessels that exceed their allowed catch and bycatch. The report will also identify plans for the next year's catcher processor fishery, including the companies participating in the cooperative, the harvest agreement, and catch monitoring and reporting requirements.

B-4.3 NMFS Role

B-4.3.1 Permit and Endorsement Issuance

NMFS will issue all necessary endorsements under the rules specified under this program. Appeals processes will be provided as appropriate and necessary.

B-4.3.2 Annual Allocation

Option 1: There will be no government-directed subdivision of the catcher-processor sector quota among participants.

► **Option 2:** Harvest amounts for the co-op will be specified in regulation. If the co-op breaks up, harvest will be divided equally among the 10 permits.

However, up to 10 percent of the allocation to the catcher-processor may be set aside as necessary for the adaptive management set aside described in Section B-1.6.

The catcher-processor sector allocation may be divided among eligible catcher-processor vessels (i.e., those catcher-processor vessels for which a CP permit is held) according to an agreed catcher-processor cooperative harvest schedule as specified by private contract.

B-4.3.3 Fishery and Co-op Monitoring

a. NMFS will track all permit transfers. Permit transfers will not be valid until registered and acknowledged by NMFS.
b. NMFS will monitor catch and close the catcher-processor sector fishery as necessary to ensure catch limits are not exceeded.

c. NMFS will administer the adaptive management program, allocating the set aside for that program as needed based on the adaptive management goals, objectives and adjustment measures recommended by the Council.

❖ Rationale and Policy Issues

The catcher processor sector currently operates as a rationalized fishery through the formation of the voluntary cooperative. This cooperative is managed by a governing contract which spells out such things as catch sharing arrangements among members of the cooperative. The result of this contract has meant that the benefits attributed to a rationalization program have already occurred in the catcher processor sector and therefore there is little reason to change the way that sector is managed.

In the event the catcher processor cooperative breaks apart, the issuance of quota shares to permits in the catcher processor fishery is intended to insure that the fishery continues to operate as a rationalized fishery. Granting each permit 10 percent of the quota share is intended to result in a distribution of fishing opportunity that is highly similar to the catch sharing agreement that exists in the existing cooperative contract.

❖ Analysis

The existing alternative for cooperative management in the catcher processor sector is essentially the continuation of the No Action alternative for this sector. Amendment 15 established sector specific limited entry for that sector and an allocation of whiting for the sector already exists. These two tools make it possible for a sector to establish and sustain a voluntary cooperative if they can agree to catch sharing arrangements. The one factor that may put the voluntary cooperative at risk is the management of bycatch in a common fashion across the three sectors. This can put the voluntary cooperative at risk because members of that cooperative do not have control over catch of vessels outside that cooperative and catch from those vessels outside the cooperative can affect opportunities in the catcher processor sector since all three sectors close when that limit is reached.

Beginning in 2009, bycatch limits for the whiting fishery will be applied to specific whiting sectors, which is a departure from the three sector common bycatch limit which has been used since 2004. This change is expected to protect the catcher processor sector from other sectors which could inadvertently pre-empt opportunities in the catcher processor sector. As a result, this change enhances the likelihood of the catcher processor sector maintaining the existing voluntary cooperative.

As indicated in earlier sections of this analysis, cooperatives may need to have resource sharing arrangements solved for them. In cases where participants in the fishery are relatively diverse and have different levels of historic participation and reliance on the fishery, requiring that those participants decide on catch sharing arrangements themselves may prove difficult and problematic. If catch sharing arrangements are reached, they may be unstable and lead to frequent revisions of the cooperative contract and instability in the cooperative. In cases where participants are relatively diverse, solving catch sharing arrangements by issuing catch history and implementing a golden rule provision may be necessary for cooperatives to form and/or help to ensure that cooperatives are sustained. However, this is not necessary in all cases. In instances where participants have similar characteristics and have similar historic participation and reliance on a fishery, solving catch sharing arrangements may be relatively easy. This appears to have been the case in the catcher-processor sector as that sector was able to form the voluntary cooperative and solve catch sharing arrangements without Council intervention. This cooperative has been maintained for 11 years, suggesting that the catch sharing arrangements that were agreed to have not

led to much disruption or instability across cooperative members. In spite of this, the break up of the voluntary cooperative is not outside the realm of possibility. Several events could lead to the break up of the cooperative including the transfer of an existing catcher-processor permit to another entity that is not currently part of the cooperative or disputes over catch sharing. In such an instance, one option would automatically grant IFQ to catcher processor participants in order to ensure that fishery remains "rationalized".

The following sub-parts analyze each of the elements comprising the catcher processor cooperative alternative.

- Catcher Processor Endorsement

Endorsing permits for participation in the catcher-processor sector is an extension of measures established through Amendment 15. An endorsement establishes a barrier to entry to the catcher-processor sector and provides one of the necessary ingredients for a cooperative to form. The barrier to entry established by the sector endorsement prevents other potential participants from entering into the catcher-processor sector and competing with existing participants for catch. If competition for catch arises, a break down in "rational" fishing practices should be expected to occur. This is because it is the elimination of competition for catch that eliminates the race for fish. The elimination of the incentives that exist in a race for fish reduces effort in the fishery, reduces capital in the fishery, and slows down the pace of harvesting. These effects reduce cost and increase value, resulting in a net improvement in the economics of the fishery.

- Catcher processor Permit Combination to Achieve a Larger Size Endorsement

If the permit length endorsement is retained, a catcher-processor would need to acquire an additional permit in order to increase vessel size. The alternative for combining permits indicates that, in such an event, the catcher-processor endorsement would remain, but other endorsements would not. This effectively limits the relatively large catcher processor vessel to the catcher processor sector. If other sector endorsements remained on that permit, that relatively large catcher processor vessel could theoretically participate in other sectors. That possibility would not occur under the existing permit combination option.

- Annual Reporting Requirements

An annual reporting requirement enhances transparency of a cooperative-based fishery. Since many of the outcomes and events in a cooperative fishery occur through private agreements and negotiations, the annual reporting requirement provides information on those activities to the public and management agencies. This helps to ensure that those groups are relatively informed about the activities occurring within a cooperative and help the public and management agencies to understand cooperative management more thoroughly. This can be important if changes to required cooperative standards or regulations are deemed necessary by the Council in order to meet new challenges or management goals.

The requirement that the annual report submit a record of catch by each vessel may violate confidentiality provisions of the Magnuson-Stevens Act.

- NMFS Role

The role of the National Marine Fisheries Service in administering this cooperative program is effectively no change from status quo. The exception to this is in the event the voluntary cooperative breaks apart and IFQ is issued to catcher-processor permits. Furthermore, if an adaptive management provision is utilized in the catcher-processor sector, the role of NMFS in managing the catcher-processor portion of the fishery may change in order to implement that provision. Since the adaptive management provision and associated specifics on how that provision would work are necessarily general, it is not possible to determine the amount of workload or infrastructure that may be required of NMFS if that adaptive management provision is used.

- Annual Allocation

Two options exist in the existing catcher processor alternative that pertains to annual allocation. One option would continue to allocate Pacific whiting to the catcher processor sector with no subdivision of the allocation within that sector. The other allocation would allocate to the catcher processor cooperative instead of the sector. In practice, there does not appear to be any difference between the two options because the amount of fish allocated will be the same and the participants that have access to that fish will be the same. Therefore, there is not expected to be any difference in the effects of either option. However, the Council's preliminary preferred alternative specifies measures which would be taken if the voluntary cooperative breaks apart[17].

Under the Council's preliminary preferred alternative, the break up of the voluntary cooperative would trigger an automatic issuance of quota shares to catcher processor participants. Each participant would receive 10 percent of the catcher processor quota and this amount is intended to be reflective of the catch sharing agreement that currently exists in the voluntary catcher processor cooperative. The reader is referred to Appendix A for a description of an IFQ program and outcomes from managing a sector using that tool.

[17] The term "break apart" in this context is assumed to apply to cases where a single catcher processor permit leaves the cooperative but other permit owners agree to maintain a voluntary cooperative agreement.

Supplemental Trawl Rationalization Analysis

The following pages constitute additional analysis of trawl rationalization. These analyses are largely in response to the outcome of the October 2008 meeting of the Groundfish Allocation Committee (GAC). The analyses contained in this document include:

A. The GAC request to analyze an alternative approach for processor linkage provisions in the mothership sector cooperative alternative
B. An analysis of the GAC recommendation to hold the at sea fishery responsible for the same set of species as the shoreside sector
C. An assessment of control limits based on utilization of the Herfindahl index
D. Metric ton and exvessel revenue equivalents for accumulation limits
E. Whiting sector and aggregate accumulation limits

Analysis of Groundfish Allocation Committee Recommendation for an Alternative Treatment of Processor Linkages in a Cooperative-Based Fishery for the Mothership Sector

At the October meeting of the Groundfish Allocation Committee (GAC), the GAC requested that additional analysis be done that examines the effect of substantially relaxing and/or eliminating the processor linkage provision in the mothership cooperative alternative. This request came about after discussion with NOAA General Counsel indicated that the processor linkage provisions in the mothership sector may raise antitrust concerns. Members of industry presented an additional proposal which appears to have been intended to create a cooperative structure that could be implemented without raising antitrust issues. The GAC recommended that this proposal be analyzed prior to the November 2008 Council meeting.

Following the GAC meeting and the distribution of the draft GAC report, members of industry indicated that their intention was to recommend an alternative cooperative structure that was different than the structure several GAC members and Council staff understood as the proposal. Industry members articulated that their intention was to have a cooperative alternative analyzed that had no processor linkage requirements – meaning that a vessel could switch motherships at any time during the course of the season and deliver to more than one mothership in a year. This was different than the structure described in the GAC report that would require a vessel to declare the mothership to which he would deliver to during the course of the year and be required to deliver to that mothership for the entire season. This document assesses the implications of both the approach described in the GAC report, and the approach that members of industry later clarified was their intention. We assess the effects of these approaches against an alternative with processor linkages and against the status quo.

Summarization of New Alternatives for Mothership Processor Linkages

Option A (Described in GAC Report)

A catcher vessel must declare whether it will be part of a cooperative or participate in the non-cooperative portion of the fishery.

i. Catcher vessels electing to participate in the cooperative fishery would be required to identify annually (at a date TBD) the mothership to which they will deliver to in the coming season.
ii. Catcher vessels would be able to switch motherships by simply declaring their linkage to another mothership in a subsequent year

A catcher vessel in the non-cooperative fishery may deliver to any mothership

Option B (Industry Clarified Intention)

Vessel declares a cooperative or non-cooperative each year. Not required to deliver to any particular mothership

The Non-Cooperative Fishery and its Role in a Fishery without Processor Linkages

In both options the non-cooperative fishery remains. Some rationale for the presence of a non-cooperative fishery in a cooperative structure is that it A) provides incentives for harvesters to maintain a linkage with a processor (if processor linkages exist and harvesters must fish in the non-cooperative fishery to break them), and B) that it provides a mechanism for protecting the cooperative if one or more vessels in a cooperative cannot agree to catch sharing arrangements with other cooperative members. In such an event, the members that can agree will most likely form a cooperative among themselves and the members that cannot agree will move to the non-cooperative fishery. In both A and B, the non-cooperative fishery can be viewed as a type of penalty mechanism that encourages harvesters to maintain linkages with processors and also agree to terms with other cooperative members.

The need for a penalty to exist in the form of a non-cooperative fishery depends on several different factors and elements of a cooperative program.

- If processor linkages are used as a tool to help ensure that processors benefit from rationalization, then the presence of the non-cooperative fishery may be more necessary to ensure that this occurs (assuming catcher vessels must fish in the non-cooperative fishery to break a processor linkage).
- If a cooperative structure is created based on the notion that it will tend to require less administrative workload of agencies (compared to an IFQ program), then a non-cooperative fishery may encourage catcher vessels to remain in cooperatives and work at minimizing the cost agencies must bear in order to rationalize the fishery.
- If no other mechanism exists for dealing with potential disagreements over catch sharing among fishery participants, having a non-cooperative fishery provides incentives for fishery participants to agree to catch sharing arrangements. In the event some members don't agree, they can participate in the non-cooperative fishery but this fishery is considered to be less beneficial. This effectively protects the cooperatives by ensuring they are formed by parties that can agree to terms, while allowing those that cannot agree to participate in the non-cooperative fishery.

If none of the above examples are the case, it is not clear that the presence of the non-cooperative fishery is necessary. If the above examples do not exist, it may be more appropriate to consider allowing those catcher vessels not in a cooperative to fish under a structure that is more like an IFQ-based fishery. One simple approach could be to allow harvesters not in a cooperative to fish

their catch history independently (like an IFQ) while simultaneously establishing bycatch limits for the non-cooperative portion of the fishery. This may help ensure that harvesters not participating in a cooperative will continue to fish in a rationalized manner while also spreading the risk of bycatch events across several fishery participants. If the intention is to encourage a cooperative-based structure rather than an IFQ-based structure, making catch history percentages non-divisible may increase the chances of cooperatives forming and remaining intact.

Each of the alternative proposals for dealing with mothership sector ties described above solve catch sharing arrangements among cooperative members. This is because the proposals do not change the "golden rule" provision of the cooperative alternative and this golden rule provision solves resource sharing disputes that may arise among cooperative members. This means that the presence of a non-cooperative fishery may not be necessary as an outlet for those that cannot agree to terms with other potential cooperative members. This is because catch sharing arrangements will have been solved ahead of time.

The administrative workload associated with cooperatives may theoretically be less than the administrative workload associated with an IFQ-based fishery. If keeping participants in cooperatives tends to reduce workload, then having a non-cooperative fishery may help encourage harvesters to remain in cooperatives, and in turn keep administrative burden relatively low.

The lack of a processor linkage provision means that a non-cooperative fishery is not necessary to protect the interests of processors. This is because the non-cooperative fishery is intended to act as a deterrent to those considering the switching of processors. Under the new GAC option, it is understood that, if a catcher vessel wants to participate in a cooperative, they would need to declare a mothership to which they would deliver for the year. If they do not declare a mothership, they would not be able to join a cooperative and would be required to participate in the non-cooperative fishery. Since this GAC recommended option has some limitations on the mothership to which a catcher vessel could deliver to, the presence of a non-cooperative fishery may be necessary to encourage cooperative membership, and therefore, a mothership declaration. Under the option that some members of industry had clarified as their intent, the need for a non-cooperative fishery to help processors may not be necessary. Under this option it is understood that a catcher vessel could freely deliver to any mothership during the course of a season. Since there are no tools used for protecting processors under this option, there is no need for a non-cooperative fishery designed to stabilize mothership and catcher vessel relationships.

Reasons for non-cooperative fishery	Appropriateness to new processor tie alternatives
Provide an outlet for participants that cannot agree to catch sharing arrangements with others	Not Applicable. The presence of a "golden rule" provision means the non-coop fishery is not necessary in cases involving resource sharing disputes
Provide incentives for harvesters to form and remain in co-ops. This may decrease agency workload	May be applicable if cooperatives do in fact reduce agency workload compared to an IFQ-based fishery
Provide incentives to maintain linkages with processors (if a CV must fish in the non-cooperative fishery to break a linkage)	Processor tie option A) May be applicable because catcher vessels will need to declare a mothership in order to fish in the cooperative fishery
	Processor tie option B) Not applicable because no linkages exist

Rationalization's Effect on Harvester and Processor Relationships under the New Mothership Tie Alternatives

Rationalization has the potential to alter the relationships that exist between harvesters and processors over things like profit sharing and fishing timing. Under the status quo fishery with a common quota, both harvesters and processors must engage in a relatively intense amount of effort over a relatively short period of time, otherwise they may risk losing harvest and delivery volume. This makes it difficult for harvesters and processors to hold out for more favorable prices once the season has started because doing so means potentially foregoing harvest volume. Rationalization has the potential to change this relationship by granting defensible harvest privileges (either in the form of IFQ or catch history). The presence of a defensible harvest privilege makes it possible for many of the benefits of rationalization to occur, such as slower paced harvesting, consolidation in an over-capitalized industry, and higher quality products among other things. However, it also has the potential to change the relationships that exist between harvesters and processors because fishery participants no longer compete for that catch. This conceptually allows those in the fishery that hold harvest privileges to negotiate more successfully for more favorable prices because they do not risk losing that catch to someone else.

The ability of harvesters and processors to negotiate for prices that are favorable to them depends on several factors including, but not necessarily limited to, whether they hold quota or catch history and whether they have few or many competitors. Assuming that there are no motherships that own permits, and that there is substantial competition between motherships for catcher vessel deliveries, then harvesters holding the catch history will tend to assume the majority, or all, of the profits associated with both the harvesting and the processing activities in the whiting fishery. This is because those harvesters can force motherships to bid among one another for deliveries and this bidding will essentially involve bidding away profits that may have been attributed to processing in order to attract catcher vessels. This concept is discussed in more detail in Appendix E. However, the assumption of high degrees of competition that approach "perfect competition" among motherships is most likely not accurate because of the limited number of mothership companies engaged in the fishery. Furthermore, several permits are owned wholly, or partially, by mothership companies. This means those companies may realize

profits from the harvest activities of those vessels and from processing the catch of their own catcher vessels. Alternatively, if mothership companies do not receive deliveries from partially owned catcher vessels, they are bound to realize some of the profits associated with that catcher vessel activity through their partial ownership even if it delivers to another mothership. This concept is discussed in more detail in a subsequent subsection.

The difference in price negotiations between the alternative specified in the October 2008 GAC recommendations and the industry-clarified intent alternative is very little. Indeed, there may be no difference at all.

- Under the alternative specified in the GAC recommendations, the negotiations over exvessel prices and other matters is likely to occur during the time period prior to the mothership declaration. This means that such negotiations will occur in an environment where no processor tie exists and the negotiation power of the harvester and the processor will resemble the negotiations that take place in a fishery without processor linkages.
- Under the alternative representing the industry intent, negotiations may be ongoing to some degree as the season progresses. This could occur if harvesters are consistently looking to find the most favorable market. This may mean that exvessel prices paid to harvesters may be more variable throughout the course of the year under the industry intent alternative, but the end result may be the same as the alternative in the GAC recommendation. They could be the same if the result of the alternative in the GAC recommendation includes retro-payments to catcher vessels from motherships based on changes in the market for whiting that have occurred throughout the course of the season and thereafter.

Because of the similarities in the effect over exvessel price negotiations between both alternatives, there is no further elaboration on the effect of each alternative on exvessel prices.

Rationalizations Effect on Relationships between Motherships and Independent Catcher Vessels
Independent catcher vessels have the ability to form marketing cooperatives under the Fishermen's Collective Marketing Act (FCMA). This allows independent harvesters the ability to form a type of union that acts collectively, and as a single entity, to negotiate with processors over things like favorable exvessel prices. This can result in a much greater degree of negotiation power than if fishermen attempted to negotiate exvessel prices independently. Since rationalization creates a system where the actions of one harvester cannot impact another, the ability for harvesters to form and maintain such unions is enhanced relative to a derby fishery where the catch of one harvester directly affects the amount of catch available to other harvesters. Under the derby fishery scenario, there is a strong incentive for harvesters in a FCMA cooperative trying to negotiate higher prices to "cheat" by breaking ranks and going fishing because that harvester will have the potential to catch more fish than other harvesters. This makes it difficult to sustain FCMA cooperatives under a derby system. A rationalized fishery makes it much easier to sustain FCMA cooperative actions and negotiations.

The number of mothership entities that would stand to receive mothership licenses is six and this relatively small number of companies may mean that mothership companies are able to exert some negotiation power over exvessel price negotiations with harvesters. The fact that six motherships would be licensed for the fishery is not a substantially different number than the total number of motherships that have participated in the fishery since 1997. In most years fewer

than six motherships are active in the fishery. This means that the licensing of those six motherships is not expected to change the negotiation power of mothership entities.

The result of a rationalization program without processor ties on relationships between motherships and independent catcher vessels is likely to mean an increase in the negotiation power of those independent catcher vessels. Although it is likely to mean an increase in harvester profits, the magnitude of this change is not clear.

Partial Vertical Integration and the Effect on Mothership and Catcher Vessel Relationships
The degree to which a mothership company's partial ownership stake in a catcher vessel represents a controlling interest or not is a large factor determining the benefit that mothership company will receive from that partial interest. If the partial ownership stake is a controlling interest, that mothership company will essentially realize profits from processing of that catcher vessel's delivery while also realizing a portion of any profits generated from that catcher vessel's fishing activity. If that partial ownership stake is not a controlling stake, then that mothership company may not receive deliveries from that catcher vessel. However, the mothership company will see profits from the partial ownership stake in the catcher vessel, but the profits based on a controlling interest in a catcher vessel will be greater than the profits from a non-controlling partial interest. This is illustrated in the following simple examples:

Example A: Controlling partial interest in a catcher vessel

- Assume profits from processing a quantity of X is equal to $50 and profits from harvesting a quantity of X equal $50 in a scenario where negotiations are balanced.
- Assume the mothership company owns 25% of the catcher vessel.
- If the catcher vessel delivers to the mothership because of the controlling interest, then the mothership company generates profits of $50 + $50*25%, or $62.5 from the catch of that catcher vessel.

Example B: Non-controlling partial interest in a catcher vessel

- Assume profits from processing a quantity of X is equal to $50 and profits from harvesting a quantity of X equal $50 in a scenario where negotiations are balanced.
- Assume the mothership company owns 25% of the catcher vessel.
- If the mothership company does not receive deliveries from that catcher vessel because it does not have a controlling interest, then the mothership company generates profits of $0 + $50*25%, or $12.5 from the catch of that catcher vessel.

The examples above can be compared to a scenario where processor linkages are established. As stated in Chapter 4 of the EIS and in Appendix B, a processor linkage provision has the potential to result in the sharing of profits between the harvester and processor. This occurs because it creates a structure similar to a vertically integrated firm. While it is not clear whether those profits will be divided equally, it is reasonable to assume that a processor linkage provision will result in more profits being realized by processing entities than in a case without linkages. This is because the tie assures the processor of receiving a quantity of fish and it also assures that the processor has some leverage over price negotiations with the harvester.

When comparing the processor tie to vertical integration, the tie likely does not result in any difference between a catcher vessel and a processor if both are fully integrated. However, if

partial integration exists, the tie effectively acts as a controlling interest in the current year, meaning example A above may be more reflective of a processor tie than example B. In cases where vertical integration does not exist (either full or partial), the effect of a processor tie assures the processor of a given volume of fish while also assuring negotiation power exists for both the harvester and processor. This effect was described in more detail in Chapter 4 and Appendix B.

The discussion above and in Chapter 4 and Appendix B shows that there may be no effect of the processor tie on fully integrated catcher vessel and mothership operations, but that there is an effect on the relationships between independent catcher vessels and motherships. The question then is how the processor tie potentially affects the relationships between partially owned catcher vessels and motherships. While information exists on partial ownership in the mothership sector, it is difficult to untangle the relationship between partial ownership and how that ownership affects delivery patterns of that catcher vessel.

Available information indicates that 6 of the 31 catcher vessel permits that have recently participated in the fishery may have some degree of partial ownership, or have an ownership stake in, a company that operates a mothership. If partial ownership leads to a controlling interest, the effect of a processor tie on relationships between partially owned catcher vessels and motherships will be less than in a case where partial ownership does not lead to controlling interest. This means that a processor tie that is relatively difficult to break may have an effect where partial ownership exists but does not lead to a controlling interest.

The type of processor tie described in the new GAC alternative establishes a type of processor tie while the industry clarified intent alternative does not establish one at all. Since the new GAC alternative establishes a tie that can be broken easily, it is not clear that this type of tie would have much of an effect on cases where a partial, non-controlling, ownership exists between a mothership and catcher vessel.

Effect of Option A and B on Business Planning

The GAC recommended alternative establishes a relationship between a mothership and a catcher vessel for the duration of a season. This relationship should be expected to result in better business planning than if no relationship is established. Alternatively, the industry intent alternative does not establish a tie between a mothership and a catcher vessel, and this may mean that it is more difficult to establish business plans because there is a greater degree of unknown. However, in many cases processors and harvesters may engage in negotiations to establish a relationship between the catcher vessel and the processor prior to the season starting. This would tend to occur because the catcher vessel wants to make sure he has a market for harvested fish, while the processor would work to establish this relationship in order to develop a relatively certain estimate of fish volume for the coming year. Therefore, while Option A may result in greater potential for business planning compared to a case where no tie is established, that improvement may be slight.

Summary

In summary, the presence of the non-cooperative fishery may or may not be necessary under the two alternatives considered here. The need for that fishery depends on the reasons for having that fishery in the first place and these may include A) an incentive to discourage the switching of processors, B) as a means to protect cooperatives if some members cannot agree to catch

sharing, and C) as a means to reduce agency costs by encouraging the formation of cooperatives. Alternative A (the GAC report alternative) appears to necessitate the existence of the non-cooperative fishery as a means to ensure that some degree of processor declaration occurs, while the alternative that appears to be what some industry members intended does not necessitate the existence of a non-cooperative fishery because there are no processor ties. It does not appear necessary to have the non-cooperative fishery in either alternative to address issues of catch sharing disagreements because both alternatives retain the "golden rule" provision.

Processor ties will have differing effects on the relationships between motherships and catcher vessels depending on the degree of vertical integration and whether partial ownership of a catcher vessel means there is a controlling interest. In relationships between motherships and independent catcher vessels the effect of a processor tie is likely to be relatively large, while in cases where the catcher vessel and mothership are owned by the same company the effect should be small, if any. In cases where a catcher vessel is partially owned by the mothership company, the effect of the processor tie will depend on whether that partial interest results in a controlling interest of that catcher vessel. If it does, then the processor tie may do very little, but if it that partial interest is not a controlling interest, then the processor tie may have a relatively large effect that may be similar to the effect that occurs between motherships and independent catcher vessels. Since both of the new alternatives establish mechanisms that make it easy for catcher vessels to switch motherships, the effect of both options is likely to be more similar to (or in the case of alternative B, exactly like) a case where a tie does not exist at all.

The two alternatives differ in their effect on the ability to conduct business planning. The first alternative (which was recommended for consideration by the GAC) effectively establishes a tie for a year and makes the quantity of deliveries for motherships relatively more certain. However, in many instances catcher vessels and motherships may engage in negotiations to secure relationships prior to the start of the season and this may occur because catcher vessels want some assurance that they have a market for their catch, while motherships want some better expectation about delivery volume. This may occur in alternative B. Therefore, the degree of business planning may be enhanced to some degree by alternative A, but that enhancement may be slight relative to a case where no ties exist.

Analysis of GAC Recommendation on Species Coverage in the At Sea Fishery

At the October meeting of the Groundfish Allocation Committee (GAC), a recommendation was developed for which set of species the at sea sectors of the whiting fishery would be accountable and responsible for. The Council's preliminary preferred alternative selected in June specified two possible options: 1) holding the at sea sectors responsible for canary, darkblotched, and widow and 2) holding the at sea sectors responsible for additional species including sablefish, slope rockfish, shelf rockfish, lingcod, POP, and yellowtail. After some discussion of the matter, the GAC recommended that the at sea sectors be held responsible for the same set of species that the shoreside sector would be responsible for. This document addresses the effects of using the same list of species for both the at sea sectors and the shoreside sector.

Executive Summary

Discussion and analysis since early 2007 has involved the implications of holding trawl fishery participants responsible for species encountered on a relatively infrequent basis. Analysis suggests that holding trawl fishery participants responsible for species which are infrequently encountered may result in some adverse economic impacts as a result of several factors including quota hoarding and risk aversion behavior, but with little or no benefit to fish conservation and management.

Based partially on this finding, nearshore species were preliminarily removed from the rationalization program because of the relatively infrequent degree which trawl participants encounter those stocks. Analysis contained in this document suggests that, if this logic is applied to the non-whiting sector, a distinct list of species is developed for inclusion or exclusion from the program, but if that logic is applied to the whiting fisheries a different set of species is included and excluded from the program. Specifically, applying this logic to the at sea sectors suggests that the at sea sectors should be held responsible for a much different list of species than the shoreside sector. If four trawl sectors are established, then the appropriate species for the shoreside whiting sector is the same as the at sea sectors.

Analysis suggests that it may be appropriate to hold the whiting sectors responsible for the catch of widow, canary, and one or more of either darkblotched, POP, or slope rockfish. If the whiting fisheries are held responsible for the same set of species as the non-whiting fishery, the probability that the whiting fishery will attain the whiting OY is substantially reduced.

Sector Allocation Amounts and the Responsibility for Harvested Species

Establishing allocations between trawl sectors means that different allocations will need to be specified for each of the sectors. The existing alternatives contained within the intersector allocation process vary the amounts of species allocated to each sector to some degree, but all alternatives are similar to status quo catches by sector. The result is that the shoreside sector will be allocated a much different volume of species such as Dover sole than the at sea sectors because the catch of those species in each sector has been substantially different. The following table shows one possible set of intersector allocation amounts by sector for a select set of species. Since this information is based on catch that has occurred in each sector over the 1995 to 2005 time period, this information is reflective of both historical catch amounts and also potential allocation amounts. This information illustrates that many species are caught in very small amounts in the whiting sectors and this would turn into relatively small allocations. A

substantial difference exists between the non-whiting fishery and the whiting sectors in almost all species in the table. In every instance aside from whiting, the whiting sectors would stand to be allocated substantially less than the non-whiting sectors.

Table 1 Select Species from Intersector Allocation Alternative 3

Intersector Allocation Alternative 3: Based on 1995-2005 Landed Catch shares (15% set aside, high canary OY)

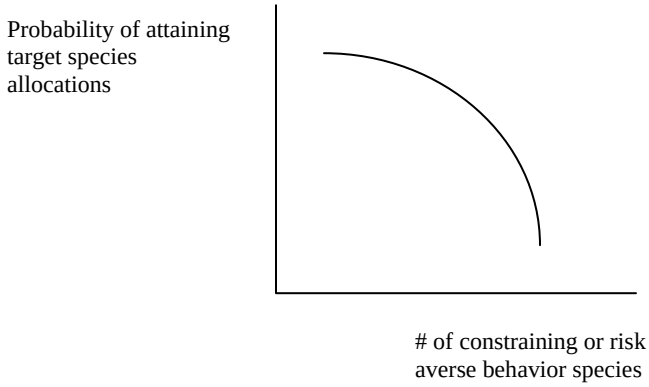
	CP	MS	SW	SN	TWL Total	Non TWL
Lingcod						
Columbia and US-Vanc. areas						
N of 42º (OR & WA)	1	3	10	2,250	2,264	1,620
S of 42º (CA)	-	-	0	97	97	355
Pacific Cod	0	0	1	739	740	7
Pacific Whiting (U.S.)	70,751	49,942	87,398	1,559	209,650	241
Sablefish						
N of 36º (Monterey north)	16	2	47	2,642	2,707	2,444
S of 36º (Conception area)	-	-	-	73	73	81
Yellowtail Rockfish	138	214	282	1,896	2,530	98
Shortspine Thornyhead - N of 34º27'	14	0	1	1,157	1,172	25
Shortspine Thornyhead - S of 34º27'	-	-	-	246	246	66
Longspine Thornyhead - N of 34º27'	0	0	0	1,622	1,622	19
Longspine Thornyhead - S of 34º27'	-	-	-	1	1	355
Slope Rockfish N	55	10	9	653	728	104
Slope Rockfish S	-	-	-	326	326	140
Dover Sole	0	0	1	11,926	11,927	5
English Sole	0	0	3	4,479	4,482	2
Petrale Sole (coastwide)	0	0	0	1,763	1,764	2
Arrowtooth Flounder	2	1	2	4,155	4,160	3
Starry Flounder	-	-	0	318	318	333
Other Flatfish	9	1	2	3,430	3,442	94

For many of those species with substantially low allocations made to the at sea sectors (such as lingcod, arrowtooth flounder, Dover sole, English sole, petrale sole, starry flounder, and Other Flatfish, among others), the same type of impacts to whiting fishery participants may occur as those that were described for nearshore species in Chapter 4 of the EIS. These impacts were primarily the result of factors which would tend to result in markets where individuals have the ability to exert some form of market power and/or participants may engage in behavior to mitigate against risk. Examples include trading quota in "thin markets" and quota hoarding to hedge against catch uncertainty.

Empirical examples exist of risk aversion behavior by harvesters that may occur for species with fairly small allocations relative to the likely catch. In 2007 the whiting fisheries harvested less than the bycatch limit of darkblotched rockfish, however it appears that participants in the whiting fishery became consciously aware and worried about their catch of darkblotched in the late May time period and held several discussions about managing darkblotched bycatch. The outcome of those meetings was a change in fishing behavior in order to avoid that species. Data indicates that this change in behavior reduced the catch rate of darkblotched, but that it subsequently increased the catch rate of widow rockfish and it was the catch of widow that ultimately closed the fishery (see Agenda Item F.3.b. Supplemental GMT Report, March 2007).

It is not unreasonable to expect this type of behavior to occur for other species if an allocation is specified that is low relative to the potential to catch that species. When examining the potential allocations to the at sea sectors in the above table, several species would be allocated in small amounts to the at sea sectors and it is reasonable to expect that some – if not all – would result in

the same behavioral response among industry members as occurred over darkblotched in 2007. As the number of species with this potential constraint increases, the probability that the whiting allocations will be realized decreases. This type of behavior may have adverse economic impacts while having little benefit to the stock or to management. For example, holding the at sea sectors to three tons of arrowtooth flounder (which is one alternative in the ISA process) is likely to create some adverse effects on industry. However, when compared to the OY of 5,800 the benefit to management (achieving harvest targets) is little to negligible.



By combining the shoreside whiting and non-whiting sectors into a single sector, the pool of catch available to shoreside participants appears to be large enough to avoid these types of occurrences, except perhaps in the case of nearshore species and perhaps a couple of others (discussed in more detail in Chapter 4 of the EIS). However, by separating the at sea sectors from the shoreside sector and implementing one of the intersector allocation alternatives currently under consideration, the pool of catch available to the at sea fishery for the majority of groundfish species would likely be small enough to result in some market manipulation and/or risk hedging behavior among other things – reasons that originally led to the exclusion of nearshore species from the program[1]. This could be overcome by allocating a greater quantity to the at sea sectors than currently exists in the alternatives for intersector allocation. However, in many instances that may mean reducing the amount of target species available to the shoreside trawl fishery and resulting in less economic activity than may otherwise be the case. Another option is to establish an allocation of those stocks between the shoreside trawl sector and all other sectors in the ISA process, effectively combining the catch of the at sea sectors, the recreational sectors, and the non-trawl sectors into one.

Consideration of a Different Set of Species for Coverage in the At Sea Sectors

Implicit in the idea that not all species will require coverage is the concept that the catch of uncovered species is indirectly controlled by the catch of covered species. For example, under status quo conditions the whiting fishery is responsible for the catch of canary rockfish (a shelf species), darkblotched rockfish (a slope species), and widow rockfish (a pelagic species). The avoidance of these species by whiting harvesters means that species caught along side of them

[1] If the shoreside whiting fishery is separated from the non-whiting fishery through the establishment of four sectors, the shoreside whiting fishery would have the same issues with species coverage as the at sea sectors, meaning it would be appropriate to have the shoreside whiting fishery responsible for same set of species as the at sea sectors if a four sector split is established.

are also avoided to some degree. Avoidance of darkblotched rockfish may equate to avoidance of POP or DTS species to some degree, avoidance of canary may equate to avoidance of yelloweye and shelf flatfish to some degree, and avoidance of widow may result in avoidance of yellowtail. While the coverage of some species indirectly controls the catch of uncovered species, there is still some variability in the catch of uncovered species. In some instances that variability is slight, while in other instances it may be larger. The importance of that variability should be viewed alongside of harvest targets and the implications for other sectors. If catch of a particular species varies from 1 to 10 tons, but the OY for that species is several thousand tons, then that variability is probably not very meaningful. However, if the OY for that species is 50 tons, that catch variability can be very important and have implications to management, conservation, and other fishery sectors.

To help inform the above concept, Table 2 was constructed. This table only includes those species that were caught in excess of one metric ton over the four year period and this was based on the idea that species with less than one metric ton over the period do not appear to have a substantial enough catch potential to pose much uncertainty to management, conservation, or other fishery sectors. The one species for which this might not be true is yelloweye rockfish. Based on available data, yelloweye were encountered in the at sea fishery in three of the four examined years and this catch amount was 0.004 mt in 2004, 0.03 mt in 2006, and 0.01 mt in 2007. The Groundfish Management Team's Bycatch Scorecard considers these to be "trace" amounts.

Table 2 At Sea Sector Catch of Select Species or Species Groups from 2004 - 2007 (includes species where catch exceeds 1 mt over the time period)

	Year							
Species	2003	2004	2005	2006	2007	OY/ Allocation	Average portion of OY	Substantially Caught in Non-trawl Sectors
LONGNOSE SKATE		0	1	0	1			No
OTHER FLATFISH		2	3	-	-	4,884	0%	No
PACIFIC HALIBUT	3	1	2	1	1			Yes
CANARY ROCKFISH	1	5	1	1	2	44	5%	Yes
LINGCOD	1	1	3	3	6	5,558	0%	Yes
PACIFIC OCEAN PERCH	6	1	2	3	4	150	2%	No
ARROWTOOTH FLOUNDER	4	3	4	3	3	5,800	0%	No
SHELF ROCKFISH (N)		5	7	4	2	958	0%	Yes
SHORTSPINE THORNYHEAD	16	5	7	1	3	1,634	0%	No
DARKBLOTCHED ROCKFISH	4	7	11	11	12	330	3%	No
SABLEFISH	17	29	15	2	3	2,651	1%	NA
SLOPE ROCKFISH (N)		24	51	8	32	1,160	2%	No
YELLOWTAIL ROCKFISH	36	47	112	110	79	4,548	2%	No
WIDOW ROCKFISH	14	21	80	142	146	368	22%	No
SPINY DOGFISH	269	615	355	61	155			Yes

Source: NPAC4900 table. October 2008. PacFIN database

The species shown in Table 2 tend to be caught in volumes of less than 10 metric tons in any given year in both at sea sectors combined. For some species, like canary, the OY is relatively small, so catch amounts of only a handful of tons can be important for conservation and management goals and to other sectors that may have fishing opportunities affected by the amount of catch occurring in the at sea sectors. The metric most appropriate in this table for examining the catch of the at sea sectors relative to the OY is the second to last column. This column shows that there are three species where the at sea sectors catch more than 2 percent of the OY on average. For other species such as any of the flatfish species in the table, the catch amount is low relative to the OY and appears to be consistently low. Since these flatfish species

are not directly managed under status quo conditions (and catch is low under such conditions), this suggests that direct management of those species in a rationalization program may have little or no benefit to management and conservation goals. The three species which are caught in the largest quantities are spiny dogfish, widow rockfish, and yellowtail rockfish. Given the life history characteristics of these species and the fact that whiting vessels use midwater gear, this is not surprising. On a percentage of the OY basis, widow, canary, darkblotched, slope rockfish, POP, and yellowtail are the largest respectively.

The final column in the table provides an indication of the importance of the at sea catch to other sectors of the fishery. This column identifies stocks as whether they are substantially caught in other (non-trawl) sectors of the fishery. The implication is that those species that are substantially caught by other sectors of the fishery are divided up among several different user groups and the percentage of the OY taken by the at sea sectors may be more important in cases where the species is taken by more sectors. When comparing the final two columns, there is only one species for which the at sea sector takes more than 2 percent and which is substantially caught by other sectors. That species is canary.

Species caught in the at sea fishery at levels greater than 2 percent of the OY, but that are not substantially caught by non-trawl sectors may still have an inter-trawl sector affect. Darkblotched and POP are relatively important species for the non-whiting portion of the trawl fishery, meaning that the at sea sector catch of these species will affect the opportunities in the non-whiting fishery. Given that darkblotched and POP are caught in conjunction with DTS species and petrale, these stocks have a large influence on the value of the non-whiting fishery. Slope rockfish plays a similar role. However, given that these three types of species are caught in similar areas, the coverage of just one may indirectly control the catch of the other two.

Widow rockfish is caught in the largest amounts in the whiting fisheries and in recent years the whiting fishery has approached or met the bycatch limit for that species. This means that the metric in the second to final column should be qualified because it compares average catch over the five year period with the existing OY, but the catch rate of widow has been increasing as the stock population increases. In recent years the percentage has been much higher. This also means that the direct management of widow in the whiting sectors may be necessary to achieve management and conservation goals, especially as the stock is under a rebuilding plan. Yellowtail rockfish may be important to the non-whiting trawl sector, especially when widow rockfish become rebuilt and a midwater fishery for widow and yellowtail can be re-established. However, given that canary and yellowtail are correlated, the amount of canary will continue to restrict access to yellowtail, meaning it may not be likely that the full yellowtail OY could be achieved. This means that the amount of catch in the at sea fishery may not have any effect on the non-whiting fishery unless conditions are such that it is likely that the full yellowtail OY could be attained. Finally, sablefish was caught in higher volumes in 2003 and 2004 than in 2005 and 2006. This appears to have been the result of the large 1999 year class moving through the fishery, meaning that the future catch of sablefish (and the at sea percentage of the trawl allocation) will depend on the number of successful recruitment events in the future. However, if 2004 is a guide, the catch amount during these events may still be on the order of 1 percent of the trawl allocation.

Based on the above analysis, several species appear to have a higher degree of priority for direct coverage than others. This prioritization appears to be (in addition to whiting):

1. Widow rockfish
2. Canary rockfish
3. Darkblotched/Slope rockfish/POP
   (Selecting one of these species may indirectly control the catch of the other two)

Finally, spiny dogfish is the species caught in most abundance in the at sea whiting fisheries aside from whiting. Since no management targets exist for spiny dogfish, it is impossible to determine the importance of that catch relative to conservation goals. However, in the event that a spiny dogfish management target is established, the catch of spiny dogfish in the at sea sectors, and the need to directly managed spiny dogfish catch in those sectors, may need to be considered.

Using the Herfindahl Index to Assess Appropriate Control Limits

Executive Summary

Measuring the degree of market concentration can be used to estimate the degree of competition among firms in an industry. Lower degrees of competition generally mean that each firm in the industry has more influence over price. Competition is substantially related to several aspects of the trawl rationalization program, including limits on the control of quota share, to whom quota share should be allocated (permit holders and processors), and to what degree. In this document we utilize a widely used tool called the Herfindahl index for examining the amount of concentration that exists in the processing and harvesting portions of the fishery and for assessing the effect of various control limits.

Results of this analysis indicate that (not surprisingly) the processing industry is more concentrated than the harvesting industry. Using thresholds utilized by the Department of Justice and the Federal Trade Commission, the processing industry for the non-whiting, shoreside whiting, and mothership portions of the west coast groundfish industry can be considered relatively concentrated, meaning processors may have some influence over exvessel price. The finding that the processing industry is relatively concentrated is not surprising given the economies to scale that appear to exist in seafood processing which would tend to lead to relatively few processing entities. While the harvesting portion of the fishery can be considered unconcentrated, the Fishermen's Collective Marketing Act allows harvesters to form bargaining unions which have the effect of increasing concentration in the harvesting portion of the fishery, if such unions are created and are active. It is expected that rationalization will make it easier for such unions to be created and remain together, potentially leading to greater concentration in the harvesting portion of the fishery than compared to status quo.

The fact that both the harvesting and processing segments of the fishery appear concentrated – or have the potential to act in a concentrated manner – may argue for control limits on quota share that do not allow for concentration to occur in that market. We use DOJ thresholds and the Herfindahl index to bracket a reasonable range of control limits for the fishery that may be expected to result in unconcentrated holdings of quota share.

The result is that a 10 percent limit on aggregate non-whiting quota share will assure an unconcentrated outcome. Higher limits may also result in an unconcentrated outcome, but it will depend on whether each entity in the fishery owns the maximum allowable share. It is possible that limits over 18 percent will achieve a concentrated outcome. Except for a few cases, the species-specific limits have little bearing due to the easy substitutability of one species for another. In the whiting fishery, the results depend on whether one considers each sector a different market. If the sectors can be treated as the same market, then the sector specific whiting limits will have little bearing, and the combined whiting sector limit is the appropriate measure. Like the aggregate non-whiting limit, a combined whiting sector limit of 10 percent will assure an unconcentrated outcome, while it is possible that limits above 18 percent will result in a concentrated outcome.

Background

The Herfindahl index is a standard measure of industry concentration. This index is used by the U.S. government and the European Union for measuring the market share of firms in an industry. This concept is often used in the field of competition economics and law and in dealing with antitrust issues. The U.S. Antitrust Division has established thresholds which define a market as relatively un-concentrated, moderately concentrated, and relatively concentrated.

The Herfindahl index measures the degree of market concentration by estimating the sum of squares of market shares of each individual firm in an industry. Large values indicate a relatively high degree of market concentration, while low values indicate a relatively small degree of market concentration. The intuition behind this index is that an industry with a relatively small number of firms will have a relatively high index value, while an industry with a relatively large number of firms will have a relatively low index value. The distribution of market shares is also an important factor in determining index values. If an industry has a relatively large number of firms, but one dominant player with a high degree of market share, it is possible that industry could have a higher index value than an industry with a smaller number of firms with relatively similar market shares. To illustrate this latter point we show the following example[2]:

- Assume Example 1 has 5 firms, all with equal market share.

- Assume Example 2 has 6 firms. One firm controls 75 percent of the market share and the remaining 5 firms equally share the remaining 25 percent (each remaining firm has 5 percent).

- In Example 1, the Herfindahl index would return a value of 0.2
  H1 = (5*20^2)/10,000

- In Example 2, the Herfindahl index would return a value of 0.575
  H2 = (75^2 + 5*(5^2))/10,000

To put the above example results in context, the Antitrust Division of the Department of Justice considers an index between 0 and 0.1 to be unconcentrated, between 0.1 and 0.l8 to be moderately concentrated, and results greater than 0.18 are considered concentrated. Both above examples would be considered concentrated markets (meaning firms could exert some form of market power), but the second example is far more concentrated than the first, even though there is a larger number of firms.

[2] Typically Herfindahl index values are calculated on a scale of 0 to 10,000. We estimate this index in fractions to make the application to control limits more readily apparent.

Application of the Herfindahl Index to the Existing Harvesting and Processing Segments of the Fishery

The definition of a market is important in the utilization of the Herfindahl index. If we were attempting to measure the degree to which segments of the west coast groundfish fishery could affect the final price paid by consumers, then the appropriate scope of the market would include operations in other fisheries that compete in the final consumer market with west coast groundfish species. These other fisheries may include the British Columbia groundfish fisheries and the Alaska Pollock fishery, among others. Given the relatively small volume (on a global scale) of fish harvested on the west coast and easy substitutability of other bottomfish species with west coast groundfish, it appears highly unlikely that changes in the west coast groundfish fishery will affect the prices seen by consumers. Therefore, the effect of relative concentration that exists among processing and harvesting of groundfish along the west coast may be limited to the interactions among harvesters and processors, interactions among harvesters with other harvesters, and interactions between processors and other processors.

In this analysis we examine each of the fishery sectors as if they are an independent market. We assess each sector independently because of regulations that separate each sector to some degree and because many companies that participate in whiting do not participate in non-whiting and vice versa.

Information exists showing the relative degree of market share each harvesting entity and processing entity has over the harvesting and buying of fish. This information consists of fish purchases and sales by permit and buyer code. We augment this information with business identifiers to indicate market shares of actual harvesting and processing firms rather than fishing vessels and buying stations. Taking the average sales and purchases of groundfish by entities in each sector over the 2004 to 2006 time period and dividing by the total weight of groundfish landed in that sector gives the average market share for each entity from 2004 to 2006. We can apply the Herfindahl index to this data to show the relative degree of market power that exists in the harvesting portion of the fishery and the buying portion of the fishery. The implication is that firms in a market with less concentration would tend to have lower leverage over prices than firms in a market with higher degrees of concentration. Although we examine the market shares of harvesters independently, we also examine the concentration possible under market cooperatives formed under the Fishermen's Collective Marketing Act. In this latter measure we assume approximately 50 percent of the fleet harvest is engaged in a FMA cooperative – a number on the same order of magnitude as one existing west coast FMA cooperative. The appropriateness of using either the "Harvester" value or the "FCMA Harvester" value depends on one's belief as to whether FCMA cooperatives can be formed and sustained. Including both harvester estimates illustrates the potential degrees of harvester concentration depending on whether FCMA cooperatives are formed and sustained or not.

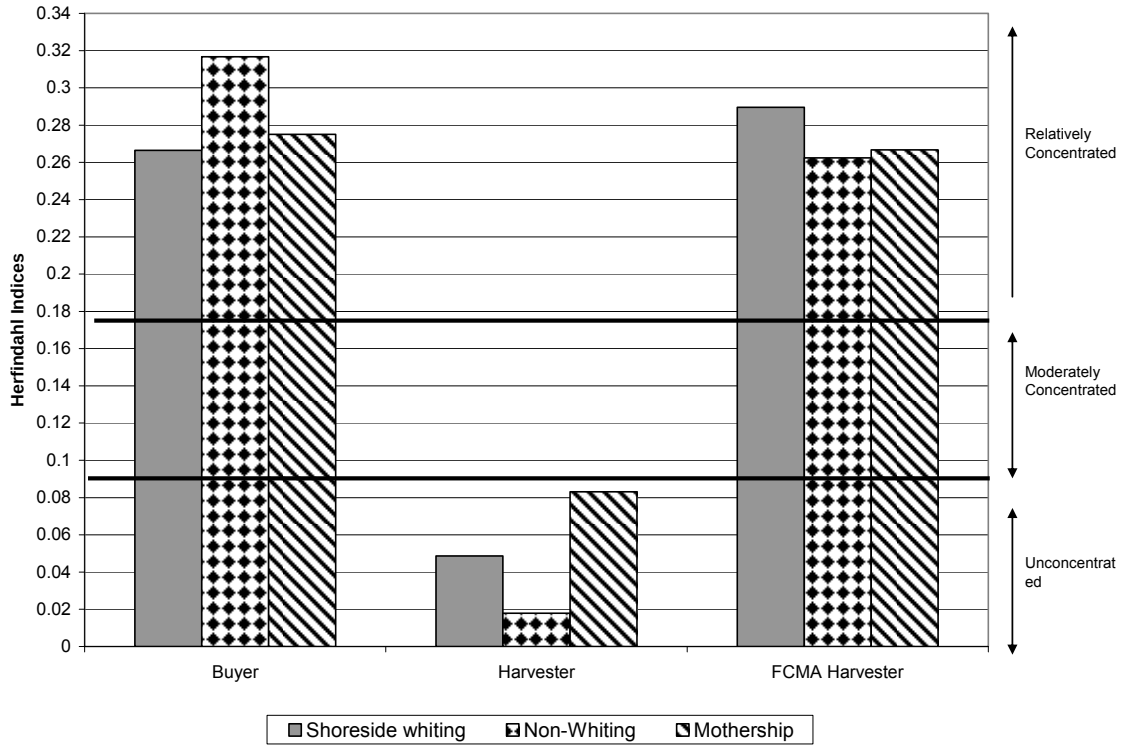


Figure 1 Herfindahl Index Results for Harvesting and Processing Segments of the Trawl Fishery

Figure 1 shows the result of the Herfindahl index approach applied to processing and harvesting entities. These results indicate that the shoreside whiting processing industry is the least concentrated of the three sectors, while the non-whiting processing industry appears to be the most concentrated. While there are many more non-whiting processing entities than shoreside whiting processing entities, purchases of fish are much more concentrated into fewer entities in the non-whiting fishery than in the whiting fishery. This distribution of fish purchasing drives the measure of non-whiting processing industry concentration higher than in the shoreside whiting and mothership processing industries.

On the harvesting side, the non-whiting portion of the fishery is the least concentrated, while the mothership portion of the fishery is the most concentrated under a scenario without FCMA cooperatives. This appears to be directly related to the number of participants in each fishery and amount of catch of each vessel in each sector. The number of harvesting entities in the non-whiting fishery is far greater than the number of harvesting entities in the shoreside whiting and mothership portions of the fishery. The estimated concentration among harvesting entities in the mothership portion of the fishery is further enhanced by the relatively high volume of catch made by a relatively small percentage of the harvesting entities in that sector.

The effect of a sustained FCMA cooperative has the potential to concentrate the harvesting sector at a level similar to that of processors (if the assumptions made regarding the construction of these values are correct). This means that both harvesters and processors would have the potential to leverage some form of market power in the exchange of fish between fishermen and buyers. This conclusion is dependent on whether harvesters can sustain such cooperatives – and

use those cooperatives in negotiations over prices – over a long enough time period to exert some market power.

While this information attempts to separate fishery participants into two separate groups (processing entities and harvesting entities), this distinction is often not clear. Vertical integration exists in all sectors of the groundfish fishery and it is reasonable to expect this vertical integration to play more into the hands of processing entities than harvesting entities. In general, vertical integration appears largest in the mothership fishery, followed by the non-whiting fishery and the shoreside whiting fishery, respectively. It is not immediately clear how this affects the index results shown in Figure 1, but should be kept in mind nonetheless. The reader is referred to Chapter 4 of the EIS for further information on vertical integration.

Application of the Herfindahl Index to the Initial Distribution of Quota Share

The initial distribution of quota share has the potential to result in some varying degrees of market concentration depending on the allocation formula. In particular, the amount of quota allocated to harvesters and processors appears to affect the amount of quota concentration.

We can develop Herfindahl indices by using estimates of quota share distribution to entities under several alternatives for initial assignment of quota. We assume the same general formula will be used (equal sharing of buyback history, assignment of overfished species on a bycatch rate) but vary the percentage allocated to harvesters and the percentage allocated to processors. We plot Herfindahl index values against the percentage of quota share allocated to harvesters and processors and find that under each allocation scenario, results are within the range considered "unconcentrated", but the relationship between the Herfindahl index and the percentage to harvesters/processors is non-linear for every sector.

The information below shows aggregate non-whiting quota distributions and whiting distributions to the whiting sectors. This shows that, in general, an increasing allocation to processors increases the degree of concentration. However, for the entire range assessed, the degree of concentration is within the unconcentrated range. The concentration in shoreside whiting actually decreases to some degree if less than 20 percent of the quota is allocated to processors, but begins increasing as the amount increases above 20 percent. This is because the allocation to processors increases the number of entities receiving quota share, and when the amount allocated to processors is less than 20 percent, the allocation to those additional entities reduces concentration. However, as the allocation to processors is increased, relatively large processing firms acquire increasing percentages of quota, driving the concentration measure up.

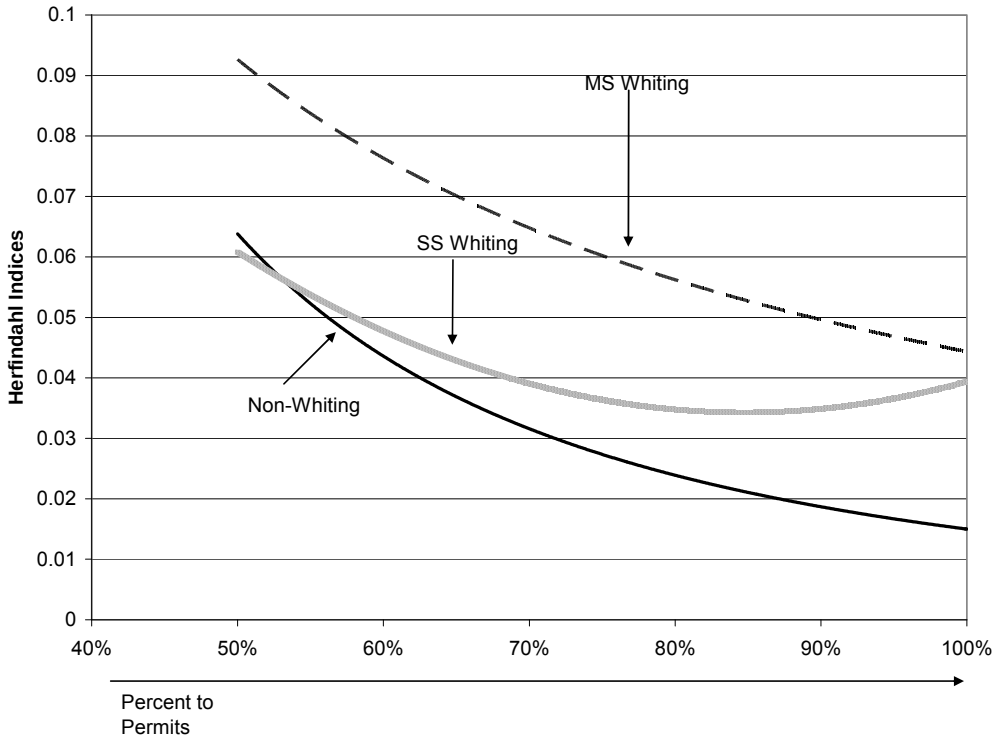


Figure 2 Herfindahl Index Results for Initial Distribution of Quota Share

Application of the Herfindahl Index Concept to Limits on Control of Quota

Limits on the control of quota are important for several reasons. The Herfindahl index provides a framework for considering limits on the control of quota from the perspective of market power. If it is assumed that entities will accumulate quota up to the maximum amount allowed by the control limit, then the Herfindahl index value is the control limit (if a control limit is set at 18%, then the Herfindahl index result would be 0.18 if all entities that hold quota share own the maximum allowed by the limit). However, this is most likely not a correct assumption. It seems more likely that some entities may acquire quota up to the control limit, but that most entities will fall below the limit. Unfortunately developing estimates of this distribution of quota ownership over the longer term is not possible, so the application of the Herfindahl index to control limits is – at this point – conceptual.

The moderately concentrated and relatively concentrated ranges of the Herfindahl index are areas where market power could be exerted. These areas are above index results of 0.10.

Index Value	Degree of Concentration
0 – 0.10	Unconcentrated
0.10 – 0.18	Moderately Concentrated
0.18 to 1	Concentrated

Currently, the Council's alternatives for control of aggregate non-whiting quota range from 1.5 to 3 percent, meaning that in all cases index results would fall within the "un-concentrated range" for the non-whiting fishery. Control limits on aggregate non-whiting of up to 10 percent would continue to fall within the "un-concentrated" range, but limits above 10 percent could be above or within the un-concentrated range. The result would depend on the distribution of ownership and the number of entities that hold up to the control limits and those that are below the control limit.

Aggregate Non-Whiting Control Limit	Effect on Concentration
1.5% to 3%	Unconcentrated
3% to 10%	Unconcentrated
10% to 18%	Unconcentrated or moderately concentrated (will depend on distribution of ownership and number of entities at the control limit)
> 18%	Unconcentrated, moderately concentrated, or concentrated (will depend on distribution of ownership and number of entities at the control limit)

The alternatives for control over shoreside whiting and mothership whiting are 10 to 25 percent. At the 10 percent level, index results would fall within the "un-concentrated" range. Values above 10 percent could fall above the un-concentrated range, but it would depend on the distribution of quota share ownership and the number of entities that are at the high and low end of the ownership spectrum.

Shoreside and Mothership Whiting Control Limit	Effect on Concentration
10%	Unconcentrated
10% to 18%	Unconcentrated or moderately concentrated (will depend on distribution of ownership and number of entities at the control limit)
> 18%	Unconcentrated, moderately concentrated, or concentrated (will depend on distribution of ownership and number of entities at the control limit)

If all three whiting sectors are held to an aggregate, three sector whiting limit, then the effect will vary based on one's ownership of quota in one particular sector and the percentage allocation of that sector. To illustrate the effect of an entity attaining the maximum shares in all three sectors, the following table was constructed. This illustrates that, under option 1, an entity could control 23.6% of the total non-tribal whiting quota if that entity acquired quota in an amount equal to the control limit in each sector. This means that entities could acquire enough quota to fall into the concentrated range if all three whiting sectors are viewed as being in the same market.

An issue that arises with the combined limit is that, if the CP sector is managed as a limited entry fishery without assignment of catch history or quota share, an overall limit may not be possible. One way an overall limit could be developed in this case is to establish a useage limit in the CP

sector and use that usage limit in conjunction with quota share and/or catch history in the other two sectors as a means to estimating total control.

	Control Limit Option		
	Option 1	Option 2	Option 3
Shoreside Whiting	10	15	25
MS	10	15	25
CP	50	55	60
SS Contribution to Total	4.2	6.3	10.5
MS Contribution to Total	2.4	3.6	6
CP Contribution to Total	17	18.7	20.4
Total Control	23.6	28.6	36.9

The Council's alternatives for control limits for individual species vary widely depending on the species and the sector. Each of the whiting sectors may have bycatch species allocated on a pro-rata basis to the amount of whiting quota each entity holds, so bycatch species allocations in the whiting fishery are covered under the section describing whiting limits.

Given the substitutability of individual species for others in the market, it appears highly unlikely that the individual species control limits will affect market power, except perhaps in a couple of cases. This is because the ability to exert market power depends on there being limited substitutability of one product for another. Put in simpler terms, if an entity was attempting to exert market power over the Dover sole market, harvesters and/or processors may simply switch to English sole, sand sole, and other types of similar flatfish, neutralizing any potential market power effects attempting to be exerted by that one entity.

The species for which some limited substitutability may exist appear to be (in the case of target species) sablefish and petrale sole, though there may be others. Constraining overfished species may have limited substitutability in another regard, such as in their constraint on target species access. In such cases, it may be appropriate to implement a control limit that results in an unconcentrated level of ownership. Control limits less than 10 percent will result in this level of concentration, while larger control limits may result in unconcentrated or concentrated quota holdings depending on the distribution of ownership and the number of entities at the limit.

Metric Ton and Dollar Equivalents for Accumulation Limits

An assumed trawl allocation was derived based on 2004-2006 OYs and typical trawl harvest percentages. That allocation and the metric tons and exvessel revenue that might be generated by someone with one percent of the QS are displayed in Table 3. The accumulation limits are provided in Table 4 and those limits are translated into a metric ton equivalents (Table 5) and exvessel revenue equivalents (Table 6) based on the values in Table 3. The actual average landings for 2004-2006 are provided in Table 7. In some cases these values are substantially lower than those provided in Table 3 because of the amount of harvest that is not accessed due to regulatory or other constraints.

Table 3. Metric tons and exvessel value represented by a 1% quota share, assuming recent prices and estimated trawl allocations based on recent OYs.

Species Category	Assumed Trawl Allocation (mt)	1% share mt	1% share $
All nonwhiting groundfish (in aggregate)		441.9	465,997.8
Lingcod - coastwide	855.0	8.6	$9,706
N. of 42° (OR & WA)	684.0	6.8	$7,720
S. of 42° (CA)	171.0	1.7	$1,985
Pacific Cod	1,200.0	12.0	$15,132
Pacific whiting (shoreside)	100,000.0	1,000.0	$113,283
Sablefish (Coastwide)	2,600.0	26.0	$65,511
N. of 36° (Monterey north)	2,550.0	25.5	$64,879
S. of 36° (Conception area)	50.0	0.5	$632
PACIFIC OCEAN PERCH	84.8	0.8	$869
Shortbelly Rockfish	0.0	0.0	$0
WIDOW ROCKFISH	150.0	1.5	$1,419
CANARY ROCKFISH	9.5	0.1	$106
Chilipepper Rockfish	2,000.0	20.0	$19,509
BOCACCIO	3.5	0.0	$46
Splitnose Rockfish	350.0	3.5	$2,977
Yellowtail Rockfish	3,500.0	35.0	$31,026
Shortspine Thornyhead - coastwide	1,700.0	17.0	$22,448
N. of 34°27'	1,536.0	15.4	$20,451
S. of 34°27'	164.0	1.6	$1,998
Longspine Thornyhead - coastwide	2,071.0	20.7	$24,073
N. of 34°27'	2,071.0	20.7	$24,073
S. of 34°27'	0.0	0.0	$0
COWCOD	0.0	0.0	$0
DARKBLOTCHED	200.0	2.0	$2,008
YELLOWEYE	0.4	0.0	$4
Black Rockfish - coastwide	1.8	0.0	$15
Black Rockfish (WA)	0.0	0.0	$0
Black Rockfish (OR-CA)	1.8	0.0	$15
Minor Rockfish North	758.6	7.6	$9,236
Nearshore Species	0.7	0.0	$6
Shelf Species	10.9	0.1	$91
Slope Species	747.0	7.5	$9,139
Minor Rockfish South	377.2	3.8	$4,505
Nearshore Species	0.1	0.0	$1
Shelf Species	4.2	0.0	$38
Slope Species	373.0	3.7	$4,466
California scorpionfish	0.0	0.0	$0
Cabezon (off CA only)	0.0	0.0	$0
Dover sole (total)	15,000.0	150.0	$123,641
English Sole	883.1	8.8	$6,895
Petrale Sole (coastwide)	2,421.6	24.2	$52,241
Arrowtooth Flounder (total)	4,943.0	49.4	$27,556
Starry Flounder	65.9	0.7	$834
Other Flatfish	4,800.0	48.0	$44,759
Other Fish	210.6	2.1	$1,481
Sum (value if 1% of each species)		1,442	579,281

Table 4. Accumulation limit options.

Stock	Option 1		Option 2		Option 3	
	Control Limit (%)	Vessel Limit (%)	Control Limit (%)	Vessel Limit (%)	Control Limit (%)	Vessel Limit (%)
All nonwhiting groundfish (in aggregate)	1.5	3	2.2	4.4	3	6
Lingcod - coastwide c/	5	10	7.5	15		
N. of 42° N (OR & WA)	5	10	7.5	15		
S. of 42° N (CA)	5	10	7.5	15		
Pacific Cod	5	10	7.5	15		
Pacific Whiting	10	15	15	22.5	25	37.5
Sablefish (Coastwide)	1.9	3.8	2.9	5.7		
N. of 36° N (Monterey north)	2	4	3	6		
S. of 36° N (Conception area)	5	10	7.5	15		
PACIFIC OCEAN PERCH	5	10	7.5	15		
Shortbelly Rockfish	5	10	7.5	15		
WIDOW ROCKFISH	3.4	6.8	5.1	10.2		
CANARY ROCKFISH	5	10	7.5	15		
Chilipepper Rockfish	5	10	7.5	15		
BOCACCIO	5	10	7.5	15		
Splitnose Rockfish	5	10	7.5	15		
Yellowtail Rockfish	5	10	7.5	15		
Shortspine Thornyhead - coastwide	3.1	6.2	4.7	9.3		
N. of 34°27'	4.8	9.6	7.2	14.4		
S. of 34°27'	4.7	9.4	7.1	14.1		
Longspine Thornyhead - coastwide	2	4	3	6		
N. of 34°27'	2	4	3	6		
S. of 34°27'	5	10	7.5	15		
COWCOD - Conception and Monterey	5	10	7.5	15		
DARKBLOTCHED	5	10	7.5	15		
YELLOWEYE g/	5	10	7.5	15		
Black Rockfish	5	10	7.5	15		
Black Rockfish (WA)	5	10	7.5	15		
Black Rockfish (OR-CA)	5	10	7.5	15		
Minor Rockfish North	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	4	8	6	12		
Slope Species	5	10	7.5	15		
Minor Rockfish South	5	10	7.5	15		
Nearshore Species	5	10	7.5	15		
Shelf Species	5	10	7.5	15		
Slope Species	5	10	7.5	15		
California scorpionfish	5	10	7.5	15		
Cabezon (off CA only)	5	10	7.5	15		
Dover Sole	1.8	3.6	2.7	5.4		
English Sole	10	20	15	30		
Petrale Sole (coastwide) c/	2.9	5.8	4.4	8.7		
Arrowtooth Flounder	5	10	7.5	15		
Starry Flounder	5	10	7.5	15		
Other Flatfish	10	20	15	30		
Other Fish	5	10	7.5	15		

Table 5. Accumulation limits translated to MT, assuming recent prices and estimated trawl allocations based on recent OYs (aggregate assumes QS held is equally distributed among all species).

Stock	Option 1		Option 2		Option 3	
	Control Limit (mt)	Vessel Limit (mt)	Control Limit (mt)	Vessel Limit (mt)	Control Limit (mt)	Vessel Limit (mt)
All nonwhiting groundfish (in aggregate)	663	1,326	972	1,944	1,326	2,651
Lingcod - coastwide c/	43	86	64	128		
N. of 42° N (OR & WA)	34	68	51	103		
S. of 42° N (CA)	9	17	13	26		
Pacific Cod	60	120	90	180		
Pacific Whiting	10,000	15,000	15,000	22,500	25,000	37,500
Sablefish (Coastwide)	49	99	75	148		
N. of 36° N (Monterey north)	51	102	77	153		
S. of 36° N (Conception area)	3	5	4	8		
PACIFIC OCEAN PERCH	4	8	6	13		
Shortbelly Rockfish	0	0	0	0		
WIDOW ROCKFISH	5	10	8	15		
CANARY ROCKFISH	0	1	1	1		
Chilipepper Rockfish	100	200	150	300		
BOCACCIO	0	0	0	1		
Splitnose Rockfish	18	35	26	53		
Yellowtail Rockfish	175	350	263	525		
Shortspine Thornyhead - coastwide	53	105	80	158		
N. of 34°27'	74	147	111	221		
S. of 34°27'	8	15	12	23		
Longspine Thornyhead - coastwide	41	83	62	124		
N. of 34°27'	41	83	62	124		
S. of 34°27'	0	0	0	0		
COWCOD - Conception and Monterey	0	0	0	0		
DARKBLOTCHED	10	20	15	30		
YELLOWEYE g/	0	0	0	0		
Black Rockfish	0	0	0	0		
Black Rockfish (WA)	0	0	0	0		
Black Rockfish (OR-CA)	0	0	0	0		
Minor Rockfish North	38	76	57	114		
Nearshore Species	0	0	0	0		
Shelf Species	0	1	1	1		
Slope Species	37	75	56	112		
Minor Rockfish South	19	38	28	57		
Nearshore Species	0	0	0	0		
Shelf Species	0	0	0	1		
Slope Species	19	37	28	56		
California scorpionfish	0	0	0	0		
Cabezon (off CA only)	0	0	0	0		
Dover Sole	270	540	405	810		
English Sole	88	177	132	265		
Petrale Sole (coastwide) c/	70	140	107	211		
Arrowtooth Flounder	247	494	371	741		
Starry Flounder	3	7	5	10		
Other Flatfish	480	960	720	1,440		
Other Fish	11	21	16	32		
Sum of value if at limit for each species	11,818	18,636	17,728	27,954	25,000	37,500
Sum of nonwhiting and whiting accum lim	10,663	16,326	15,972	24,444	26,326	40,151

Table 6. Accumulation limits translated to MT, assuming recent prices and estimated trawl allocations based on recent OYs (aggregate assumes QS held is equally distributed among all species).

Stock	Option 1		Option 2		Option 3	
	Control Limit ($)	Vessel Limit ($)	Control Limit ($)	Vessel Limit ($)	Control Limit ($)	Vessel Limit ($)
All nonwhiting groundfish (in aggregate)	698,997	1,397,993	1,025,195	2,050,390	1,397,993	2,795,987
Lingcod - coastwide c/	48,529	97,057	72,793	145,586		
N. of 42° N (OR & WA)	38,602	77,204	57,903	115,806		
S. of 42° N (CA)	9,926	19,853	14,890	29,779		
Pacific Cod	75,658	151,315	113,486	226,973		
Pacific Whiting	1,132,833	1,699,249	1,699,249	2,548,874	2,832,082	4,248,124
Sablefish (Coastwide)	124,470	248,941	189,981	373,411		
N. of 36° N (Monterey north)	129,758	259,517	194,638	389,275		
S. of 36° N (Conception area)	3,158	6,315	4,737	9,473		
PACIFIC OCEAN PERCH	4,343	8,687	6,515	13,030		
Shortbelly Rockfish	1	3	2	4		
WIDOW ROCKFISH	4,826	9,651	7,238	14,477		
CANARY ROCKFISH	530	1,059	794	1,589		
Chilipepper Rockfish	97,547	195,095	146,321	292,642		
BOCACCIO	230	460	345	690		
Splitnose Rockfish	14,886	29,773	22,329	44,659		
Yellowtail Rockfish	155,128	310,255	232,691	465,383		
Shortspine Thornyhead - coastwide	69,590	139,180	105,508	208,770		
Shortspine Thornyhead - N. of 34°27' N	98,164	196,329	147,246	294,493		
Shortspine Thornyhead - S. of 34°27' N	9,388	18,777	14,182	28,165		
Longspine Thornyhead - coastwide	48,146	96,292	72,219	144,438		
Longspine Thornyhead - N. of 34°27' N	48,146	96,292	72,219	144,438		
Longspine Thornyhead - S. of 34°27' N	0	0	0	0		
COWCOD - Conception and Monterey	0	0	0	0		
DARKBLOTCHED	10,041	20,081	15,061	30,122		
YELLOWEYE g/	22	44	33	65		
Black Rockfish	77	154	116	232		
Black Rockfish (WA)	1	3	2	4		
Black Rockfish (OR-CA)	76	152	114	227		
Minor Rockfish North	46,182	92,364	69,273	138,546		
Nearshore Species	31	61	46	92		
Shelf Species	365	730	548	1,095		
Slope Species	45,695	91,390	68,543	137,085		
Minor Rockfish South	22,525	45,049	33,787	67,574		
Nearshore Species	4	7	5	11		
Shelf Species	190	380	285	570		
Slope Species	22,331	44,662	33,496	66,993		
California scorpionfish	0	0	0	0		
Cabezon (off CA only)	0	0	0	0		
Dover Sole	222,553	445,106	333,830	667,660		
English Sole	68,949	137,897	103,423	206,846		
Petrale Sole (coastwide) c/	151,499	302,997	229,860	454,496		
Arrowtooth Flounder	137,780	275,560	206,670	413,340		
Starry Flounder	4,168	8,336	6,252	12,504		
Other Flatfish	447,592	895,185	671,388	1,342,777		
Other Fish	7,407	14,814	11,110	22,221		
Sum of value if at limit for each species	2,941,828	5,317,239	4,415,454	7,975,859	5,548,287	9,675,108
Sum of nonwhiting and whiting accum lim	1,831,830	3,097,243	2,724,444	4,599,264	4,230,076	7,044,110

Table 7

Landings and Ex-vessel Revenue for Groundfish Species Delivered to Shoreside Buyers by West Coast Trawl Vessels in 2004-2006

	Roundweight (mt)			Ex-vessel Revenue ($,000)		
Species Category	**2004**	**2005**	**2006**	**2004**	**2005**	**2006**
Lingcod - coastwide	62.1	83.5	126.9	91.0	116.3	179.6
N. of 42° (OR & WA)	46.4	63.1	100.2	62.3	84.1	137.0
S. of 42° (CA)	15.7	20.4	26.7	28.7	32.2	42.6
Pacific Cod	1,103.1	731.0	338.7	1,163.3	754.0	377.5
Pacific whiting (shoreside)	92,893.9	97,569.1	97,268.7	7,525.2	11,351.5	13,719.1
Sablefish (Coastwide)	2,571.0	2,385.3	2,621.7	5,793.0	5,821.8	7,588.3
N. of 36° (Monterey north)	2,490.9	2,330.4	2,608.6	5,627.6	5,734.1	7,560.3
S. of 36° (Conception area)	80.2	54.9	13.1	165.4	87.7	27.9
PACIFIC OCEAN PERCH	131.2	58.7	66.1	132.8	60.5	68.9
Shortbelly Rockfish	0.1	0.0	0.3	0.1	0.0	0.4
WIDOW ROCKFISH	43.1	80.2	55.5	40.3	75.8	54.1
CANARY ROCKFISH	7.7	7.6	11.9	8.4	8.7	13.5
Chilipepper Rockfish	39.2	30.6	23.6	45.0	37.5	32.0
BOCACCIO	6.1	3.8	0.8	7.5	5.3	1.0
Splitnose Rockfish	163.7	86.3	105.5	119.9	61.7	69.2
Yellowtail Rockfish	220.4	202.9	183.3	211.7	189.2	171.7
Shortspine Thornyhead - coastwide	664.4	506.3	564.1	1,088.1	925.1	1,111.8
N. of 34°27'	439.1	361.2	442.5	660.0	594.2	822.8
S. of 34°27'	225.3	145.0	121.6	428.1	330.9	289.0
Longspine Thornyhead - coastwide	722.0	629.4	733.2	767.9	629.3	948.0
N. of 34°27'	722.0	629.4	733.2	767.9	629.3	948.0
S. of 34°27'	0.0	0.0	0.0	0.0	0.0	0.0
COWCOD	0.0	0.0	0.0	0.0	0.0	0.0
DARKBLOTCHED	188.4	82.7	91.1	192.5	79.2	91.7
YELLOWEYE	0.3	0.3	0.5	0.4	0.3	0.7
Black Rockfish - coastwide	2.4	0.5	2.6	2.5	0.6	2.8
Black Rockfish (WA)	0.0	0.0	0.1	0.0	0.0	0.1
Black Rockfish (OR-CA)	2.4	0.5	2.5	2.5	0.6	2.7
Minor Rockfish North	242.2	140.0	116.1	244.7	137.5	120.2
Nearshore Species	1.2	0.2	0.9	1.3	0.2	0.9
Shelf Species	34.0	36.5	25.0	28.8	30.1	24.9
Slope Species	207.0	103.3	90.3	214.6	107.1	94.4
Minor Rockfish South	239.9	116.7	103.2	274.5	119.4	126.8
Nearshore Species	0.1	0.0	0.1	0.9	0.0	0.3
Shelf Species	1.8	5.8	5.0	3.4	7.3	7.2
Slope Species	238.0	110.9	98.1	270.1	112.1	119.3
California scorpionfish	0.0	0.0	0.0	0.0	0.0	0.0
Cabezon (off CA only)	0.0	0.0	0.0	0.0	0.0	0.0
Dover sole (total)	7,128.6	6,925.8	6,002.9	5,838.5	5,697.1	4,996.9
English Sole	887.3	870.6	890.6	691.8	642.3	646.6
Petrale Sole (coastwide)	1,904.3	2,745.5	2,606.3	4,264.8	5,571.5	5,810.2
Arrowtooth Flounder (total)	2,386.9	2,119.7	1,817.5	585.8	496.1	441.5
Starry Flounder	118.3	23.4	56.2	103.7	21.1	49.9
Other Flatfish	1,269.7	1,105.4	1,092.0	1,174.0	1,032.6	982.5
Other Fish	259.2	320.6	214.1	97.0	122.0	74.7
Total Non-whiting Groundfish	20,361.5	19,256.6	17,824.9	22,939.0	22,605.0	23,960.4
Total Groundfish	113,255.4	116,825.6	115,093.5	30,464.2	33,956.5	37,679.5

Whiting Sector and Aggregate Accumulation Limits

The sector accumulation limit options were transformed (the first two columns of numbers in Table 8) were transformed to a combined whiting sector equivalent (the second two columns in Table 8). On this basis, it can be seen that the option 3 individual sector control Limits (grey cell) total to less than the Option 3 all whiting sector combined limit. Therefore, the option 3 control limit of 40% will not be limiting but rather the combined control limit will be limited by the individual sector control limits.

Table 8. Pacific Whiting accumulation limit and limits as a proportion of the trawl allocation.

	Sector Limit Options		Sector Limits as a Proportion of Total Non-tribal Trawl Whiting Allocation	
	Control Limit (%)	Vessel Limit (%)	Control Limit (%)	Vessel Limit (%)
	Option 1			
Shoreside Sector	10	15	4.2	6.3
Mothership Sector	10	25	2.4	6
Catcher Processors	50	65	17	22.1
All Whiting Sectors Combined	15	25	23.6	34.4
	Option 2			
Shoreside Sector	15	22.5	6.3	9.45
Mothership Sector	15	37.5	3.6	9
Catcher Processors	55	70	18.7	23.8
All Whiting Sectors Combined	22.5	37.5	28.6	42.25
	Option 3			
Shoreside Sector	25	37.5	10.5	15.75
Mothership Sector	25	50	6	12
Catcher Processors	60	75	20.4	25.5
All Whiting Sectors Combined	40	50	36.9	53.25

Option 3 combined control limit is less constraining than the individual sector control Limits combined.

PFMC
11/02/08

Mothership Sector Vertical Integration

Summary Statistics

- 10 permits can be identified as fully or partially vertically integrated (affiliated)
- These permits may receive approximately 41 percent of the mothership sector allocation using both initial allocation formulas for the co-op alternative.
- Partially owned, or affiliated, permits may receive 21.5 – 22.6 percent of the mothership sector allocation depending on the co-op alternative initial allocation formula
    - (note: these statistics differ from those in Ch 4 of the Environmental Impact Statement because they include partially owned permits and use the co-op alternative initial allocation rules, rather than the individual fishing quota initial allocation rules)
- Of the six partially affiliated permits, two delivered to a company other than an affiliated mothership company over the 2003 to 2006 time period in years when that affiliated mothership was active in the fishery.

Importance of Vertical Integration on a Company Basis

Over the 2003 – 2006 time period, two companies received the majority of their deliveries from wholly owned or affiliated permits, while two qualifying companies received a relatively small portion of their deliveries from wholly owned or affiliated permits.

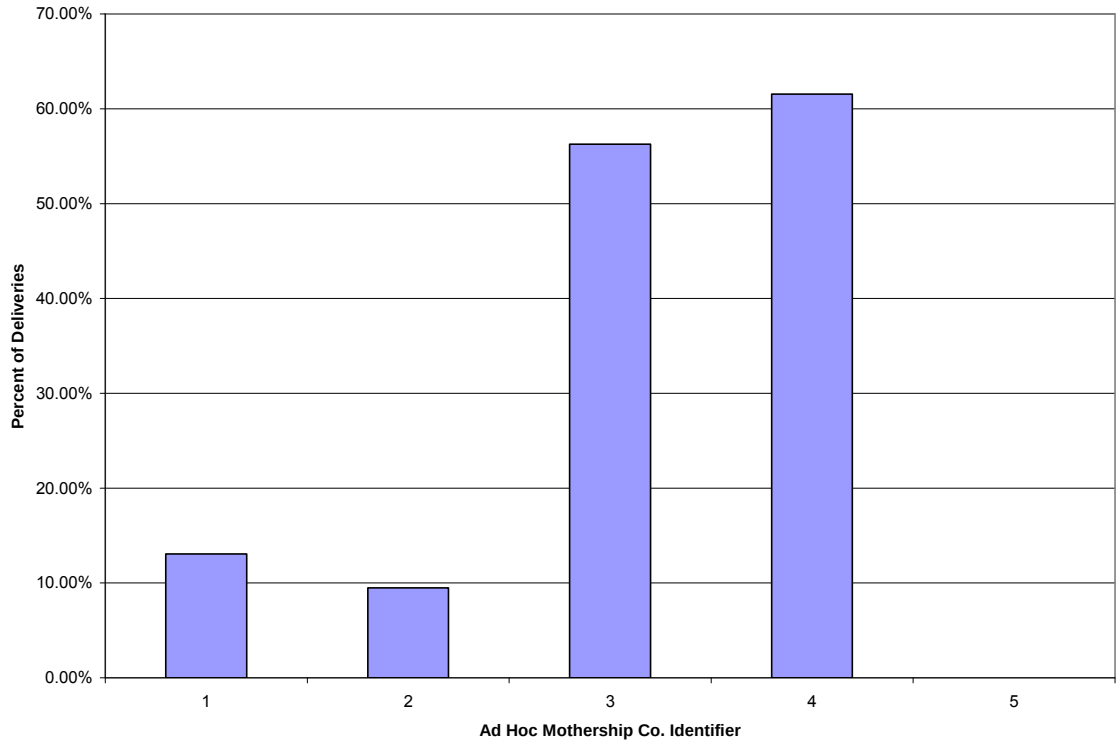


Figure 1 Portion of Deliveries Received by Wholly Owned or Affiliated Catcher Vessel Permits by Mothership Company (2003 - 2006)

New GAC Alternative for Mothership Linkages

- Requires that catcher vessels declare a mothership by a date certain each year.
  - Not required to go to non-cooperative fishery to switch motherships

Select Findings

- The new linkage alternative makes it relatively easy to switch motherships
- A mothership declaration process will have a similar exvessel price negotiation outcome as a system with no linkage
  - Those negotiations will occur prior to the declaration
- Business planning may be enhanced by a declaration requirement to some degree
- May affect some MS companies more than others

Factors influencing importance of having/not having strong mothership linkages

- Linkages help processors benefit from rationalization because:
  - Provides leverage in negotiations over exvessel prices
  - Provides some certainty about future delivery volumes
- Vertical integration affects the importance of linkages
  - More vertical integration tends to decrease importance of linkages
- Relative competition among firms for independent catcher vessels can influence importance of linkages

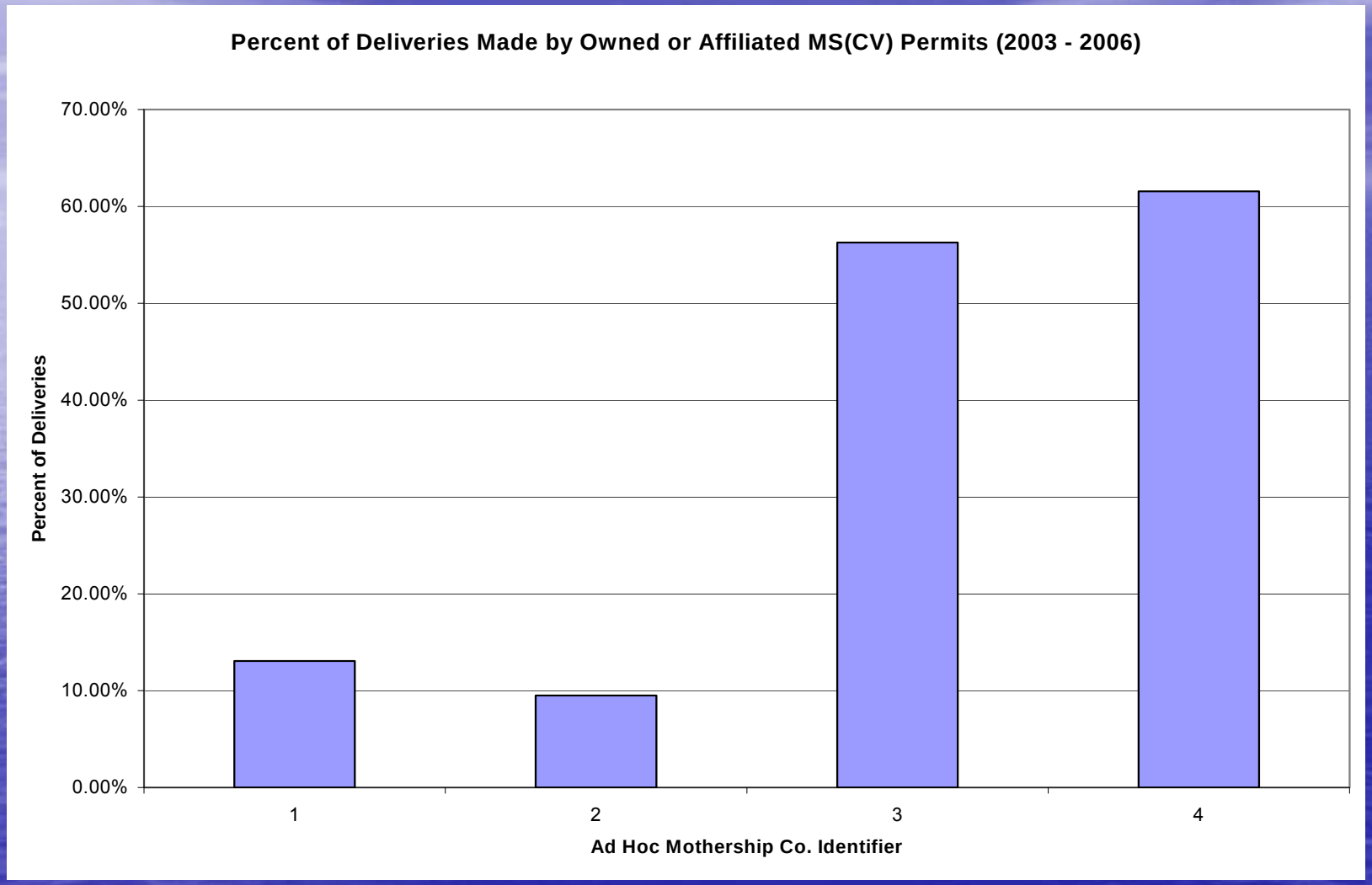
Vertical integration specifics

- The importance of vertical integration is dependent on some specific factors:
  1. Number of wholly owned catcher vessel permits
  2. Number of partially owned, or affiliated, catcher vessel permits
     - Does that partial ownership constitute a controlling interest?
  3. Number of independent catcher vessels
  4. Which companies are vertically integrated and to what degree?

Summary statistics for vertically integrated and affiliated CV permits

- 10 permits identified as being wholly owned or affiliated with a MS company
  - 6 are affiliated
- These 10 permits would receive approximately 41% percent of the MS allocation for the coop alternative
  - 6 affiliated permits would receive 21.5% to 22.6% of the MS allocation
- In recent years 2 of the affiliated permits have delivered to a non-affiliated mothership even when the affiliated mothership was active
  - May indicate whether affiliation equals control

Importance of owned and affiliated catcher vessels to qualifying motherships



Indicates that linkages may be more important to some companies than others

Competition among firms for independent catcher vessels

- Relative competition may be indicated by a couple of factors:
  1. Does a firm with a larger net revenue structure have the ability to squeeze their rival?
  2. Does a firm with a lower cost structure have the ability to squeeze their rival?

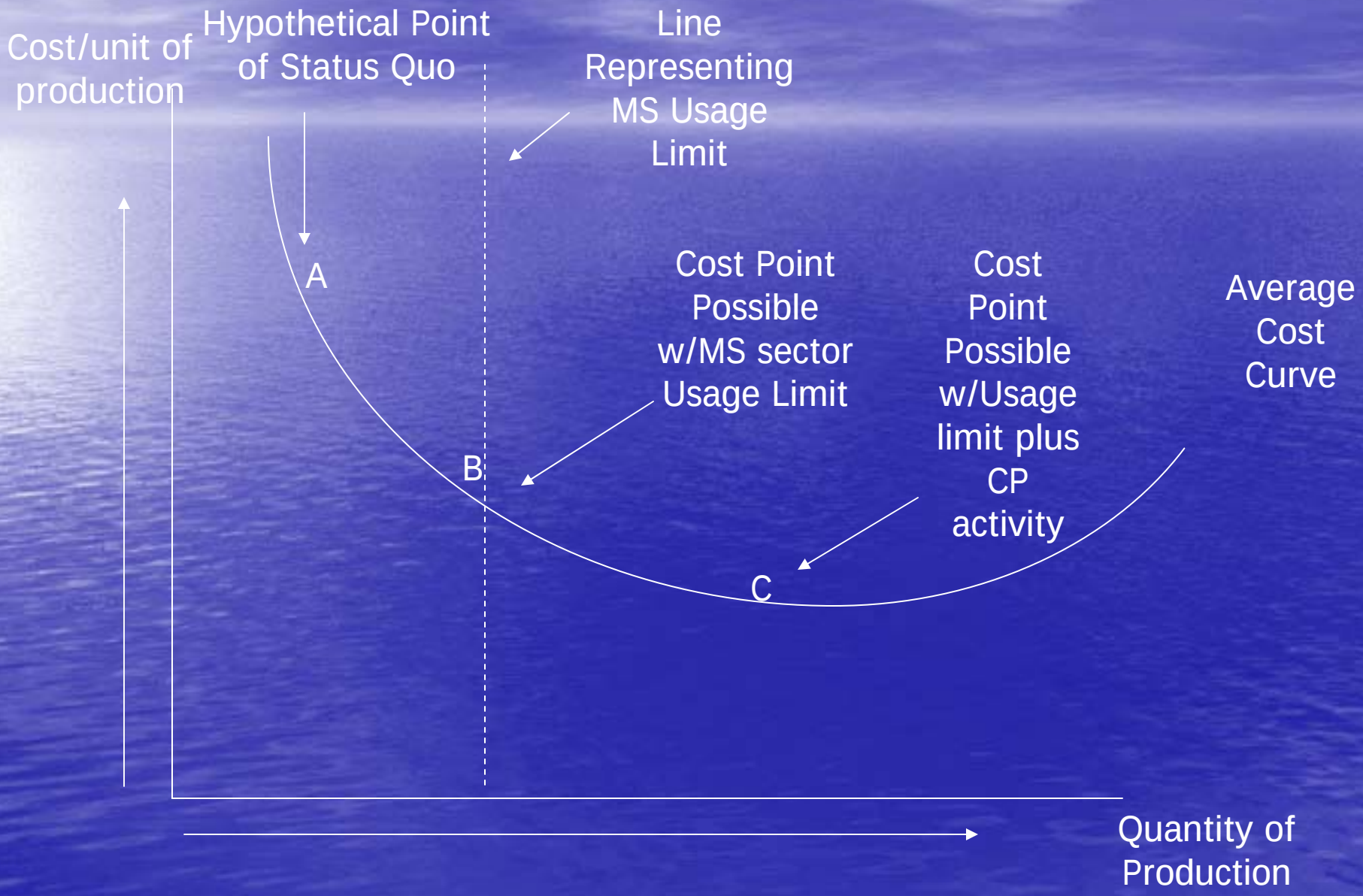
Net revenue structure

- Vertical integration affects net revenue
  - Those firms relatively vertically integrated will tend to generate greater net revenue
    - Revenue from processing
    - Revenue from harvesting
  - Can that additional revenue be used as leverage in competition with a rival?

Cost structure

- Mothership operations may all have a similar revenue structure, but:
  - Allowing a CP to operate as a mothership may affect that firms cost structure
    - Allowing a CP to operate as a mothership removes a vessel from the fishery, tending to decrease cost
- Can a lower cost structure be used as leverage in competition with a rival?

Conceptual effect on average costs from allowing a CP to operate as a MS



Summary findings

- New GAC alternative for the mothership linkage provision will tend to:
  - Lead to higher price negotiation power among catcher vessels than a case with firmer linkages
  - Tend to decrease business planning compared to a case with firmer linkages
  - Tend to affect some mothership companies more than others

GAC recommendation for species coverage in at sea sectors

- GAC recommendation:
  - That at sea sectors be held responsible for the same species as shoreside sectors

- Implication appears to be:
  - Adverse economic impacts
  - Little or no benefit to management and conservation for most species covered

Background

- Implied concept is that direct management of certain species will indirectly control catch of others
- Direct management of all species potentially encountered may lead to adverse economic/administrative effects
  - Especially the case for rarely encountered species with small sector allocations
  - Appears to have led to the exclusion of nearshore species from the IFQ program
- Applying similar rationale for including/excluding species to each sector results in a different mix of species for each sector

Intersector Allocation Alternative 3: Based on 1995-2005 Landed Catch shares

	CP	MS	SW	SN	TWL Total	Non TWL
Lingcod						
N of 42º (OR & WA)	1	3	10	2,250	2,264	1,620
S of 42º (CA)	-	-	0	97	97	355
Pacific Cod	0	0	1	739	740	7
Pacific Whiting (U.S.)	70,751	49,942	87,398	1,559	209,650	241
Sablefish						
N of 36º (Monterey north)	16	2	47	2,642	2,707	2,444
S of 36º (Conception area)	-	-	-	73	73	81
Yellowtail Rockfish	138	214	282	1,896	2,530	98
Shortspine Thornyhead - N of 34º27'	14	0	1	1,157	1,172	25
Shortspine Thornyhead - S of 34º27'	-	-	-	246	246	66
Longspine Thornyhead - N of 34º27'	0	0	0	1,622	1,622	19
Longspine Thornyhead - S of 34º27'	-	-	-	1	1	355
Slope Rockfish N	55	10	9	653	728	104
Slope Rockfish S	-	-	-	326	326	140
Dover Sole	0	0	1	11,926	11,927	5
English Sole	0	0	3	4,479	4,482	2
Petrale Sole (coastwide)	0	0	0	1,763	1,764	2
Arrowtooth Flounder	2	1	2	4,155	4,160	3
Starry Flounder	-	-	0	318	318	333
Other Flatfish	9	1	2	3,430	3,442	94

At Sea Sector Catch by Year and Species (mt)

Species	Year					OY/ Allocation
	2003	2004	2005	2006	2007	
SPINY DOGFISH	269	615	355	61	155	
WIDOW ROCKFISH	14	21	80	142	146	368
YELLOWTAIL ROCKFISH	36	47	112	110	79	4,548
SLOPE ROCKFISH (N)		24	51	8	32	1,160
SABLEFISH	17	29	15	2	3	2,651
DARKBLOTCHED ROCKFISH	4	7	11	11	12	330
SHORTSPINE THORNYHEAD	16	5	7	1	3	1,634
SHELF ROCKFISH (N)		5	7	4	2	958
ARROWTOOTH FLOUNDER	4	3	4	3	3	5,800
PACIFIC OCEAN PERCH	6	1	2	3	4	150
LINGCOD	1	1	3	3	6	5,558
CANARY ROCKFISH	1	5	1	1	2	44
PACIFIC HALIBUT	3	1	2	1	1	
OTHER FLATFISH		2	3	-	-	4,884
LONGNOSE SKATE		0	1	0	1	

Species	OY/ Allocation	Average portion of 2008 OY (2004 to 2006)	Substantially Caught in Non-trawl Sectors
WIDOW ROCKFISH	368	21.89%	No
CANARY ROCKFISH	44	4.85%	Yes
DARKBLOTCHED ROCKFISH	330	2.77%	No
SLOPE ROCKFISH (N)	1,160	2.48%	No
PACIFIC OCEAN PERCH	150	2.20%	No
YELLOWTAIL ROCKFISH	4,548	1.69%	No
SABLEFISH	2,651	0.50%	NA
SHELF ROCKFISH (N)	958	0.47%	Yes
SHORTSPINE THORNYHEAD	1,634	0.38%	No
ARROWTOOTH FLOUNDER	5,800	0.06%	No
LINGCOD	5,558	0.05%	Yes
OTHER FLATFISH	4,884	0.03%	No
LONGNOSE SKATE			No
PACIFIC HALIBUT			Yes
SPINY DOGFISH			Yes

Summary Findings

Several species appear to have a higher degree of priority for direct coverage than others.

This prioritization appears to be (in addition to whiting):

1. Widow rockfish
2. Canary rockfish
3. Darkblotched/Slope rockfish/POP
   - (Selecting one of these species may indirectly control the catch of the other two)

- Covering additional species may lead to adverse economic impacts as discussed in Ch 4 of EIS
- If 4 sectors are established, SS whiting and at sea should be held responsible for same set of species

Using the Herfindahl Index to Assess Control Limits

- Index is used by DOJ and FTC for looking at market power
- Establishes thresholds that help establish under which conditions market power may exist.

Index at a glance

- Herfindahl index examines the market share of each firm
  - Measures the sum of squares of market shares
- Result is affected by:
  - The share of the market held by largest firms
  - The share of the market held by smallest firms
  - The distribution of market share between them
  - The number of firms

DOJ Thresholds

- If an index result is less than 10%, the market is unconcentrated
- If index result is 10% – 18%, the market is moderately concentrated
- If index result is 18%, the market is concentrated

- If all entities hold quota up to the control limit, the Herfindahl index value is the control limit
  - Actual index result will depend on size of control limit and distribution of quota ownership under that control limit

Findings

- Approach is not necessarily applicable to specific species control limits
- If the aggregate species control limit is set at 10% or less, the ownership of quota will be unconcentrated
- If control limits are set between 10% and 18%, the ownership of quota could be moderately concentrated, or unconcentrated
  - Result will depend on distribution of ownership
- If control limits are set higher than 18%, the ownership of quota could be concentrated, moderately concentrated, or unconcentrated
  - Result will depend on distribution of ownership

Overall Assessment of Costs and Benefits

- Rationalization program will move management to individual accountability for total catch.
- Requires 100% observer coverage.

- Ability to pay for observer coverage comes from:
  - Increased access to target species through behavioral changes induced by individual accountability
  - Increased efficiency from:
    - harvest privilege transfers to most efficient vessels
    - fleet consolidation

Overall Assessment of Costs and Benefits

	Shoreside Nonwhiting	Shoreside Whiting	Mothership	Catcher-Processor
New Efficiency Benefits	$14 to $22 Million	Unquantified	Unquantified	Unquantified
New Monitoring Costs (assuming no decrease in number of trips)	$3.8 - $3.9 Million	$0.5 - $0.7 Million	$0.3 - $0.4 Million	$0
New Agency Administrative Costs	$2.4 to $2.9 Million			

$14 million with cost savings only.
$22 million with increased landings and savings.

Accumulation Limits

- Specifying the accumulation limit options
  - Control Limits (QS/QP)
  - Vessel Limits (QP in a Vessel Account)

- Decisions on the limits
  - Whether to set control limits below vessel limits
  - The percentages to use for the limits

Control Limits Below Vessel Limits

- A vessel owner holds QS up to the control limit
- Has to acquire/lease QP from others to reach the vessel limit

- Problem
  - QP must be put into the vessel account to be used.
  - Control limit applies to both the QS and QP
  - When a vessel owner at the control limit tries to fill out the vessel limit, the control limit is exceeded.
  - For the vessel owner: “There is no way to get there from here”

Resolving the Problem

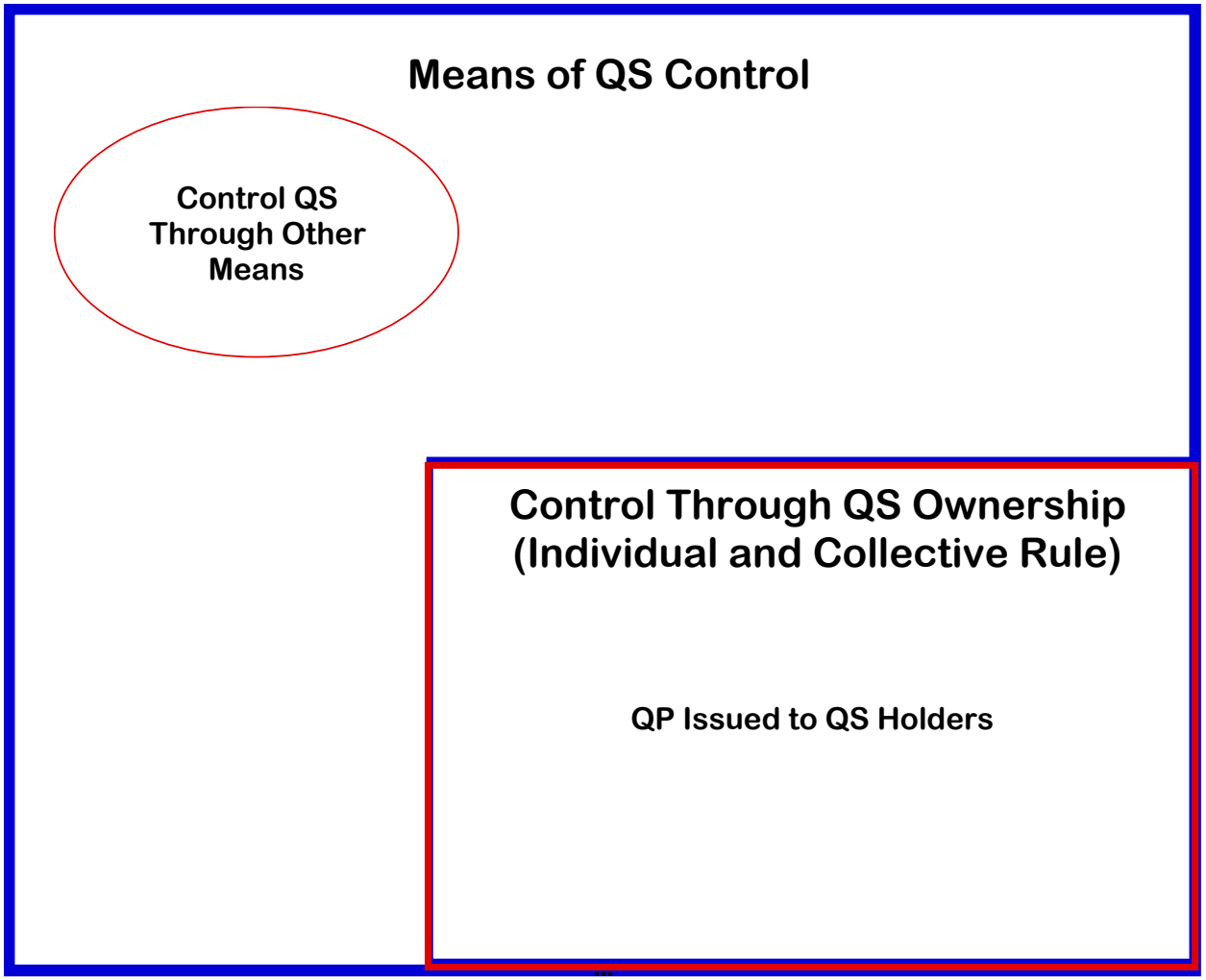
- Set Control Limits Equal to Vessel Limits
- Set Control Limits Below Vessel Limits But
  - Exempt QP in vessel accounts from automatically counting
  - Exempt all QP from automatically counting
    - Exempting QP from control limits does not change the underlying rule.
    - Cap QP holdings at a level equal to vessel limits.

Control Limits < Vessel Limits Why?

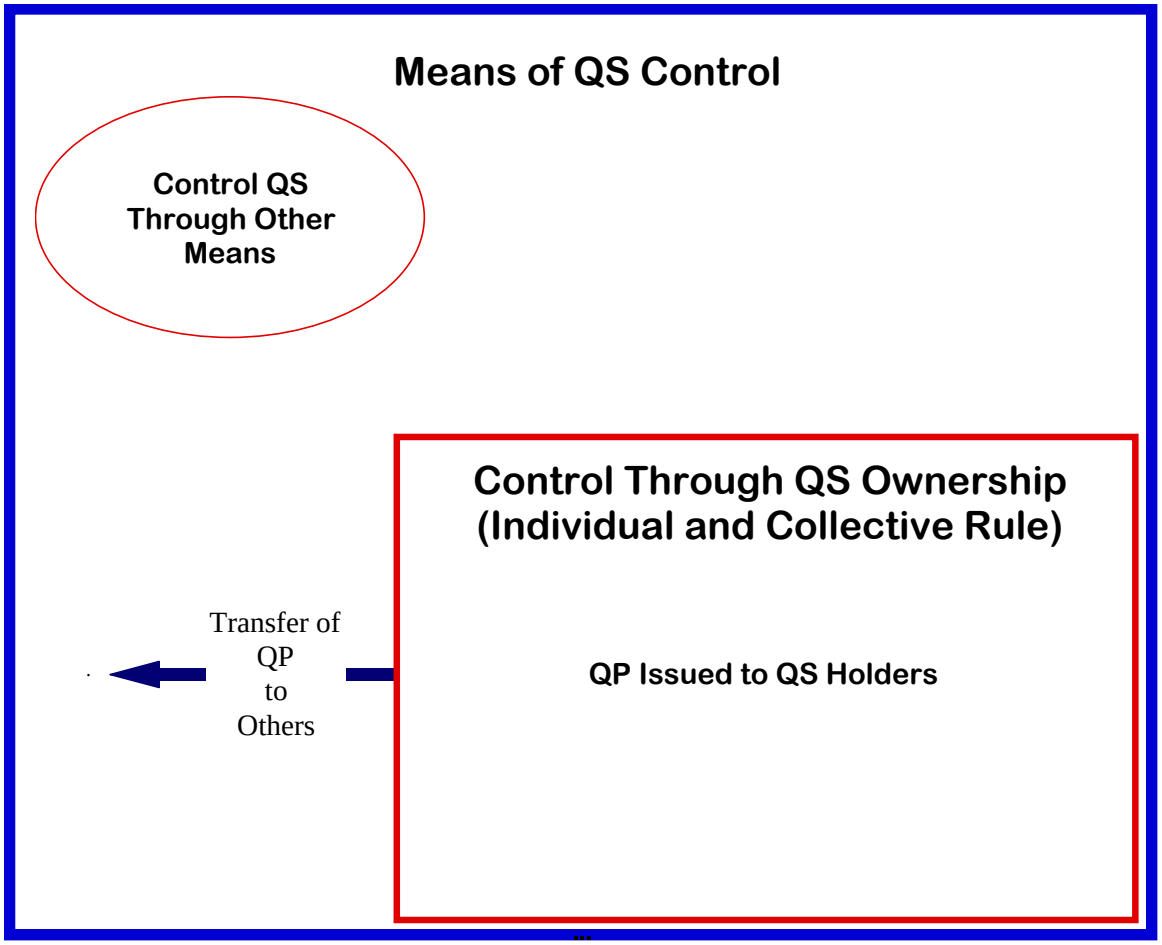
- Better achieve competing objectives
  - Higher vessel limits allow greater efficiency
    - WHILE
  - Lower control limits spread control over the access to the fishery among more entities

- Vessel owners desiring to reach higher income and efficiency levels will have to co-operate with others.
  - Leaves room for crew members, communities and others to put their QP on a vessel

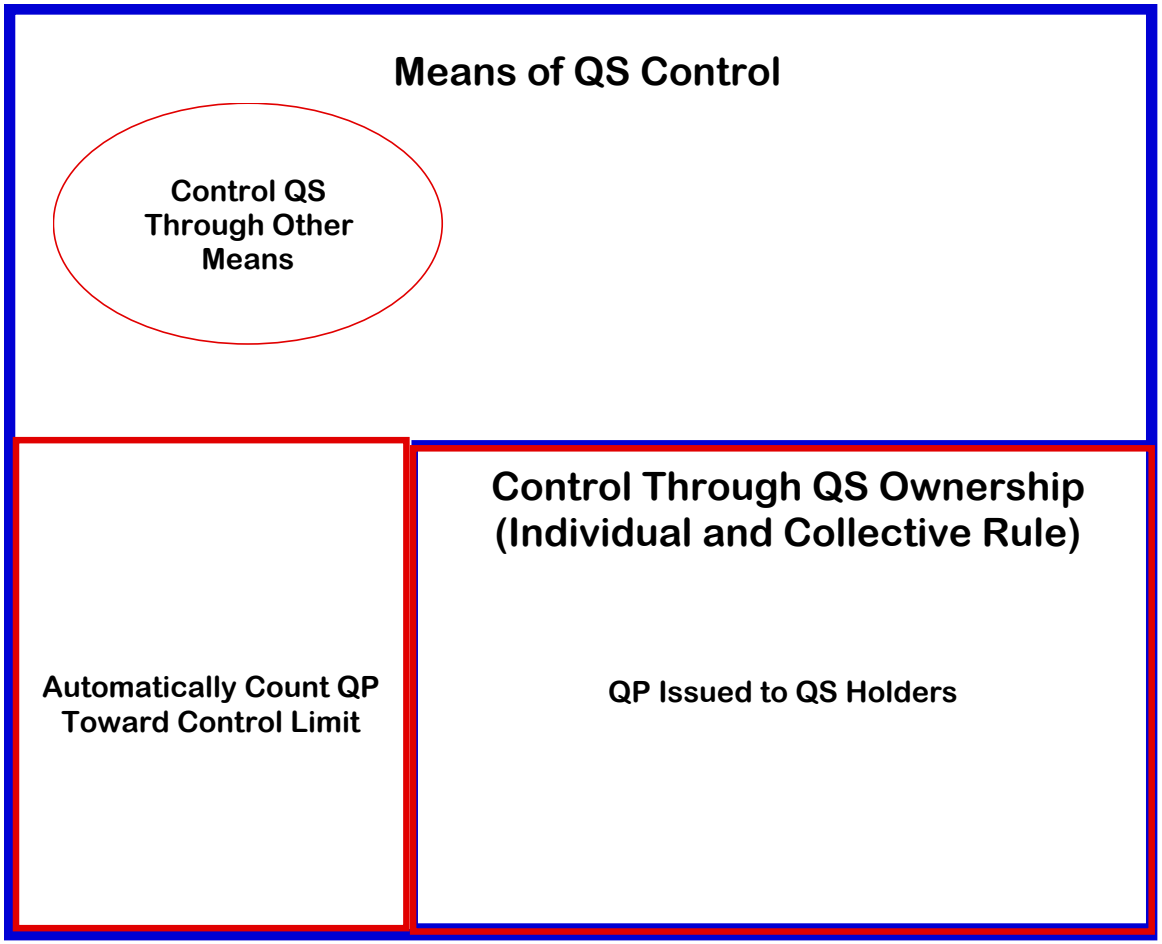
QS Control: Through Ownership and Other Means



Regular Transfers of QP to Certain Other Entities May Indicate Control Through Other Means



Decided to Apply the Control Limit to Both QS and QP

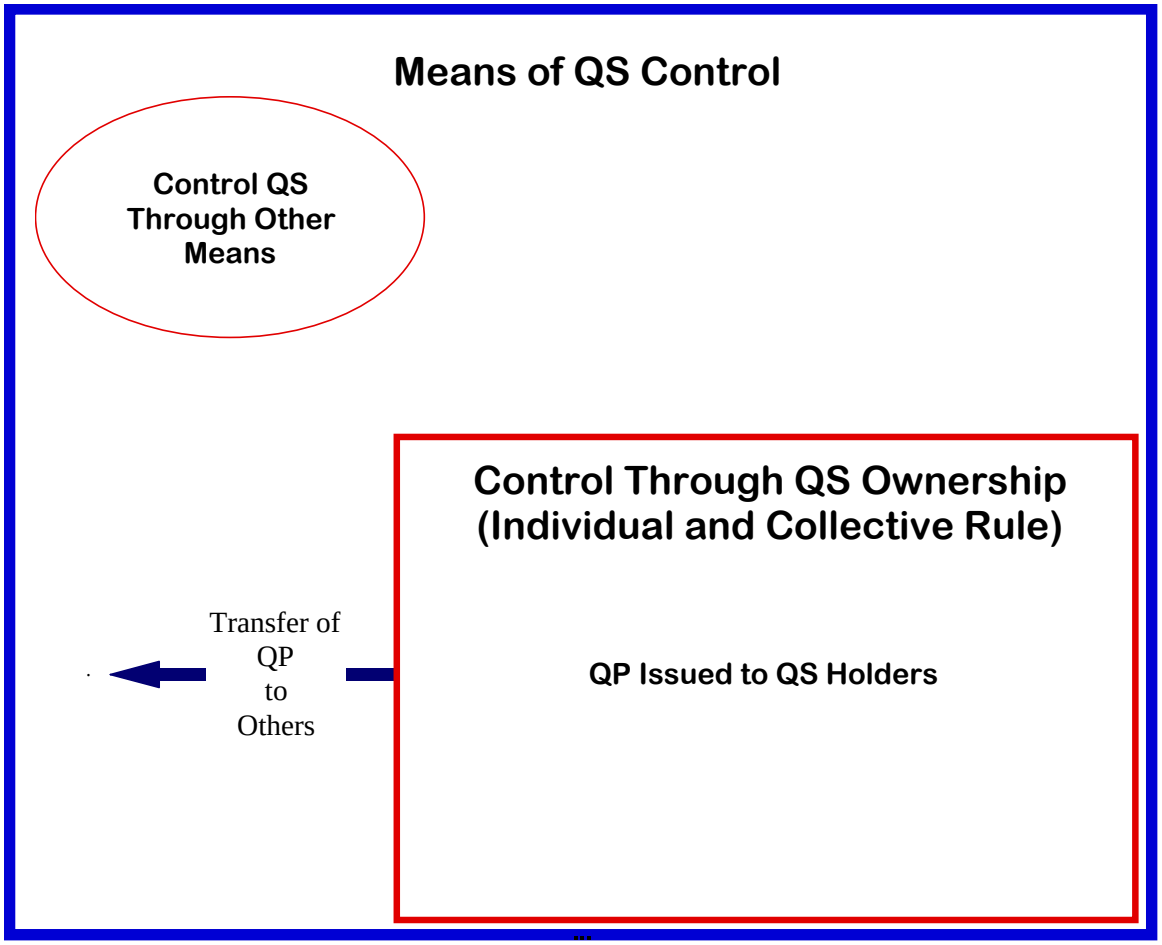


- Applying QS & QP toward control limit
  - not a problem
  - until control limits were set below vessel limits.

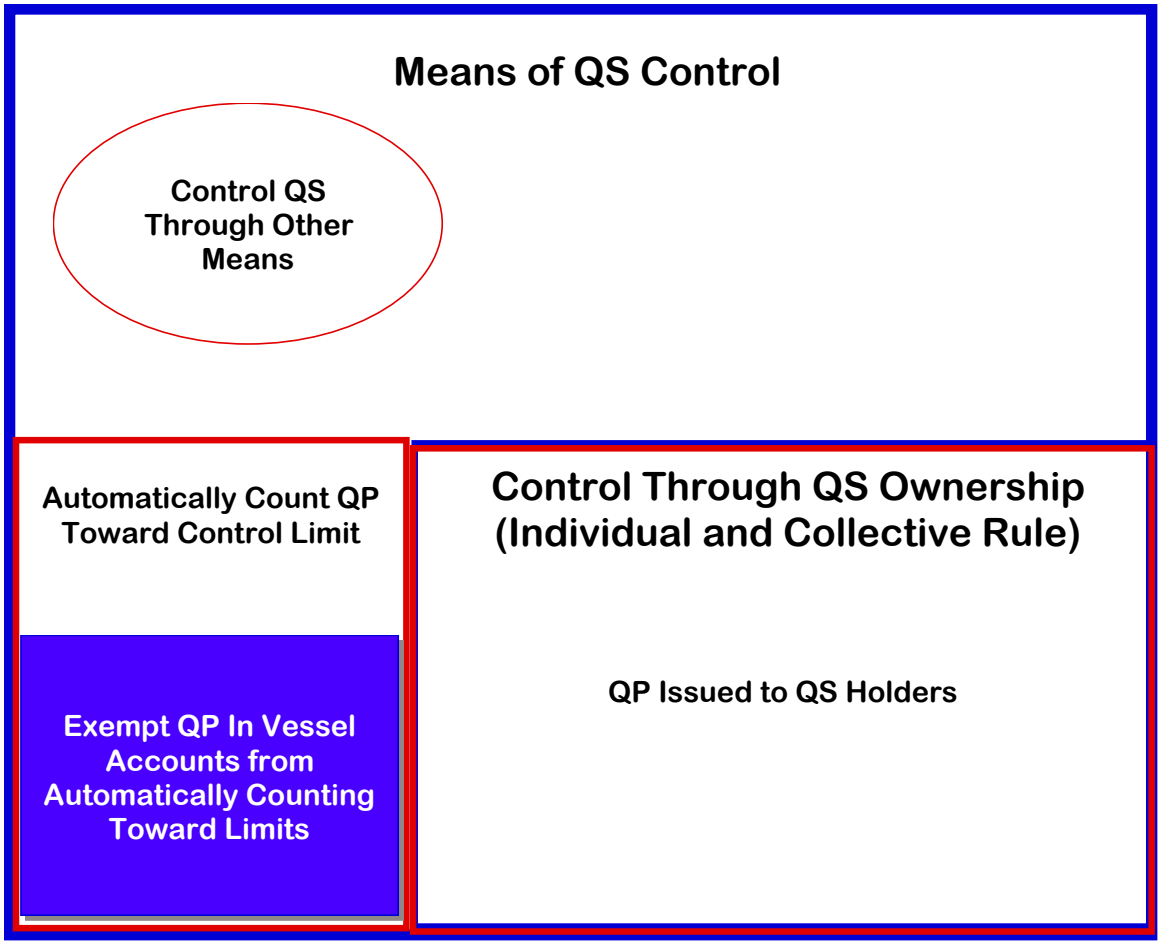
- One solution, set the conrol limits equal to vessel limits

Another Solution: Don't Count QP Toward Control Limits

Exempting QP from Automatically Counting Does not Change Underlying Rule



Third Approach: Exempt Vessel Accounts



Control Limits < Vessel Limits Why?

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    - Cap QP holdings at a level equal to vessel limits.

Setting Accumulation Limit Percentages

Setting Accumulation Limit Percentages

- Your vision for the future
  - Number of vessels
  - Dispersion of ownership

Criteria Examined To Date

- Historic share of harvest in a given year
  - e.g. provide opportunity to achieve past performance of highliner ==>>

    set limits at maximum shares.
    - More to allow highliners to improve
    - Less to allow everyone to reach 90th percentile performer.
- Amount of QS allocated

Precautions on Using QS Allocations as a Guide for Accumulation Limits

- Development of Rationale Becomes a Challenge
  - Vision for future driven by choices like
    - amount allocated equally
    - amount allocated to processors
    - dropping worst years

Precautions and Challenges in Using Historic Annual Shares

1. Elimination of buyback permits from the data set
   -- Vision for future driven by whether or not the highliner(s) decided to sell out.

2. Whether to evaluate the shares of landings or the shares of trawl allocation (how to deal with under harvest of OYs)

3. For control limits, earlier than 2004 limited information on multiple permit ownership and linkages between processing entities has been developed.

4. Need to set limits that are good for both the whiting and nonwhiting shoreside fisheries (when combined in a single sector)

- Challenges 2 and 3 are greater for 1994-2003 than 2004-2006.

Attachment F.3.c, Additional Analysis

Historic Shares by Permit (Figures 2-35, pages 6-22)

- Provides graphs of 2004-2006 maximum share in any one year
- Shares are relative to an estimated trawl allocation (not landings)
- Relevant to vessel limits but control limits are also displayed

Limits Relative to QS Allocations (Table 0-1, page 23)

- Shows number of entities whose initial allocations would be constrained by limits (no grandfather clause)

No Grandfather Clause for Permits and Reallocation Effect

- Reallocation Affect
  - The QS that would be in excess of limits gets redistributed to those with less QS.
- With no grandfather clause, those over limits because they hold multiple permits will likely divest prior to initial allocation.
  - Limited reallocation effect
- Processor side is not analogous.
  - Divestiture would require the company to break up.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of General Counsel, GCNW
7600 Sand Point Way N.E.,
Seattle, Washington 98115-6349

October 31, 2008

Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE. Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Mr. Hansen:

This letter is based on relevant facts, applicable legal rules and informal consultations with the Antitrust Division of the Department of Justice (DOJ) about antitrust issues related to the Trawl Individual Quota program under development by the Council. This letter provides the conclusions of NOAA General Counsel, Northwest Region (GCNW), and does not reflect the official position of DOJ.

The first issue is whether the Magnuson-Stevens Fishery Conservation and Management Act[1] (MSA) provides either express or implied immunity from federal antitrust laws.[2] The recent amendments to the MSA added an "antitrust savings clause" that states:

> Nothing in this Act shall be construed to modify, impair, or supersede the operation of the antitrust laws. For purposes of the preceding sentence, the term 'antitrust laws' has the meaning given such term in subsection (a) of the first section of the Clayton Act, except that such term includes section 5 of the Federal Trade Commission Act to the extent that such section 5 applies to unfair methods of competition.[3]

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[1]16 U.S.C. §§ 1801 et seq.

[2]For example, the Fishermen's Collective Marketing Act, 15 U.S.C. §§ 521-522, expressly provides immunity when participants in the fishing industry engage in certain specified activities. In general, "'implied antitrust immunity is not favored and can be justified only by a convincing showing of clear repugnancy between the antitrust laws and the regulatory scheme.'" National Gerimedical Hosp. and Gerontology Ctr. v. Blue Cross of Kansas City, 452 U.S. 378, 388 (1981)(citations omitted).

[3]16 U.S.C. § 1853a(c)(9).

The validity and application of a nearly identical statutory savings clause in the Telecommunications Act of 1996 was examined by the Supreme Court in Verizon Communications Inc. v. Trinko.[4]

The Court found, among other issues, that the statute's savings clause[5] barred a finding of implied immunity, and that while the "1996 Act preserves claims that satisfy existing antitrust standards, it does not create new claims that go beyond existing antitrust standards."[6]

It is not possible to predict with certainty the outcome of litigation about whether the MSA savings clause also bars the application of the doctrine of implied immunity; however, given the similarity of the MSA savings clause with the savings clause at issue in Trinko, it is likely that a court would reach the same conclusion. Thus, it is important that all fishery participants remain aware of their obligations under the antitrust laws.

We advise that fishery participants should consult three documents published by DOJ and the Federal Trade Commission (FTC). The Horizontal Merger Guidelines[7] and the Commentary on the Horizontal Merger Guidelines[8] provide detailed guidance on the current enforcement policy of DOJ and the FTC concerning horizontal acquisitions and mergers subject to section 7 of the Clayton Act,[9] to section 1 of the Sherman Act,[10] or to section 5 of the FTC Act.[11] The Antitrust

---

[4]540 U.S. 398 (2004).

[5]The savings clause in the 1996 Act stated that "nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws." 47 U.S.C. § 152, note.

[6]Trinko, 540 U.S. at 407.

[7]Horizontal Merger Guidelines, issued April 2, 1992; revised April 8, 1997; available at http://www.ftc.gov/bc/docs/horizmer.shtm.

[8]Commentary on the Horizontal Merger Guidelines, issued March 2006, available at http://www.ftc.gov/bc/guidance.shtm.

[9]15 U.S.C. § 18 (1988). As stated in the Guidelines, "mergers subject to section 7 are prohibited if their effect 'may be substantially to lessen competition, or tend to create a monopoly.'"

[10]15 U.S.C. § 1 (1988). As stated in the Guidelines, "mergers subject to section 1 are prohibited if they constitute a 'contract, combination..., or conspiracy in restraint of trade.'"

[11]15 U.S.C. § 45 (1988). As stated in the Guidelines, "mergers subject to section 5 are prohibited if they constitute an 'unfair method of competition.'"

Guidelines for Collaborations Among Competitors[12] explain how DOJ and the FTC analyze antitrust issues raised by collaborations among competitors. In addition, we advise that any fishery participants that are uncertain about the legality under the antitrust laws of the United States of any of their anticipated activities should consult legal counsel prior to commencing those activities.

The Council asked specifically about the antitrust implications of the accumulation limits under consideration. Section 303A of the MSA requires that the Council, in order to prevent limited access privilege holders from acquiring an excessive share of the total limited access privileges in the program, specify maximum allowable shares and establish any other measures necessary to prevent an inequitable concentration of limited access privileges.[13] This raises two separate but related questions. First, could the approval and implementation of specific limits be a per se violation of antitrust law by NOAA? Second, does the establishment of a limit mean that an entity that is in compliance with limits would also be in compliance with antitrust law?

In answer to the first question, establishment of a limit by NOAA would not in itself establish a violation of antitrust law, nor would it require any participant to violate antitrust law. In response to the second question, merely staying within the limits would not guarantee against violation of antitrust laws, as violations could arise from a number of factors in addition to the number of shares held by an individual or entity. Some of the factors that could be relevant include agreements between parties, the geographic market of the product, market substitution, product differentiation, concentration, effects of past actions, and likely future effects of current actions. The Guidelines and Commentary referred to above provide detail on these factors. These are the issues that DOJ would examine if it became aware of evidence of an antitrust violation.[14] DOJ obtains information in various ways, such as complaints from members of the public or information contained in general or trade press. It is the responsibility of each fishery participant, therefore, present and future, to ensure that his or her activities are consistent with the antitrust laws. Participants should also be aware that the MSA requires that any limited

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[12]Antitrust Guidelines for Collaborations Among Competitors, issued April 2000. Available at http://www.ftc.gov/opa/2000/04/collguidelines.shtm.

[13]16 U.S.C. § 1853a(c)(5)(D).

[14] DOJ initiates a preliminary investigation if "(a) there are sufficient indications of evidence of an antitrust violation; (b) the amount of commerce affected is substantial; (c)the investigation will not needlessly duplicate or interfere with other efforts of the [Antitrust] Division, the FTC, a United States Attorney, or a state attorney general; and (d) resources are available to devote to the investigation." Antitrust Division Manual, Antitrust Division, U.S. Department of Justice, updated September 2008; available at http://www.usdoj.gov/atr/public/divisionmanual/chapter3.htm#_1_3. In the event that the future activity involves proposed mergers, DOJ would evaluate proposed mergers under the statutory requirements of the Hart-Scott-Rodino Act, 15 U.S.C. § 18a, the Clayton Act, 15 U.S.C. § 18, and the Sherman Act, 15 U.S.C. § 1.

access privilege program "provide for the revocation . . . of limited access privileges held by any person found to have violated the antitrust laws of the United States."[15]

In summary, the Council's adoption and NOAA's approval of any specific limit would not establish a per se violation of antitrust laws. In addition, as the above discussion makes clear, it is not possible for the Council to select accumulation limits that, if complied with, would avoid the possibility that participants might be in violation of antitrust law. The Council's consideration of the accumulation limits must be based on the record and must comply with the requirements of the MSA, specifically determining why certain limits would be excessive and what is necessary to prevent inequitable concentration of limited access privileges.[16]

The Council also asked specifically about the "linkage" requirement in the whiting mothership sector cooperative alternative.[17] The alternative requires that each permit holder that chooses to participate in the cooperative must deliver a specified amount to a specific licensed mothership -- in the first year of the program, to the mothership to which the permit holder delivered the majority of whiting catch in certain previous years, and in subsequent years, to the mothership to which the permit holder was obligated the previous year. Based on our review, this linkage requirement appears to raise significant and complex legal issues that call into question whether it complies with antitrust laws and, therefore, whether it could be approved by the agency.

As we have stated previously, under the MSA a proper written record, including a detailed explanation and justification for the alternative, is required for agency decision making. Consideration of the antitrust issues would, of course, be informed by this detailed record containing the rationale for and the details of the linkage provision. Should the Council decide to adopt this provision, we advise, for both MSA and antitrust purposes, that the Council should ensure that the record addresses the rationale, especially why the linkage is necessary for the conservation and management of groundfish. Due to the complexity of the issues, it has not been possible to date to obtain definitive legal advice from DOJ to resolve this particular issue. As you are aware, NOAA can approve an FMP provision only if it is consistent with the MSA and other applicable law, including antitrust law. If the Council elects to forward this alternative to the agency, the agency will have to take into consideration the significant issues raised above in determining approvability of the provision.

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[15]16 U.S.C. § 1853a(c)(1)(K).

16 See U.S.C. § 1853a(c)(5)(D).

[17]The shoreside cooperative alternative also contains linkage requirements that NOAA GC previously stated are not authorized under the MSA. See Letter to Donald K. Hansen from Eileen M. Cooney, October 30, 2007. Since implementation of that provision would require additional legislative authority, this letter addresses only the linkage requirements in the mothership cooperative alternative.

The final issue is the formation of fishing cooperatives. As discussed above, the Fishermen's Collective Marketing Act[18] (FCMA) provides express immunity from the antitrust laws. One issue that is not clearly settled under case law is whether certain types of processing entities or integrated entities with both fishing and processing abilities can form cooperatives and maintain the FCMA immunity from antitrust laws.[19] As mentioned above, we advise that any fishery participants that are uncertain about the legality under the antitrust laws of the United States of their anticipated activities in forming cooperatives should consult legal counsel prior to commencing those activities.

We look forward to continuing to work with you as you move forward on this important rationalization program.

Sincerely,

Eileen M. Cooney
NW Regional Counsel

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[18]15 U.S.C. §§ 521-522.

[19]See United States v. Hinote, 823 F.Supp. 1350 (S.D. Miss., 1993)(fully integrated catfish processors do not get FCMA immunity, relying on National Broiler Marketing Ass'n v. United States, 436 U.S. 816 (1978), which held not all entities are "farmers" under the Capper-Volstead Act, also known as the Cooperative Marketing Ass'ns Act, 7 U.S.C. § 1, § 291, and thus they do not have immunity from the requirements of § 1 of the Sherman Act).

The Design and Use of Limited Access Privilege Programs

Lee G. Anderson and Mark C. Holliday, Editors

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

NOAA Technical Memorandum NMFS-F/SPO-86
November 2007

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NOAA Fisheries Service – Office of Policy

From technical contributions by the editors and:

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U.S. Department of Commerce
Carlos M. Gutiérrez, Secretary

National Oceanic and Atmospheric Administration
Vice Admiral Conrad C. Lautenbacher, Jr., USN (Ret.)
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National Marine Fisheries Service
William T. Hogarth, Assistant Administrator for Fisheries

Foreword

In October 2005, Dr. William Hogarth, NOAA Assistant Administrator for Fisheries, initiated a project to develop guidance for the design and use of Limited Access Privilege (LAP) programs. Creating planning and implementation guidance for LAPs was a response to several stimuli including the President's Ocean Action Plan recommendation to promote broader use of market-based fishery management alternatives.

The document was developed in a transparent and collaborative process by NOAA Fisheries Service and the Regional Fishery Management Councils. All eight Councils and all NOAA Fisheries Service (NMFS) field and headquarters offices had the opportunity to contribute to and comment on the contents of the document. A draft of the document was made available for public review. The development process was directed by the NMFS Office of Policy utilizing a small steering committee comprised of NMFS and Council personnel.

The result is non-regulatory guidance on the technical design and use of LAP approaches, all in the context of the Magnuson Stevens Reauthorization Act of 2006. This non-binding technical advice evaluates the relative pros and cons of various LAP approaches and includes options available to address general questions about the future use of LAPs given past domestic and international experiences.

This technical advice is based on the considered opinion of the two editors who have benefited from the counsel of the Steering Committee and numerous reviewers. Given that LAP program design is a complex and controversial issue, there is certainly room for differing views especially concerning interpretations of the details of the revised MSA. Informal discussions on these different interpretations will continue as Councils work under the new legislation, and in some cases formal legal interpretations and federal rulemaking will be necessary to settle some issues. Besides the technical information it provides, it is hoped that this document helps focus these discussions.

Acknowledgements

The preparation of this document required the collaboration of many experts in fisheries management and policy. The effort was lead by the NOAA Fisheries Service Office of Policy, who had the privilege of having Dr. Lee Anderson, a world expert on fisheries economics and management, on staff as a visiting scientist from the University of Delaware. Dr. Anderson formulated the outline for the document, wrote the majority of the sections, and provided editorial review of the contributions from other authors.

A Steering Committee provided extremely helpful guidance throughout the process and contributed reviews and specific advice and assistance, including writing of individual sections. Membership of the Committee included Dr. Anderson; Mark Fina, North Pacific Fishery Management Council staff; Adam Issenberg, NOAA General Counsel for Fisheries; Richard Newell, on detail to the President's Council of Economic Advisors (CEA) from Resources for the Future; James Odlin, New England Fishery Management Council member; Phil Smith, NOAA Fisheries Alaska Region; Phil Steele, NOAA Fisheries Southeast Region; Wayne Swingle, Gulf of Mexico Fishery Management Council Executive Director; and Galen Tromble, NOAA Fisheries Office of Sustainable Fisheries.

Soren Anderson, a University of Michigan fellow authored the section of the report on auctions. Dave McKinney, NOAA Fisheries Office of Law Enforcement, wrote the section on enforcement, and Phil Smith, NOAA Fisheries Alaska Region, wrote the sections on monitoring, permits, and appeals. Jason Didden, a Knauss Sea Grant Fellow in the Office of Policy and Jason Blackburn, NOAA Fisheries Service Office of Sustainable Fisheries, contributed research on existing Individual Fishing Quota programs and cost recovery materials.

The support and contributions of the Regional Fishery Management Council Chairpersons and Executive Directors throughout the development of the document, including review of and comment on a preliminary draft, is gratefully acknowledged.

Mark C. Holliday, Ph.D.
Director
NOAA Fisheries Service Office of Policy
November 2007

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Overview

The purpose of this document is to assist Regional Councils and NOAA Fisheries Service (NMFS) in the design and implementation of Limited Access Privilege (LAP) programs. The statutory basis is the recently reauthorized Magnuson-Stevens Act (MSA, Public Law 109-479). Subject to the constraints in the MSA and other applicable law, the basic philosophy underlying the document is that the Councils should have as much latitude as possible as they design fishery management plans (FMPs). This flexibility pertains to the choice of whether to use a LAP approach, and if so, to the type and the construction of that program. This document provides information on the important issues that must be addressed for each of the allowable types of LAPs. In addition, through a presentation of theoretical and practical examples, it provides a discussion of the pros and cons of the various options for addressing those issues. The material herein is intended simply to inform and help managers make present and future decisions.

Definitions.—
Over the years market-based programs have been referenced in many different ways, both in the United States and around the world. Originally, they were called Individual Transferable Quotas (ITQs) or Individual Fishing Quotas (IFQs). Most recently, the U.S. Ocean Commission used the term Dedicated Access Privileges (DAPs) to expand the emphasis beyond "individual" control and to stress that what is owned is something less than a complete property right *per se*. The term used in the reauthorized MSA is LAP, and it is the term that will be used here.

The MSA does specify some mandatory conditions and provision for designing LAP programs that are discussed below (see Sec. 303A (a), (b), (c)(1), and (c)(2). In addition to complying with these mandates, the basic advice to the Councils can be stated as follows. If a Council wishes to develop a LAP program, they should use the National Standards, other applicable law and the management objectives of the particular FMP as the criteria for selecting and designing a LAP program. The choice and construction of a LAP program should be based on a conclusion that it will be the most likely option to achieve those objectives among all other management strategies considered. The MSA implicitly includes this guidance when it mandates that Councils must specify the goals of any LAP program and include provisions for regular monitoring and review to ensure that the goals are achieved (see Sec. 303A (c)(1)(F) and Sec. 303A (c)(1)(G)).

Comparative criteria.—
There are additional criteria used throughout the document to help evaluate the pros and cons of different design and implementation choices associated with LAPs. The criteria discussed are not necessarily unique to LAPs and could be used to compare the strengths and weaknesses of any type of management strategy. A comparative framework is an efficient means to assess different LAP features given the relative newness of and limited experience with LAP usage. Table 1 lists the comparative criteria used throughout the document.

One of the most important criteria is internal consistency. It is essential to ensure that a feature chosen for one component of the plan (e.g., transferability) does not work at opposite purposes with the options chosen for other components (e.g., specification of management unit). One of the purposes of this document is to discuss how choices in one area can complement or contradict choices made in others, while recognizing the tradeoffs inherent with different management objectives.

Another criterion is the level of complexity. It sometimes may seem necessary to adopt some special "bells and whistles" when addressing a particular component to achieve certain management objectives. For example, while transferability may be allowed, the Council may find it desirable to restrict transfers between boats with different gear types or different ports. However, such restrictions make it more difficult and confusing for individuals to operate within the system, reduce the efficiency of the harvesting sector and inhibit mutually-beneficial transfers between privilege holders. This can increase the management cost of implementing and monitoring the LAP program. Councils should carefully weigh the trade-offs between designing special rules and conditions to meet management objectives, and the increased direct and indirect costs such complexity can generate.

Table 1. Criteria for evaluating LAP programs.

- Compliance with the National Standards, other mandates of the MSA and other applicable law.
- Consistency with Council determined management objectives for the fishery under consideration.
- Internal consistency.
- Level of complexity.
- Compatibility with other related FMPs.
- Operational effectiveness
- Cost of implementation and operation.

It is also important to consider the compatibility of new LAP programs with other existing LAP and non-LAP management programs developed by the Council. In New Zealand, for example, there is only one ITQ program for all the different federally managed stocks. The rules governing transferability and other aspects of ITQs are the same for all the different fisheries. This consistency helps keep management and monitoring costs down. On the other hand, by the nature of the eight Councils under the MSA, the U.S. LAP programs will be designed individually in the various regions, sometimes fishery by fishery, or even a single species within a fishery. If they are designed completely in isolation, there is the possibility that there could be significant differences with respect to various components which could complicate and increase the costs for implementation and monitoring. Moreover, from the industry perspective, multiple LAP rules and conditions for fisheries within an FMP, across FMPs, and across Council jurisdictions can be very confusing and run counter to efficient business planning and conduct. Councils

should make every effort to ensure that LAP programs for similar fisheries under their jurisdictions are, where appropriate, as much the same as possible.

The complexity and the compatibility issues are related in that they both can affect operational effectiveness and costs. The arguments for operational effectiveness are self-evident and it is always a main focus for Councils as they prepare plans. However, the separation between who designs a plan and who pays the implementation costs can sometimes cause a disconnect such that costs do not get enough consideration in the plan development process. One of the purposes of this document is to ensure that the relative cost of implementing different management options is given the attention it deserves. This is important because, in some but not all cases, LAP programs can significantly increase management benefits and costs (GAO, 2005). From an overall management perspective, the important bottom line is the difference between the benefits of a plan and its costs (Environmental Defense, 2007). Over time it has generally been shown that the efficiency and biological benefits from using LAPs are worth the extra costs.

In times of constant or shrinking federal budgets, obtaining the funds to pay for new management plans is a real concern. Congress implicitly took this into consideration by mandating a cost recovery program for LAP programs. However, there is a cap on the amount that can be collected equal to 3-percent of the ex-vessel value of the fish harvested under any such program. If the incremental costs of implementing a LAP program in a particular fishery are less than the amount that can be collected through cost recovery, the funding problem goes away (that of course does not mean that it is not important to design the most efficient program). Note that cost recovery is only applicable to the management (including data collection and analysis) and enforcement associated with LAP programs. The costs of developing and implementing the programs are not subject to cost recovery.

There is a potential problem in those cases where the incremental costs of implementing and operating a LAP program will, on average, be greater than 3-percent of the gross revenues of the fishery. Funds to cover the additional costs of the LAP program will have to come from the current appropriations. This means that there will have to be cuts elsewhere. Councils should carefully choose the management strategies that achieve the plan's goals and objectives, keeping in mind the costs of implementation. The decisions should ensure that the costs of implementation and operation do not exceed the appropriated and cost-recovered funds available. Regardless of whether it is a LAP program, the alternative is the potential disapproval of a FMP (or part of it) where funds are insufficient to carry out a management choice.

Structure of the document.—
As LAP programs are developed, there are certain things that the Councils do, and there are certain things that NMFS does. Generally, the Councils design the programs while NMFS implements and monitors them. There is a range of choice in the first task, while there are accepted practices for doing the second task. While consultation and collaboration with the Councils is commonplace since NMFS is a member of each Council, most aspects of implementation, monitoring, and enforcement are done solely by the agency. Accordingly, after a brief introduction (Part 1), there are two main sections to

the document. Part 2 is the design of LAP programs and contains information for planning and developing LAPs. Part 3 is the management of LAP programs and discusses LAP implementation and administration. The purpose of including the second section is as context for the Councils as they design programs. They will be able to do the best job of program design if they thoroughly understand the issues of implementation and monitoring. Appendix 1 follows and is a series of ten "spotlights" on existing or imminent LAPs in the United States. Each spotlight employs the same template to describe the major attributes of a particular LAP program to help focus on the similarities and differences, and includes hyperlinks to additional information on each program. Appendix 2 is a detailed derivation of how to compute what constitutes an excessive share of LAP privileges, a concept introduced in Part 2. Appendix 3 is a detailed discussion of the types and uses of auctions, supporting the introductory auction section presented in Part 2. An extensive references/bibliography section completes the document.

Part 1: Introduction

Open Access to Limited Access to Access Privileges.

The purpose of this work is to provide technical advice to the Regional Fishery Management Councils as they prepare Fishery Management Plans (FMPs) using Limited Access Privilege (LAP) programs. The term LAP is the Congressional equivalent of the term Dedicated Access Privilege (DAP) introduced by the U.S. Commission on Ocean Policy (USCOP, 2004). In their report, the Commission defines a DAP as an:

> …output control whereby an individual fisherman, community, or other entity is granted the privilege to catch a specified portion of the total allowable catch. With this assurance in place, there would no longer be an incentive for fishermen to fish harder and faster because each could only catch his or her share of the total. The incentive would then be to catch the full share at a low cost and sell the best quality fish at the highest obtainable price. (page 288)

The term DAP is relatively new. These types of programs are more commonly called individual transferable quotas (ITQs), individual fishing quotas (IFQs), or more generally rights-based management techniques. The Commission stated a preference for the term DAP for several reasons:

> First, it highlights the fact that fishing is a privilege, not a right. Second, it is an umbrella term that includes access privileges assigned to individuals (ITQs, IFQs, individual gear quotas), as well as to groups or communities (community development quotas, cooperatives, area-based quotas, community-based quotas). Finally, it reflects the fact that the dedicated privilege being granted is access to the fish, rather than the fish themselves. (page 289)

To set the stage of this discussion, it will be useful to consider a very short and somewhat simplified history of the evolution of fishery management techniques.[1] Until the end of the 20th century, most U.S. fisheries were managed under a system which allowed free access. There were few limits other than obtaining a readily available permit and the possession of the necessary fishing gear. In profitable fisheries, this led to ever-increasing numbers of participants which put increasing pressure on the fishery resource.

Seeing the problems of free access, managers began to implement programs which, while not limiting the number of fishermen, began to place controls on their activities. They used input controls such as specifying allowable types and amounts of gear and methods, and limiting available fishing areas or seasons. By restricting what operators can do, this type of regulation increases the cost of fishing and creates incentives to change fishing procedures so as to increase catch given the constraints. This has the twofold effect of decreasing the biological effectiveness of the regulation and increasing the cost of fishing.

1 This material draws heavily on the discussion in the Commission on Ocean Policy Report. (USCOP 2004, page 287ff.).

Managers also used output controls such as setting total allowable catches (TACs - the amount of fish that may be taken by the entire fleet per fishing season), bycatch limits (numbers of non-targeted species captured), and trip limits for individual fishermen. These management techniques create incentives for fishermen to develop different types of gear or to devise new methods that allow them to catch more fish in spite of the regulations, and to do so faster than other fishermen, before any overall limit is reached. Neither input nor output controls provide incentives for individual fishermen to delay or forgo fish harvest, because any fish not caught is likely to be taken by someone else.

The incentive to keep one's individual catches as high as possible, that is part and parcel of both input and output controls, creates an unfortunate game between managers and fishermen where the fishermen always have the last move. In response to each new measure designed to limit total fishing effort, fishermen develop new fishing methods that, although legal, undermine the goal of reaching sustainable harvest levels. This prompts managers to promulgate more restrictive measures, and fishermen to develop more ingenious methods to work around them.

For example, if managers limit the length of the boat, fishermen might increase the width if it would increase fishing power. Instead of trying to build boats and design equipment that can harvest efficiently, with total output controls fishermen have incentives to do everything in their power to modify inputs to catch fish faster than their competitors do. If input controls are used, fishermen will work to get around the constraints. In the short-run, such regulations can be biologically effective because it takes time for fishermen to adjust their gear or behavior. However, the temporary increase in stock size just helped to finance more changes in such things as boat designs with more fishing power. This phenomenon has been called "the race for fish."

In addition to conservation concerns, the race for fish can create safety problems. Faced with a sharply curtailed amount of time in which to harvest, fishermen may feel compelled to operate in unsafe weather conditions rather than forgo harvests to their competitors by waiting for fairer weather.

As a next step in the development of modern fishery management programs, managers started to control total catch or effort by limiting the number of participants through limited access programs. Although they are common now, they were very controversial when they were first implemented because people thought they had a basic right to fish and limited license programs contravened that right. But at the end of the day, these limited license programs were just another type of input control. In most cases, the *status quo* input or output controls remained in effect. In some instances these limited access programs were of little use because the number of permits did not place an effective binding constraint on the participants. In those cases where they did form a binding constraint, they did partially circumscribe the problem. At least there were a limited number of individuals who could join the race for fish or the race to improve the fishing power of their vessels. Depending upon the actual number of permits relative to safe harvest limits, the types of other management controls, and on the potential for input

substitution in the fishing process, a limit on the number of participants could sometimes be effective for holding harvest at safe levels, at least for the short-run.

Where the conditions were not right and harvest levels tended toward unsafe levels under limited access programs, the next logical step was to specify the access control in terms of output. To solve the race for fish problem, managers began exploring the use of IFQs, whereby an individual fisherman is granted the *privilege* to catch a specified portion of the TAC. Since IFQs were tied to TACs, they were an output control. However, with the assurance of a specified share of the TAC, there is no incentive for fishermen to fish harder and faster. The incentive is to catch the full share at a low cost and sell the best quality fish at the highest obtainable price.

Over time the concept of IFQs has been expanded and is referred to as LAPs in the amended MSA. There are many types of LAPs in use, or under discussion, around the world.

- *Individual fishing quotas* (IFQs) allow each eligible fisherman to catch a specified portion of the total allowable catch. When the assigned portions can be sold or transferred to other fishermen, they are called individual transferable quotas (ITQs).
- *Community quotas* grant a specified portion of the allowable catch to a community. The community then decides how to allocate the catch. While in years past the Community Development Quota (CDQ) Program in Alaska granted remote villages a portion of the total allowable catch to enhance fishery-based economic development, the 2006 MSA amendments for DAPs explicitly exclude CDQs from the LAP program.
- *Regional fishery associations* (RFAs) are another form of group who can acquire and hold LAPs, although there are limitations on composition and eligibility.

Many other variations and combinations of access privileges are possible. *Harvest cooperatives* split all or part of the available quota among various fishing and processing entities within a fishery via contractual agreements. *Geographically-based programs* give an individual or group dedicated access to the fish within a specific area of the ocean based on fishing area or home port. Many, perhaps all, of them can be implemented under the amended MSA if the proposed recipient is a legal entity that meets applicable participation and eligibility requirements.

LAP programs can provide substantial benefits in addition to meeting biological goals by ending the race for fish. Consumers may benefit because producers have more flexibility in the types of product than can ultimately be produced. For example, fresh, rather than frozen, fish are available for most of the year as fishing seasons are lengthened. These programs may enhance safety because fishermen will no longer have to go out in bad weather, and the U.S. Coast Guard/other safety resources will not be overwhelmed by thousands of fishermen operating in small areas or during a compressed season. Fishermen may benefit economically by developing better long-range business plans because they can more accurately anticipate their annual catch and are less likely to over-invest in boats

and gear. They can also fish more carefully, minimizing gear loss and unintended harvest of protected and other non-targeted species. Finally, these programs may allow fishermen and managers to promote a more cooperative and business-oriented environment as fewer direct input and output controls are required.

But LAP programs are not without potential difficulties, most of which have to do with the potential reorganization of the fishery and its participants. The chronic management problem with open access fisheries is that there are too many people chasing too few fish; LAPs have the potential to correct this problem. However, changing the "too many people" to "just the right number of people" is a very difficult social and economic process. And in many instances, Councils are not just concerned about the number of actual fishermen, they are concerned with the distribution of the harvesting privileges across ports and fleets. They are also concerned about how the implementation of a LAP program will affect other fisheries-related industries such as boat building and processing. Such effects are sometimes called the unintended consequences of LAPs and they can impact such things as community structure. When designing a LAP program, it makes sense to anticipate such things so as to know the full implication prior to approval to make sure that it will indeed accomplish the management objectives, and to adapt the design to mitigate such effects if possible. This document will discuss ways in which LAPs can be developed so as to address such issues.

As a sidelight, in a few cases the "privileges" in market-based regimes have been denominated in terms of inputs rather than outputs. The state of Florida has two individual transferable trap permit programs where a limited number of traps are allowed and the permits for those traps can be traded among qualified participants. While at the surface it may appear that there is little difference between input and output based privileges, the former suffers from two potential weaknesses. First, there is a less than direct relationship between the input control and the resulting output, so it may be harder to achieve the desired harvest level with input privileges. In addition, there will be incentives for participants to increase the amount of harvest that can be obtained from a given defined level of input. This again will have the dual drawback of weakening biological effectiveness and increasing the cost of producing fish.

In summary, the types of fisheries regulation used around the world has evolved from open access, where fishing is open to all, to limited access where fishing is limited to a specified group, to LAP type programs, where fishing is limited to a specified group each of which is given a specified amount of fish that may be harvested or a specified amount of effort that may be used.[2] Understanding this evolution is useful for practical fisheries managers because it clarifies the management weaknesses that each step in the evolution was designed to correct. Notably, this evolution is not a required or desired sequence that will occur naturally nor should it occur in all fisheries. The type of program that will be best for a particular fishery is a policy choice that should be based on the different characteristics of the fishery and the objectives of management. One choice will be whether to have a LAP program or not. However, that choice can not really be made in

2 While some harvest privilege programs are focused on effort, LAP programs which are possible under MSA must be based on harvest rights.

isolation. It is first necessary to determine what type of LAP to use. This document provides assistance in designing the best possible privilege program for a particular fishery.

A Short Note on the Theory of Market Based Management Techniques.

From an economic theory point of view, the major source of the overfishing problem is the lack of property rights. This is the main point of Garrett Hardin's seminal article "The Tragedy of the Commons" (Hardin, 1968). Since no one can own a fish until it is caught and put in the boat, there are no incentives to conserve the stock. Postponing harvest may make economic sense in terms of being able to take a larger more valuable catch later. In addition, allowing the fish the opportunity to spawn before being harvested may provide for even larger catches in the more distant future. However, from a private individual point of view, the postponement will not make sense unless the individual who foregoes the harvest is guaranteed the right to the increases in future harvests. With no property rights to fish, or a program with analogous characteristics, there can be no such guarantee. As a simple counter example, no one is worried about the over exploitation of cattle. If the owner postpones harvest, he or she is guaranteed the benefits of doing so.

Look at the case of property rights in cattle in a little more detail. What exactly does that mean? First it means that no one, including the government, can take them away without compensation. It also means that the individual can buy or sell cattle so as to achieve the proper balance between the number of cattle and the productivity of its pastures. It also means that the owner can choose what to do with the cattle. Should they be kept for breeding purposes or should they be slaughtered for meat? It also means that if the inadvertent or deliberate act of another kills or lowers that value of the cattle, the owner can sue for compensation.

Given the nature of these property rights, there are incentives for private owners to utilize cattle so as to maximize the economic value from their use because they will receive all of the gains. If the economic returns are higher from breeding the cattle, the owner will be motivated to retain them. If the returns for slaughtering depend upon the throughput of the feedlots each year, there will be incentives to develop procedures that maximize profits by considering the choice and costs of input and timing of production.

The basics of what are now called privilege-based management were derived from the notion of trying to simulate *some* of the aspects of property rights that work so well with cattle. Without going into all of the details, it has not been possible to mimic all of these attributes. Partially this is due to technical reasons. Fish move around over wide spaces and it is not possible to identify and assign individual fish to individual owners. Similarly, it is not possible to keep track of which fish are the offspring of which parents. There are also some legal and political constraints. The MSA is very clear that any LAP is a permit to harvest and does not confer any right to compensation and that there are no rights, title, or interest in any fish until it is harvested. If a Council creates a LAP program, but then

decides to replace it with another type of regulation, the holders of the LAP permits would not be entitled to compensation.

The privileges to fish under LAP programs are clearly different and weaker than those that would apply to property rights to cattle. At the same time however, there are many other aspects of property rights that can apply to LAPs. And the important thing here is that carefully crafted LAP programs can create privileges with sufficiently analogous characteristics to those provided by traditional property rights such that they create many of the same positive incentives. Such things as transferability, program duration, eligibility to acquire/hold, and other aspects of LAP programs will affect, for good or ill, the incentives of participants.

These concepts can be stated more formally by considering the important characteristics of property rights as they are discussed in most elementary economics texts. (For a discussion couched in terms of privilege-based fishery management programs see FAO, 2000, especially the articles by Scott and Arnason). The critical characteristics that will be directly applicable to the design of LAP programs are:

1. Exclusivity: This refers to two things. First, exclusive claim refers to the degree to which the outputs produced as a result of owning and using the resource for which the property right is defined are under the complete control of the owner to use or relinquish. Similarly the degree to which all costs associated with the use of the resource is the responsibility of the owner. The ability to enforce these claims is an important aspect of exclusivity, and sometimes enforceability is listed as a separate characteristic.

Second, exclusive control refers to the ability to use and manage the resource without outside interference. The more legal interference, the less exclusive is the right. Sometimes this aspect of exclusivity is referred to as flexibility. Exclusivity is important for providing both the incentives and the ability to put a resource to its highest valued use.

2. Permanence: This is the length of time the holder's powers may be enjoyed; it refers to the duration of the property right. In common everyday parlance "ownership" usually represents a property right in perpetuity or for as long as the owner wants. But there are some important policy issues with respect to duration in the design of LAPs.

Duration is important because it allows the owner to take a long-run view. If a privilege has a specified life of 5 years, any returns from the sixth year onward will be of no concern to the owner. There will be no incentive to maintain, and even less to make investments to improve, the resource in latter years. Under such conditions a land owner will not likely put nitrogen back in the soil or buy a large combine that can lower harvesting costs in the fifth year.

3. Security or quality of title: This refers to the degree to which the right is free from involuntary seizure or encroachment. The quality of the title is not very strong if the government by decree or legislation, or if other individuals by filing suit, can easily change some of the characteristics of the right. Quality of title is valued because it saves

the owner from the costs of protecting the nature of the right. And related to the concept of permanence, incentives to care for or improve the resource can be reduced, if the nature of the right can change over time.

4. Transferability: This refers to the ability to transfer the right to someone else. This is important for the owner because it is another aspect of flexibility. If there are others that have abilities or other assets that allow them to produce higher returns from the resource, there is the basis for a mutually beneficial exchange. The owner may be able to make more from selling the resource than from using it. More important, the incentives to engage in trade allow for an expansion of the horizon with respect to putting the resource to it highest valued use. An important feature of transferability is divisibility, the ability to subdivide the property right into smaller parts for the purpose of transfer. This also improves the ability get the resource into its highest valued use.

In summary, property rights can improve incentives to allocate resources to their highest valued use. They consist of a number of characteristics, and the nature of these characteristics depends upon custom, legal practices, and the nature of the resource. It would likely be difficult to identify a property right in any market economy that would receive a perfect rating in all of the above characteristics. However, it does provide a useful way of analyzing the relative merits of various types of property rights. It will also prove to be a useful framework to consider when designing the various characteristics of a LAP program.

The privilege-based management techniques authorized by the MSA are clearly not specified as property rights. However, they do mimic aspects of property rights that work well with other resources, even though it is not possible to provide exclusivity with respect to the basic asset that is the fish stock and its marine environment. This is why in the existing IFQ programs the basic "privilege" is denominated as a specified volume of harvest from a given stock of fish over a certain time period. In the Mid-Atlantic surfclam and ocean quahog IFQ program, this harvesting privilege is almost 100 percent exclusive in both senses of the definition provided above. Due to certain restrictions, exclusive control is somewhat weaker in the halibut and sablefish IFQ program in the North Pacific.

The important thing here is that carefully crafted LAP programs can create privileges which have the appropriate characteristics so as to provide many of the same positive incentives as those provided by traditional property rights. Such things as transferability, program duration, eligibility to own, and other aspects of LAP programs will affect, for good or ill, the incentives of participants. At the same time, it is important that Councils consider the likely trade-offs between the potential biological and economic advantages of LAPs and the ability to meet other management objectives.

Finally as Councils undertake these deliberations, they may wish to consider the perspectives found in the recent fisheries management literature by individuals from a range of disciplines which demonstrate the practical benefits of capturing market incentives in FMPs..

> We contend that much greater emphasis must be placed on fisher motivation when managing fisheries. Using evidence from more than a dozen "natural experiments' in commercial fisheries, we argue that incentive-based approaches that better specify community, individual harvest, or territorial rights and also price ecosystem services-coupled with public research, monitoring and effective oversight-promote sustainable fisheries. Grafton et al (2006.)
>
> Our analysis suggests that management authorities need to develop legally enforceable and tested harvest strategies, coupled with appropriate rights-based incentives to the fisheries community, for the future of fisheries to be better than in the past. Beddington, Agnew, and Clark (2007).

A More Detailed Look at Fishery Operations

The discussion has been quite general to point out some basic principles. The discussion will now get a little more detailed to provide a more accurate picture of the operation of a commercial fishery, the exact role of fisheries management, and some likely direct and indirect effects of management.

While the concept of a fishery may conjure up a vision of a fleet of vessels harvesting from single fish stock, the reality is often much more complex. Joint harvest is a very common occurrence. At the same time, there is often quite a difference between what is brought on the boat and what is finally sold in the market place. To capture all of these nuances, it is necessary to define a number of terms. The concepts are familiar but the same words have different meanings in common usage and even different definitions in the policy and scientific literature.

For obvious reasons, we must start with the definitions found in the MSA. Other terms will be defined to produce an internally consistent and logical system. The price of starting with the legal definitions in the law is that some of the terms used below will have different meanings than some readers may be used to. Section 3 of the MSA defines:

> (2) The term "bycatch" means fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program.
>
> (9) The term "economic discards" means fish which are the target of a fishery, but which are not retained because they are of an undesirable size, sex, or quality, or for other economic reasons.
>
> (38) The term "regulatory discards" means fish harvested in a fishery which fishermen are required by regulation to discard whenever caught, or are required by regulation to retain but not sell.

Bycatch is also the subject of one of the MSA National Standards in Section 301:

> (9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

In addition, Section 303(a) of the MSA requires that each FMP prepared by a Council or the Secretary:

> (11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority--
> (A) minimize bycatch; and
> (B) minimize the mortality of bycatch which cannot be avoided;

While not defined in the MSA, we define *harvest* as the quantity of species that are captured in the process of fishing. Further, we define *target harvest* as the subset of the harvest species that have a market value. Target harvest can be broken down into *primary target harvest* (fish with market value that are actively sought) and *incidental target harvest* (fish with market value that are caught in combination with primary target harvest) *Landings* are the difference between harvest and discards.

Non-target harvest is that subset of harvested species for which there is no market value; while they may be captured they are not actively being sought. Although not formally defined in the MSA, the concept of non-target harvest is referenced several times. For example, in Section 206(b) on large-scale drift net fishing Congress found:

> (3) there is a pressing need for detailed and reliable information on the number of seabirds, sea turtles, nontarget fish, and marine mammals that become entangled and die in actively fished large-scale driftnets and in large-scale driftnets that are lost, abandoned, or discarded;

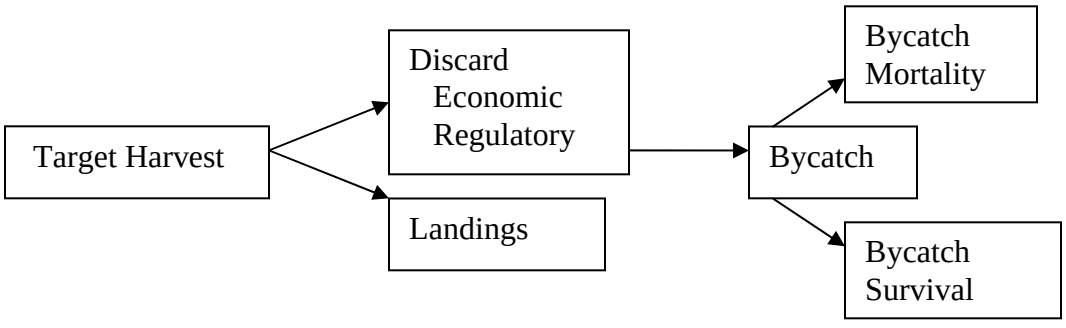

Figure 1. Target Designations in a Single Species Fishery.

Just because the non-target species have no market value does not mean that they are without any value. It just means that they can not be sold in the market place. They can

generate non-market value because people like to view them or just know that they are there. In addition, they can be important for their role in the overall ecosystem.

Consider the schematic displayed in Figure 1 which demonstrates the relationship between these terms in a single species fishery. Given the simplicity of the situation, we have more terms than we need but it sets the stage for the discussion of a multi-species fishery below. A single species fishery occurs if the harvest technology and the temporal and spatial distribution of the fish stock results in the fleet harvesting fish from one and only one species. It targets one type of fish and it only brings one type of fish on the boat. By definition, all harvest is target harvest. If some fish are too small for the market or if they are damaged in the harvest process, they will be discarded for economic reasons. If there are regulations to prevent the harvest of certain sizes of fish which otherwise would have been landed, there will be regulatory discards. The sum of economic and regulatory discards is the bycatch of the fishery. Depending upon the method of harvest, some of the discarded bycatch can potentially survive. Total mortality in the fishery will be the sum of landings and bycatch mortality.

Speaking in general terms, and assuming that an appropriate target mortality level has been determined, the purpose of a MSA FMP is to keep total mortality at or below the target while addressing the bycatch issue. Think of the above discussion on the pros and cons of various types of regulation. Input controls, including limited access programs such as limiting the number of licenses , can reduce mortality, at least in the short-run, but there is a rather weak link between the control and the actual amount of harvest. In addition, the cost of fishing will be higher than necessary. Consider trip limits. Since boats can not control the exact amount of fish brought on board, it is possible that each trip will involve some regulatory discards as some fish are thrown away to keep the boat within its limit. At the same time, if the fleet takes more trips than were predicted when setting the allowable number of trips, the total mortality goal may not be met. Finally, the same amount of catch could have been taken with fewer trips and less cost.

If TACs consider bycatch and can be properly enforced, they will be biologically effective. However, they can stimulate a race to fish which causes various types of inefficiency.

Setting up a LAP program is *conceptually* a fairly straight forward proposition in a single species fishery.[3] Establish a process for determining the TAC which, if necessary, takes bycatch into account. Then distribute the harvest permits, and let participants fish as they choose as long as, in the aggregate, total mortality remains within the permitted levels. Compared to input controls, there will likely be lower costs, lower bycatch, and better control on total fishing mortality.

Look at the bycatch issue in more detail. By definition there will be no regulatory discards. Further there will be incentives to maximize earnings per unit of allowable harvest which may lead to a reduction in economic discards. With no race to fish,

3 This is not to say that it will be an easy task in reality given standards set in the MSA and the myriad of fisheries management objectives for any given fishery.

participants can change fishing strategies and/or technologies to reduce damage to fish and to reduce the take of small unmarketable fish.

In certain cases, this potentially beneficial incentive can go too far and encourage what has been called highgrading. This can occur when different sizes of fish have different prices and it is fairly easy and inexpensive to separate fish on deck. Under these conditions it can sometimes be profitable to discard the lower value fish and save the harvesting privileges for higher valued individuals. Whether this actually will occur or not depends upon relative prices, the cost of sorting and the cost of landing other fish to replace those that were discarded. Also there will be no incentives to highgrade in programs that are based on catch and which have adequate on board monitoring,

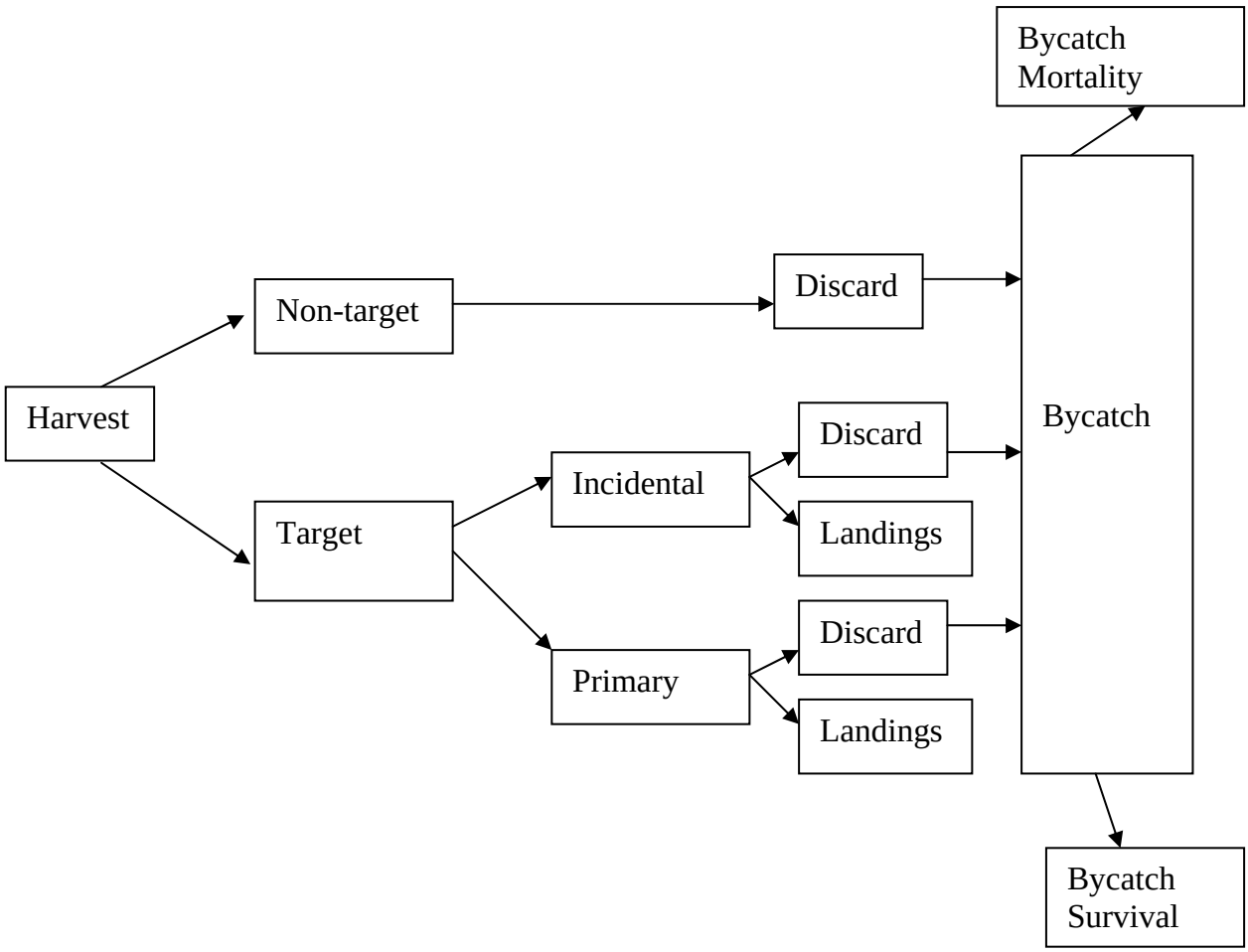

Figure 2. Target and Non-Target Designations in a Multiple-Species Fishery.

Now consider the more general multiple species harvesting operation (see Figure 2). Here the distinction between target and non-target harvest and between primary and

incidental target harvest are relevant. For clarity, the distinction between economic and regulatory discards is not included in the figure. What is harvested depends upon fish distribution, the types and amounts of harvesting gear, and their temporal and spatial use throughout the year. However, the relative composition of harvest is, within certain limits, subject to the control of the fleet. In the short-run, responding to changes in relative abundance and relative fish prices, boats can change the location of where they operate and the way they fish to change the relative amounts of harvest of the different species. In the longer run, they can change their technology to do the same thing.

In an open access fishery, the choice of gear type and the way it is used is based on the individual's profit motive. As shown above, this motive will not ensure that the appropriate total catch levels are maintained, nor will it necessarily result in the best catch composition. While there will be incentives to avoid fish which have no value, it is total revenue that is important. The cost of discarding a species that is jointly harvested with a valuable species may be an easy expense to bear. But the important issue for managers is exactly how much flexibility do fleets have in changing catch composition and how will different types of management cause them to make adjustments?

In some cases part or the entire incidental harvest may be sold while in other cases it can end up as an economic discard. It has a market value, but given the process of getting the primary harvest to market, it may not be worth the extra cost of getting the incidental harvest to market.

Looking at this more realistic picture of the way a fishery operates puts the fishery management problem into better perspective. The main issue is still to control total fishing mortality and to address the bycatch issue. But the biological, technological, and market relationships between the harvest and landings of different species makes the problem very complex. The problem is due to the nature of the multi-species fishery, not due to the type of management *per se*. The important question is how well do the different types of management control both harvest *and* bycatch mortality in multi-species fisheries? Addressing either issue will have effects on the other, and evaluating case examples will provide a context for identifying subsequent design criteria for LAPs.

Consider first the case of achieving a set of annual catch limits for a set of interrelated species. To make the discussion easier, let us use a two species fishery. The ratio of the TACs is a function of relative stock sizes and critical aspects of the reproductive capacity of each stock. The ratio of harvest levels is a function of the range of technology throughout the fleet, the ratio of prices, and the relative size and the spatial and temporal distribution of the two stocks. However, except in vary rare cases, the two ratios will not match which means that it is not possible to achieve exactly both TACs no matter what type of regulation is used.

For example, consider where the ratio of TACs for species A and B are 10 and 1 respectively, while the catch ratio, depending on which type of boat is fishing where and how, ranges between 10 to 2 and 10 to 3. Then under the best of circumstances, if the harvest of species A is kept at the TAC of 10, the harvest of species B will be 2.

However, it could be as high as 3. Therefore the TAC will be surpassed by an amount somewhere between a 3:1 and a 2:1 ratio. On the other hand, if the harvest of species B is kept to its TAC of 1, the highest possible harvest of species A is 5, but it could be as low as 3.33. In either case, harvest will be less than the TAC. In the first instance, there will be a biological problem with species A and in the second case possible harvest is left in the sea. The latter issue can be called the problem of the binding or the constraining TAC.

Even a casual interpretation of the MSA will show that on a policy level the biological problem with species A takes precedence. Ignoring the constraining TAC to take more of the other species is not an option. This points out the importance of setting the biologically based TACs as carefully as possible since the ramifications can extend beyond the species being considered.

Given the reality of the binding TAC, the problem facing the managers of this hypothetical fishery is to how to arrange harvesting activity so that the harvest of species A is as close to 5 as possible while the harvest of species B is kept at 1. More accurately the problem is to maximize the value of the harvest of both species while keeping the harvest of species A to 1, taking into account other management objectives.

How well do traditional regulation methods solve this problem? Very general techniques such as closed seasons by their very nature do not specifically address the differences in harvest ratios. Do you set the season length so as to achieve the constraining TAC, the other TAC, or some average? Even if it is set with the binding TAC in mind, how well can the program be expected to work? What kind of incentives does this provide to participants both in the short-run and the long-run?

What about a straight TAC program? Is the fishery shut down when the binding TAC is met or is just the landing of the constraining species prohibited? If so, the regulated bycatch will increase and, unless discard mortality is zero, the binding TAC will be surpassed.

What about the use of landings limits, where landings of species B is limited to the appropriate percentage of species A? This may keep landings in the correct proportions but not the relative mortality rates.

To the extent that they can be enforced, regulations on season, area, or depth fished may lead to desirable changes in the catch ratios.

Finally, what about a LAP program? The basic principles also apply, and difficult interdependencies will be hard to resolve. But in principle, harvest will stop once the TAC for a particular species has been achieved. Further, there will be incentives for the annual privileges for the species with the binding TAC to be acquired by those who can catch more of the other valuable species per unit of the constraining species. This will help in achieving the goal of maximizing the value of total output while staying within the limit set by the constraining TAC.

On the other hand, the exact design of a LAP program that can adequately address all, or even the most important, interdependencies in a multi-species fishery is much more difficult task, even on a conceptual basis. Which of the primary or incidental species should be included in the programs? How can non-target species be considered? Can various species be safely grouped as a complex with a separate TAC? Are there special rules or protocols for quota balancing that add flexibility and cost efficiency for management and participants alike without sacrificing the biological requirements? These topics are addressed in the following sections.

But again it must be stressed that there are no definitive answers that will work for all fisheries or for all Councils. The point to remember is that issues such as the problem of the constraining TAC are there because of the nature of the fishery. They are not caused by the type of management chosen. The objective is to choose the type of management that will do a better job of solving the problems, and acknowledge that none of them will be able to achieve perfection. With respect to LAPs, the issue is to design the details of the program so that it addresses the special problems of the particular fishery thinking in terms of Figure 2. The next step is to determine if that particular program can achieve the overall fishery management objectives better than traditional techniques.

The Two Parts of a LAP Program

There are two critical parts of a LAP program. The first is the design of the program itself which includes the specifications and the characteristics of the harvest privileges. The second is the design of the method of determining the initial, and sometimes subsequent, allocations of the privileges. For the most part, when constructing and evaluating LAP programs, these can be considered as separate and distinct parts. One important exception is that any design decision to disallow transfers will ultimately necessitate a second round of allocations (see further discussion below). It is necessary to give both aspects the appropriate emphasis and not let an important attribute of one take up all the attention. In some experiences the design of the allocation decision soaks up so much attention that participants neglect the operational design of the system. While the allocation formula has immediate and critical implications, the program's operational design will be important for a very long time. However, neither a well designed program with a socially unacceptable allocation formula nor a poorly designed program with an acceptable allocation program will likely be a success.

An introduction to some of the theoretical and operational fishery management parameters affecting design choices has been provided in the previous two subsections. The following subsection provides an introduction to the application of these parameters to the LAP design process, setting the stage for the detailed comparative analysis provided in the "Nature of the Harvest Privilege" section of Part 2.

The Process of Designing a LAP program.

The basic process of developing a FMP that implements a LAP program should be no different from the process of developing any other FMP. All plans should be developed following the current version of the Operational Guidelines for the Development and Implementation of Fishery Management Plans (NMFS, 1997). The Councils should undertake the required steps of scoping, planning, preparation of documents, public review, and adoption regardless of the type of management regime. Granted there may be special requirements, such as referenda in some cases, but the overall process of designing the fishery regulation program should be the same.

While the process will not be different, the types and amounts of work done at each step will vary, especially when a Council is preparing a LAP program for the first time. This can be discussed in terms of the following generalized steps for the plan development process.

Step 1. *Current Status Description*. Summarize the current status of the fishery including stock characteristics, existing management regulations, catch trends, fleet size, cost, earnings, and employment levels of the various sectors including the processing and support industries. If applicable, descriptions of the recreational sector should be provided including participation, catch rates, and any valuation information. All of this should be placed in context by describing the physical and natural environment including ecosystem interrelationships and community structures. The discussion should focus on identifying potential areas of concern with respect to the stock or to participants. In reality this step is going on continuously as part of observing the current operation of the fishery.

Step 2. *Set Objectives*. State the fishery management objectives or goals that the Council wishes to achieve with the FMP. Often the goals have to do with correcting or mitigating one or more of the problems identified in step 1. The objectives will be most useful if they are stated such that it is possible to measure the degree to which they are achieved.

Step 3. *Specify Management Alternatives*. List the range of management options that will (or can) be considered to achieve the management objectives. Often the list will be expanded or the nature of specific alternatives will be modified during the performance of steps 4 and 5.

Step 4. *Analyze Alternatives*. Using the best data and analytical tools available, determine the effects of the various management alternatives on the stock and the welfare of stakeholders measured in ways that relate to the management objectives.

Step 5. *Select and Implement the Best Option*. Select the management option that most nearly achieves the management objectives while meeting the other requirement of the MSA.

Step 6. *Monitor and Adjust*. Develop a monitoring protocol that can determine if the selected management option is producing the desired results.

When performing these steps it is necessary to consider the transition phase between the *status quo* and the operation of the fishery after it has adjusted to the new fisheries management structure. As with any change in a management plan, the switch to a LAP program can have far reaching effects. While there is the potential for biological, financial, and efficiency improvements, in the process there will be both real and perceived winners and losers. Some of the problems result because it takes time to learn how to operate under a new system and some from the fundamental changes in the rules of the game. It is possible that many of the problems can be avoided or mitigated if in the process of designing a LAP program the transition to the new regime is as much a part of the planning as is the final destination.

Thus, management objectives should include addressing biological, distributional, and other goals during the transition phase. The range of management alternatives should be broad enough to provide a meaningful choice between effects during the transition as well as after program implementation. In reality this may involve minor modifications, including time specified adjustments, in the options discussed below. For example, because it will likely take time for participants to learn how to operate in a market-based system, it may make sense to limit transferability in the first year or to allow only short-term transfers in the next two years, before allowing for full transferability in the fourth year. This is discussed in more detail in the section on transferability below. Further, when the Council's goals include correcting for fleet overcapacity, a LAP program may include transition measures that result in phased reductions in fleet and labor force. Further, a loan program may be financed as part of the cost recovery process or by other means to help certain individuals acquire harvesting privileges. When the different alternatives are analyzed, the fish stock and economic welfare effects during the transition should also be clearly laid out for participants and Council members to review.

The actual design of a potential LAP program should occur during step 3. However the basis for deciding if one is necessary, and if so, how it should be designed, should be derived in steps 1 and 2. LAPs have the potential to eliminate the race for fish (often caused by simple input or output controls) and the deleterious effects the race can have on fleet and processing capacity, product quality, and safety. They provide incentives to reduce overcapacity and to improve product quality. A careful study of the current state of the fishery is necessary to determine if a LAP program will be a suitable management option to address the issues of concern.

However, because there are innumerable ways to design a LAP program, it is necessary to have criteria for selecting which options to use to design the best one for the given situation. The management objectives selected in step 2 will be those criteria. To be useful, the objectives or goals should address biological, economic, social, cultural, and distributional issues.

If, based on the results of steps 1 and 2, the Council decides to consider a LAP program, the technical design work will take place in step 3. The task will be to design the specifics of the program such that it achieves the management objectives while conforming to the

MSA and other applicable laws. Implicit in this is that the LAP program will be an improvement over the *status quo* regulation program.

While the devil is in the details and these details will be explained further below, there are two basic things that must be done when designing a LAP program: (1) Determine who will receive and who can hold the harvest privileges; and (2) Define the nature of the harvesting privilege. With regard to the first issue, under previous versions of the MSA, the privileges were called IFQs and they were given primarily to individuals and firms even though "persons" was broadly defined in a legal sense. IFQs may still be used by Councils, and they are defined in Section 3(23) of the MSA as:

> (23) The term "individual fishing quota" means a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person. Such term does not include community development quotas as described in section 305(i).

The reauthorized MSA followed the lead of the U.S. Ocean Commission and broadened the scope of harvesting privileges by introducing the concept of LAPs, which can be given to a broad range of entities as long as they satisfy the eligibility requirements. This may include partnerships, corporations, coops, and fishermen's organizations. RFAs and Fishing Communities (FCs) are two new types of entities that can acquire and/or hold LAPs and are specifically defined in the Act. RFAs and FCs will be discussed in detail below in the section entitled "Eligibility to Acquire/Hold Privileges."

A LAP is defined in Section 3(26) of the MSA as follows:

> (26) The term `limited access privilege'—
> (A) means a Federal permit, issued as part of a limited access system under section 303A to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person; and (B) includes an individual fishing quota; but (C) does not include community development quotas as described in section 305(i).

As defined, IFQs are a subset of LAPs, but it is hard to distinguish between the two. IFQs represent a quantity of catch expressed as a *percentage* of the TAC, while LAPs are expressed as a *portion* of the TAC. It is not absolutely clear what is the distinction between the two terms. In both cases the amount of fish that can be harvested by the privilege holders in any year is bounded by the TAC, but presumably LAPs provide a little more latitude in the way the TAC is divided. With IFQs, the quota shares are always granted as a percent of the TAC, but with LAPs, the quota shares may be given in terms of weight but will require adjustments with changes in the TAC. (This issue is described in detail in the section entitled "Denomination of LAP Units.")

Given that IFQs (the term of choice under the previous MSA version) is now subsumed under the term LAP, and further given the very small difference between the two, it makes sense to use the term LAPs when discussing market-based management programs under

the new legislation. The only time there is a need to make a distinction is with respect to the way the TAC is divided. An IFQ represents a LAP where the "portion of the TAC" is always a percentage. Subject to any subsequent legal interpretation, a LAP without the IFQ distinction can be a "percentage" but it can also be some other type of portion.

For the purpose of discussion it will be useful to specify the range of choice open to the Councils when creating a LAP program under the revised MSA, relative to what could be done under the previous legislation. The range of choice is shown in Figure 3. Most Councils are familiar with the development of IFQ programs, which is shown in the left-hand box. The right-hand box shows the use of only the new elements in the MSA. In between is the wide range of combinations of the old and the new. The main distinction between the customary and the new is that the latter gives more emphasis to community-based control of harvesting privileges, where community is defined in the broadest possible sense.

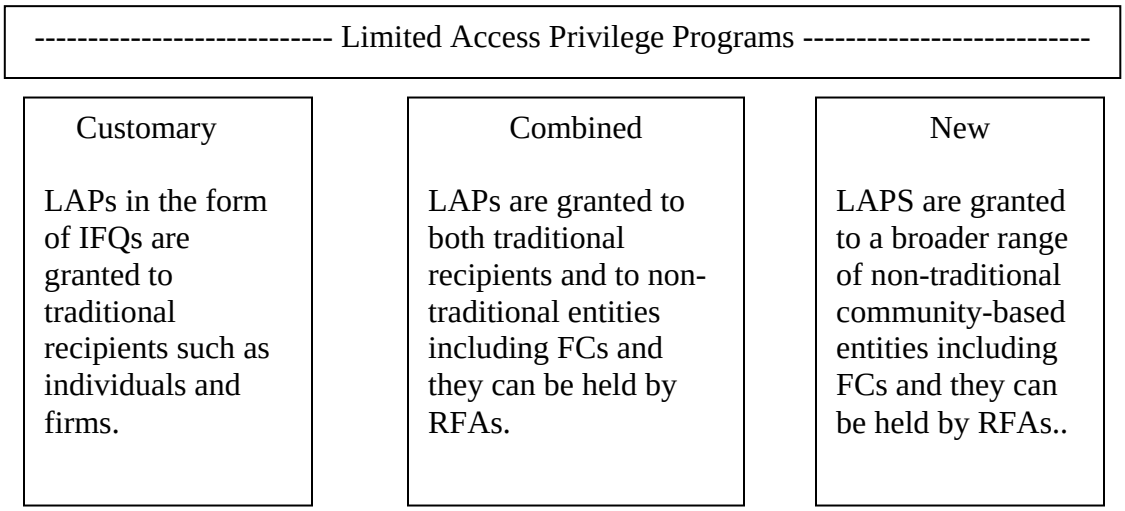

Figure 3. Range of Limited Access Privilege Program Options.

In many important ways, granting LAPs to RFAs or FCs will have little effect on the design of a program relative to the design of an IFQ program. In other ways, there are some important differences to consider, especially in combined cases where there are significant differences in the nature of the recipients. The discussion to follow will focus on these similarities and differences.

The second design issue is to specify the nature of the privileges. The components that, in concert, specify this nature include specification of management or resource units, denomination of LAP units, details of eligibility to acquire/hold, program duration, transferability, and excessive share. To assist the Councils as they evaluate each of these components, this document describes the nature of each component and provides a summary of the pros and cons of the different options that can be used in their design.

Before going into the details of the development of a LAP program, it will be useful to review the more general requirements for LAPs that are spelled out in the MSA. The following is taken verbatim from the Act. These are the mandates for LAPs. Most are self-explanatory. Note that Steps 2 and 6 of the generalized steps for the plan development process described above are mandated, and that most of these provisions will be at least partially the responsibility of NMFS. The requirements for LAPs in Section 303A(c) include:

> (1) IN GENERAL.—Any limited access privilege program to harvest fish submitted by a Council or approved by the Secretary under this section shall—
>
> (A) if established in a fishery that is overfished or subject to a rebuilding plan, assist in its rebuilding;
>
> (B) if established in a fishery that is determined by the Secretary or the Council to have overcapacity, contribute to reducing capacity;
>
> (C) promote
>
> (i) fishing safety;
>
> (ii) fishery conservation and management; and
>
> (iii) social and economic benefits;
>
> (D) prohibit any person other than a United States citizen, a corporation, partnership, or other entity established under the laws of the United States or any State, or a permanent resident alien, that meets the eligibility and participation requirements established in the program from acquiring a privilege to harvest fish, including any person that acquires a limited access privilege solely for the purpose of perfecting or realizing on a security interest in such privilege;
>
> (E) require that all fish harvested under a limited access privilege program be processed on vessels of the United States or on United States soil (including any territory of the United States);
>
> (F) specify the goals of the program;
>
> (G) include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal and detailed review 5 years after the implementation of the program and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequently than once every 7 years);
>
> (H) include an effective system for enforcement, monitoring, and management of the program, including the use of observers or electronic monitoring systems;
>
> (I) include an appeals process for administrative review of the Secretary's decisions regarding initial allocation of limited access privileges;
>
> (J) provide for the establishment by the Secretary, in consultation with appropriate Federal agencies, for an information collection and review process to provide any additional information needed to determine whether any illegal acts of anti-competition,

anti-trust, price collusion, or price fixing have occurred among regional fishery associations or persons receiving limited access privileges under the program; and

(K) provide for the revocation by the Secretary of limited access privileges held by any person found to have violated the antitrust laws of the United States.

(2) WAIVER.—The Secretary may waive the requirement of paragraph (1)(E) if the Secretary determines that—

(A) the fishery has historically processed the fish outside of the United States; and

(B) the United States has a seafood safety equivalency agreement with the country where processing will occur.

While, for the most part, these provisions are self-explanatory, it is possible to provide more details. First, a well thought-out LAP program should easily be in compliance with points (A), (B), and (C). A TAC that conforms with other parts of the MSA will ensure that there are no problems with overfishing. Similarly, with reasonable rules on transferability, the incentives for efficiency in production produced by a LAP program will contribute to the reduction of overcapacity. Finally, the potential freedom given to participants to fish where and when they choose will contribute to safety at sea and the improvement of overall management and conservation. LAPs provide incentives for economic efficiency. A full consideration of the issue of promoting social and economic benefits is discussed below.

Section (D) places legislative constraints on how Councils choose to address the "Eligibility to acquire/hold" component of a LAP program. This is discussed in more detail in the relevant section below.

Section (E) ensures that all fish harvested in LAP fisheries will, with certain specified exceptions, be processed by U.S. processors presumably to prevent a system that will allow certain segments of the industry to be blocked from the gains of a LAP fishery.

Sections (F) and (G) are merely the codification of Steps 2 and 6 in the generalized plan development process described above. Both should be part of the current development and updating procedure for all plans, although a written report is rarely done. The purpose of the review is to provide a formal analysis of how well the plan objectives have been achieved and of how well the fishery is operating overall. To ensure that the review can be completed, it is imperative that the relevant data on metrics related to the meeting of the objectives are collected in a regular and organized manner.

Sections (H) and (I) are also legislative mandates for procedures that are routinely performed as part of the preparation of all management plans. The NMFS has programs for enforcement of all existing management plans and experience with implementing administrative appeals processes for many historical allocation decisions. Although LAP programs are different, the changes required with respect to enforcement and appeals should be straightforward, and will, for the most part, be the responsibility of NMFS and not the Councils.

Section (J) and (K) provide a legislative mandate to prevent monopolistic activities that is directed at the Secretary and NMFS. Presumably, other than providing a statement in the plan that the mandated issues are to be addressed by the Secretary, there is little that Councils can do. As such, except for the section of excessive shares, this document will not address this topic *per se*.

Introduction to Allocation of LAPs.

The following introduction to allocation issues sets the stage for the detailed comparative analysis discussion in the "Initial Allocation" section of Part 2. One of the desirable properties of LAP programs is the freedom, and indeed the incentives, to increase efficiency in the production of fish products. This has general benefits for the overall economy and especially for seafood consumers. Just as important, this efficiency will lead to improved harvester profits. Or looking at it the other way around, it is the search for improved profits, made possible by the creation of harvest privileges, that leads to improved efficiency. To the extent that LAP programs are successful, there will be an increase in profits, and these profits will accrue to someone. Sometimes the potential profits will be quite small as in the South Atlantic Council wreckfish IFQ program and sometimes they can be quite large as in some of the programs in Alaska. Regardless of magnitude, there will be distributional issues to be resolved as part of a LAP program.

Before going on it will be useful to clarify two issues. First, the granting of harvest privileges is not an absolute guarantee of profits. It certainly provides the opportunity and the incentives, but it will still involve some initiative and the investment of other human and physical assets to produce the higher valued fish and to obtain lower costs.

Second, all fisheries management programs have allocative effects that influence absolute and relative profits. For example, with a TAC and an open season, those with bigger boats that can fish in more locations and under more varied weather conditions have a better opportunity to capture the gains from the restricted harvest. In this case, however, the profit incentives do not lead to increased efficiency. People will have incentives to build bigger and faster boats that will only intensify the race to fish and will result in decreased overall efficiency. Limited access programs that restrict the number of participants have very clear distributional consequences, especially if they include more specific limits such as allowable days at sea. There may not be a direct tie to a certain amount of catch as in a LAP program, but there is certainly a bold line between those that can fish and those that can not, and perhaps even further differentiation among those that are permitted to fish.

The above notwithstanding, LAP programs are considerably different than other types of management with respect to distributional issues and this difference needs to be incorporated in their development. While all FMP work can have important repercussions for industry participants, LAP effects can sometimes be more significant, longer lasting, and more difficult to "un-do." Council members should always remember this as they design and vote on a LAP program. The flip side of this is that because so much is at stake, industry participants will have extra incentives to get involved in the Council

process as the program is developed. This is a good thing, but at the same time, Council members must be very careful to interpret comments from various constituents relative to potential gains or losses. Council members must realize that all constituents may not have the means to attend Council meetings or even to understand the nuances of various programs designs.

When it comes to addressing the distributional aspect, the new MSA grants wide latitude in how allocation decisions are made. For one thing, because of the provisions for auctions and other methods to collect royalties, the option to return some of the gains from improved management back to the general population, as represented by the government treasury, is now a possibility. The word "some" is important because it is the possibility of increased profits that provides the incentives for changing fishermen's behavior. All of the increased profits can not be taken away without destroying these incentives. The details of collecting royalties are discussed below in Part 2.

With LAP programs there is a broader emphasis on allocating privileges to a wider range of potential recipients. Although it was not required by earlier versions of the MSA, traditionally, IFQs have been given to "persons' in the narrow sense of the word. Primarily, they went to individuals or various types of business entities. It is now possible to consider explicitly RFAs or FCs, two types of entities defined in the MSA, as well as other types of organizations. Of course, allocations to traditional recipients are also an option. This will also be discussed in more detail below.

In summary, the allocation question is more complex since MSA reauthorization because the range of choice has increased. There is now a greater choice of distributing net benefits among participants and between the national treasury on the one hand and fishery participants on the other. While it may be more complex, it also improves the ability of the Councils to achieve a wider range of overall management objectives.

Part 2: The Design of LAP Programs

1. Nature of Harvest Privilege

A. Duration

The term "duration" refers to the lifetime of a privilege or share itself and not its possession by any one entity. Possession of shares is governed by initial and subsequent eligibility requirements, transfer provisions, and other applicable rules. The MSA is very clear about most aspects of duration; LAPs may be revoked or limited in accordance with the Act, they do not confer rights of compensation, and they do not create any ownership of a fish before it is harvested [Section 303A(b)].

Further, while the language is somewhat obscure, the revised MSA effectively mandates that duration of LAPs be equal to the actual life of the plan [Section 303A(f)].

> (f) CHARACTERISTICS.—A limited access privilege established after the date of enactment of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 is a permit issued for a period of not more than 10 years that—
>
> (1) will be renewed before the end of that period, unless it has been revoked, limited, or modified as provided in this subsection;
>
> (2) will be revoked, limited, or modified if the holder is found by the Secretary, after notice and an opportunity for a hearing under section 554 of title 5, United States Code, to have failed to comply with any term of the plan identified in the plan as cause for revocation, limitation, or modification of a permit, which may include conservation requirements established under the plan;
>
> (3) may be revoked, limited, or modified if the holder is found by the Secretary, after notice and an opportunity for a hearing under section 554 of title 5, United States Code, to have committed an act prohibited by section 307 of this Act; and
>
> (4) may be acquired, or reacquired, by participants in the program under a mechanism established by the Council if it has been revoked, limited, or modified under paragraph (2) or (3).

Councils have the option of issuing permits for periods up to 10 years, however it is mandated that they will be renewed unless they have been revoked for cause. That is, a current owner of a privilege is entitled to have the permit renewed unless he or she fails to comply with the requirements of the plan or commits an act that is prohibited by the MSA in general. Using a literal translation, the MSA essentially states that LAPs must possess what may be called rolling conditional permanence.[4] Congress put in some conditions that must be met for the permits to be renewed and Councils have the option of creating their own conditions. If they choose to do so, the conditions should be well defined, easily monitored, and subject to clear-cut determinations of compliance. Ultimately, of course, the Councils do have authority over duration. They can repeal a LAP program by a plan amendment. But they are limited in what they can do with respect to duration in the context of an ongoing LAP program.

4 The actual interpretation that follows from official NMFS guidance might be different.

Any permits that are revoked, limited, or modified are to be reallocated by whatever means the Council chooses. The reallocation process is, in principle, no different than the initial allocation process that is discussed below. Due to the infrequent occurrences and likely small amounts involved, it may be a time to consider auctions. Note that the law does not prohibit those who have lost the permits from reacquiring them.

While the MSA does limit how Councils can deal with duration, in theory there is a range of policy choice between making the privileges as permanent as possible and various limited horizon options. Since a LAP program can be replaced through a FMP amendment, the longest possible duration would be for the life of the plan. This is what Congress has mandated. At the other extreme, privileges could be subject to a sunset provision after a specified number of years. After that they could be reallocated to the same or different entities.

The trade-offs between these two potential options are as follows. By allowing the privilege to be as permanent as current policy allows, the owner will have the securest possible planning horizon and will have better incentives to make efficient investments in harvesting and processing equipment and to develop market channels. Longer term privileges are expected to generate greater economic returns than shorter term privileges. Thus, on economic efficiency grounds, a permanent quota is generally considered superior to a fixed term quota. Also, the longer the duration of privileges, the greater is the fishermen's stake in the fishery and the stronger the desire to conserve and protect the resource.

On the other hand, fixed-term privileges could allow some flexibility. Some have argued that this can be important when a LAP program is being considered for the first time and there is uncertainty about how well the program will work. If quota privileges are initially set for a short period of time, it could be easier to modify the program and even abandon it if necessary. For example, if the initial allocation of quota is deemed inappropriate, a short, fixed-term privilege would allow the Council to re-adjust the allocation to better suit the goals of the program. Also if the Council wishes to allocate shares by an auction, a fixed term policy where some or all of the permits are recalled periodically and resold will provide a continuing source of revenue.

Councils do have the flexibility to address those issues that some have used to argue for fixed duration, but they must be direct about it. A fixed duration program would allow the Council the chance to adjust a program if it does not like the way the program is working, and there would be no need to specify problem areas in advance. But under the law as written, Councils may set rules in the plan to forbid certain actions that it believes will lead to unsatisfactory results. The difference is that these actions must be defined before the plan goes into effect. While the ability to set the conditions is something that the Council can use to ensure that management objectives are met, appropriate care should be taken. For example, some have proposed that to maintain their permits, holders of LAPs must show that they are making *extra* efforts toward providing for the sustainability of stocks. While that may be a noble goal, it will be difficult to prove that, and it begs the

question of why they should they be held to higher standards than those who operate under non-LAP programs.

An option that is related to duration is a "use it or lose it" provision. The notion is that if the holder of exclusive privilege to harvest a portion of the nation's fish stocks does not use it, it should be turned over to someone who will. Otherwise consumers will have access to less fish and the opportunity to provide earnings to the industry will be lost. While at the surface this appears to be logical, there are many reasons why holders of privileges might not use their privileges in any given year. For one thing there may not be a profitable market for the fish and other times the fish may not be accessible to the gear. If participants can not find the fish or can not sell them at a profit if they catch them, it does not make sense to penalize them. A use it or lose it policy would also preclude individuals, including NGOs, from acquiring privileges and taking independent conservation actions by allowing some fish to remain in the water. Section 303A(c)(5)(E) on LAP allocation requirements would allow the Councils or the Secretary to condition the allocation of privileges though their definition of "substantial participation":

> (E) authorize limited access privileges to harvest fish to be held, acquired, used by, or issued under the system to persons who substantially participate in the fishery, including in a specific sector of such fishery, as specified by the Council.

Thus, privileges can be held or acquired by persons who substantially participate in the fishery, and Councils do have the option of including a use it or lose it provision in the plan. Holders who do not comply would lose their permits.

B. Specification of the Management or Resource Units

Defining the management unit or units is an important part of any fisheries regulation program. This is no less true with a LAP program. A LAP management unit is the species, stock, or aggregation for which a TAC is specified and for which harvesting privileges are distributed. In the Mid-Atlantic Council surf clam and ocean quahog ITQ program, there are only two units: surf clams and quahogs, throughout their range. The ITQ program for Alaskan sablefish and halibut has many management units. Each stock is broken down into several units defined by geographic areas and vessel size class, and a separate set of harvesting privileges is issued for each unit. The purpose was to customize the IFQ program so as to achieve certain fishery management objectives. See the "Eligibility to Acquire/Hold" section below. In some cases, it may be necessary to design a LAP program with some management units for which harvesting privileges will not be distributed. This will be discussed in more detail at the conclusion of this section.

Selecting the management units for a LAP program is a very important step. It defines what stocks, or parts or aggregations thereof, will be the basis for the harvesting privileges. It is also the biological foundation for ensuring proper conservation. In this latter regard, there are two types of questions pertaining to the selection and definition of the LAP management units that must be answered:

(1) How many species should be included in the program? If different species are biologically or commercially related, there may be grounds for managing them jointly under the LAP program. Some of the considerations to be addressed include: Are the species caught as a primary or incidental target harvest with the same gear or by the same fleet at different times or seasons, and are there predator-prey or other ecological relationships between the species?

Care must be taken when selecting the stocks. There are two types of errors that can be made. An error of exclusion occurs when a species that is closely related to those in the program is left out. This can make it difficult to appropriately manage the species that are in the program and/or the one that is left out. For example, if the catch of a species which is not covered in a program has a significant incidental catch of a species which is included, it may be quite difficult to account for this mortality. There are many examples of mixed trawl and multispecies fisheries where these issues are relevant including New England and Alaska groundfish and Gulf of Mexico reef fish. [For further reading see the documentation of the Trawl Individual Quota program of the Pacific Council (http://www.pcouncil.org/) and the LAP program for the South Atlantic Snapper-Grouper Fishery of the South Atlantic Council (http://www.safmc.net/)]. On the other hand an error of inclusion occurs when a minor or unrelated species is included in the program. Determining and enforcing the TAC for such a species can potentially involve more work and managerial repercussions on the major species than the gains from managing the minor stock are worth. Notwithstanding the requirement to establish annual catch limits for each of its managed fisheries under Section 302(h)(6), Council's selection of a LAP versus some other management option for each species in a management unit should be evaluated on a case by case basis.

(2) How should each of the included species be classified? There may be several stocks or geographically distinct units of the same species. If so it may be appropriate to have a separate TAC for each. At the other extreme, there may be certain groups which may be treated as aggregations for management purposes even though they are technically made up of separate species. The multi-species groundfishery of the Pacific Coast is an example. These aggregations can have a joint TAC. These are complex issues that will depend upon the ecology of the region and it will be necessary to make these classification decisions in a way that is consistent with the requirements for specifying annual catch levels. (See Section 302(h)(6)).

Here again the decisions are critical. An error of agglomeration can occur if biologically distinct stocks are managed as a unit. A single overall TAC on two separate stocks may put too much pressure on one stock if it is closer to port or has a higher catch per unit of effort. On the other hand, an error of specificity may occur if the different species are divided into too many stocks because the program can become unwieldy and difficult to manage. This is also a potential problem when customizing a management program to divide the harvesting privileges among many different groups or areas.

There are definitely trade-offs in answering these two questions. The larger the number of stocks that are included in the program, the more inclusive the system will be and the

lower the need for a separate management program to handle species and stocks not included. Additionally, the finer the quota share stocks are geographically defined, the easier it will be to focus management on more narrowly defined species or species groups (assuming there are biological, technological, or distributional reasons for doing so). However, the larger the number of area divisions, the more complex and difficult it will be to manage the LAP program. There will be more TACs to set, and the monitoring program will have to be able to distinguish landings according to the stock from which they were harvested.

As mentioned in the introduction, in complex multiple-species fisheries it will not be possible to take all of the allowable harvest if the ratio of harvest levels is not the same as the ratio of TACs. This was called the problem of the binding or constraining TAC. It is very important to keep these issues in mind when trying to specify the management units. At the same time, managers in existing LAP type programs around the world have developed ways of addressing these issues. Because of the importance of binding or constraining TACs to LAP design work on the Pacific coast, a detailed study on this was funded by the Alaska Fisheries Science Center at the Northwest Regional Office. (See Sanchirico et. al., 2005; a related study is Holland and Herrera, 2006). The following quote summarizes the general points:

> Fishery managers have addressed this difficulty by allowing market transactions, such as permanent and temporary transfers of quota. Management systems permit "retrospective balancing" or trades after landings are made to allow a fisherman to cover overharvest of quota. Mangers also have used non-trading mechanisms to aid in balancing catches with quota holdings. These include rollover provisions, such as carrying forward or back of quota, "deemed value payments," under which fishers are charged a fee for each unit of catch they land above their quota, or permitting fishers to surrender or discard catch they cannot match with quota. Some programs also permit "cross-species" exchanges where quota of one species can be used to cover catches of another species at a prescribed trading ratio.
>
> All of these mechanisms introduce flexibility into the system for the benefit of the individual quota owner. The costs of this additional flexibility, however, can be a loss of precision in TAC management, potential effects on the performance of the lease market, and a greater administrative burden. If two species in a multispecies complex have TACs that are out of balance with average catch ratios, the non-trading instruments might enable fishers to more fully utilize the TAC of the species that would otherwise have been constrained by the TAC of the jointly caught species. Flexibility mechanisms can, therefore, increase the value generated by the multispecies complex, but they also can increase the risk of overexploitation. Achieving the right balance between flexibility, overexploitation risk, and administrative simplicity is critical for the profitability and sustainability of multispecies fisheries. (Sanchirico et. al. page 1)

Further in the abstract, they report:

> We find that a combination of incentives and limits on use rates for the mechanisms provide sufficient flexibility to the quota owner without the fishery manager incurring excessive levels of overexploitation risk. Contrary to some opinions, these programs are

evidence that it is possible to implement IFQ programs for multispecies fisheries and that they can be profitable and sustainable.

Councils designing LAP programs in multispecies fisheries should study this report carefully to evaluate the details of the various ways of dealing with quota balancing in these types of fisheries.

As mentioned above, in some cases it may be necessary to include certain species in the overall FMP that will not be an explicit part of the LAP program. For example, there may be a non-target harvest relationship with an ecologically sensitive species that has little or no market value. It would make sense to include the species in the management plan so that fishing mortality issues could be legally addressed. In some cases it may make sense to do so in ways that are independent of the LAP program such as specifying direct bycatch controls. However, even in these cases, it may be useful to consider the use of bycatch LAPs. If the bycatch ratios vary across users or harvest techniques, and the target bycatch harvest level can place a constraint on directed harvest, a program that includes bycatch harvest privileges and directed catch harvest privileges will provide incentives for maximizing the level of directed catch per unit bycatch.

C. Denomination of LAP Units

A LAP program requires permit holders be given the authority to harvest a specified amount of catch each year such that the sum of harvests is equal to the TAC, or in some cases the sum can be equal to an allocated share of a TAC. Since the TAC can vary over time due to variation in the status of the fish stock, a mechanism is needed to vary the harvest privileges associated with each permit as the TAC changes. As mentioned above, there are two types of LAPs authorized under the revised MSA. With an IFQ, the basic entitlement is specified as a percentage of the TAC. For example, if a fisherman holds an IFQ share equal to one-tenth of one percent of the TAC, and the TAC is set at 15,000 metric tons for the year, then the fisherman has the right to catch up to 15 metric tons during the year. Let the term quota share (QS) refer to the basic entitlements, which are denominated in terms of a percentage of the TAC. Further let the term annual harvest privilege (AHP) refer to the periodic harvest privileges, which are denominated in terms of units of catch. The system as a whole can be called a QS/AHP program.[5]

The arguments in favor of using a percentage system is that it takes into account the biological uncertainty that is inherent in fisheries utilization and at the same time is easy and straight-forward to administer. Further it does so in a way that puts the risk on the quota recipients. Given the vagaries of Mother Nature, Councils can not realistically guarantee participants a specified harvest year after year. The recipients, who must be current participants in the fishery, will be used to operating in an uncertain environment, and should be able to design general operating plans to take into account expected changes

5 There are many different terms for the annual privileges in use in various regions: annual IFQ in Alaska, quota pounds in the Northwest, and IFQ allocation in the Gulf. The general term annual harvest privilege is meant to include all of them.

in the TAC. Further if a LAP program is instituted in a fishery with an overfished stock, the initial AHPs may be substantially less than historic catches. One could argue that since they are the ones who will bear the costs of the necessary restrictions in harvest, they deserve to receive the benefits when the stocks recover.

When using the more general notion of a LAP, the permit to harvest is specified as a quantity of fish that is a "portion" of the TAC. But what is the operational distinction between a "percentage" and a "portion"? Since a percentage is a portion, one interpretation is that Councils are free to use percentages when using LAPs, but they also have the flexibility to use something else if they so choose. Another interpretation is that if this is to be a meaningful distinction, then the portion must be something other than a percentage. For working purposes, this document will use the former interpretation. The term "portion" does not preclude using a percentage based system.

However, if a Council chooses to use a portion other than a percentage, how is the harvest privilege to be defined? The most obvious choice would be to express the harvest privilege directly in terms of a fixed quantity of fish with the *proviso* that the total amount of privileges in any year can not be higher than the annual TAC. This can be called a fixed annual harvest privilege (FAHP) system. However, for the system to work there must be a procedure to change the "fixed" shares when there is a change in the TAC. Given the mandate that harvest permits must possess rolling conditional permanence (see the section on Duration above) this means that Councils must develop a procedure to change the fixed quantity of fish that is associated with each permit when there is a change in stock conditions.

Think about this in more detail. The basic "permit" must be permanent but the AHP it generates must change with stock conditions. This is true for both "percentage" and "portion" based programs. However, there is a straight forward way to do so with percentage programs; the fixed permit is denominated as a percentage of the TAC. With a portion system, the fixed permit is denominated as a quantity of fish. But the opportunity to take that fish must be circumscribed in some manner.

There are several ways to do this. One possibility is to start from scratch and go through a modified allocation procedure every time there is a change in stock conditions. It would be modified in the sense that the recipients will already be defined as the current holders of the permits. The problem would be to specify how much each permit holder should be allowed to harvest. There are two possible starting points. Start each at a zero base or start at the current harvest levels. Then allocate the whole TAC or the required change according to specified performance specifications that are in conformance with the allocation criteria in the MSA. For the most part it would seem prudent to only deal with the required change in the TAC. Don't start from the beginning; just modify each permit holder's fixed quantity such that the net change equals the change in the TAC. But even so, there is a vast difference between the happy times when the TAC increases and each permit can be allowed to generate more AHP and the more critical times when it is necessary to do the reverse. This whole process may result in more effort and acrimony than Councils will be willing to endure.

A better solution may be to use a system that never actually takes privileges away from permit holders but rather differentiates different types of permanent permits according to when the permit would generate AHP. This can be done by setting up a "cushion" system which can best be described using an example.

Assume that over the life of a fishery, the TAC has ranged between 7,000 and 8,500 tons. In principle 7,000 tons could be called a safe harvest level which could be taken in perpetuity. Permits to harvest this amount could be issued to entities according to the allocation procedures described elsewhere in this document. Call these Priority A permits.

To be safe and in full compliance with the MSA it may be smart to set the safe harvest level below 7,000 tons by some safety margin and to specify a procedure on how these "perpetual" privileges would be changed in the rare case when the actual TAC is below the safety limit. That is, it may be possible to significantly reduce the number of times the holders of Priority A permit will lose some for their fixed catch amount, but it is not possible to eliminate it completely.

The other part of this system is the allocation of the cushion, which is the difference between the current TAC and the safe harvest level. This can be done through the use of differentiated Priority B permits. The first step would be to define the size of each Priority B class. For illustrative purposes, they will be set at 100 tons in this example. The whole system can be described by referencing Table 2.

Assuming a safety margin of 1,000 tons, the safe harvest level is set at 6,000 tons. This means that Priority A permits denominated in tons of fish can be allocated such that the total amount is equal to 6,000 tons. Except for the unexpected time when the TAC is less than the safe harvest level, these permits will generate AHP on a ton-for-ton basis.

Then it is possible to issue a range of Priority B permits, also denominated in tons of fish, such that the total amount allocated in each class in equal to 100

Table 2. Allocation of the TAC Using Differential Permits.

TAC 7560				Cushion 1560
Permit Type	Range in Tons			conversion factor
A		≤	6000	1
B1	> 6000	≤	6100	1
B2	> 6100	≤	6200	1
B3	> 6200	≤	6300	1
B4	> 6300	≤	6400	1
B5	> 6400	≤	6500	1
B6	> 6500	≤	6600	1
B7	> 6600	≤	6700	1
B8	> 6700	≤	6800	1
B9	> 6800	≤	6900	1
B10	> 6900	≤	7000	1
B11	> 7000	≤	7100	1
B12	> 7100	≤	7200	1
B13	> 7200	≤	7300	1
B14	> 7300	≤	7400	1
B15	> 7400	≤	7500	1
B16	> 7500	≤	7600	0.6
B17	> 7600	≤	7700	0
B18	> 7700	≤	7800	0
B19	> 7800	≤	7900	0
B20	> 7900	≤	8000	0
B21	> 8000	≤	8100	0
B22	> 8100	≤	8200	0
B23	> 8200	≤	8300	0
B24	> 8300	≤	8400	0
B25	> 8400	≤	8500	0

tons. The distinction between the different Priority B permits is the conditions under which the permanent permit actually generates AHP. As demonstrated in the table, each permit class is associated with a range of TAC values. If the annual TAC is above that range, the permits will generate AHP equal to the full weights associated with the permit.

Assume the TAC for a certain year is 7,560 tons. Given the specified safe harvest level of 6,000 tons, the cushion amount to be allocated is 1,560 tons. Individuals with permit types B1 thought B15 will receive full AHP value for their permits. However, individuals with permit types B17 or higher will receive no AHP that year. Depending on how the Council wants to set the rules, individuals with B16 permits could either receive no AHP (this might be done to simplify the system and would mean that the number of units in each B subclass should be relatively small) or a percentage share. The range for B16 permits is 7,500 to 7,600 tons and the TAC is 7,560 tons. Therefore each permit holder could be granted AHP equal to 60 percent of its fixed weight.

A different TAC would lead to a different final AHP distribution, but the principle is the same. The total amount of AHP generated each year will be equal to or less than the TAC depending on how the marginal B class permit is handled.

Another option would be to allow an open access fishery for the cushion. The disadvantages of such a scheme are very large. Anytime a management system uses two different types of controls simultaneously, there is bound to be an increase in administrative cost and detail. In addition, both the biological integrity of a firm TAC and the efficiency and capacity reducing incentives of a privilege based system for the entire fishery would be lost.

Several points are in order here. First what is the real difference between the cushion system and the traditional percentage system? It is not that difficult to see that the arithmetic is not really that much different. There are however some significant changes in the distribution of the risks of TAC changes. Holders of different types of permits will bear different risks. Put differently, participants will have the potential to make better business decisions with respect to TAC fluctuations. Priority A permits and the lower numbered Priority B permits will generate AHP on a more consistent basis. Accordingly they will have a higher market value. At the same time, owners will be more certain of the amount of fish they will be able to harvest. Individuals will have the option of building up a portfolio of permit types depending on the size and other potential uses of their vessels, the type of their fish delivery contracts, their willingness and ability to handle risks, etc.

Also, at least initially, Councils would be able to allocate the different types of permits depending upon the perceived needs of potential participants. For example, Priority A permits could be given to participants with small boats or who live in small ports with little alternative employment. In spite of this feature, the received wisdom from current programs around the world is that percentage based systems are preferred.

Second, the purpose of this discussion has been to demonstrate a possible way to use a portion system in such a way that the TAC can be maintained. There may be other possible ways, with more or less advantages or disadvantages. While it may be possible to use a portion system, the basic policy question revolves around the ability of the alterative systems to meet overall management objectives relative to the complications and costs of designing, implementing, and running the system.

The mandate that the basic permit must possess rolling conditional permanence limits the number of ways that portion systems can be used. For example, if it were possible to use time-limited permits it would be possible to allocate the cushion on a yearly basis based on a similar procedure used in an initial allocation. It would even be possible to auction them. The difference is that the AHP could, in principle, be given to a wider and differing range of entities, whereas with rolling conditional permanence, the AHP will always go to certified owners of the relevant permanent permits.

To summarize, there are two related policy issues involved. First, who should bear the inherent risk and the costs and benefits that are associated with changes in the TAC? Should it be the participant who must deal with uncertainty in planning fishing activities? Or should it be the management authority that has to develop and follow adjustment protocols? The related question has to do with the difference between using formulas and using policy discretion. Once determined, a percentage formula is easy to use, transparent, and free of the taint of backroom bargaining, as the gains and losses are proportionate to QS holdings. However, some may feel that management objectives can be better met if decisions on the allocation of decreases, and especially significant increases, in the TAC are subject to Council deliberations.

Whichever system is used, the actual annual harvesting privilege will be denominated in terms of catch weight. It may seem like a small point, but it is also necessary to specify whether the denomination will be in terms of the live weight of fish put on the deck, or the landed or first sale weight after heading and gutting. It will be important to ensure that the one that is used is consistent with the denomination used in stock assessment analysis. Also if catch is sometimes landed in green weight and sometimes with some processing, it will be necessary to establish a conversion coefficient so that the different types of landings can be compared. This can be a difficult problem because the relationship between green weight and landed weight can vary depending upon the season and the type of fish processing technology or procedure is used. And errors in conversion can create problems with respect to keeping the fishery below the TAC and in ensuring that individual participants take no more or no less than they are entitled to. See Anderson (1991a).

D. Eligibility to Acquire/Hold Privileges

The issue here is the selection of the individuals or entities that are allowed to participate in a LAP program. Eligibility relates to the initial allocation issue because those who are chosen to be part of the initial program must be eligible to acquire harvest privileges.

However, all parties that are eligible may not necessarily receive privileges during the initial allocation. Eligibility also relates to the transferability issue. If the set of entities that are eligible subsumes the set receiving initial allocations, transferability must be allowed if all in the larger set are to have access to privileges.

As with other components of the nature of the harvest privilege, the criteria to acquire or hold LAPs should be selected according to the goals and management objectives of the FMP, as constrained by the MSA. To set the stage, at one end of the widest possible continuum is to allow any person or entity to hold harvest privileges. This is not allowed under the MSA. At the other extreme, acquisition can be restricted along a number of margins. For example, only licensed fishermen and certified boat owners who have participated in the fishery for X years using an owner operated boat outfitted with Y gear, and fishing out of Z port are eligible. Moving from broader to more restrictive criteria may help achieve certain management objectives but it can also limit the potential benefits provided by an active market in the trading of privileges. In addition, such moves may affect implementation, operation, and monitoring costs. These are the types of trade-offs that Councils will have to consider.

The MSA does put some constraints on what the Councils can choose to do. As previously discussed, Section 303A(c)(5)(E) links privileges to be acquired or held by persons to those who substantially participate in the fishery.

In MSA Section 3(36) a “person” is defined as:

> (36) The term "person" means any individual (whether or not a citizen or national of the United States), any corporation, partnership, association, or other entity (whether or not organized or existing under the laws of any State), and any Federal, State, local, or foreign government or any entity of any such government.

Before interpreting this however, it is necessary to note a general requirement for any LAP in Section 303A(c)(1)(D):

> (D) prohibit any person other than a United States citizen, a corporation, partnership, or other entity established under the laws of the United States or any State, or a permanent resident alien, that meets the eligibility and participation requirements established in the program from acquiring a privilege to harvest fish, including any person that acquires a limited access privilege solely for the purpose of perfecting or realizing on a security interest in such privilege;

Since Councils must prohibit any person other than those listed, in plain language this means that only those on the list may be granted LAPs. Therefore the range of applicable “persons” that may own or control harvesting privileges is more circumscribed than the general definition of a “person.” For example, non-citizens, other than permanent aliens, and entities established under foreign laws may not acquire/hold harvest privileges.
As a counterpoint, in the 1996 version of the MSA, IFQs could be given to persons in the broadest sense of Section 3(36) and with none of the restrictions specified in Section 303A(c)(1)(D). Even with the introduction of FCs and RFAs (see below), the revised

MSA places more restrictions on who can acquire/hold harvesting privileges than did the previous version.

While the Councils have some latitude in determining who may or may not acquire harvesting privileges, it is certainly more restrictive than the "anybody can own" criterion mentioned above, because of the citizenship requirements and the "substantially participate in the fishery" clause. It is the responsibility of the Council to determine what "substantially participate" actually means based on the fishery management objectives. In addition to vessel owners, who have been recipients in previous IFQ fisheries, presumably recipients could include captains, crew members, processors, or participants in fishery dependent support businesses. At the same time, the Council, to meet management objectives, can prohibit certain citizens, permanent aliens, and U.S. entities from acquiring harvest privileges by specifying eligibility and participation requirements in the FMP. It is interesting to note that there are no specific restrictions in the law on non-U.S. citizens participating through ownership of, or membership in, one of the permitted entities. Presumably this could be addressed independently by the Council.

The reauthorized MSA explicitly allows Councils to permit harvesting privileges to be held by two new types of entities: FCs and RFAs. FCs, previously defined in the MSA, now appear in Section 2(17):

> (17) The term "fishing community" means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community.

The concept of a RFA was introduced in Section 2(14) of the reauthorized MSA:

> (14) The term 'regional fishery association' means an association formed for the mutual benefit of members—
>
> (A) to meet social and economic needs in a region or subregion; and
>
> (B) comprised of persons engaging in the harvest or processing of fishery resources in that specific region or subregion or who otherwise own or operate businesses substantially dependent upon a fishery.

If Councils are to use either of these two new options in a LAP program, they must specify criteria that, in addition to conditions set out in the Act, are to be used to officially designate organizations as RFAs or FCs for purposes of the Act. Presumably the designation will be an official Council process carried out under the authority of an approved LAP FMP.

According to Section 303A(c)(3)(A)(i)(I) to (IV), the eligibility requirements for FCs are that they must: [6]

> (I) be located within the management area of the relevant Council;

6 It is interesting to note that while recreational participants are not mentioned in the formal definitions of a FC and a RFA, they are included in the discussion of eligibility requirements.

(II) meet criteria developed by the relevant Council, approved by the Secretary, and published in the Federal Register;

(III) consist of residents who conduct commercial or recreational fishing, processing, or fishery-dependent support businesses within the Council's management area;

(IV) develop and submit a community sustainability plan to the Council and the Secretary that demonstrates how the plan will address the social and economic development needs of coastal communities, including those that have not historically had the resources to participate in the fishery, for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register.

The eligibility requirements for RFAs are not quite the same. The first and second are identical but the remainder of 303A(c)(4)(A)(i)-(vi) make for some striking differences between the two types of organizations.

(i) be located within the management area of the relevant Council;

(ii) meet criteria developed by the relevant Council, approved by the Secretary, and published in the Federal Register;

(iii) be a voluntary association with established by-laws and operating procedures;

(iv) consist of participants in the fishery who hold quota share that are designated for use in the specific region or subregion covered by the regional fishery association, including commercial or recreational fishing, processing, fishery-dependent support businesses, or fishing communities;

(v) not be eligible to receive an initial allocation of a limited access privilege but may acquire such privileges after the initial allocation, and may hold the annual fishing privileges of any limited access privileges it holds or the annual fishing privileges that is [sic] members contribute; and

(vi) develop and submit a regional fishery association plan to the Council and the Secretary for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register.

Given the differences, it appears that FCs must be actual communities which can be identified as a location on a map, and they may be selected out as a qualifying entity because they are in need of, or merit, regional economic development. On the other hand, RFAs are voluntary organizations that are not necessarily geographically specified. There is no reference to the need for regional economic development. Most important, RFAs can not receive LAPs as part of an initial allocation, but they can use those of its members, or may purchase them on the open markets as part of an ongoing LAP program.

The Councils must stipulate criteria that potential groups must meet to be classified as an FC or an RFA and hence be eligible to receive harvesting privileges. In developing the participation criteria for FCs, the Council is directed by Section 303A(c)(3)(C) to consider:

(i) traditional fishing or processing practices in, and dependence on, the fishery;

(ii) the cultural and social framework relevant to the fishery;

(iii) economic barriers to access to the fishery;

(iv) the existence and severity of projected economic and social impacts associated with implementation of limited access privilege programs on harvesters, captains, crew,

processors, and other businesses substantially dependent upon the fishery in the region or subregion;

(v) the expected effectiveness, operational transparency, and equitability of the community sustainability plan; and

(vi) the potential for improving economic conditions in remote coastal communities lacking resources to participate in harvesting or processing activities in the fishery.

When developing participation criteria for RFAs, the list of things the Council is directed to consider is the same except that item (vi) is omitted and the following phrase is added in Section 303A(c)(4) as new item (v): "the administrative and fiduciary soundness of the association."

These participation criteria demonstrate again that assisting regional economic development can be used as a justification for choosing to use FCs. In addition they clarify a potential underlying purpose for establishing either of the new entities: they may be used to mitigate any severe untoward effects of establishing a harvest privilege program. This likely refers to direct and indirect effects on fishery dependent businesses, community disruptions, and the argument made in some quarters that in a fishery with redundant vessels and processing plants, there can be serious distributional effects on processors if harvesting privileges are given only to vessel owners.

An important difference between FCs and RFAs is the ability of FCs to receive LAPs as part of the initial allocation. Operationally, this means the RFAs can not be formed until after initial allocation is complete and the LAP program is operational. Further RFAs will be organized from the bottom up. The Council will have to make provision for organizations to be designated as RFAs and specify the eligibility criteria, but the decision to form an organization and to apply for designation will be up to willing sub-groups of the existing participants in the fishery. They can become participants through either initial allocations or purchase of harvesting privileges.

While the Councils can presumably treat FCs the same way and let groups apply for designation on their own after the program is in operation, Councils may also include FCs in the initial allocation. This requires a different level of planning during the construction of the LAP FMP. There is even a minor chicken-and-egg problem. FCs can not be designated until the eligibility criteria have been designed, approved by the Secretary, and published in the Federal Register. This approval can likely be made concurrent with the approval of the overall FMP, but it may not be possible to get that approval prior to the approval of the FMP. Until the FCs have been designated, it is not possible to know for certain how much of the TAC should be allocated to the overall FC segment.

One way to envision the process is as follows. The Council decides that it wishes to design and to implement a LAP program. It determines whether it will use IFQs or the more general form of a LAP. It determines that it will allocate X percent of the TAC to traditional types of recipients which will be allocated according to a specified eligibility criteria and an allocation formula or procedure. This is essentially what was done in the Halibut/Sablefish program. The remainder of the TAC will go to FCs that meet the specified eligibility criteria using another allocation procedure. These will have to be

simultaneous decisions based on participant comments and staff analysis during the FMP development process. The whole procedure will be based on the best estimate of how many traditional recipients will meet their allocation criterion, and how many FCs will likely form and be capable of meeting the eligibility criteria. If the plan is approved, the various participants will be given time to show that they meet the appropriate criteria and then the allocations will be made.

In summary,it appears that a FC can be designated as an entity that is entitled to receive harvesting privileges if those privileges would assist in regional economic development. In addition, that designation could be made if the way in which the privileges are used by the FC can ameliorate serious economic or social impacts that would likely occur if the privileges were only given to individuals. The latter reason is the only specific reason noted in the Act for which RFAs can be established. Presumably RFAs can also be used in other cases if the Council can demonstrate that their use will help achieve management objectives, especially those related to maintaining "traditional fishing or processing practices," the "cultural and social framework of the fishery," or if they address "economic barriers to access to the fishery." They can not however receive initial allocations.

At this point, it is worth recalling from the general specifications discussed above that Councils may grant privileges to any "entity established under the laws of the United States or any State." So even if one accepts the strict interpretation of RFAs and FCs, Councils can still allocate to other types of entities to accomplish fishery management objectives. A city or a town is an entity established under the laws of a State. Further some States may grant legal status to certain forms of fisheries organizations. Therefore if these types of entities can achieve the same goals as can RFAs or FCs, then they are also able to hold or acquire LAPs. This is especially true if the specifications are carefully crafted. Small fishing towns in need of economic development could receive privileges which could be used in approved ways by its citizens. Similarly, organizations of industry participants, broadly or narrowly defined at the will of the Council, could be treated in a similar manner, as long as they have obtained legal status as an entity. This could include a properly authorized fishery cooperative formed under the American Fisheries Act or other similar legislation. Indeed, sectors as introduced by the New England Fishery Management Council could conceivably receive and hold LAPs under the revised MSA if they met the MSA specifications such as legal recognition as an entity.

The potential to include a wide range of entities in a LAP program introduces another policy consideration. The types of entities that have been used in traditional ITQ programs include partnerships and corporations. For the most part, they can be treated like individuals in LAP programs. They receive harvesting privileges and they must use them according to the rules of the plan. When the U.S. Ocean Commission introduced the concept of DAPs they discussed them in terms of a continuum between private control and community control. IFQ programs with privileges allocated to individuals, partnerships, and corporations are at one end of that continuum. Granting LAPs to RFAs, FCs, coops, and fishermen's organizations is at the other end. Councils may feel that these types of programs may be better able to achieve fishery management objectives because many of

the operational decisions are made by a group of participants rather than by a single authority in a traditional firm. However, they may want to ensure that the internal operating rules for operating these entities are constructed such that they will indeed lead to beneficial results. This is why Congress specified the necessity of Council approval of the operation plans for FCs and RFAs. If Councils choose to use community based entities other that RFAs and FCs, they should still consider the necessity of, and the criteria for specifying, operational plans.

At the same time, it may be possible to devolve some management authority to community-based entities which receive LAPs. For example, the Cape Cod Commercial Hook Sector is responsible for regulating the activities of its members so as to maintain the sector's allowable catch limit. This has the potential to improve overall compliance and to lower government management costs. In these cases, it may be prudent to establish operational plans in the form of a sector allocation proposal between the entity and the Council/NOAA Fisheries.

In summary, the revised MSA sets up procedures which allows Councils to create FCs or RFAs using a specific set of eligibility criteria and a second set of considerations for developing participation criteria. Once formed, both can hold LAPs if they meet the legally recognized criteria, however only FCs can receive LAPs in an initial allocation. Apparently, Councils can also develop LAP programs whereby LAPs can be held by or allocated to any other legally recognized entity, which do not necessarily have to be specified as RFAs or FCs. The program would have to comply with the general LAP mandates contained in the revised MSA. If community-based entities are used, Councils have the option of requiring operation plans to ensure stated criteria are met.

Given the possibility of designating FCs and RFAs or allocating LAPs to other types of entities, the continuum of choice facing the Council is actually more complex than the one used to set the stage for discussion in the introductory paragraph, although the basic points apply. Under the reauthorized MSA, the Councils have the ability to establish a harvesting privilege program following the IFQ model used under the previous versions of the law. But they have much more flexibility. And, in addition, harvesting privileges can be made available to FCs, RFAs, and other entities, as well as to traditional recipients. But as mentioned above, Councils could have issued harvesting privileges to other entities under the prior version of the MSA.

The choice between a traditional IFQ program and a more broadly defined LAP program is an important one that, in addition to the long-term effects on the fishery, may have serious implications for the complexity and cost of the plan development process. It would be quite difficult to give specific advice on the range of options that are available when using the expanded LAP program since this is uncharted territory. The eligibility and participation criteria spelled out in the Act are very general. FCs are likely intended to be cousins of CDQs, but given the lack of specificity it is doubtful that Congress was considering something quite so elaborate. Similarly RFAs may be related, conceptually at least, to Co-ops on the west coast or the cod hook sector in New England, but the analogy is far from perfect. More importantly, the range of other eligible entities is very broad

indeed. When faced with the opportunity to use them to address management objectives of specific fisheries, Councils will likely come up with some very innovative ideas. This is likely exactly what Congress intended. However, the decision to go beyond the basic IFQ model should be a very deliberate one.

For the most part, economic development, even in the most general sense, has not been considered as a management objective except in CDQ fisheries. However, given the option, some Councils may wish to rethink this issue. This will be discussed in further detail below. For now we will focus attention on developing LAP programs to achieve the more common range of fisheries management objectives.

How should a Council make the, at least partially simultaneous, decisions of whether or not to use RFAs or other entities, and if so, what eligibility criteria should be established? On the one hand, they could adopt a process of thinking "outside the box." Set the management objectives, and design a RFA alternative or select a range of other possible alternatives *de novo* on the basis of these objectives. On the other hand, there may be advantages, at least for conceptualizing the problem, to take a marginal approach. For example, the one stipulated reason for establishing a RFA is to mitigate the untoward distributional or social effects of traditional IFQ programs. But it will not be possible to predict if such things will occur, to what extent and to whom until the various aspects of the program have been selected and studied. Further, it may be possible to address potential untoward effects or certain management objectives by tweaking the IFQ system rather that initiating a more complex system.

Following this logic, consider the issue of determining the eligibility criteria when the focus is on a program that exclusively grants IFQs to traditional recipients such as individuals or firms. At this point, the Council has the option of allowing for broad or restricted participation. To be more specific, under an IFQ program, the range of choices open to the Council could include the following:

- Allow any legal entity permitted by the Act to acquire or hold privileges;
- Allow only individuals or partnerships to acquire or hold privileges but exclude corporations; or
- Establish other restrictions to ensure that only certain types of participants, or sub-groups thereof, acquire or hold privileges.

The use of the first option is constrained by "substantially participate" rule, but the Council may wish to define the term to provide for real and viable options for entry into the fishery. This option provides the most flexibility with respect to allowing changes in the fishery. As such it may be useful in potentially inducing long-term economic efficiency in harvesting and processing. Also, as mentioned earlier, in the context of a traditional IFQ program, the entities that have been selected were from the private end of the continuum.

The second option might be chosen because some think that preventing corporations from participating may help maintain industry and community structure. At the same time, the

limited flexibility may prohibit owners of harvest privileges the opportunity to organize their activities to their best advantage. Currently, many small "mama/papa" operations take advantage of the opportunities provided by incorporation. The point is that the pros and cons of any restrictions should be carefully considered. What may help one section of the industry may hurt another.

The third option can work at two levels. The Council may restrict the type of fishery participant to certain segments of the industry. For example, a Council may stipulate that only individuals in the harvesting sector would be allowed to own privileges, which would prohibit processors from holding privileges. It could also exclude members of unrelated professions who perceive the purchase of IFQ as an investment, or prevent non-fishing interest groups who wish to restrict the activities of commercial fishermen from acquiring privileges. In addition, there may be tighter restrictions placed on the permitted groups. In the example where eligibility is restricted to the harvester sector, tighter restrictions might be used if there are concerns that harvest privileges will be removed from the control of regional fishermen by individuals from other areas. At one extreme, quota ownership may be restricted to vessel owners from a certain area who must be onboard during a fishing trip and in attendance during the off-loading period.

While the Councils do have the flexibility to impose either the general or more specific type of restrictions, it must be acknowledged that the reauthorized Act is quite clear that a wider range of potential owners is now possible. The Councils need to be sure that any limitations are necessary to achieve the management objectives. The full economic and social impacts of various types of limits should be carefully considered when making these decisions.

While the Act does not give specific direction with respect to where in the above range the eligibility criteria should be set, it does address the subject with respect to the related topic of criteria for making the initial allocation of harvest privileges. To ensure fair and equitable initial allocations, the Councils are directed by Section 303A(c))(5) to consider:

> (i) current and historical harvests;
> (ii) employment in the harvesting and processing sectors;
> (iii) investments in, and dependence upon, the fishery; and
> (iv) the current and historical participation of fishing communities.

Once the eligibility criteria have been specified (even if only in a preliminary or draft manner) and taking into account the other selected elements of the proposed program, the Council will be able to make initial estimates of the distribution and other effects of implementation. If some of the projected effects of the traditional IFQ program appear to be incongruent with the objectives of management, it may be wise to consider the use of RFAs or other entities, and to use the expected problems as a focus in determining how they should be designed or selected. It bears repeating that it may make sense to consider tweaking the system to address these issues, rather than to take the plunge and move beyond a traditional IFQ program. For example granting harvesting privileges to both harvesters and processors could address distributional effects on processors. Although it

would likely not find much support with harvesters, it may be preferred to certain types of RFAs.

If the Council wishes to expand its range of choice and consider a more broadly-based LAP program which includes IFQs for individuals and LAPs for RFAs or other entities, it will still be necessary to make the choice with respect to ownership criteria for individuals. In addition, it will be necessary to make an analogous but slightly more complex decision with respect to acceptable types and institutional structures for RFAs or analogous institutions. Again, the choice of the latter may depend on the nature of perceived untoward effects of the traditional IFQ program.

At the first level, the possible range of institutional structures would fall between the following:

1. A group of individuals each holding and using harvest privileges independently, but who may choose to share vessels and processing capability.
2. A corporate entity is granted privileges and those privileges are used by or on behalf of its members according to an agreed upon annual plan that specifies, among other things, who will harvest, and where the product will be landed, processed and sold.

From a loosely-joined collection of individuals to a monolithic centrally (but democratically) controlled union is a very broad range indeed. One reason why a Council may choose to use a more broadly based entity is because designing the structure is part of the game. There will likely not be that much flexibility if they choose to use existing entities. But no matter what, Councils need to determine what kinds of entities will be most useful in allowing for the achievement of the overall management objectives, and then write participation guidelines to ensure that only those types of entities will be used.

If FCs are primarily for economic development, then the process of determining when to use FCs should be different than for RFAs. While the concept of a FC may be related to the CDQ program, the conditions where they can be used in existing fisheries throughout the country are likely to be very different. Originally, CDQs were given to isolated communities with weak economies composed of very poor ethnic minority individuals. The quota shares that they were given were part of a very large TAC of a healthy stock. Moreover, while there was heavy utilization of the stock, giving a small percentage of the TAC as CDQ did not have dramatic effects on the current users. In addition, some of the current users favored the program because they foresaw the opportunity to gain access to these shares through the market place rather than racing across the high seas.

In contrast, most fisheries in the U.S. today are fully utilized and some are overfished and will be, or are, undergoing rebuilding plans which means there will be short-term reductions in harvest. At the same time, while there is a need for economic development in many small and remote fishing ports throughout the U.S., the conditions are seldom as harsh as in the remote parts of Alaska.

It follows that if Councils choose to use FCs that mimic CDQ programs, they will be taking part of a decreasing-sized pie away from current users, who because of restrictive regulations may not be in the best financial shape themselves. If constituents weakly support LAPs in the first place, then the addition of FCs to a program will not be cheered.

On the other hand, economic development can be interpreted in a slightly different way. Granting existing or historical users harvesting privileges in the context of a FC or a similar entity may provide for economic development that was not possible when those users were involved in a competitive open-access race for the fish. They will have the opportunity to cooperatively determine ways to harvest, process, and market the fish so as to increase the net returns and then distribute the gains amongst the members. It is also possible to target these developmental gains because of the ability to specify harvesting privileges as part of the initial allocation. In this case the eligibility criteria will have to be designed so that those eligible for economic development benefits are properly circumscribed. It should not be forgotten that there may be certain existing entities that can be used when Councils are considering economic development. For example, using the municipal governments of small villages may be more convenient than going through the whole process of developing a FC. Depending on the circumstance, municipal governments can be entities which are established under the laws of a State, and if they meet the other criteria in the MSA or those specified in the FMP, they could be an eligible recipient.

If the Council decides to use either FCs or RFAs, it will have to specify the criteria that will be used to evaluate the operational plans that privilege recipients must develop as part of the Council and Secretarial approval process. While operational plans may not be mandated when using other types of eligible LAP entities, Councils would be prudent to consider requiring them especially for initial allocations to entities which are on the community side of the continuum to ensure that the allocations are used as intended.

While the appropriate content of these plans will likely vary according to management objectives and the way in which the Councils choose to construct the entities, the following items will likely be useful or necessary.

1. A statement of how the entity as organized meets the eligibility criteria specified by the Council.
2. A list of members including any pertinent information such as address, vessel or plant name, catch or processing history, taxpayer identification number or other data required for the initial allocation process.
3. The name and contract information of the representative or agent for service of process.
4. A plan on how the harvesting privileges will be used and by whom.
5. A plan to show how actual harvest of the group will not exceed the allotted harvesting privileges. This should include provisions for monitoring of all catch.

6. Rules for entry to and exit from the organization, including procedures for removing or disciplining members who do not abide by the rules, and for informing NMFS of such actions.
7. A contract signed by all parties that they will agree to abide by the plan.
8. A statement of operational rules including collection of fees, voting rules, etc.
9. A commitment to produce a periodic report indicating how it is meeting program requirements.

E. Transferability

The mandates of the MSA with respect to transferability in Section 303A(c)(7) are as follows:

> (7) TRANSFERABILITY.— In establishing a limited access privilege program, a Council shall—
>
> (A) establish a policy and criteria for the transferability of limited access privileges (through sale or lease), that is consistent with the policies adopted by the Council for the fishery under paragraph (5); and
>
> (B) establish, in coordination with the Secretary, a process for monitoring of transfers (including sales and leases) of limited access privileges.

(Subparagraph (5) provides the criteria to be considered in making initial allocations.)

Transferability refers to the legal ability to transfer the "ownership" of the privileges from one entity to another. In brief, the advantages of transferability are the flexibility given to participants and the incentives that it provides to produce the allowable harvest as efficiently as possible. Those that argue against transferability emphasize that it has the potential to disrupt the current industry structure. Others are opposed to transferability because it allows individuals to permanently gain from the sale of harvesting privileges rather than to use them to harvest fish. These points are explained in more detail in the remainder of this section. In some cases, it is possible to add provisions to the transferability options that will eliminate or reduce untoward effects.

When speaking of transferability of LAPs, especially IFQs, it is useful to distinguish between the quota shares (QS) and the annual harvest privilege (AHP) which the QS generate. Given the most widely accepted practice, the QS are denominated in terms of a percentage of the TAC. The AHP, on the other hand, is denominated in terms of weight of allowable harvest that is generated for a given year by multiplying the percentage share times the TAC. Transferability can apply to both the enduring privilege and the annual catch privilege. Given these multi-dimensional characteristics, the main options for transferability can be summarized as follows.

Option 1.	QS - transferable	AHP - transferable
Option 2.	QS - transferable	AHP - non-transferable
Option 3.	QS - non-transferable	AHP - transferable
Option 4.	QS - non-transferable	AHP - non-transferable

One critical element of options 3 and 4 is that with no QS transferability, there must be a process to reallocate the LAPs once an owner has died or retired from fishing. Without QS transferability, the allocation question must be faced over and over again.

Transferability allows holders of LAPs to buy, sell, give away or lease their privileges. Buying or selling an AHP is equivalent to leasing in the normal sense of the word. The first issue related to transferability is whether transfer of QS should be allowed at all; the second issue is what restrictions, if any, should be imposed on transfers if they are allowed. In general, the ability to transfer quota enhances the economic performance of the fishery, provides fishermen with a valuable asset and compensation if they choose to leave the fishery, which *tends* to strengthen fishermen's desire to conserve and protect the resource on which the ITQ is based.

This trading of resources among firms encourages the evolution of efficient-sized production units. For maximum economic performance, the number and size of firms in an industry must adjust over time as technology and markets vary. This can be accomplished through private transactions in financial capital, equipment, natural resources, and technology. Similarly, transferability of harvest privileges in a commercial fishery allows firms to accumulate quotas to achieve a quantity and species mix consistent with low cost, efficient operation. In general the harvest privileges will flow to the more efficient operators. Transferability of QS is necessary to make long-term adjustments in firm output, for example when purchasing a new boat. At the same time transferability of AHPs allows for short-term flexibility to change annual production due to vessel repairs, to assist in end of season mop-up activities, etc. It also lowers the barrier to new entrants. They can buy AHP for short periods of time to establish themselves and earn enough money or establish credit that will allow them to obtain permanent QS.

Finally, transferability helps share holders to plan future transactions, and it gives them an economic incentive to preserve the underlying sources of value in the resources they own. For example, a run-down house will have less value when sold than will a well-kept house. Similarly, an LAP will be more valuable if the fish stocks underlying it are in good shape. Hence, transferability encourages the quota owner to think clearly about future consequences of near-term harvest activities on their assets.

While some may agree that transferability offers incentives that allow for increases in efficiency, they may not like the fact that the gains which are generated from transferability go to the individuals or entities which receive the initial allocations rather than to the general public. As such they oppose, as a matter of principle, any transferability. The ability to auction off the LAPs or otherwise collect royalties for the initial or any subsequent distribution of privileges, rather than give them away, may in some cases soften this opposition. The personal gains from the initial allocation and subsequent transfers will be less because they will be net of the auction price or royalty paid. Thus, some part of the value of the privilege obtained by individuals who purchase the privileges will go to the Limited Access System Administration Fund rather than the entire value going to someone who receives the harvest privileges for free.

There is a middle ground between complete transferability and prohibitions on any transferability. Limitations on the types of trades that are permitted may be justified in certain circumstances. The initial allocation will likely include individuals who differ by gear type, boat size, firm size, type of final product, home port, and area(s) fished. Free transferability between all such individuals may result in changes in the industrial or cultural aspects of the fishery which the Council may wish to prevent because they run counter to overall objectives of the relevant FMP. Restrictions on transfers between specified groups may help prevent such changes. However, they will also limit the flexibility of participants and in the long term could become a stifling influence on the development and efficient utilization of the fishery as a whole. Further, it is useful to keep in mind that some degree of fleet consolidation is often desirable or necessary, and may even be an explicit objective of the FMP.

Another important issue is the effect of transferability rules on the cost of implementing the LAP program. While on the one hand a complete prohibition on transfers may reduce administrative costs in the short-run, the necessity to go through the initial allocation process on a regular basis may be more expensive in the long-run. Likewise restrictions on transfers between vessel types or areas will increase transaction costs because it will be necessary to ensure that the buyers and sellers are meeting all of the rules.

While unrestricted transferability may permit concentration of privileges in the hands of a few large producers, resulting in noncompetitive market structures and subsequent losses in economic performance, this is a slightly different issue and is treated in the section entitled “Excessive Shares.”

Using this background it is possible to analyze the transferability options introduced above in more detail. The rationale for options 1 and 4 are straightforward given arguments for and against transferability. Option 2 could be preferred by those who favor the idea of allowing new participants the ability to gain “enduring” access to the fishery but who object to “sea-lords” who own the enduring right but do not participate in fishing. Rather, they merely sell their annual privileges each year. On the other hand, option 3 would be preferred by those who do not want recipients to make permanent gains by selling the enduring privileges, but acknowledge the advantages of allowing participants to make short-term adjustments in the amount they harvest in any year.

Of course it is possible to modify options 1, 2, and 3 by allowing limited transferability with restrictions designed to meet other fishery management objectives. There are no hard and fast rules on how to structure each option. However, the issues of consideration should include:

- The importance (priority) of the management objective;
- The degree to which the restrictions will lead to the achievement of the objectives;
- The effect they will have on individual flexibility and overall fishery-wide efficiency; and

- The impact they will have on regulation and monitoring activities and expenses.

The discussion thus far has been general because the same principles apply regardless of the type of LAP program. Options 1 through 4 are possible alternatives for traditional IFQ programs or more generally defined LAP programs. However, given the nature of the latter, certain options may be more desirable than they otherwise would be for IFQ programs. For example, to achieve the goals of developing a FC, it may be wise to ban the sale of QS to ensure that the basic asset remains in place (i.e., tied to the initial allocation recipients). However, sale of AHP may be useful for inter-temporal adjustments or to earn income to achieve certain development goals.

Given the specific legislative reference to RFAs purchasing LAPs on the open market, Congress appears to look favorably on transferability of LAPs between different RFAs and between RFAs and other participants. However, the Council is free to place whatever restrictions it feels are necessary, subject to the above considerations.

There is also something to be said for establishing a transition phase in a LAP to allow participants the time to learn the benefits and costs of buying and selling QS and AHP. In recent research, Anderson and Sutinen (2005) have shown that in experimental markets for fishing quotas, the system appears to work better in the long-run if AHP are transferable in the first few years of the program but sales of QS were prohibited. Participants learned how the system worked and how the values of harvesting permits were related to the actual returns from fishing. As a result price volatility was decreased considerably, and undesirable outcomes of selling or buying shares at the "wrong" time or price were reduced when a transition period was introduced.

All of the above notwithstanding, enforcing limits on transferability can be quite difficult in some cases. Resources for monitoring the ownership and control of privileges must be sufficient to detect and prevent the Council's undesired outcomes of transfers. A monitoring system must be thoughtfully designed and robust enough to monitor any transactions that may jeopardize achieving the objectives of restricting transfers. For example, it may be necessary to monitor long-term contracts for the purchase of AHP since they are roughly equivalent to the purchase of quota shares.

F. Excessive Shares

While transferability of harvesting privileges offers many potential advantages, a concentration of ownership can lead to at least two different types of problems. One is market power including monopoly (a single seller) or monopsony (a single buyer). These problems are possible in other sections of the economy as well; it is not a problem unique to LAPs. A second problem is it can lead to undesired changes in the structure of the fishing community broadly defined.

There are different types of market power problems that can follow from concentration of privileges. First, an operator may obtain a significant amount of QS that result in monopoly power in the sale of fish products to the general consumer. The search for monopoly profits will lead to an artificial reduction in output and increase in prices to the consumer. In most instances the threat of this actually occurring is quite small because the product from any one LAP program must compete with similar products from other domestic and international fisheries, including aquaculture-supplied products. Only when the LAP is for a unique fishery with a separate market niche is this likely to become a problem.

Similarly, a participant may obtain a significant amount of QS and operate as a monopsonist or monopolist in the market for quota. Such market power can reduce the actual transferability of quota and hence prevent an ownership pattern which allows for the most efficient operation of the fleet. This type of market power is more likely to occur than market power in the sale of the final product.

The second type of problem that can result from concentration of ownership has to do with the life style of fishing households and fishing communities. There can be significant philosophical support for the maintenance of a fishery composed of many diverse individuals. According to this view, even if concentration will not produce market power problems, it is something to be avoided for its own sake. This trade-off in economic returns from the fishery resource to maintain a social or community structure is a policy and prioritization question the Councils must sort through.

While there are valid reasons for considering limits on ownership, such limits have their weaknesses as well. A main purpose of using LAPs is to allow individuals to have the flexibility to obtain more quota so as to be able to use more efficient vessels, either on their own account, or in combinations with others. Caps on ownership, or even limiting the ability to use more than a certain amount of quota on one boat (even if the shares are owned by different individuals) can be a direct barrier to such efficiencies and this can result in significant economic losses.

An important reference point for discussions of "excessive shares" is National Standard 4 (Section 301(a)(4)):

> (4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

Excessive share is referenced again in Section 303A(c)(5)(D) that grants Councils the authority to create LAP programs.

> (D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—

(i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and

(ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges.

In the same section, the MSA states that when developing LAP programs, a Council should:

(B) consider the basic cultural and social framework of the fishery, especially through—

(i) the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and

(ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;

(C) include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges;

The requirements to consider the allocation of shares to different entities, loan programs, and ways to address different types of consolidation are examples of possible management objectives that may affect what constitutes an excessive share. More to the point, there are specific instructions to develop procedures to address excessive geographic or other types of consolidation. But Councils still must determine what "excessive" means.

It is clear that market power is one thing that needs to be considered in determining what constitutes an excessive share. However, Councils are also given considerable latitude to determine the management objectives for any FMP and to choose the subsequent management measures to achieve those objectives subject to the restrictions and obligations of all 10 National Standards and other MSA requirements. National Standard 8 (Section 301(a)(8)) is of particular relevance to this discussion.

(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

Depending on the particular management objectives chosen and the ways in which the Councils decide to address the National Standards, it will be necessary to look at things other than simple market power to determine what constitutes an excessive share. However, it is useful to make a clear distinction between them because they address completely different issues, and are, for the most part, independent of each other. For

purposes of discussion, this distinction will be maintained by referring to market power share and management objective share limits. An excessive share will exist if either limit is exceeded.

This section is divided into three parts. The first sets out the basic principle of how the excessive share limit can be conceptually determined by a joint consideration of market power (MP) excessive share and management objective (MO) excessive share. That is, the excessive share limit should at least be restrictive enough to prevent monopolistic price control, but it can be more restrictive depending upon a careful consideration of the ability to meet management objectives and potential negative effects on industry operation and plan administration costs. The next two sections describe the suggested procedures to specify each type of share limit.

While most of the economic analysis is placed in Appendix 2, (See also Anderson, 2008) the main conclusions are as follows. First, it is theoretically possible to solve for the value of an effective MP share limit. This is defined as the maximum percentage of quota that can be controlled by a single entity such that there will be no problems with market power output restrictions, either through actual output decisions or through restrictions on the sale or rental of the transferable AHPs that are associated with the permanent QS. Call this percentage value s^*. Second, the s^* market power share limit can address problems in both the market for fish and in the market for quota.

The discussion of the MO share limit is different because, other than broadly defined benefit cost analysis, there is no body of theory, economic or otherwise, upon which to base the determination of the MO share limit. Two points should be made at the outset, however. First, to be relevant, the maximum MO share limit must be less than the MP share limit. Therefore, if a relatively small operational MO share limit is chosen, it will likely preclude the necessity of rigorously determining s^*, because it will be a non-binding constraint. On the other hand, setting a MO share limit may not be enough, in and of itself, to achieve most management objectives. Therefore, they should be used with care and only when the perceived benefits are greater than potential costs, and only then where there are no less costly or less intrusive ways to achieve the same objective.

The Basic Principle

The basic principle for determining an excessive share limit can be stated using the heuristic diagram in Figure 4. Excessive share is expressed as an upper limit on the percentage of quota owned or controlled by a single entity (plotted on the horizontal axis). The MP share limit (MP limit), which is the bolded line in Figure 4, establishes the upper limit for share accumulation based on market characteristics of a particular fishery. In principle, if this limit is exceeded, participants would control enough shares to unduly influence the market price for the marketed product or the price of permanent or annual harvest shares. While not specifically mentioned in the MSA, share levels that would contravene existing anti-trust legislation would be considered an excessive share.

Given the objectives of a particular FMP, the upper limit for MO share (MO limit) may well lie somewhere to the left of the MP limit. The MO limit could be established based on the National Standards, other MSA requirements, or the objectives of the FMP based on relevant biological, social, cultural, and industrial organization characteristics of a fishery. In effect, the two limits work in concert to assure that potential share accumulation is consistent with management objectives and to protect consumers against manipulation of market prices.

Making this conceptual framework operational means that the Council must determine the limit at which, in principle, participants would control enough shares to be able to unduly influence the market price for the marketed product or the price of permanent or annual harvest shares. This limit can be derived in a fairly straightforward manner and is described in Appendix 2. Once determined, this becomes the upper limit on the amount that can be controlled by one entity. Throughout this discussion, the MP limit will be referred to as s^*.

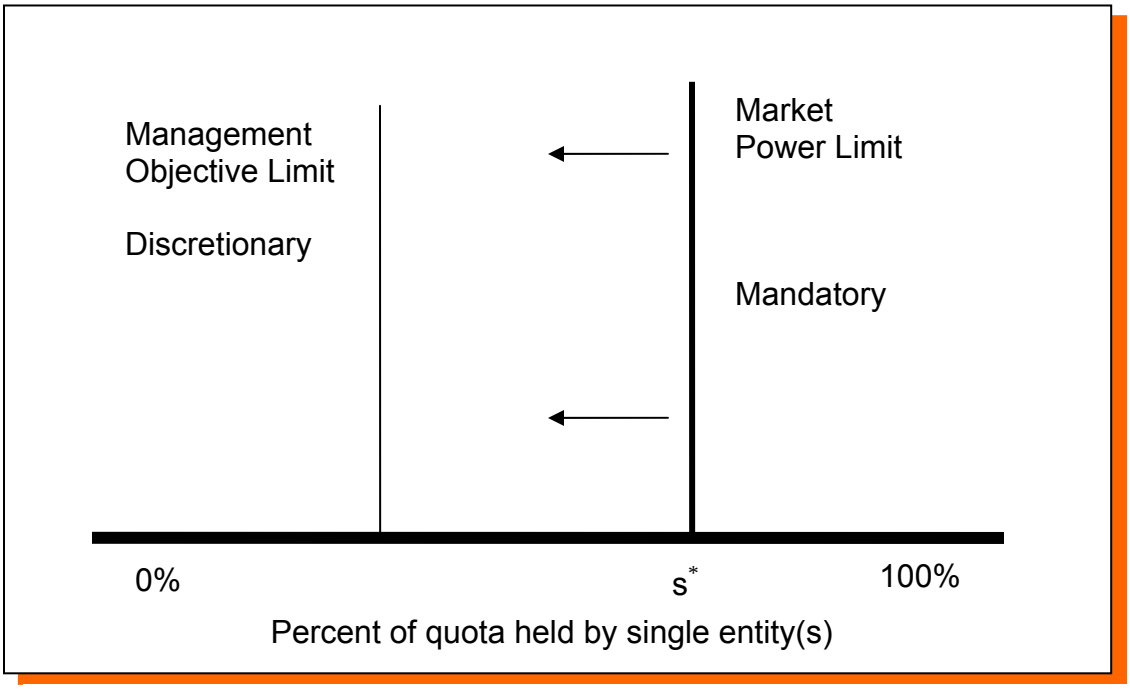

Figure 4. Relationship of Market Objective and Market Power Limits.

Once s^* has been determined, Councils have the prerogative to set more restrictive share limits if such limits are deemed necessary to accomplish stated fishery management objectives or to be in compliance with other National Standards, especially National Standard 8. That is, they may set a limit that is to the left of the bold vertical line in Figure 4. The question becomes what are the gains and what are the losses of moving the share limit progressively to the left. The problem here is that there are no established rules for making such a judgment analogous to the rules to determine the MP limit.

The gains will reflect the degree to which the tighter limits will cause the LAP program to more closely meet the fishery management objectives. However, the tighter limits place restrictions on the output of individual entities that may lead to higher harvesting and processing costs. The Councils and NMFS will have to determine if the gains are expected to exceed the losses that may be generated by the lower limits. For example, if employment levels in an isolated port can be maintained at the expense of a one percent increase in the average cost of fish in a relatively small sector of the industry, the gains, although measured in a different metric, may well be worth the cost. On the other hand, if cost will increase 75 percent in a relatively large sector, a careful consideration may conclude that from a wider perspective the tighter restriction may not be prudent. It is difficult to specify hard and fast rules for determining exactly when the decision should switch from yes to no, but clearly these are the sorts of things that should be considered.

While conceptually the process consists of two steps (setting the outer MP limit and then, if deemed desirable, specifying a tighter MO limit), it is not always necessary for Councils to perform the analysis required for each step. The most obvious case is when the Council has no management objectives that will require tighter share limits. In that case, it is only necessary to consider the MP limit. On the other hand, if the Council has management objectives that it deems can only be achieved by a quite low MO limit, it will not be necessary to perform all the analysis to define the MP limit. It is only necessary to show that the chosen MO limit will for all practical purposes prevent market power abuses as well. This will involve a judgment call. However, using the logic of the analysis to follow, if a Council were to choose, for example, a MO limit of one percent, there would be very little concern about market power. However, the Council would still have to show that the benefits of using that tight limit are greater than the potential cost increases described above. Appendix 2 provides more detailed analysis for the interpretation of this Figure.

Share limits are only one element in the design of a LAP program that will determine its relative ability to achieve incentives for stewardship, cost efficiency, higher productivity, and other fishery management objectives. Other issues include determination of who is eligible to receive initial allocation, the exact formula for making such allocation, rules on transferability, and sunset clauses. Therefore Councils should not make a determination of excessive share limits in isolation.

Market Power Excessive Share

MP excessive share is the possibility that a single entity might control enough QS that it will have incentives to withhold production to raise market price. If this occurs, consumers will be hurt in two ways. First, they will pay a higher price for what they do consume, and second, part of the TAC will not be harvested and so there will be less available for consumption. The value of this lost production is the inefficiency loss of monopoly. The purpose of this section is to describe a process for determining a MP limit that will ensure that incentives to withhold production will be circumvented. This share

limit, s* defined above as the maximum allowable percentage of quota that may be controlled by a single entity, will be different for different fisheries and will depend upon the characteristics of the relevant markets.

Before proceeding however, it is necessary to point out that after the introduction of LAPs, there may well be price increases that have nothing to do with market power. The halibut fishery is a good example. Under the previous regulations there was a race to fish that resulted in the product being processed in a very short period of time and frozen for consumption throughout the year. Under the LAP program harvesting has been spread more evenly throughout the year and the majority of fish has been reaching the fresh market where it fetches a higher price. The higher price is the result of improvement in the quality of the product and the timing of how it reaches the market, not from a restriction in output. It is only the possibility of the latter that is important here. For practical purposes, this separation will not be much of a problem for the *ex-ante* studies under consideration here. The purpose is to determine if there is the possibility of market power before a LAP program is implemented. Price increases from improvements in product quality or seasonality of delivery, if they do occur, will do so after implementation. However, *ex-post* studies of LAP implementation will need to explicitly consider both potential causes of price increases. If the entire TAC is taken, or if firms with a high percentage of the shares use all their annual harvesting privileges, then this would suggest that monopoly power did not constrain output.

The fundamental policy question is: What is the maximum percentage of the TAC that can be given to a single entity before there will be incentives to withhold production? Using basic microeconomic principles, it is possible to derive a formula for determining what that percentage should be for any given market situation. Using the calculated value of s^* as the excessive share limit will prevent undue market power in both the market for fish and the market for shares. It is beyond the scope of this document to show how the formula is derived. However, Appendix 2 contains a discussion of the derivation and provides suggestions for practical applications.

Management Objective Excessive Share

Once the Councils have set the MP share limit, they are free to specify a more strict MO share limit. These tighter limits must follow from specific management objectives specified by the Councils. These management objectives must be set in accordance with the MSA.

Several sections of the Act speak to objectives with social implications. National Standard 4, which includes a prohibition on the acquisition of excessive shares, also prohibits discrimination between residents of different States and provides that allocations of fishing privileges be “fair and equitable.” National Standard 5 directs Councils to “consider efficiency” when promulgating rules. National Standard 8 directs that conservation and management measures “take into account the importance of fishery resources to fishing communities, provide for the sustained participation of such

communities, and to the extent practicable, minimize adverse impacts on such communities."

More generally, pursuant to Section 303(a)(9) of the MSA, social considerations must be addressed when a Council or the Secretary prepares an environmental impact statement. Furthermore, pursuant to Section 303(b)(6), a Council or the Secretary has the discretion to establish a limited access system for a particular fishery. The establishment of such a system should take into account present participation in the fishery; historical fishing practices in, and dependence on, the fishery; and the cultural and social framework relevant to the fishery and to any fishing communities, among other factors.

In summary, many elements of the MSA either mandate or authorize a number of social objectives in LAP programs. At a minimum, these goals and considerations include:

- Current and historical participation in and dependence on the fishery;
- Fairness in allocations to fishermen who reside in different States;
- Continued participation and economic welfare of fishing communities;
- Special arrangements for entry-level fishermen, small vessel owners, and crew;
- Social and cultural framework relevant to the fishery and any fishing communities; and
- Capability of vessels to engage in other fisheries.

This is by no means a complete list. There are also numerous other economic, cultural, and social issues that Councils may choose to address in a management objective.

Within the context of these objectives, a MO excessive share will prevent or seriously jeopardize the achievement of these goals. To set a MO share limit, the Councils should explicitly state the management objective(s) that will drive the determination of excessive share limits, and provide justification for choosing it (them). There are several key elements in this requirement. First, it must be explicit or measurable so that it can provide a meaningful basis for determining an excessive share limit. An objective to "address the cultural framework of fishery" does not really say anything. However an objective to "maintain the percentage distribution of harvest among gear types and ports with no more than a 5 percent deviation" is quite explicit. They should also discuss the reasoning used to select the particular objectives including a description of the perceived benefits of achieving these objectives. They should also show how these objectives are consistent with their mandatory responsibilities and/or their discretionary authority under the Act and show how they are within the bounds of the other National Standards.

The Councils also need to specify the share limit that will ensure that the objective, or set of objectives, is met and to show the justification for why that particular share limit is necessary. In other words if a Council selects a 2-percent maximum share limit they need to provide an explanation of why a limit any higher than that will preclude the achievement of the management objective(s).

A Council should consider the full range of options of addressing the social and distributional goals it adopts. The rationale is that any across-the-board limits on ownership of QS will tend to reduce the economic efficiency gains of the LAP program, whereas other more targeted measures may be able to achieve the social goals without compromising the anticipated economic improvement. As examples, the needs of FCs can be met by establishing community quotas within the larger LAP program. The continued participation of small-vessel and entry-level fishermen could be improved by using set-aside programs. The relatively small share limit assigned to participants in the halibut/sablefish IFQ program was intended to provide for continued participation of the owner/operator class. Improved safety-at-sea can be achieved by more stringent regulations and better monitoring. The simple point is that many social and distributional goals can be adequately addressed without excessively constraining markets for QS in LAP programs. At the same time, Councils should consider the effects of the more restrictive MO share limits to ensure that they do not adversely affect the achievement of biological goals of the management plan or of other non-social management objectives included in the plan.

Because some social goals are geographically specific, the more restrictive and lower limits, if necessary, should apply only to carefully designated regions and not to the entire LAP program. Examples of regionally specific social goals are: the protection of geographically remote fishing communities and assured minimum landings at designated ports. As a general rule, these regional goals can be achieved with measures that apply only to designated areas, and do not necessarily require an across-the-board lower and more restrictive limit on individual ownership of QS.

If a Council decides that, to meet a social goal, it must have a lower and more restrictive limit on individual ownership of quota shares, it should first conduct a careful analysis of the expected implications of that lower limit on economic efficiency. That way, a Council electing to adopt a more restrictive limit can make that decision knowledgeably prior to selecting a preferred alternative, i.e., with full awareness of all the economic gains and losses (recall that National Standard 5 and Executive Order 12866 require the Councils to consider economic efficiency).

The emphasis on MP shares above was based on a concern for overall economic efficiency. Undue market power that restricts fishery output for monopoly purposes will mean that the net value of the overall consumer market basket is not as high as it could be. However, setting a MO share limit too far inside the MP limit may also cause inefficiencies. In this regard, the Councils need to list and quantify, to the extent possible, the likely negative impacts of the particular share limit they have chosen. Items to be considered include:

- Possible increased harvesting costs;
- Possible increased processing costs;
- Possible increased data collection and management costs; and
- Possible losses in efficiency from the diminished overall flexibility and freedom for industry to adjust to normal market and stock fluctuations.

Finally, the Councils should document that they have considered these extra costs and explain how the benefits from achieving the management objectives are worth the costs. Because of data limitations, it may be very difficult to estimate how a MO share limit will precisely affect short and long-run efficiency, but it may be possible to use a general analysis to obtain some rough estimates.

Since there are many ways to design a LAP program, it is important to realize that preventing any entity from obtaining an excessive share of LAPs should be performed as part of an integrated analysis of the overall plan. The suite of LAP features chosen will depend upon the management objectives of the plan. Because share limits are only one part of the design of a LAP program, there are three different circumstances under which the basic principle could be applied. The first case is where the overall design of the program does not include MO limits. This would occur if the Council felt it could best achieve the management objectives by instituting other program elements such as allocation by vessel class, an owner on board rule, transferability limitations, or restrictions on where fish can be landed. While it will be necessary to analyze the efficiency effects of these elements, as far as excessive share is concerned, it will only be necessary to determine the s^* rate to control for market power.

The second possible situation would be where the overall design elements include a very restrictive MO limit. For example, it is forbidden for any entity to control more that one percent of the quota. In this case the analysis should focus on the potential efficiency cost of this limit. If the efficiency costs appear reasonable in relationship to the benefits of achieving the management objectives, it would not be necessary to do an extensive analysis of s*. A cursory examination would suffice to show that given the likely values of the critical parameters, the value of s^* is higher than one percent.

The final possibility is that the overall LAP program design includes a MO limit of intermediate size such that it may allow for market power. In this case it would be prudent to do a careful market power analysis first. If it can be shown that the chosen MO rate is greater than s^*, it would not be permissible to use it as the overall share limit for the LAP program. Rather, it would be necessary to reduce it to at least s^*. On the other hand, if the MO limit is less than s^*, then it will be necessary to consider its effects on efficiency.

The efficacy of any excessive share limit depends upon the ability to monitor ownership. Therefore a necessary part of establishing a share limit is the design of an effective record keeping system. This will require a protocol to identify who owns quota and how much, and to maintain detailed records of ownership transfers that clearly identify who is buying and who is selling. This can be a harder task than it appears on the surface because of the possibility of multiple owners of the same vessel or the interlocking relationships of corporations and their subsidiaries. While the circumstances will vary with the particular fishery, it may prove useful to mandate that owners supply quite detailed information, including, among other things, all owners of vessels which use privileges, all owners of each unit of privilege, all subsidiaries and parent corporations of any participating

corporate vessel or corporate owned privilege, and all employers of individuals owning participating vessels and privileges.

2. Initial Allocation

A. Introduction

The initial allocation of harvest privileges is very important, and largely determines who gets the early benefits from an LAP program. How future participants are determined depends upon the rules for transferability and the duration of the program. The importance of this decision notwithstanding, for the most part the initial allocation decision is independent of other components of a LAP program. Given flexible transferability rules and non-expiring harvest privileges, allocation decisions only have to be made once. And, under these conditions, the exact makeup of the initial allocation will not affect the conservation or ultimate economic performance of the program. (Put another way, the fact that there will only be a need for a single allocation is an argument in favor of transferability and unlimited duration.) To maintain an unbiased focus when considering LAPs, the relative independence of the initial allocation question from the other issues must be kept in mind. Otherwise, it is possible that the distributional issues will unnecessarily cloud or over-shadow the discussions of other important, but basically independent issues.

Two important objectives of an initial allocation procedure are that it should be as administratively simply as possible and it should rely on generally available and transparent data. The potential for appeals can be quite high when there are large values at stake. The procedure should be easy to administer and predict to avoid or at least minimize costly and implementation-delaying appeals.

The MSA in Section 303A(c)(5) specifies general guidance on initial allocation:

> (5) ALLOCATION.—In developing a limited access privilege program to harvest fish a Council or the Secretary shall—
>
> (A) establish procedures to ensure fair and equitable initial allocations, including consideration of—
>
> (i) current and historical harvests;
>
> (ii) employment in the harvesting and processing sectors;
>
> (iii) investments in, and dependence upon, the fishery; and
>
> (iv) the current and historical participation of fishing communities;
>
> (B) consider the basic cultural and social framework of the fishery, especially through—
>
> (i) the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and
>
> (ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;

(C) include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges;

(D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by— (i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges; and

(E) authorize limited access privileges to harvest fish to be held, acquired, used by, or issued under the system to persons who substantially participate in the fishery, including in a specific sector of such fishery, as specified by the Council.

In summary, the allocations must be fair and equitable and they should consider the cultural and social framework of the fishery[7] . However, given the use of term "including consideration of" there is some allowable flexibility beyond the four required considerations in determining exactly how the harvest privileges will be distributed. The discussion here will not attempt to list all of the things that cannot be done other than to say any distribution that showed blatant favoritism or utter disregard to the "fair and equitable" standard in the law would likely not be approved nor would it withstand legal challenge. Similarly there will be no attempt to make a list of all the permissible procedures or formulae that could be used. Rather the discussion will focus on procedures and lessons learned. The goal will be to assist the Councils as they use their ingenuity and inventiveness to develop allocation procedures that support their objectives, taking into account the recent changes in the Act.

The initial allocation task can be broken down into two parts. First, it is necessary to select the pool of entities that will be eligible to receive harvest privileges. The basics of this step have already been discussed in the section on "Eligibility." It is possible however, that the pool of potential recipients can be a subset of those who are qualified to own privileges. The Council may approve of certain types of entities being able to acquire privileges in the open market, but may feel that they do not merit an initial allocation. Congress has placed RFAs in this category.

The second step is to determine how the privileges will be distributed among those in the designated pool. Under the reauthorized MSA, there are two ways that this can be accomplished. As has been done in the past, the privileges can be given away according to specified allocation formulae. It is also possible to use auctions to sell the initial privileges as long as the auctions are constrained such that they meet the "fair and equitable" standards specified in the Act. If auctions are to be used, they would be most appropriate in traditional IFQ programs, but Councils may also wish to use them in more

[7] Note however that the material under (B) has more to do with restrictions on the use of the harvesting privilege than it does with initial allocation, but the two are related.

general LAP programs as well. The two possible ways of allocating the privileges will be discussed in turn. The revised MSA also allows rent collection with formula-based allocations, and this will be treated in a separate section.

B. Free Formula-Based Allocations

There are literally an infinite number of allocation formulae that are acceptable under the MSA. It is possible, however, to list some of the attributes upon which the formulae can be based. In the IFQ programs that have already been adopted under the MSA, the attributes were related to various aspects of participation in the fishery, primarily catch, capital investment, and number of years fished over a reference period.

In response to suggestions to expand the pool of eligible recipients that lead to some of the most recent revisions in the Act, characteristics of entities have become other attributes to consider. Examples are size, ownership characteristic (owner-operated), and operating location of the firm, various measures of dependence on the fishery including percent of revenue or opportunities to participate in other fisheries, and inter-relations with other fishery related business especially with respect to employment.

The participation attributes, though not without controversy, are relatively easy to handle both conceptually and with respect to data availability. For example, in the surf clam and ocean quahog program, the allocation formula was based on a weighted average of a relative catch index and a relative investment index. Working with characteristic attributes will likely be a different story. Coming up with appropriate measures of the specific characteristics that can be calculated given existing or readily available data, and then using several of them to come up with an actual allocation formula will be more difficult. Nonetheless it is a task that will have to be accomplished by those Councils who choose to broaden the potential range of eligible entities.

The following discussion starts of with a consideration of the relatively easy participation attributes in the context of traditional IFQ fisheries. Using that as a base, the discussion will turn to a preliminary assessment of the consideration of both types of attributes in the context of more general LAP programs.

Traditional IFQ Programs.

If the eligible group is restricted to vessel owners, the allocation formula could be based on equal shares (for all individuals satisfying some minimum requirements), vessel size, catch history, the number of consecutive years of participation in the fishery, or some combination of two or more of these factors. One problem with equal shares is that part-timers will have their relative shares increased, and highliners (those who have historically accounted for a disproportionate share of the landings) will be brought down to the level of the average fisherman.

If the eligible group also includes crew members, it might be difficult to use catch histories for logistic reasons (turnover rates of crew are high and there may be no records of who was on which boat when catches were taken). Allocations to crew members could be based on either equal shares or the number of years of participation in the fishery or both.

If both vessel owners and crew members are considered to be eligible to receive an initial allocation, it would probably be necessary to include several of the above categories in the allocation formula. For example, 30 percent of the total quota could be divided equally among all eligible parties, 30 percent could be divided on the basis of the number of years of full-time participation in the fishery, and 40 percent could be split among vessel owners on the basis of vessel size. Strategies of this nature (with the percentages split out differently) should be explored with the industry as alternatives to strategies that rely on catch histories especially where catch documentation is weak or missing. An alternative that avoids the necessity of deriving an allocation formula is to use a lottery system.

Identified options for allocations:

1. Allocate shares equally among eligible recipients.
2. Allocate shares on the basis of vessel size.
3. Allocate shares on the basis of catch histories.
4. Allocate shares on the basis of historical participation.
5. Use a lottery to allocate shares.
6. Allocate shares using combinations of two or more of the above.

General LAP Programs.

There is little new in the above discussion for those individuals who have watched the current IFQ programs being developed. It is all second nature. However, to consider how to approach more complicated cases where LAPs are given to both traditional recipients and to FCs and may be available for purchase by RFAs, it will be useful to go back and recreate the mental process through which the above potential options were developed.

Given the laws and accepted views on who were potential recipients, historically the main concern was to set up an allocation that would change the fishery from the *status quo* to an IFQ fishery with a minimum disruption of the current distribution between the recipients. When that was the goal, the question became what sorts of things could be used to quantitatively compare allocations among the potential recipients? Looking at participation characteristics was a good way to do this. Catch histories are a way to compare the relative success of various participants. Comparing the financial investments shows, albeit imperfectly, relative commitments to a fishery, and at the same time, relative differences in amounts that will have to be earned to support the capital equipment. It is interesting to note that the two measures will provide different rankings. A smaller older boat operated by a high-liner could have a very good catch record but could be way low on the financial investment ladder. Which measure is best? That is a judgment call. At

the same time, others may not like either of these measures and would argue for years of participation. Finally, others would suggest that the notion of maintaining the existing distribution is not appropriate and would argue for an equal distribution. The allocation formulae actually used in U.S IFQ programs were usually based on more than one of these measures (see the initial allocation entries in the LAP Program Spotlights in Appendix 1).

Consider now the problem of coming up with an allocation formula or procedure for a more general LAP program. It would certainly be permissible to use the same type of measures that have been used in IFQ programs. However, such measures may miss some of the elements or issues that are being addressed by allowing FCs to receive harvesting privileges. It may be possible to correct for this by only using a subset of the measures or to use different weights to make weighted averages.

If Councils want to do more, it may be useful to go through the same type of exercise as described above. For example, what are the motivations for choosing to use a RFA-type organization in a particular case? Assume that it is the ability to look at the full range of fishery related businesses including processing, supply companies, and downstream marketers. In that case it will be necessary to find some measures that capture the specific issues that are being addressed, and can be quantitatively measured. Some possibilities include total employment, employees per unit of fish, percentage of net revenue that remains in the area, etc. The final step would be to turn these measures into an allocation formula. This is but one example of many options, and simply demonstrates a process that the Councils can use to expand the standard ways of calculating allocation formula if they choose to do so.

It would also be possible to use different types of formulae within the general LAP program. The Council may split the TAC into two parts and allocate one part as IFQs according to more or less traditional methods and allocate the second part to other entities with other methods.

Even with this vast array of choices, it is probably impossible to devise a system that will be perceived as equally fair by all eligible entities. To improve the perceived fairness it would be essential for the Council to repeatedly consult with the members of the selected pool and the broader suite of stakeholders.

C. Auction Allocations

Introduction

Auctions are sales in which items are sold to the highest bidders. The current MSA requires Councils to consider an auction system to simultaneously allocate limited access fishing privileges and to collect royalties. It is important to focus on both aspects of these simultaneous actions. Although the general topic is initial allocation, the revenue generation component is critical as well. The first thing to note is the collection of royalties is logically different than cost recovery and the two are treated separately in the

MSA. The principle of cost recovery is that participants in a managed fishery should pay some or all of the cost of running the management program. (Logically the principle could apply to fisheries with all types of management, but it is only applied to LAP managed fisheries in the MSA.) The principle behind a royalty collection program is to transfer some of the financial gains earned from the use of a public resource to the general government coffers. More specifically with respect to LAPs, the notion is that a LAP program eliminates or reduces open access wastes and provides incentives for efficient use of the stock, which is ultimately a public resource. Some of the gains can be siphoned off so that the rewards of efficient use can be shared between the recipient of the LAP and the general public. Similar programs exist for the use of government owned rangeland, oil and gas resources, and other public resources.

Depending on how royalties are collected, care must be taken in determining how much to collect to avoid the problem of killing the goose that laid the golden egg. If too much of the financial gains are taxed away, the incentives to use the resource efficiently will be compromised. This is not a concern with auctions because royalty prices are determined by what bidders are willing to pay to use the resource.

Auctions can provide a number of benefits in limited access programs, including price discovery, efficient initial allocations, and revenue for improved fishery science and management. Councils that incorporate auctions into their allocation systems will need to address two important issues. First, the overall allocation system must result in allocations that meet the requirements of the MSA, including requirements to consider current and historical harvest and other characteristics of the fishing sector. Therefore auctions open to the general public may be difficult to justify, but forms of restricted auctions may be possible. Second, Councils will need to weigh several factors when choosing an appropriate auction method, because what might work well in one context might not in another.

The MSA section dealing with LAPs, auctions, and the collection of royalties is found at 303A(d):

> (d) AUCTION AND OTHER PROGRAMS.—In establishing a limited access privilege program, a Council shall consider, and may provide, if appropriate, an auction system or other program to collect royalties for the initial, or any subsequent, distribution of allocations in a limited access privilege program if—
>
> (1) the system or program is administered in such a way that the resulting distribution of limited access privilege shares meets the program requirements of this section; and
>
> (2) revenues generated through such a royalty program are deposited in the Limited Access System Administration Fund established by section 305(h)(5)(B) and available subject to annual appropriations.

In addition to auctions, Councils are also authorized to use other programs to collect royalties. Presumably this includes fees on the initial allocation or transfer of LAPs, an annual use fee, or fee based on a percentage of gross revenue above the amount collected for cost recovery.

Any royalties collected under this provision go to the Limited Access System Administration Fund (the same fund where proceeds from cost recovery programs are deposited). This fund can only be used to cover the cost of administering the central registry system or to administer and implement the MSA in the fishery in which the fees were collected. There are major differences, however. Funds collected in cost recovery programs are to be available without appropriation or fiscal year limitation. Funds collected from a royalty program are subject to annual appropriations. The bottom line is that while Councils are given the opportunity to collect royalties in a manner that is not subject to the 3-percent of ex-vessel value limitation placed on cost recovery programs, there is no guarantee that the funds will be appropriated for use in the fishery.

General Overview of Auctions

Because auctions in fishery management are a relatively new topic for Council discussions, some brief background material is provided before presenting the actual advice for their use. The first section below explains in broad terms the benefits of auctioning fishing privileges. This is followed by a general description of the things a Council, or more likely, the staff, will want to consider when designing an auction program. The discussion considers the issues of what to auction and ways of ensuring that auctions satisfy distributional criteria in the Act. A more technical discussion of how to select an auction type and design a specific auction format is presented in Appendix 3. The Appendix also discusses the use of auctions to allocate other public resources and identifies lessons learned for the Council's use in designing auctions for fishing privileges.

The Benefits of Auctions for Fishery Management

1. Auctions promote an economically efficient initial allocation

Fishing privileges are distributed in an economically efficient manner when they are held by the fishery participants who value them the most. These fishery participants are the ones most likely to harvest fish that consumers value highly and to do so at the lowest cost. These fishery participants also are the ones most likely to submit relatively high bids for fishing privileges in auctions. Auctions therefore promote efficient initial allocations. Trading in fishing privileges on the secondary market also may lead to economically efficient allocations over time as fishery participants that value fishing privileges the most purchase them from others. (See the discussion of transferability above.) Auctions may allow for efficiencies to be achieved more rapidly because they may bypass the first few rounds of trading.

Even in programs that allow trading, however, auctions may improve economic efficiency in other important ways. First, auctions can help avoid lengthy political battles over formula-based allocation rules. This would speed program implementation and recovery of fish stocks, which benefits fishery participants economically. Second, auctions prevent

the ecologically damaging, costly, and potentially dangerous "race for quota" that often develops in anticipation of an initial allocation based on historical catch. Finally, fishery participants that purchase fishing privileges in auctions, rather than receiving them for free, may be more likely to care for the resource to protect their investment.

2. Auctions allow new entrants into the fishery

Initial allocations through auctions give fishery participants without catch histories, including skippers, crew, and fish processors, an opportunity to gain access into the fishery. Annual auctions of fishing privileges could guarantee a steady flow of fishing privileges into the market, ensuring that potential new entrants have continual access to fishing privileges. However, because LAP permits must be renewed unless revoked for cause (see section on Duration) annual or periodic auctions are not possible under the MSA. However, Councils can still provide for this avenue for new entrants by specifying that any revoked permits be reallocated by auction. Trading of privileges also provides opportunities for entry.

3. Auctions provide price discovery

When conducted transparently, auctions can provide excellent information about the value of fishing privileges, which helps fishermen plan their investments and bankers assess the value of fishing privileges as collateral. Public information about prices also facilitates private trades outside the auction and can aid government monitors in assessing the financial health and status of the fishery.

4. Auctions generate revenue

Auctions generate revenue that can be used for a number of things including paying the cost of fishery management. As explained above, the MSA in its current form puts restrictions on the use of these funds.

All of these benefits not withstanding, auctions will, by definition, allocate harvesting privileges to those individuals with enough money to make the highest bid. There are obviously other criteria by which to make allocations, as is evidenced by the restrictions Congress placed on the use of auctions. But it is important to realize that the individuals who win these types of auctions are not only those with the money but also generally those with a knowledge of, and participation history in, the fishery. Those who know a fishery and have a boat ready to fish are usually able to outbid outsiders simply because the harvesting privileges will be worth more to them.

Basic Principles of Auction Design

Many different auction methods can be used to allocate fishing privileges. This section suggests approaches that are most likely to strike an effective balance among important design considerations.

1. What to auction

There has been considerable discussion on designing the exact nature of the LAP harvest privilege. (See the sections on Duration, Denomination of LAP Units, and Eligibility to Acquire/Hold Privileges above.) Councils have a wide range of choice in setting the exact specification of the LAP. For the most part, auctions are fully consistent with all types of LAP design. The auction will just have to be adjusted in obvious ways. For example, LAP programs with unlimited duration will only require an auction for the initial allocation. On the other hand, a program with a 5-year life will require repeated auctions. One unifying principle is that the nature of the privilege must be clearly defined so that auction participants know exactly what they are bidding on.

2. Designing an auction to meet the requirements of the Magnuson-Stevens Act

Because auctions allocate fishing privileges to the highest bidders they do not explicitly consider historical catch, employment, investments, and the participation of fishing communities. Councils will have to use modified auction systems to meet the allocation requirements.

One way to ensure that auctions meet the requirements of the MSA is to create "carve outs" for auction to particular classes of fishery participants. However, segmenting the auction market in this way could reduce competition leading to low auction revenue and increasing opportunities for auction participants to collude. Councils should therefore consider the full implication of implementing auctions that include artificial limits on competition.

An alternative way for Councils to ensure that the overall allocation system meets these requirements is to withhold a portion of fishing privileges for auction and allocate the remainder by formula using the rules described above. This approach can ensure that the overall allocation system meets the requirements of the MSA no matter how the auction turns out.

Auctioning a fraction of fishing privileges is roughly equivalent to collecting a percentage royalty on the value of fishing privileges, and provides a simple and straightforward way of doing so. For example, Councils that wish to collect a 50 percent royalty on the value of fishing privileges could auction half of the fishing privileges. Auctioning a larger portion of fishing privileges will raise additional revenue.

In addition to raising revenue, auctions promote economically efficient initial allocations and provide a number of other benefits, as described below. On the other hand, auctioning a large fraction of fishing privileges may diminish the control that Councils have over the overall allocation system and their ability to meet the requirements of the MSA. Councils therefore will want to choose the amount of fishing privileges to auction taking into consideration the requirements of the MSA, the benefits of auctioning a large portion or

all fishing privileges, and the potential benefits of using auction revenue for improved fishery management.

Although auctioning a large portion or all fishing privileges may reduce the explicit control that Councils have over who receives the initial allocation, well-designed auctions can be consistent with the allocation requirements of the MSA:

> (1) To the extent that entities with substantial investments in the fishery and high levels of current and historical catch are more competitive, they will be the ones with the highest bids and as such will obtain fishing privileges at auction commensurate with their size and experience. Concentration or excessive limits will guarantee that no single entity obtains too many fishing privileges.
>
> (2) Auctions that permit broad participation provide opportunities for all fishery participants to obtain fishing privileges, including vessel owners, skippers, crew, and fish processors.
>
> (3) Low bidders that do not receive fishing privileges initially can buy fishing privileges on the secondary market. Secondary market prices and auctions prices should be closely related, so that those who are unsuccessful at auction should not be significantly disadvantaged relative to those who are successful.
>
> (4) Although the precise allocation that results from an auction can not be known in advance, the allocation may be less susceptible to controversy than allocations based on historical catch and other factors. The market rather than political decision making will determine who gets the privileges.

3. Basic types of auctions

The fundamental goal of an auction for fishing privileges is to sell a fixed number of identical items. Each auction approach must specify how a participant bids and the rule for deciding who wins and how much each winner pays. Some approaches have a single round and others have multiple rounds. Sometimes there are tradeoffs among the simplicity of the auction, the economic efficiency of the allocation that results from the auction, and the amount of revenue the auction raises. Since this goes somewhat beyond the topic of LAP program design, these topics are treated in Appendix 3.

D. Alternative Methods for Collecting Royalties

Besides auctions, Councils are authorized to use other methods to collect royalties. Such programs separate the royalty collection issues from the initial allocation issue. This section describes several different approaches to collecting royalties and discusses some of their benefits and drawbacks.

1. Per-unit fee assessed on allocations

Perhaps the most simple and straightforward way of collecting royalties is to assess a fee annually on every unit of fishing privileges.[8] Fishery participants that hold more fishing privileges would make higher royalty payments overall. Fishery managers could determine the fee just prior to the fishing season or even several years in advance. Fishery managers could choose the level of the fee to target a specific amount of revenue. Alternatively, fishery managers could choose the level of the fee to equal a percentage of the value of fishing privileges. Finally, fishery managers could choose the level of the fee to equal a percentage of the average value of harvested fish over some historical period.

Per-unit fees assessed on allocations have several benefits. They can be implemented easily at low cost. They provide a predictable revenue stream. Making the allocation of annual fishing privileges conditional on payment would give privilege holders an incentive to pay their annual fees. One disadvantage of per-unit fees assessed on allocations is that, unlike auctions, royalty levels do not adjust automatically to changes in the fishery, and fishery managers will need to adjust fees periodically as fishery conditions change. Finally, fishery managers should choose the level of the royalty fee carefully, because if they set it too high privilege holders might choose not to fish at all. Auctions do not suffer from this problem, because royalty prices are determined by what bidders are willing to pay.

2. Percentage fee assessed on the landed value of harvest

Another method for collecting royalties is to assess a percentage fee on the landed value of fish harvested. This is the method that is mandated in cost recovery programs. It is similar to a per-unit fee on allocations where the level of the fee is set to equal a percentage of the average value of harvested fish over some historical period, but differs in that royalty payments are determined at the end of the fishing season or at the time of landing rather than before the season begins.

The advantage of a percentage fee assessed on landed value is that royalty payments adjust automatically to changes in the quantity of fish landed and the market prices of fish. The flip side of this benefit, however, is that a fee on landed value results in a fluctuating and uncertain revenue stream.

Another disadvantage of fees on landed value is that they might distort behavior away from what is economically efficient. For example, because fees increase with the price of fish, they will impact harvesters that typically sell their catch in high-price markets more than harvesters operating in low-price markets. Depending upon the level of costs, in certain cases this could affect incentives to find higher priced markets for fish. Auctions

[8] Although Councils could assess a per-unit fee just once on the initial allocation of fishing privileges that last the duration of the limited access program, the benefit of an annual fee is that it can be adjusted to reflect changes in the fishery or changes in the amount of revenue that is necessary to fund the LAP program. Programs that collect royalties just once may put NMFS in a situation where they require more revenue but have no means to acquire it.

and per-unit fees on allocations do not distort economic behavior in this way. In addition, a fee on landed value can be costly to administer, because fishery participants need to keep track of harvest quantities and prices, and fishery managers need to monitor that these quantities and prices are reported accurately. Fishery managers could reduce costs by valuing all harvested fish at the same average market price. In contrast, auctions of privileges generate revenues based on how much each bidder expects to profit from harvesting fish.

3. Fees assessed on transfers

Councils are discouraged from assessing dollar or percentage fees on transfers of fishing privileges as a means of collecting royalties. Likewise, Councils are discouraged from charging percentage fees on capital gains (i.e., sales price minus purchase price) that result from transfers of fishing privileges, although such gains would be reportable on traders' income taxes.

Section 305(h) (5)(A) of the MSA requires the Secretary to collect a limited access system permit title registration and transfer fee:

> (5) (A) Notwithstanding section 304(d)(1), the Secretary shall collect a reasonable fee of not more than one-half of one percent of the value of a limited access system permit upon registration of the title to such permit with the central registry system and upon the transfer of such registered title. Any such fee collected shall be deposited in the Limited Access System Administration Fund established under subparagraph (B).

Although there is justification for charging a nominal fee on transfers to cover the incremental cost of updating and maintaining a database of privilege holders, larger transfer fees to capture royalties would discourage economically beneficial transfers and reduce the efficiency of the fishery. Moreover, royalty revenues would depend crucially on the number of trades that occur in any given year and therefore could be highly variable.

E. Limited Access Privilege Assisted Purchase Program

While not exactly a part of an initial allocation, Councils do have an option to create a loan program to assist certain entities purchase LAPs (this is not required but an option). Such programs are to be funded using a portion of the funds collected in the mandated cost recovery program. The authorization for such programs is provided in Section 303(A)(g).

> (g) LIMITED ACCESS PRIVILEGE ASSISTED PURCHASE PROGRAM.—
>
> (1) IN GENERAL.—A Council may submit, and the Secretary may approve and implement, a program which reserves up to 25 percent of any fees collected from a fishery under section 304(d)(2) to be used, pursuant to section 53706(a)(7) of title 46, United States Code, to issue obligations that aid in financing—

(A) the purchase of limited access privileges in that fishery by fishermen who fish from small vessels; and

(B) the first-time purchase of limited access privileges in that fishery by entry level fishermen.

(2) ELIGIBILITY CRITERIA.—A Council making a submission under paragraph (1) shall recommend criteria, consistent with the provisions of this Act, that a fisherman must meet to qualify for guarantees under subparagraphs (A) and (B) of paragraph (1) and the portion of funds to be allocated for guarantees under each subparagraph.

The decision to implement such a program and the establishment of the criteria for participation should be based on the objectives of the management plan and should be consistent with other aspects of a LAP program discussed above. Even with the restrictions regarding small vessel owners and new entrants, these programs do allow Councils a little more flexibility in ensuring that a wider range of entities can participant in a LAP program, especially those that may not fare as well as desired in the initial allocation process.

3. Design Interrelationships

The material presented so far has focused on the various individual components of a LAP program. While there were frequent references to the interrelationships between specific components, a more focused look at these interactions will prove useful. The discussion can be facilitated by using Figure 5. The different components discussed above are listed in the rows and columns of the box. The dark boxes on the diagonal are not relevant because they represent a comparison of a component with itself. An X in the different boxes indicates that an interrelationship exists. The significance of the relationships for each of the columns will be discussed below.

	1. Specification of Management Unit	2. Denomination of LAP Unit	3. Eligibility to Own	4. Duration	5.Transferability	6 Excessive Share	7. Formula Based Allocations	8. Auction Allocations
1. Specification of Management Unit								
2. Denomination of LAP Unit			X					
3. Eligibility to Own	X							
4. Duration					X			
5. Transferability	X	X	X			X		
6. Excessive Share	X		X					
7. Formula Based Allocations	X		X	X	X	X		
8. Auction Allocations	X		X	X	X	X		

Figure 5. Design Interrelationships of Limited Access Privilege Programs.

The question to be evaluated is as follows: Will the choice of the component indicated by the column name affect the choice and operation of any of the components represented by the rows? What is interesting is that the comparisons will vary depending upon the row and column. For example, the choice of transferability options can effect duration but the choice of a duration option had no direct effect on transferability. This will be discussed in more detail below. Finally, for purposes of these comparisons, there is not much difference between formula-based allocations and auction allocations, but both are included for completeness.

In some cases the design or the operation of two components will be related whereas in other cases the design of one component will have a significant effect on the operation of another. For the most part, however, the gradations in both cases are sensitive to the specifics of the particular fishery, and it is not that simple to make general conclusions at this level of analysis. There has been no effort to create a more discriminating ranking system (i.e., one star represents a slight relationship and four stars represent a significant effect), but the nuances which tend to determine the type of relationship will be discussed.

There are several ways the components can be related or can affect each other. The connections may be related to the ease and effectiveness of implementation, monitoring, and enforcement. In some cases the way one component is set up in juxtaposition to another can affect the way in which certain management objectives can be achieved. Finally the interrelationships can affect the economic efficiency of harvesting, processing, and marketing. Not only can the choice of a particular option for one particular component have an effect on these three things, but there are interconnections between different options for different components. The remainder of this section will provide a discussion of possible connections between various components by looking at each column one at a time.

Specification of the Management or Resource Unit

The basic issue with the specification of the management unit is the number of species, stocks, and/or stock aggregations to include in the plan. The more species involved, the more complex the plan. Omitting stocks when they are biologically or technologically related to included stocks can cause a myriad of problems.

This is connected to the eligibility and the allocation components in several ways. Increasing the number of stocks will likely increase the number of entities that have worked with an included stock and hence are potential participants in the LAP fishery. Further, as more and more marginal stocks are included, the range of historical activity of the participants could vary widely. It will likely be quite difficult to develop an allocation program that is perceived as fair when there is a large number of heterogeneous potential participants. It may require many sub-categories and/or special cases which will make tracking the pool of eligible participants more difficult and more costly to administer the appeals process.

On a more practical basis, the quality and length of the historical catch records may vary over the different types of fish. Differences in state or federal recordkeeping systems across time or space will make it harder to establish who is more deserving of being included; analogous records for all participants may not exist. The extreme case would be where a fish stock is included in the management unit to address bycatch issues or ecological relationships, and yet it has not been harvested to any real extent and therefore there are few historical catch records. These are problems that can be overcome, but it will not be easy. Finding a logical system will be a big challenge in and of itself, and the many different views on distributional fairness will make it even more difficult.

The issue of transferability is also closely related to the specification of the management unit. For one thing, if the related species are caught together, participants will have to keep a portfolio of AHP for the different species that will match his/her catches. It is almost certain that it will be necessary in multispecies fisheries to allow transferability to allow this to be accomplished. In addition, it may be wise to set some rules that may not be necessary elsewhere. For example, if two or more species are usually caught together in certain approximate ratios, it may be wise to require trades to occur in bundles with those proportions. The exception would be if the purchaser could show his/her portfolio had sufficient AHP to match the proportions.

The excessive share issue can also be more complex according to the specification of the management unit. An expansive management unit may increase the potential for MP excessive share. Ten percent of the quota share for the fishery for a single stock may grant no market power because there is so much competition from the products of other similar fisheries. However, ten percent of the total quota share for a group of fisheries in an area managed together may be sufficient to affect price.

The problem with MO excessive share is more complex. The more species and stocks that are included in the LAP program, the greater the chance that the transition associated with the new program will result in reorganization and realignment of harvesting, processing, and marketing patterns that run counter to management objectives. In those instances, it is important that the management objectives are well thought out and that the potential effects from transition are fully considered to avoid undesired or unpredicted consequences such as too rapid consolidation.

Denomination of LAP Unit

The issue here is whether the LAP permit will be based on a percentage of TAC (the IFQ) or a portion of the TAC (the LAP). This will affect transferability if both types of permits are used simultaneously and one uses percentages and the other uses portions. There will be complications calibrating exchange rates between percentages and portions. One way to prevent the problem is to prevent transferability between the two types of permits. The problem will not exist if either one or the other type of permits is used is a percentage.

It is worth repeating that the general conclusion from IFQ programs around the world is that denominating quota shares as a percentage of the TAC is the most prudent way to go. Nonetheless the option to use a portion system is available. Councils may find that assignments in terms of fixed tonnages make sense for certain entities such as FCs to provide them with an extra measure of stability. If the TAC falls, prudent management will necessitate that total permissible harvest is reduced, but that reduction does not necessarily have to come out of this tonnage catch privilege. The privileges of other participants could be forced to take all or a greater percentage of the reduction. The flip side holds as well. If the TAC goes up, the management authority retains the option to choose how the extra privileges will be distributed.

For example, consider the implications of transferability between the two types of permits. If stock size (and hence the TAC) is not likely to change very much, there will likely be little difficulty. Assume a person with an IFQ permit buys privileges for 50 tons of harvest from a person with a LAP permit. If the relatively constant TAC is 1000 tons, there would be no biological implications from allowing a transfer that represents a 5-percent QS in the IFQ program. And more to the point, if 10 years later a similar trade was made in the opposite direction, a 5-percent IFQ QS could be transferred to a 50 ton LAP QS with no adverse effects.

However, things will not be so easy for fisheries undergoing a stock rebuilding program or where relatively large changes in the TAC can be expected. With a current TAC of 1,000 tons, consider a sale of 5-percent QS from the IFQ program that ends up as a 50 ton QS in the LAP program. The new owner has more harvest privileges and they are protected against TAC declines. However, if the TAC goes up, the LAP owner will not directly benefit without direct management action. Consider the reverse sale in the same situation. An IFQ permit holder buys 50 tons of LAP QS, which is transferred to a 5-percent IFQ QS. When the TAC goes up, technically that 5-percent share will be translated in extra AHP. The 50 tons is effectively translated to 100 tons. Now what happens if this second sale is reversed? The IFQ permit holder will be able to sell 5-percent of the QS but it will be translated into 100 tons of LAP QS. If biological conditions revert to the *status quo*, the individual will now have 100 tons of protected harvesting privilege where before they only had 50 tons.

Consider comparable sales in situations where the TAC falls. A sale of a 5-percent QS to a LAP permit holder will generate 50 tons of LAP QS. A variable share has been translated into, at least partially, a protected share. If the TAC falls, the LAP permit holder will be able to maintain the 50 tons, and the harvest reduction hits may be imposed elsewhere. A trade between two participants may end up affecting other participants if total harvest must be reduced. This problem will not exist in a percentage-based system.

A sale from a LAP permit holder to an IFQ permit holder will result in the reverse situation. For the amount of the sale, the reduction in TAC will be taken from the IFQ permit holder on a percentage basis. There will be no discretion to lower harvest privileges elsewhere as would have been the case had the sale not occurred.

While it would be possible to discuss other hypothetical situations, for purposes here it should be clear that allowing transferability between programs where one uses a percentage and the other uses a portion, will potentially result in a number of biological and distributional problems. It will be necessary to develop the specific transferability rules that take consideration of these connections.

Eligibility to Acquire/Hold Privileges

The specification of eligibility criteria will have a direct bearing on the design of other components. Some are quite straight-forward and will follow from simple LAP programs. For example, the initial allocation procedure will have to be designed to ensure that entities that are not eligible do not receive QS. Further, the transferability rules and trade approval processes will have to ensure that non-eligible entities do not acquire QS or AHP through market trades.

There are some other rather more subtle issues dealing with the introduction of RFAs and FCs. One has to do with the denomination of the LAP unit. The concept of the LAP based on a portion (rather than a percentage) of the TAC and the possibility of using RFAs and FCs were introduced in the most recent reauthorization. Congress presumably felt that allowing the opportunity to allocate permits based on a portion of the TAC would potentially be better for these organizations than traditional IFQs. So if nothing else, it may be necessary to select the denomination type taking into account what will work best for the types of entity that will receive the quota share.

For example, Councils may feel that FCs, and perhaps certain types of RFAs or similar entities, will be better suited to meet management objectives if their harvesting privileges are more protected. That is, in the case of TAC declines, Councils may feel that they do not want to rely on mandatory percentage cuts. They may desire the option to structure the necessary cuts in some other fashion. Similarly, they may want the option of being able to allocate increases in TAC so that more of the increase goes to specially selected entities. Apparently these options are available under the reauthorized MSA. Two things should be clear, however. First, going to a portion-based QS does not in any way do away with the absolute necessity of keeping the allowable harvest at or below safe biological levels. When the TAC falls, cuts in allowable harvest will be necessary. The discretion will be on who takes the cut, not on whether the cut will be taken. Second, allowing for discretion in the way changes in the TAC are reflected in changes in the AHP of different entities will lead to very difficult and costly political negotiations, as well as the possibility of litigation.

The percentage based system has certain advantages. It is simple to administer, transparent, and likely to be viewed as more fair. It also provides more of the incentives that are the basis for using LAPs in the first place. The harvesting privileges of all participants are more secure which will provide incentives for both biological sustainability and production efficiency. Councils should take a hard look at the pros and cons of choosing either a percentage or a portion based program.

The use of RFAs, FCs, and similar entities will also affect the criteria used to define MO sharelimits. One of the notions behind these organizations is that groups of fishery participants, especially if they are from different sectors, will be able to make fishery operational decisions that will be mutually beneficial to all. Or at least they will make decisions where the effects on all participants are taken into account. As such, it may be permissible, or even desirable, for such organization to control a larger potion of the outstanding QS. One purpose of setting MO share limits is to ensure that one entity can not adversely affect other participants. Since a wider group of participants may be involved in these cases, the concern for this happening may be less.

The eligibility component can also be related to a "yes or no" decision on transferability. With respect to RFAs and FCs, Councils will have to decide whether transferability between either RFAs or FCs, or among RFAs, FCs, and other entities, and if so, in what direction, will help or hinder the achievement of management objectives. The same sort of decision may be necessary even in a traditional IFQ where there are different types of participants who use different types of gear or work out of different ports. This is discussed in more detail above in the initial section on Transferability.

Duration

The choice of a duration component can have definite effects on the allocation component. If a LAP program is designed with a limited duration it will be necessary to set up a continuing allocation system. In the extreme case, if there is an absolutely fixed duration, then the whole program, including the allocation procedure, will have to be redesigned to continue with a LAP program. In more subtle cases, where there is set date for a review and continuation decision, it is necessary to specify how the harvesting privileges will be allocated if the system continues. The possibilities range from the current allocation, to reallocation among current participants based on performance criteria, to redesigning the whole program. When setting a duration limit, the repercussions on the need for a continuing reallocation process should not be overlooked.

Transferability

As with duration, certain choices in the transferability component will have effects elsewhere. If transferability is not allowed, barring any reallocation, the duration of the overall program will be as long as the oldest surviving participant. The program will decrease in size as individual participants are eliminated. If these are corporate entities rather than individual human beings, the issue is somewhat muted.

Non-transferability will also require a continuing process of re-allocation to keep the program going. Presumably, the initial recipients will include a large percentage of, if not all of, the active participants in the fishery at the time of program design. It may be possible to restrict future re-allocation to this pool of active participants, at least for a

while. However, this may lead to problems with excessive share. And over time, the pool of active participants may be significantly reduced. This leads to another problem. The law stipulates that harvesting privileges must be allocated to entities that significantly participate in the fishery, and this is true even if auctions are used. It may not be possible to develop reallocation procedures that are consistent with both the "excessive share" and the "significantly participate" requirements of the MSA.

As discussed in detail above, the initial allocation process can be very difficult to design properly even in the best of cases. The main point to be made here is that it may be just that much more difficult if the LAP program does not allow for transferability.

Excessive Share

The selection of an excessive share limit has an obvious implication on the transferability and allocation options. First, the allocation program must ensure that no one participant receives more QS than is allowed by the excessive share limit. Second, the transferability rules and trade approval processes will have to ensure that no participant will be able to surpass the excessive share limit by acquiring QS or AHP through market trades.

In addition, there are links to the specification of the resource unit. If the LAP program includes two or more species that are harvested together it may be possible to indirectly obtain market power for one species by accumulation of quota shares in another. This could be a problem with bycatch LAP programs.

Allocation Procedures

While an allocation procedure may have to be designed in a special way to be consistent with the way other components are selected, the *a priori* choice of a certain type of initial allocation method will not set any limits on the way the other components are selected.

Part 3: The Management of LAP Programs

The purpose of this document is to assist Councils as they design LAP programs. The continuum of fishery management program design to management program execution requires a close collaboration between the Councils and NOAA Fisheries throughout the process. While most of the operational design requirements for enforcement, monitoring and statistics, etc. are set by the Councils, many of the system implementation details will fall on NOAA Fisheries to complete. This task also necessitates the integration of multiple FMP requirements across fisheries (some of which are not managed using LAPs) as well as across Council, state and international boundaries/jurisdictions. While some aspects of LAP programs, especially those provided or mandated for the first time in the MSA reauthorization have yet to be fully developed, experience with the existing programs and the attributes of the larger operational systems in which they operate are worth exploring. This section will discuss some of the tasks related to LAP implementation and operation. It is provided as context for the Councils as they design programs. Councils will be able to do a better designing job if they understand the implications of management choices on monitoring and implementation costs, feasibility, effectiveness and compatibility with existing systems. This section covers these issues.

1. Enforcement

A principal goal of any fisheries enforcement program is to change human behavior and encourage participatory obedience so as to obtain acceptable levels of compliance with the regulations that are promulgated to support the plan. In the publication "Sharing the Fish" (NRC, 1999), the importance of LAP monitoring and enforcement was addressed in the following finding: "Regardless of how well any fishery management plan is designed, noncompliance can prevent the attainment of its economic, social, and biologic objectives." Plans containing LAPs are no exception. Any FMP will fail to achieve the desired results without regulatory compliance.

Success of any plan becomes threatened when the regulatory parameters exceed the capacity of law enforcement officials to achieve an acceptable level of compliance. But there are two sides to the equation, both of which are matters of policy. The most obvious is the capacity of the enforcement officials. Theoretically that capacity can always be increased by hiring more people and giving them more resources. However, there are budgetary priorities as well as limits on what the workers and the resources can actually accomplish. The other side of the equation is the nature and complexity of the management program, specifically the rules and regulations that are necessary to implement it. The goal is to design a LAP (or any management) program as simply as possible while being able to achieve the management objectives. Simplicity is beneficial to the participants as well as the everyday working of the plan, especially with respect to the balance between enforcement costs and enforceability.

Origins of Non-Compliance

Frequently Councils consider LAPs as an alternative for a struggling fishery with a downward trend in stocks, sinking economical viability, social skepticism, and escalating levels of non-compliance; all four elements serving to undermine fishery management. (Environmental Defense, 2007). By comprehending the underlying causes of non-compliance in the previous fishery plan, law enforcement experts can identify, control, and eliminate factors which foster unlawful behavior, potentially threatening to the new LAP regime.

In troubled fisheries the cause of non-compliance, and the attending ills, can often be traced to management controls which serve to alienate the participants and create economic incentives to cheat. This is not an obvious or deliberate process. It can occur over a period of years or even decades depending upon the market conditions. As a fishery "heats up" managers attempt to control the harvest by controlling fishing effort with management tools which are well established but ineffective against socioeconomic and market forces. Typically, a troubled plan moves from open access to limited access, from a full fishing season to fishing a limited number of days, from full fish holds to trip limits, moving ever closer to what is now called "derby fishing."

A fishing boat is a business, and a business exists to make a profit. As such, even fishermen who once might have been supportive of the intentions of management become disenchanted as the newer restrictions begin to cut into their profit margins. As fishing days are cut and trip limits reduced, marginal fishermen are sometimes inclined to violate the law. However, as time passes and the fishery becomes more stressed, the regulations will become even more stringent. As regulated inefficiencies and other input and output controls constrain efficient business choices, more fishermen are forced from mainstream profitability toward the fringe of economic survival, with an increased likelihood of breaking the rules.

The underlying rationale for most non-compliance is this diminishing profitability effect. The effect is different for each participant based upon his/her fishing ability. There comes a point in the management process when competing interests develop between participants who want to stay in business and the management process which needs more aggressive regulations to ensure over-fished stocks recover.

LAP Enforcement Operations

While the institution of a LAP program may not immediately change the mindset of industry participants, it can over time have a favorable effect on the way they conduct their business and thus view the enforcement system. LAPs will eliminate the race between the Council and the individual fishermen where the Council makes a move to control their activities or catch levels, and the fishermen make counter moves to maintain or increase their ability to take fish. LAPs also limit the ways the management system can affect a given entity. Given a known quantity of the TAC, a LAP holder can make

business decisions to harvest that amount at the least cost so they can maximize their profits. With a LAP program, any change in the TAC will change the annual allowable harvest of all participants and they will be affected proportionally with IFQs and in a known specified way in more general LAP programs. In non-LAP programs individuals can be hit with a range of input and output restrictions, which can have differential effects depending on the type and size of fishing vessel, individual fishing habits, and relative fishing skills. Finally, because LAP holders have a long-term interest in the health of the stock, there are more incentives to abide by the fishing rules and to cooperate with enforcement officers with respect to the activities of others.

At the core, the enforcement issue in a LAP program is to annually ensure that each participant does not harvest more than is permitted by the total of his/her accumulated AHP, that amount being the sum of that generated from his/her QS plus or minus any changes from trades. If that is accomplished, total harvest in the fishery will be less than or equal to the TAC. The success of a LAP program rests entirely upon the ability to track the owners of Quota Shares (QS), allocate the appropriate amount of Annual Harvest Privileges (AHP) that flow from the QS, reconcile landings against those AHP, and, ultimately balance the collective figures against the total allowable catch (TAC).

If this can not be accomplished, both illegal landings and unlawful sales will be possible which, more than likely, will eventually destroy the program. These violations not only undermine management goals and objectives, they also erode the security of the privileges holder's interests in a LAP which is the core concept of the program. The LAP program will fail if the participants lose confidence in the government's ability to manage the program.

Traditional fishery regulations and LAP programs converge in the marketing of fish. While many things may change under a LAP program, what is constant is the commercial aspects of the fishery: the entire commercial and economic superstructure- including any black markets. To market legal or illegal fish requires the commercial involvement of others, e.g., dealers, wholesalers, purchasing agents for restaurants, the general public and the like. For example, if fish from a traditional plan were harvested out of season but proper processor record-keeping and landing reports were filled out, it would immediately draw official attention to the perpetrators. The successful movement of illegally harvested fish requires surreptitious transactions, often co-mingled with legitimate product and paperwork, as a means of avoiding detection.

Depending on the design of the LAP system, there are several institutional structures that are available to monitor removals from the fishery. A catch-based LAP monitoring system focuses on tracking catches per vessel usually though the use of fisheries observers and vessel logbooks (paper or electronic). (See the discussion on observer monitoring in the section on discards below.) Where at-sea observers are not possible, a LAP monitoring program based on landings would require a double-entry accounting system (i.e., independent vessel and first-buyer logbooks or trip ticket systems). By the nature of the landings-based system, the enforcement is best done by accountants following a paper trail and not by "fish cops" watching the when, where, and what of fishermen's activities. The

main enforcement procedure relies on a double-entry accounting system under which routine audits can detect illegal landings (landings that are not backed up by AHP) and unlawful downstream fish sales (sales that are not backed up by documented legal landings).

There are several control points that must be set up and a number of tasks that must be performed prior to or as a condition of the monitoring of catch under a double-entry system. The fundamentals of the required monitoring/enforcement procedures can be described heuristically in terms of Figure 6. For simplicity, it is assumed that there are only three harvesting participants and three processors or fish receivers. Each arrow represents a LAP enforcement/compliance control point.

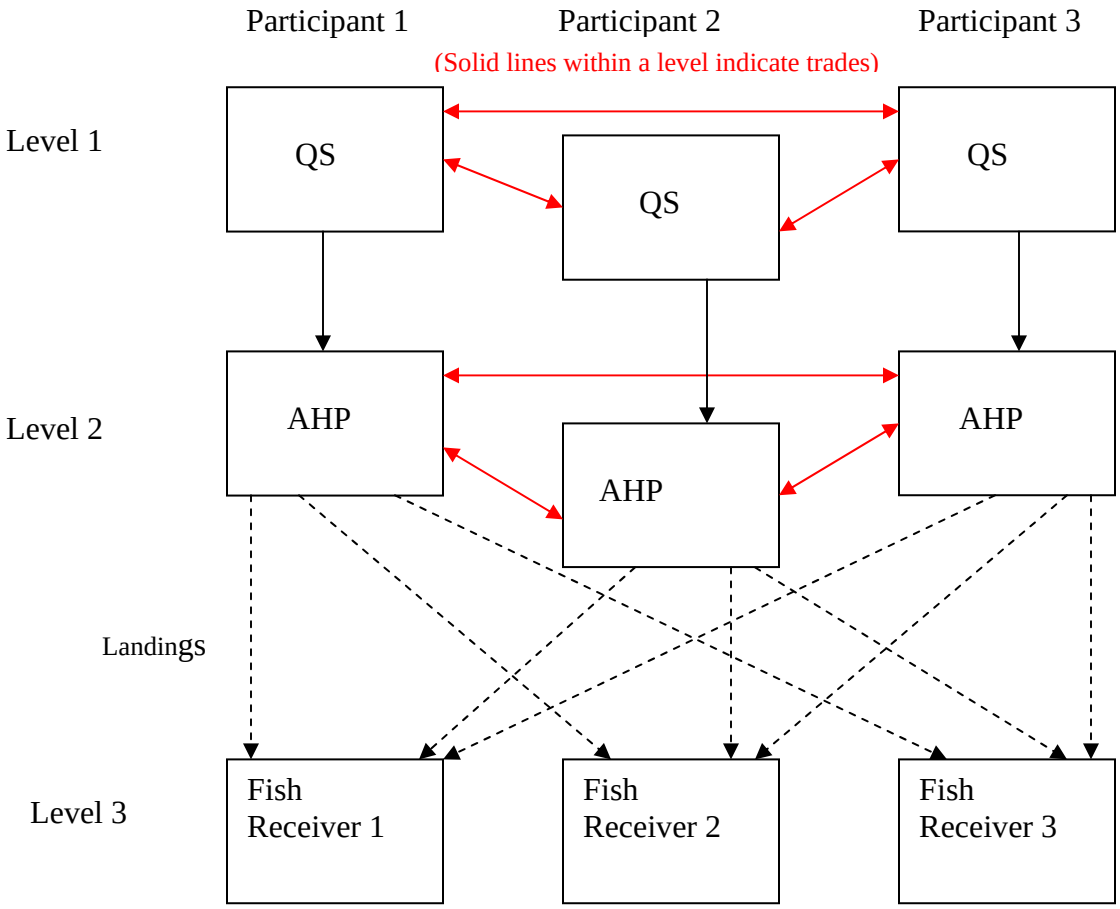

Figure 6. Required LAP Monitoring/Compliance Control Points.

Registry

Level 1 shows the registry of initial allocations of QS. With LAP programs it is not just the monitoring of overall catch that is important, but also the association of that catch with individual LAP holders. The registry of ownership of the LAPs must be capable of annually issuing the proper amounts of annual harvest privileges (AHP) for each unit of quota share (QS) and of keeping track of trades in both QS and AHP. It is necessary to track who holds shares which means being able to track sales/leases from one participant to another. The more limitations on who can hold shares and who can trade with whom, the more difficult and expensive it will be to run the registry.

Harvesters

Level 2 shows the actual harvesting part of the system. Harvesting is authorized by the AHP which are generated by the holders of QS. The exact amount will depend upon the rules of the particular plan, but traditionally it has been based on a percentage of the TAC. If allowed, once the AHP are distributed, they can also be traded. Enforcement officers must be able to keep track of individual balances after such trades. Those balances represent the amount of fish that each participant will be allowed to harvest.

Every time a harvester brings in a load of fish, this first entry transaction is marked by the name and number of the harvester, the name and number of the fish receiver, and the amount of the sale. The transaction must be recorded with the NMFS enforcement branch, after which, the amount of harvest will be subtracted from the harvester's AHP account. The harvester will not be able to complete any more landings transaction when his/her AHP account is emptied.

First Buyers, Dealers, Fish Receivers

Level 3 shows the fish receivers. If a LAP program is to work, all entities that purchase fish must be licensed and must keep appropriate records of all transactions. This represents the second entry transaction of the double entry bookkeeping system between harvesters and fish receivers and also records the name and number of the harvester, the name and number of the fish receiver, and the amount of the sale. As a double check, at the end of the year, the records of all fish receivers can be collected and summed across harvesters. The total recorded landings can then be checked against the AHP available to each participant. If all participants are within their permitted level of AHP, the total catch will be within the TAC.

In addition the total purchases of any one fish receiver can be checked against the amount of their sales on down the product line. If they are selling more than they are legally buying, they will be out of compliance. If fish receivers know this, they will have every incentive to make sure they can prove all of their purchases are legal. They will not be tempted to buy fish off the record from harvesters.

A LAP checks and balances system need not be more difficult than the average on-line banking process. A bank account is opened with a deposit. As more checks are written the account is debited and the balance is continually reduced. Without additional deposits the balance in the account will eventually reach zero. LAP electronic accounting provides an analogous service. The difference is that NOAA Fisheries is the "bank" and oversees all electronic transactions. Electronically accounting for annual allocation expenditure with the landing of catch and reconciliation with the TAC using a checks and balances system is the best assurance that illegal landing and unlawful sales do not take place.

The optimum method of uncovering and identifying illegal product in commerce is through the use of a "paper-trail." A LAP program can ensure the identification of legal product by incorporating a few additional accounting procedures. First, all purchases by LAP-qualified (i.e., licensed or permitted) dealers are tracked through an account just like the LAP fishermen. Unlike the fisherman's account which tracks annual allocation expenditures at the point of sale, the dealer's account tracks the amount of fish purchased and from whom. Obviously, these two accounts should balance. The receipts of the dealers account can be used to confirm the amount of cost recovery fees owed; the amount of fish purchased by a single dealer; the total amount of fish purchased by the dealer against individual landings and compared with the TAC and so forth.

The use and tracking of dealer accounts is a critical component in the checks and balance system. Law enforcement officials who audit fish plants should have an up to the moment account of fish purchases by the LAP licensed or permitted dealer, greatly facilitating and enhancing the audit process. Another essential function of the checks and balances system is to provide an approval code for every purchase which can easily be generated for each reported landing. The approval code should be required on all shipping documents, purchase orders, bills of lading and manifests whether the code reflects one fish or the entire load. This enables a NMFS agent in another region to easily determine whether the fish for sale in the marketplace falls inside or outside the LAP. If the paperwork does not show an approval code then the product is either imported or illegal. If it is imported, there will be U.S. Customs and foreign documentation available from the dealer. If no documentation of any kind exists there is a strong probability the fish were harvested, transported, and marketed illegally and an investigation ensues.

Discards

Sometimes it is important to consider more than just the fish that are landed. Achieving full individual accountability, and the harvesting incentives flowing from it, relies upon each harvester being held responsible for total mortality attributable to his/her fishing activity. This relationship underscores the importance of accurately documenting not only amounts of fish that are retained and landed, but also any amounts of fish that are discarded. Implementing complete observer coverage, or alternatives such as full retention combined with partial monitoring to assure that discard is not occurring at sea, supports individual accountability and encourages fishermen to reduce discards over time.

However, monitoring and managing discards is not unique to LAP-managed fisheries. All other management strategies also have to deal with discards; whether LAPs are superior in discouraging or mitigating the occurrence of unwanted discards is the relevant question to be evaluated. In some instances it may be prudent, or even necessary, to consider the extra steps of full retention, complete observer coverage, and/or discard accounting in monitoring AHPs.

From a behavioral standpoint, there is little incentive for innovation aimed at reducing discards when fishermen are accountable only for fish that are landed. With accountability expanded to include total mortality by debiting discards to AHPs, one would expect that discards would be reduced to the point where the marginal cost of avoiding unmarketable catch is equal to the value of the quota poundage that must be expended for discarded fish. Not only will this evaluation produce short-term changes in fishing methods, but it will promote longer-term innovation in fishing gear and techniques for avoiding unwanted catch, as well as the expansion of markets for fish that are currently unmarketable. Reliance on less-than-complete observer coverage carries lower costs than 100-percent coverage, but is also likely to convey proportionately fewer programmatic benefits. Applying average discard rates derived from some portion of a fleet to all, or the remaining unmonitored vessels, may promote the avoidance of fleet-wide overfishing. However, accounting for discard through the use of fleet averages provides reduced incentives to individual fishermen to develop methods for avoiding fish that are unmarketable. Additionally, if season- and/or depth-specific estimates of average discard rates from an observed sub-fleet are to be used as the basis for debiting individual quota accounts, issues of sample size adequacy and equitability in the application of those rates within a season will likely mean that quota accounts cannot be reconciled on a timely basis.

Overage Allowances

In some cases, the privilege tracking system can be improved by creating an overage system where a LAP fisherman is permitted to have a percentage overage on the last landing. The percentage amount would have to depend upon the particularities of the fishery. The overage amount would simply be docked from the following year's annual allocation. The other part of this is that LAP licensed or permitted dealers can purchase fish overages with the approval of NMFS and without possibility of sanction. The use of a 10 percent overage, for example, eliminates the potential of the law enforcement program getting wrapped up in numerous cases involving small amounts of fish. The usage and exact quantity to allow would depend on the biological reference points and annual catch limits adopted by the Council, with the assurance that significant FMP objectives would not be compromised. These systems have their downsides and so should be implemented with great care. They complicate the accounting system for developing the AHP each year. And in cases where all participants take advantage of the extra harvest in a single year, it may harm the stock unless accounted for in the annual TAC specification.

To summarize, the following are necessary parts of monitoring system for a LAP program based on landings.:

1. All landings are recorded immediately upon offload;
2. Participants and dealers have separate PINS;
3. Participants and dealers have separate accounts tracked by NMFS;
4. Participants can transfer annual allocations electronically;
5. No transaction is complete without an NMFS approval code;
6. The approval is required on all transportation and sales documentation;
7. While not always necessary, consideration should be given to the possibility of requiring observers and/or full retention policies; and
8. Consider flexibility of overage/payback policies for one-time/end-of-year AHP overages.

Second Lines of Defense for the Double Entry Accounting System

Ideally, the double entry accounting system will provide all the monitoring and enforcement activity that is necessary. If routine audits can locate situations where fish are landed that are not backed up by AHP or where final product is sold that can not be backed up by a documented legal landing, these activities can easily be identified and the appropriate punishments can be doled out. What is more, if fishery participants know illegal landings or unlawful sales can be identified, they will have a reduced incentive to undertake such activities.

But things do not always work this nicely, especially when the landings from LAP programs run through the same landing and processing channels as those of non-LAP programs. For example, sometimes it is possible to pass off the landings or the final product sale of a LAP fishery as being from a non-LAP fishery. The illegally harvested fish is co-mingled with legally harvested fish and the entire load is sold in local, intra-state, or inter-state commerce as a legal product. To do this requires accomplices who agree to illegally purchase and transport the fish. More importantly for purposes of discussion here, violators fail to file required record keeping and reporting requirements. Falsifying records to conceal illegal landings can protect those involved in the collusion from being detected. These reports are essential for monitoring the existing TAC and for help in determining next year's TAC and quota allocation.

Prior Notice of Landing

A possible second line of defense is to require a robust, shore-based, real-time data reporting and monitoring program. The shore-side, real-time data reporting begins with a prior notice of landing (PNL) requirement. This typically occurs 3-6 hours before the vessel is moored. When the PNL is made, it should require identification of the operator and the quota-share holder aboard, if different. Also required are holder's permit number, vessel name and number, species targeted, estimated catch aboard, destination for off-load

(and whether they will deliver to more than one LAP licensed or permitted dealer), and the approximate time the vessel will be in port. This is also a final opportunity for the permit holder to "self-report" if they know they have more fish aboard than quota to cover the landing.

Once they have made their PNL and declared their catch aboard, an officer has approximately 3-6 hours to meet the vessel dockside and monitor the offload. Offloads can be required to occur during an "offload window" usually 0600-1800. An offload window ensures the dealer will be open and an enforcement officer will be present. In the event an offload monitoring is required, it must be monitored to completion and the hold checked to ensure no fish remain. In fisheries where more than one LAP species can be harvested and retained, monitoring becomes a bit more complex but is sorted out dockside as the fish are placed in totes and weighed.

Vessel Clearance

Fishing vessels may elect to leave the management area for a destination outside the boundaries of the LAP management regime. If this is going to occur, the vessel must request "vessel clearance" and proceed to a mutually convenient port to have the catch examined by a law enforcement officer, who will grant final permission for the vessel to leave the area (or the country). LAP programs are best enforced via shore-based systems and as such, at-sea evolutions such as transshipments must be carefully evaluated for their benefits and well as the availability of appropriations or cost recovery funds to pay for them if the LAP is to be enforceable at a reasonable cost.

To summarize, the following are necessary to minimally support real-time data reporting:

1. Prior Notice of Landing (usually made 3-6 hours in advance);
2. Offload windows (usually 0600 to 1800);
3. Vessel clearance (when vessel leaves management area); and
4. Prohibitions on transshipment before landing (although there may be special circumstances where it could be allowed).

Vessel Monitoring System

Another tool that can be used in tandem with a real time data reporting system is to require a vessel monitoring system (VMS). VMS is an essential requirement to show the vessel was at-sea, how long it was out, where it docked when it came into port, and the present vessel location. VMS is capable of understanding and recording small details of the ship's evolutions. It can document, for instance, specific course changes and engine speed changes by a vessel. Collectively this pattern is termed a signature. At present there is not enough data to make a signature admissible in court as an indicator of fishing. Regardless, VMS technicians are trained to look at positioning data and other factors indicating potential fishing activity. An investigator can be dispatched to the landing site

intercepting the vessel as it comes into port or even anchors in a remote area. If the captain and crew are believed to have illegally harvested a LAP species, the agent or officer can intercept the vessel. If, during the course of an initial investigation, a violation surfaces the agent or officer will bring the vessel to port, seize the catch and cite the errant fisherman.

Again, tracking locations of vessels via VMS is not unique to LAP-managed fisheries. Many other management strategies also have to deal with fishermen attempting to evade detection of illegal acts. Whether LAPs with VMS is superior in discouraging or mitigating the occurrence of evading detection of a landing without complementary AHP for the event is the relevant question to be evaluated.

In summary the following conditions are necessary to minimally support a LAP-VMS program:

1. All participant vessels are equipped with NMFS authorized VMS units;
2. The system must be operated 24/7 for 365 days a year;
3. Fisherman must present documented proof VMS is fully operational prior to receiving annual allocation;
4. Participants agree to return to port if VMS is dysfunctional as a condition of participation; and
5. Tampering with the VMS or power source supporting VMS must be prohibited.

Profiling

It is possible to improve enforcement by profiling for possible non-compliance using all parts of the enforcement program including the double entry reporting system, real time monitoring of landings, and VMS. The complete system can collectively and simultaneously monitor vessel activity, fishing activity, landing ports, fish sales, and dealer reports. From all this electronic information harvest tracks and trends emerge. Vessel and fishing activities that do not conform to normal commercial patterns will draw the scrutiny of officials. A comparative analysis between VMS track-lines, landing activity, landing reports, and dealer reports will determine if further investigation is warranted. If the analysis is inconclusive or information indicates a probable violation the fisherman, vessel and dealer are placed on a list to be immediately contacted by law enforcement officials. The vessel is intercepted, boarded, and inspected. The dealer plant is inspected and electronic data files are audited. Based upon the results of this information, the initial activity drawing the attention of officials in the first place suggests that: 1) A violation is probable and an investigation ensues; 2) A violation did not occur and the activity is explained; or 3) The result is inconclusive and both the fisherman and dealer are placed under scrutiny.

Enforcement Conclusions

The above is a brief summary of the basics of the design and operation of an enforcement program for a LAP managed fishery. Clear communication with NOAA Fisheries during the Council's construction of the LAP plan will help to ensure that the peculiarities of the fishery which might affect enforcement are known to NMFS and that the nuances of enforcement that might affect compliance in a particular fishery are known to Council members.

While the simple diagram in Figure 6 provides a picture of what must be done in a LAP monitoring program, the details can be very complex. Also, there is likely a non-linear relation between the complexity and the costs of implementation and operation of a system, and also its ability to actually get the job done. The best plan is the one that gets the job done (where success is defined as meeting the demands of the MSA and accomplishing the management objectives of the plan) in the most efficient manner, not the one that simply has the lowest enforcement costs. If there are two ways to achieve a management objective, however, then choose the one that costs less to implement and enforce if all else is equal.

As Councils develop multiple LAP programs there may be economies of scale in implementing LAP enforcement programs. The personnel and the system that are used to implement one can often, with only moderate cost increases, handle more. This is only true, of course, if the designs of the actual LAP programs are similar. Therefore, it makes good sense, both from the participant's point of view, and from an implementation perspective, to minimize the differences between different LAP programs to the greatest extent possible.

Costs for enforcement activities are recoverable under Section 303A(e), but the MSA places a cap on recovery at 3-percent of the ex vessel value of fish harvested. While the costs of enforcing the Alaska Halibut/Sablefish program are under that cap, this will not necessarily be the case for all future LAP programs, especially those with smaller TACs and lower market prices. The objective to design an efficient enforcement program holds regardless of the 3-percent cap, but it is especially compelling where a proposed LAP approach pushes enforcement costs above the cap. In times of limited appropriated funding, it may be difficult to the find the necessary funds to bridge the gap, and therefore other LAP design alternatives may need to be considered.

2. Cost Recovery

The MSA mandates that all LAP programs have a cost recovery program. Both the Secretary and the Councils are given specific tasks. The Secretary is directed by Section 304(d)(2)(A) to collect a fee that will be used to cover certain specified costs:

> (2)(A) Notwithstanding paragraph (1), the Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management, data collection, and enforcement of any—

(i) limited access privilege program; and

(ii) community development quota program that allocates a percentage of the total allowable catch of a fishery to such program.

(B) Such fee shall not exceed 3 percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

(C)(i) Fees collected under this paragraph shall be in addition to any other fees charged under this Act and shall be deposited in the Limited Access System Administration Fund established under section 305(h)(5)(B).

(ii) Upon application by a State, the Secretary shall transfer to such State up to 33 percent of any fee collected pursuant to subparagraph (A) under a community development quota program and deposited in the Limited Access System Administration Fund in order to reimburse such State for actual costs directly incurred in the management and enforcement of such program.

Currently, cost recovery is occurring in the halibut/sablefish, crab rationalization, and red snapper IFQ programs (see the Appendix 1 spotlights on these programs). Cost recovery is not yet in place for wreckfish and the surf clam/ocean quahog IFQ programs. Given the mandate concerning the necessity and type of cost recovery program, Councils do not face any substantive design choice questions here as they do with other aspects of LAP program design: cost recovery must be implemented. However, knowledge of the theory and the operation of cost recovery programs is useful background for overall LAP program development.

With respect to the role of the Councils in developing LAP programs, the MSA states in Sections 303A(e) :

(e) COST RECOVERY.—In establishing a limited access privilege program, a Council shall—

(1) develop a methodology and the means to identify and assess the management, data collection and analysis, and enforcement programs that are directly related to and in support of the program; and

(2) provide, under section 304(d)(2), for a program of fees paid by limited access privilege holders that will cover the costs of management, data collection and analysis, and enforcement activities.

The object of the fee program is to cover at least part of the costs of management (recall the 3-percent cap on cost recovery imposed by the MSA). The Councils are given the task of developing the methodology and means to assess the costs that are directly related to and in support of the program. But what exactly does that mean? While specific guidelines may be developed in a future cost-recovery rulemaking, some general principles can be described right now.

Incremental Costs

The relevant costs to recover are the incremental costs, i.e., those costs that would not have been incurred but for the IFQ program (NMFS, 2003). Conceptually, measuring these costs involves a "with and without" comparison, i.e., What is the cost of running the management program for the specified fishery under the *status quo* regime, and what is the cost of running the management program under the LAP program? The difference is the incremental costs attributable to implementing the LAP program. The two justifications for limiting recoverable costs to incremental costs are:

(1) Since the issue is to find the funds to cover the costs of adding LAP programs, then the real problem is to cover incremental costs.
(2) To minimize the disincentives for Councils and their constituents as they consider replacing non-LAP programs with LAPs, it makes sense to have participants in LAP programs only pay for the costs that are added because of the LAP program itself. For example, stock assessment costs will be required no matter what type of program is used. Given the current law, it is not possible to have participants in non-LAP programs pay for stock assessments. Therefore, having participants in LAP programs pay for stock assessment while non-LAP participants don't pay would be unfair and prejudice the Council's and industry's preference of LAPs as a management option.

The incremental cost issue was examined in a recent GAO study on cost recovery. (GAO, 2005). GAO pointed out that "actual costs" could alternatively be interpreted as the full costs of managing the fishery under consideration: every dollar that is spent on managing the fishery should be counted. In its response NOAA indicated that the current methodology of defining recoverable costs as those that are directly attributable to the implementation of an IFQ program was the correct interpretation of the MSA. The GAO did not go so far as to suggest that full costs should be recovered. Rather, they said that if Congress wanted full costs to be recovered, it should clarify the cost recovery fee provision of the Act to call for full costs to be recovered. The MSA reauthorization passed by Congress in December 2006 made no such change.

Interestingly, the Administration's MSA reauthorization bill provided additional cost recovery provisions for Congress to consider. The bill included a proposal for cost recovery in non-LAP fisheries, added science activities as a recoverable cost, and raised the potential cost recovery rate to 15 percent. Congress did not adopt any of these provisions, providing additional evidence that the existing cost recovery authorities and practices were sufficient.

The reason for a with-without comparison rather than a before-after comparison is to keep all other factors equal. This becomes tricky for any currently unmanaged fisheries. Here the baseline to use as a reference for the cost comparison is the estimated cost of basic data collection and analysis, management and enforcement under a traditional non-LAP method for that fishery. This means that if the *status quo* management system is incomplete or insufficient to meet current objectives and just happens to be adjusted

concurrent with the introduction of the LAP program, the costs of satisfying the insufficiency should not be attributable to the LAP program. For example, a newly managed fishery would need some form of a stock assessment regardless of whether the management strategy was a LAP or non-LAP approach. The stock assessment cost would not be a recoverable cost in this case. Another example is the general recognition that observers are necessary in a multi-species fishery managed with a non-LAP program. However, consider the case where observers were not part of the initial management program and a decision was subsequently made to require observers. Even though the decision to introduce observer might coincide with the start of a LAP program, the observer costs would not necessarily be eligible for cost recovery unless they were directly related to and in support of the LAP program. The determinations of what costs are recoverable will be extremely important to the industry and the agency, and regulatory guidance may be necessary to promote consistency and equity.

Measurement of Costs

The actual measurement of the incremental costs that are directly related to operating a LAP program can be quite difficult. The costs are generated by NOAA Fisheries programs and these data need to be shared with the Councils.. Experience with the existing LAP cost-recovery programs and the attributes of the larger operational systems in which they operate are worth exploring. The following discusses some of the issues related to LAP cost recovery as guidance and for possible adoption by other programs as Councils design new LAP programs.

The longest-standing U.S. LAP cost recovery protocol is the one that has been established in the NMFS Alaska Region for the halibut/sablefish IFQ program. Here the administrative staff have instituted an automated process whereby the time spent by employees on different categories of work are recorded and tabulated. The direct program cost categories include labor, rent/utilities/overhead, travel, printing, contracts, supplies, equipment, and other expenses. The Alaska Region is set up to capture time allocation information of all personnel who work on management or enforcement of any IFQ program. These costs are collected from various NMFS offices (Sustainable Fisheries Division, Restricted Access Management Program, Office of Law Enforcement, Office of Management and Information, and Office of Administrative Appeals).

In addition, costs from collaborators in Alaska's IFQ management program are tallied as well (including NOAA's Office of General Counsel, the International Pacific Halibut Commission, Pacific States Marine Fisheries Commission, Alaska Department of Public Safety and the Alaska Department of Fish and Game). These costs are added to the NMFS costs that are documented to be attributable to IFQ operations. The actual procedure is more complicated than this simple explanation. However, since there are procedures that will account for the measurement of the appropriate costs within the existing NOAA financial management system, it may not be necessary for the Councils to develop a process on their own.

All LAP programs will also likely require an infrastructure in addition to cost recovery that includes the administrative information systems needed to manage quota catch accounting, permit issuance, transfers of both permanent quota share and annual quota amounts. As more LAP programs around the country come online in the next few years, NMFS wants to minimize unnecessary redundancy in LAP infrastructure and seek economies of scale. Currently the Alaska Region has made the most significant investment in the infrastructure needed to operate LAP programs and has the most experience, having spent spent millions of dollars on these systems since the mid-1990s. They have created efficient web-based landings reporting system in conjunction with the State of Alaska and have well-documented procedures and systems to monitor and manage the administrative side of their LAP programs. The Southeast Region's red snapper IFQ program that began in January 2007 was able to adopt many ideas and procedures already in use in Alaska. Thus, even with the diversity of regional LAP programs likely to be designed in the future, there will be many opportunities to share common infrastructure components.

Promoting common infrastructure capabilities to support LAP management will be desirable for several reasons. (Note this is not referring to the Council program design elements, as no single LAP program exists that will satisfy every FMP requirement. Rather, it is the administrative and management infrastructure components common to all LAPs that can benefit from open and flexible designs.) For example:

1. Since planning and development costs leading up to a LAP are not cost recoverable, lack of appropriations for independent infrastructure development could constrain adoption of LAP strategies. Thus, an agency-wide capability may be more cost effective and result in more LAP programs than otherwise possible. Rather than duplicating LAP operational system design and implementation FMP by FMP, designing flexible systems for re-use by multiple LAP programs would be less costly. Taking advantage of economies of scale will allow more LAPs to come on-line should they be selected as the preferred alternative by Councils. Moreover, several preliminary estimates for operational costs of potential LAP programs have exceeded the 3-percent cap, some by as much as 300 percent. Thus, efficient design and shared use of existing infrastructure by multiple LAPs would help close this gap.

2. An agency-wide infrastructure capability will help regions implement a new LAP more quickly by taking advantage of a robust, well-designed, secure system that can be deployed much faster than individual new, ground-up development. Framework LAP programs that have received OMB regulatory, data quality and information collection approvals and are part of programmatic LAP Environmental Impact Statements may be possible and their use may expedite the approval timeline.

3. The risk of significant problems in LAP implementation due to a failed system development effort or deployment of a flawed system will be greatly reduced. Training and system support functions can also be distributed reducing single point of failure vulnerabilities. Separate regional systems developed in isolation could result in redundant and incompatible systems that would be contrary to agency and administration policies on

program efficiency and effectiveness. For example, a LAP is defined as a permit in the MSA, and all permits must comport with NMFS policy establishing a common national permits system. A common LAP infrastructure also would help establish and meet a set of consistent objectives for permit customer service, security, and compliance with other applicable laws and regulations.

Were Councils to consider designing LAP systems in a coordinated manner at the outset, more effective use of limited funds to satisfy infrastructure needs would result in more Councils having LAPs as a viable management option. This would require extensive collaboration among management partners within a region such as the coordination of the design of LAP programs for different species or fisheries within a FMP or among one or more Councils' FMPs. Collaboration and planning by NMFS and the Councils across regions to design compatible infrastructure systems for different FMPs could similarly result in cost effective LAP programs that enhance attainment of multiple Council or ecosystem-based objectives for management.

Computation of Cost Recovery Fee

Given the language in the law, the determination of the fee is a straightforward calculation. With the 3-percent cap on the amount that can be collected, the determination of the percentage fee can be expressed as follows. Let DPC be the direct program costs measured using the process described above. Let P equal the average landings price over the season, and TAC equal the total allowable catch. The product of P times TAC is the value of the harvest. The percentage fee is then:

$$\%Fee = 100*DPC/[P*TAC] \text{ or 3-percent whichever is lower}$$

In the Halibut/Sablefish program, the fee has always been less than the cap of 3-percent. However, preliminary calculations concerning other likely LAP candidate fisheries suggest that this will not always be the case. The Gulf of Mexico Red Snapper IFQ program, the Gulf of Mexico Reef Fish program, and the Central Gulf of Alaska Rockfish Pilot Program when fully implemented are expected to have management costs greater than the 3-percent that can be recovered.

As discussed in Section 2, Councils do have an option to use a portion of the funds collected in the mandated cost recovery program to create a loan program to assist certain entities purchase LAPs (this is not required but an option). In the Alaska Crab Rationalization Program (See 50 CFR 680.44), the Council had the unique authority for this fishery to propose an adjustment to the fee formula to at least partially compensate for funds directed to a Limited Access Privilege Purchase Program. Let L represent the percent of fees the Council can choose to allocate to the loan program, where according to the law, L can vary from 0 to 0.25. The adjusted formula would be:

$$\%Fee = 100*DPC/\{[P*TAC]*[1-L]\} \text{ or 3-percent whichever is lower.}$$

In the normal case where L is equal to .25, this is equivalent to multiplying the basic equation by 1.33. Ignoring the 3-percent cap for the moment, this means that if 25 percent of everything that is collected is given to the loan fund, there will still be enough collected to cover the direct program costs. Of course the cap does remain, and so this will only work when the basic calculated fee is less than 3-percent.

The Councils may also want to evaluate the process chosen to collect the fees since it can have important implications for the business operations of the participants. Councils may wish to include certain specifications in the plan after considering the convenience and cash flow needs of participants and the existing procedures fishermen use for selling and getting paid for their fish. For example, if settlements are received monthly and not at the conclusion of each trip, it will likely be necessary to schedule fee payments accordingly (See for example the differences in cost recovery in the IFQs for red snapper and the halibut sablefish in Appendix 1).

The timing of fee collection is also important with respect to enforceability. Having a program where the fees are withheld by the fish buyer will likely be more convenient for the participant and may also result in a higher compliance rate.

This raises another issue with respect to the timing of fee collections. The fee can not be determined until the average price is set or at least approximated. It may be necessary to let the fishery go for several months without collecting fees to get an estimate of P, which could then be used for the rest of the year. At the end of the year it may be necessary to make adjustments. Whatever process is ultimately chosen must be sensitive to the business practices of the fisheries being managed, and they vary considerably around the country.

3. *Monitoring and Data Collection*

As introduced in the discussion of enforcement, the effective management of LAP programs requires development and implementation of a highly accurate, timely, and well-documented catch accounting system. These systems provide information that go beyond just enforcement needs. Although the system could theoretically be a manual reporting mechanism, it is almost certain that monitoring and collecting sufficient data for managing a LAP program will require an electronic reporting system. The MSA specifies in 303A(c)(1)(H) that a LAP program must include the use of observers or an electronic monitoring system.

> (c) REQUIREMENTS FOR LIMITED ACCESS PRIVILEGES.—
> (1) IN GENERAL.—Any limited access privilege program to harvest fish submitted by a Council or approved by the Secretary under this section shall—
> .
> .
> (H) include an effective system for enforcement, monitoring, and management of the program, including the use of observers or electronic monitoring systems;

Such a system should provide for landing reports that include, at a minimum the date and time of the landing, the name and official number of the vessel from which the landing is being made, the name(s) and license number(s) of the permit holder and the individual responsible for making the landing, the name(s) of the species and poundage (or numbers of fish) being landed, the name and identifying number of the processor or buyer, the ex-vessel value of the catch (if known at time of landing), and any other information deemed appropriate and necessary to manage the program such as the identification of bycatch and discards.

The data should electronically feed into a central data bank. The information in the data system should be immediately available to fishery managers and enforcement agents, as well as provide views to fish buyers and permit holders of their own data. Because of confidentiality protocols required by the MSA and other applicable law, it will be necessary to electronically "mask" certain information from certain users. For example, a skipper would not be authorized to view the delivery patterns pertaining to a given fish buyer/processor, and a processor or other member of the public would not be allowed to view a skipper's dates and times of landing. Even with these access constraints, however, a permanent record of the landing will be entered and maintained and fully accessible to authorized users. The landing data will show the "balance" available to land on the LAP permit, and the permit holder will therefore have a permanent record of his/her landings. At the same time landing rates can be monitored and the system can be set to notify OLE if an overage is detected. Additionally, by maintaining precise in-season permit balance information, applications for transfers of permits can be more timely and accurate.

Designing a system to track landings on LAP permits should not be done in a vacuum. To the extent practicable, it should be an "umbrella" system that can accommodate landings information needed for a variety of purposes and by different jurisdictions. For example, in the Alaska Region an interagency team of programmers and managers from NOAA Fisheries (including management and law enforcement), the Alaska Department of Fish and Game, and the International Pacific Halibut Commission recently completed design of a comprehensive "e-Landing" system that is sufficiently flexible to meet the needs of all the participating agencies and which is adaptable to meet specific programmatic requirements. The system is being phased in; its first use will be in the Bering Sea Crab rationalization programs. During the 2006 season, the halibut/sablefish IFQ landings system was changed over to accommodate the requirements and improvements of the new system. The system is intended to supplant the decades-old paper "Fish Ticket" system maintained by the Alaska Department of Fish and Game.

Such a system could also be used to accept biological data provided by skippers (i.e., pilothouse "log book" information) and observers. Electronic recording of this type of information at the time of landing makes for more timely and accurate recordkeeping. Gathering complete information at the time of landing will greatly enhance future uses of the data – for analyzing possible programmatic adjustments, for reviewing and reporting on program performance, etc.

Accurate and up to date records of catch are necessary to ensure that current harvest does not surpass allowable harvest in any TAC system. It is especially true in a LAP program, and the job is more difficult because it is not only necessary to track total catch but catch against the individual permits. A rigorous, timely, and accurate electronic reporting mechanism is necessary to maximize the benefits of LAP programs. A good system will make enforcement of the program more robust and will greatly reduce the potential for data fouling. This will help to address public concern over the effectiveness of the management system.

Under the mandate for cost recovery premised on ex-vessel values of the harvests, it is critical that accurate records of these parameters be established and maintained. This is true, regardless of which sector (e.g., harvesting or processing) is obligated to submit pay the fees.

Another important element of catch accounting is "sideboard" management. Sideboards are limitations that can be placed on the activities of vessels in rationalized fisheries to prevent them for being used improperly in parallel fisheries, thus exacerbating overcapacity problems. Any sideboards imposed on vessels (or licenses) will be unique to each LAP program that is developed and may require special reporting requirements in non-targeted fisheries. Because a special "sideboard allocation" may be established in those other fisheries, electronic reporting may be appropriate to track that sub-allocation to a sub-set of vessels.

In summary, under a LAP program, it is necessary to monitor harvests at the individual level and not simply by the overall TAC. The simpler the program design, the less complex its implementation will be. This includes the design of the system to record harvests. For example, restrictive eligibility and transferability rules can make it more complex to issue and keep track of LAP ownership.

4. Permits

Permitting is at the heart of managing harvest privileges under a LAP system. The LAP permit:

1. Defines the nature of the privilege (what activity does it allow?);
2. Describes any limitation on the permitted activity (how much is allowed, by what methods and means?);
3. Delineates its duration (effective when, and for how long, may the privilege be exercised?);
4. Identifies the person or business entity that may exercise the privilege; and
5. Assigns a unique number or other identifier.

Once assembled and issued, the permit information is included in the agency database. Information in the database is accessible to managers and to enforcement. The non-confidential information components are also available to the general public and can be published on the agency's web site.

Many LAP programs provide for the use of more than one type of permit. For example, the following permits are issued under the Bering Sea/Aleutian Island Crab Rationalization program:

1. Quota Share (QS) permit [a permit of indefinite duration that indicates, by fishery and area, the number of units of QS one holds; in the most basic sense, the number of units represents the percentage of the annual Total Allowable Catch (TAC) the QS permit holder may harvest];
2. Processing QS permit (similar to a harvesting QS permit, but issued to eligible processors to permit receiving crab from harvesters);
3. Individual Fishing Quota (IFQ) permit (the annual permit that displays the number of pounds the permit holder may harvest);
4. Individual Processing quota (IPQ) permit (the processor equivalent of the IFQ permit);
5. Registered Crab Receiver permit (a numbered permit, issued annually, to entities eligible to receive IFQ crab);
6. Crab Harvesting Cooperative permit;
7. Crab Vessel permit; and
8. Crab Hired Master permit.

In addition, the program calls for several certificates (e.g., certificate of eligibility to receive crab QA by transfer). The halibut/sablefish IFQ program also uses several different types of permits. The Bering Sea crab rationalization program is even more complex; it includes all of the types of permits outlined above, as well as processor Quota Share and annual Processing Quota amounts, vessel permits, and cooperative permits. Some permits (e.g., the QS permits) are transferable to certain eligible persons, while others are not. The point is that any LAP program requires permitting, and frequently more than one aspect of the program.

Permitting is essential to manage both the fishery and the LAP program. Permitting unambiguously establishes who is allowed to participate in the fishery, under what terms and limitations, for how long, etc. Good permitting is essential for good law enforcement. Enforcement and General Counsel personnel should be involved in designing the permitting program to ensure that the permits are sufficiently specific to clarify when violations have occurred. Additionally, enforcement personnel should have ready electronic access to permitting information at the Regional Offices, so that review of the data from the field would be possible.

Another consideration in a LAP program is accountability for individual quota accounts. Timely and accurate reporting of removals is essential to good management and such reporting can be made a permit requirement. For instance, reporting can be made an obligation of a business that holds a permit to receive LAP species from a permitted harvester. Withholding or failing to renew a permit can be used as a way to induce compliance with the reporting requirements.

5. Determination and Appeals

According to Section 303A(c)(I) of the MSA, when Councils prepare a LAP program, they must:

> (I) include an appeals process for administrative review of the Secretary's decisions regarding initial allocation of limited access privileges;

A process for making fair, honest, and accountable determinations on applications for harvest privileges and subsequent associated matters (e.g., transfer applications) must be developed and included in regulations implementing a LAP FMP. The system should contain provisions for accepting and reviewing applications, and it should establish standards against which applications will be adjudicated. Additionally, it should provide for preparation of full decisions while including time frames binding on both the applicants and the agency. Finally, it should provide a formal process for appealing administrative determinations to a separate office established for that purpose.

For purposes of initially allocating the harvest privilege (whether a license, quota, certification of catch history for cooperatives, etc.), it is necessary to create an "Official Record," derived from licensing and harvest files, as a starting point. The Official Record would contain all relevant current and historic data related to persons perceived to be eligible for the privilege. Depending on the allocation criteria, the record could be assembled to include annual vessel licensing and ownership information, vessel characteristics (LOA, displacement, predominant use, etc.), historic harvest information for identified qualifying years, by vessel or license number or however it may have been recorded, licensing information on all who appear to be eligible for initially issued harvest privilege, and any other information from an official source(s) that may be used to construct a profile of potentially eligible persons.

Once collected, the raw data should be assembled and organized in such a way that the agency can determine who is eligible for the harvest privilege. Once assembled, the Official Record is presumed to be correct. However, that presumption is refutable. Applicants must be given the opportunity to challenge the Official Record. However, those who challenge it have the burden of demonstrating that his/her contrary claims are accurate.

When a timely[9] application is received, the information set out on the application is compared with the information in the Official Record. If the applicant has advanced a contrary claim, and has submitted sufficient evidence to support it, it can be accepted. On the other hand, if an applicant's claims are not sufficiently supported, s/he should be so notified and provided a period of time to provide additional information in support of the claims. If s/he does so, and the information is sufficient to amend the Official Record, then that should occur and the harvest privilege issued. Alternatively, if s/he does not provide sufficient information, then the claims should be formally denied.

The denial should be issued as an Initial Administrative Determination (IAD). This is a formal decision on an applicant's claims that identifies the applicant, the program, and the claim. The IAD contains a background section that summarizes the proceedings to date and then discusses the claim in light of information in the Official Record and the requirements of the regulations. The formal denial is then set out and the applicant is informed of her/his right to appeal.

The Alaska Region has established a separate "Office of Administrative Appeals" to handle all appeals of IADs. Other regions, with a smaller number of administrative determinations may not find that it is cost-effective to establish such an office and, instead, rely on appeals assistance from NOAA General Counsel. Either way, the appeals function should be separate from the regular decision-making chain of command and should be absolutely neutral with respect to considering claims from applicants.

The handling of appeals should be conducted regionally and the standards are relatively straight-forward. The appeals officer (hearing officer) should be given sufficient authority to seek documents, administer oaths, subpoena persons and documents (if permitted) and, generally, have all the powers of most administrative law judges. Upon completion of a full record on appeal, a decision should be written.

Subject to review by the Regional Administrator, advised by General Counsel, a decision should become the Final Agency Action on an applicant's claims 30 days after it is issued. At that point, the agency either approves or denies the claim. At this point an aggrieved applicant's only remedy is an appeal to a U.S. District Court.

The key to the whole process is fairness and objectivity. Every effort should be made to ensure that political intervention will not be rewarded or tolerated. It is improper and unethical for anyone other than the interested parties and their legal representatives to try to influence the outcome of any adjudication. For that reason, it is recommended that

[9] Application deadlines can be useful for bringing the application period to a close, thus allowing implementation to move forward to the next stage; also, if there is a possibility that more than one applicant could apply for the harvest privilege premised on the same activity (e.g., vessel landings during a certain season), an application period serves to identify those conflicts and allows them to be resolved before issuing the benefit. Finally, application deadlines bring certainty and stability to the process, thus furthering the goal of seeking to implement a LAP program in the first place. On the other hand, denying and adjudicating "late" applications can be time consuming and counter-productive, especially if a small amount of quota (or other privilege) is at stake. Managers should decide on a case-by-case basis how to approach this issue.

tribunals of lay persons (e.g., Council committees) not be used to adjudicate claims or to hear appeals. The surest way to invite cries of favoritism and corruption is to allow the process to appear to be politicized.

Although this discussion has focused on the application process, the same general approach should be used whenever a person applies for a benefit accorded by a LAP program. For instance, if an application to transfer (sell or lease) quota is received, and if approving the application would violate the terms of the regulations that govern the program, the same system would be utilized to bring closure to the conflict.

LAP programs are controversial and frequently contentious. Additionally, they have the potential of conferring significant benefits on successful applicants. To be accepted by industry and the public, it is essential that the process by which the benefits are conferred, and contrary claims adjudicated, is honest, fair, clear, and incorruptible.

At the inception of a LAP program, it is necessary to determine who will, and who will not, benefit from the initial allocation of the harvest privilege. Some ("winners") will have the harvest privilege issued to them, while others ("losers") will not. This is true regardless of the method used to distribute the benefit.

There are distinct legal requirements (due process – notice and the right to be heard) that govern the ways in which government benefits are conferred and withdrawn. In one instance, the U.S. Court of Appeals (9th Circuit) ruled that an applicant for a harvest privilege in a LAP program (Alaska halibut and sablefish) had a "property right" in the privilege and that it could not be denied the applicant without full due process of the law. To ensure the legal sufficiency of the procedures implemented, General Counsel should be consulted.

In addition to legal obligations, effective program implementation requires that agency leadership, at both the HQ and Regional levels, stand between political pressure and staff who are implementing the program. If a phone call from a legislator or other external interest results in preferential treatment for one or more LAP applicants or participants, all is lost. The system will rightly be condemned as corrupt. If that happens, the contemptuous attitude of industry will be reflected in behavior on the grounds, to the detriment of regulatory compliance and the resource itself.

The bottom line is that it is necessary to concentrate on these aspects of a LAP program; they are both critical and very complicated. The somewhat elaborate system outlined above pertains directly (and specifically) to LAP programs. Although the basic elements of due process pertain to all government activities that affect citizens, only LAP programs depend on the alignment of certain facts to demonstrate eligibility for a benefit.

The more complex and challenging programs give rise to more (and more complex) determinations and, thus, appeals. The Alaska halibut/sablefish IFQ program is a program with many elements. At inception, an applicant was applying not only for quota, but for certain amounts of quota premised on vessel activities over a 7 year period. Additionally,

an applicant was seeking quota in a particular vessel-length, use category and in a particular area for each of the two species. With over 8,000 applications for quota, the potential number of combinations of factual administrative determinations to be made was staggering. The process did produce 11,600 IADs that gave rise to almost 170 appeals.

In contrast, the eligibility test for the Norton Sound red/blue king crab limited license program was whether, in either or both of a 2-year period an applicant had held a state of Alaska permit to participate, and whether the applicant did, in fact, participate (as demonstrated by a harvest record). There were no appeals of any IADs in that fishery.

Another source of adjudicative complexity is regulatory provisions that provide credit for "special" or "unavoidable" circumstances or hardships. For instance, if a harvesting requirement may be waived upon a showing that an "unavoidable" hardship kept an applicant's vessel from participating, then the adjudication burden increases dramatically. Every such claim, even those apparently frivolous on their face, is inevitably complex and must be handled with considerable care. And because appropriate determinations depend almost always on the facts of a particular situation, formal hearings by trained appeals officers are frequently the only way to resolve them.

6. *A Final Note on Program Complexity*.

From the above discussion it can be seen that implementing and operating a LAP program can be quite complex. Further, administration costs will vary directly with program complexity. What is important is that in many cases, Councils can have a very significant effect on implementation and operation complexity by the nature of the program they design. LAP FMPs that address simple and one-dimensional problems with simple one-dimensional programs are less expensive and complex to implement. But most problems in fisheries are not simple and one-dimensional; rather, they are complex, involve several industry sectors, require thoughtful balancing of a variety of interests, and almost inevitably lead to more complex programs. While Councils should design programs to meet fishery management objectives, it is prudent to balance the relative expense of implementing a complex system against the benefits achieved, especially if there are other ways to achieve the same benefits.

Put another way, simplicity of design should not be a goal in and of itself; rather, in some rare cases, it can be viewed as a gift. Councils should focus on designing the programs they need to address the myriad complexities and pressures they face. Sacrificing program effectiveness for simplicity could be a mistake and could well lead to additional complexities in the future, as steps are taken to "retro-fit" program amendments. On the other hand adding more and more complexities to address every perceived nuance can impose costs that may not be commensurate with the real gains.

Appendix 1. Spotlights on Current Limited Access Privilege Programs

LAP Spotlight #1: Alaska Individual Fishing Quota Halibut and Sablefish Program

http://www.fakr.noaa.gov/ram/ifqreports.htm

Vital Stats

First year:	1995.
Type of LAP:	IFQ and also a CDQ for halibut and sablefish.
Management units:	Multiple area and vessel categories for sablefish and halibut.
Vessels / Gear types:	Longline catcher and freezer/processor vessels. Also pots for sablefish.

Available Trend Data

Season length:	Less than a week pre-IFQ to more than 8 months recently.
Ex-vessel value:	1994 ~ $150M; 2005 ~ $236M.
Consolidation:	1994-2005: 33% and 17% reduction in individual halibut and sablefish permit holders, respectively.
Stock status:	1998 and 2005 exploitable biomass estimates within 4%. Currently - Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	U.S. citizens (individuals and non-individuals) who were given initial quota share; for catcher vessel quota share, U.S. Citizens (individuals) who can document 150+ days experience harvesting fish in any U.S. fishery; and for freezer boat quota shares any entity defined as a U.S. citizen for purposes of the IFQ Program (in 50 CFR part 679). Eligible community quota entities also may purchase IFQ.
Duration:	Open ended. Council can end the program through the normal Council process.
Transferability:	Quota share is transferable subject to eligibility and accumulation limits designed to maintain the character of the fishery. Leasing is very restricted.
Accumulation:	Unless grandfathered based on original landings history, no one can hold or control more than 0.5%-1.5% of the halibut or sablefish shares in various combinations of areas (Gulf of Alaska, Bering Sea, and Aleutians). There are similar restrictions on the amounts that can be used on any single vessel.
Initial Allocation:	Quota issued to owners or leaseholders of vessels that had landings at any time in 1988-1990. Best five years of catches from 1985-1990 for sablefish and 1984-1990 for halibut were used to calculate quota shares.

Management

Identified Costs:	In 2005, ~$1.3 million for administration and ~$2.4 million for enforcement with 75% paid for with cost recovery.
Cost recovery:	Cost recovery fee was 1.6% of the ex-vessel value of the fishery in 2005, of which 25% of collected fees are reserved for loan programs (programs reimbursed with the other 75%). Other years: 1.3% (2004); 1.4% (2003); 2% (2002); 2% (2001); 1.8% (2000).
Monitoring:	Each landing is reported electronically in real time by Registered Buyers (RBs). During 2002, NMFS conducted 295 dockside boardings (18% of vessels). The Coast Guard conducted 181 at-sea boardings, monitored 102

IFQ offloads, and spent more than 2,100 person-hours on after-hours surveillance. These activities resulted in the detection of 26 fisheries violations, mostly related to log books, permits not on board, and exceeding bycatch limits greater than 10 percent.

Special Insights:

- CDQ implemented to address affected western Alaskan communities.
- Anecdotal reports of lost jobs due to consolidation.
- Switch from need for crews for a brief season to need for near year-long crews.
- Processors affected by lack of need for brief, high volume processing and ability of boats to travel further given lack of time pressure in IFQ fishery.

LAP Spotlight #2: Western Alaska Community Development Quota (CDQ) Program

http://www.fakr.noaa.gov/cdq/default.htm
http://www.fakr.noaa.gov/ram/ifqcdq.htm

Vital Stats

First year:	1992.
Type of LAP:	CDQs for Groundfish, Halibut, Crab, and Prohibited Species.
Management units:	Six non-profit corporations (CDQ entities or CDQ groups) that represent 65 eligible communities.
Vessels / Gear types:	All vessel types and sizes ranging from small catcher vessels to large catcher/processors and motherships, many gear types.

Available Trend Data

Season length:	Varies by species.
Ex-vessel value:	2005 ~ $65M
Consolidation:	NA
Stock status:	Varies by stock.

Nature of Harvest Privilege

Eligibility:	The Western Alaska Community Development Quota (CDQ) Program allocates a percentage of all Bering Sea and Aleutian Islands quotas for groundfish, prohibited species, halibut, and crab to eligible communities. The purpose of the CDQ Program is to provide eligible western Alaska villages with the opportunity to participate and invest in fisheries in the Bering Sea and Aleutian Islands Management Area; to support economic development in western Alaska; to alleviate poverty and provide economic and social benefits for residents of western Alaska; and to achieve sustainable and diversified local economies in western Alaska.
Duration:	Indefinite. CDQ allocations are required by section 305(i)(1) of the Magnuson-Stevens Act.
Transferability:	CDQ allocations may be transferred among CDQ groups, but not outside the program.
Accumulation:	NA
Initial Allocation:	Allocations among the CDQ groups are established under section 305(i)(1)(C) of the Magnuson-Stevens Act with a limited opportunity for adjustments through the decennial review and allocation adjustment process.

Management

Identified Costs:	2007 estimated costs are $0.664M.
Cost recovery:	Cost recovery for crab CDQ is done through the crab rationalization program. The Magnuson-Stevens Act authorizes cost recovery for the other CDQ allocations, but regulations requiring cost recovery in these CDQ fisheries have not yet been implemented. Statute allows the CDQ groups to deduct from cost recovery fees any costs for observer or reporting requirements that are in addition to costs incurred by participants in non-CDQ fisheries.
Monitoring:	Halibut CDQ is managed under the IFQ Program. Crab CDQ is managed by the State of Alaska. Each CDQ landing is reported electronically, in real time,

Reports of catch of groundfish and prohibited species are received daily through electronic reports from observers and weekly from the CDQ group managers.

Special Insights: Amendments to the Magnuson-Stevens Act in the Coast Guard Act (2006) and the Magnuson-Act Reauthorization (2007) significantly revised CDQ Program requirements. These amendments addressed all aspects of management and oversight of the CDQ Program, including the purpose of the program allocations to the program, allocations among the CDQ groups, management of the CDQ fisheries, eligible communities, eligibility criteria for participation in the program, limits on allowable investments, the creation of a CDQ administrative panel made up of representatives from the CDQ groups, compliance with State of Alaska reporting requirements, a decennial review and allocation adjustment process, and removal of NMFS authority to require approval of community development plans and prior approval of investments and expenditures.

LAP Spotlight #3: Bering Sea & Aleutian Islands (BSAI) Pollock Cooperatives
http://www.fakr.noaa.gov/sustainablefisheries/afa/afa_sf.htm

Vital Stats

First year:	1998.
Type of LAP:	Cooperatives.
Management units:	Bering Sea & Aleutian Islands pollock.
Vessels / Gear types:	Vessel types: Catcher/Processor (CP), Catcher (CV), Motherships Gear types: Pelagic Trawl

Available Trend Data

Season length:	A-season (January 20-June 10) and B-season (June 10-November 1) Fishery stops in each season when the quotas have been reached.
Ex-vessel value:	$392.7 million (2005)
Consolidation:	In 1998 there were 100 cvs and 38 cps. In 2005 these numbers were reduced to 90 cvs and 38 cps.
Stock status:	Currently - Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	Must be able to document qualified vessel under MARAD regulations.
Duration:	The program is indefinite. The Council has limited authority to make changes, but measures specified by the statute are not subject to Council change.
Transferability:	Long-term privileges transfer with vessel; annual allocations transferable within the sector (inshore, offshore, mothership) subject to limitations.
Accumulation:	The Council adopted a 30 percent excessive processing share limit for BSAI pollock that would be applied using the same 10 percent entity rules set out in the AFA to define AFA entities for the purpose of the 17.5 percent excessive harvesting share limit contained in the AFA.
Initial Allocation:	Allocation among sectors: 50% inshore, 40% offshore (catcher processors, and 10% motherships. Vessels and processors qualified by meeting activity thresholds in 1996, 1997, or 1998 except for some vessels named in statute.

Management

Operation:	Cooperatives include shoreside processors and motherships. Catcher vessel cooperative eligibility based on previous year's landings with processor. Shoreside cooperatives required to deliver to member processor. Vessels choosing not to join a cooperative could operate in the limited access fishery.
Identified Costs:	2007 estimated costs are $0.216M w/o cost recovery.
Cost recovery:	None.
Monitoring:	A catch accounting system including real-time electronic reporting and observer reporting components is used to monitor allocations.

LAP Spotlight #4: Bering Sea & Aleutian Islands (BSAI)
Crab (King & Tanner) Rationalization Program
http://www.fakr.noaa.gov/sustainablefisheries/crab/crfaq.htm

Vital Stats

First year:	2005.
Type of LAP:	Quota Share (QS) & IFQ; Harvester Cooperatives; Processor Quota Share (PQS) & IPQ; CDQ
Management units:	BSAI King & Tanner Crabs
Vessels / Gear types:	Catcher vessels and catcher processors.

Available Trend Data

Season length:	Bristol Bay Red King Crab (BBR) Days: 2004: 3; 2005-6: 44 Bering Sea Snow Crab (*C. opilio*) (BSS) Days: 2005: 5; 2005-6: 179
Ex-vessel value:	$125M (2004)
Consolidation:	Between year before Program and first fishing year, vessel registration declined by two-thirds for the BBR fishery and by one-half for the BSS fishery, (about 15% of the decline for the BBR fishery from vessel buybacks). BBR: 2004 – 251 vessels participated; 2005 – 89 vessels participated. BSS: 2005 - 167 vessels participated; 2005-2006 – 78 vessels participated.
Stock status:	Eight stocks under Program; Overfishing: NO; Overfished: 1 stock: Pribilof Islands blue king crab

Nature of Harvest and Processor Privileges

Initial Eligibility:	QS: Qualifying License Limitation Program license holders and qualifying crew members; QS issued to U.S. citizens/companies only. PQS: Any entity that met the qualifying criteria for participation.
Duration:	Open ended. Council can amend the program through the Council process.
Transferability:	QS, IFQ, PQS and IPQ transfers allowed with a variety of restrictions depending on type to shares to be transferred.
Accumulation:	Variety of caps on QS, IFQ PQS, and IPQ.
Initial Allocation:	QS: Historical landings. PQS: Historic processing activity.
Special Features:	Harvest IFQ allocations are split with 90 percent Class A IFQ and 10 percent Class B IFQ; Class A IFQ must be delivered to a processor holding IPQ; Class B IFQ deliverable to any processor. Arbitration for resolving price disputes concerning Class A IFQ deliveries. Class A IFQ also subject to regional landing requirements to maintain processing activity in remote communities. Three percent of the QS allocated to crew members.

Management

Identified Costs:	2007 estimated management costs are $1.071M. Enforcement costs for 2005/06 fishing year were $398k by NOAA and $500k by the State of AK.
Cost recovery:	For crab only - NMFS can collect fees for up to 133% of the actual management, data collecting, and enforcement costs, so that after the 25% for loan programs is deducted, 100% would remain for reimbursement of program costs. However, the total fees collected are

	constrained by the MSA limit that fees cannot exceed three percent of the ex-vessel value of crab harvested under the Program (MSA § 304(d)(2)(B). For 2006-2007, actual costs were over 4 percent of the ex-vessel value of the Program fisheries, so fees were capped at 3 %.
Monitoring:	Very detailed monitoring required. VMS required on vessels. Only a Registered Crab Receiver (RCR) is able to take deliveries. An RCR has to ensure that all crab are weighed on a scale that meets NMFS specifications and that all shoreline offloading of crab is conducted in accordance with a Catch Monitoring Plan that the RCR has prepared and had approved by NMFS. RCRs submit real-time electronic landing reports through the new e-Landings system. NMFS collects effort, operating revenue, and cost data for all parties to determine the economic effects of the Program. Vessels must comply with State of Alaska observer requirements.

LAP Spotlight #5: Pacific Whiting Conservation Cooperative
http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/Whiting-Management/index.cfm
pacificwhiting.org

Vital Stats

First year:	1997
Type of LAP:	A cooperative, but not technically a LAP program as defined by the M-S Act.
Management units:	In pacific whiting management, there are 3 non-tribal sectors: catcher/processor (CP) sector, mothership sector, and shoreside sector. Each sector receives a portion of the non-tribal commercial optimum yield (OY). The CP sector receives 34% of the annual OY. In 1997, the four companies participating in the sector formed a cooperative.
Vessels / Gear types:	The CP sector is comprised of large (250 -400 feet) vessels.

Available Trend Data

Season length:	In 1996, the CP sector fished for approximately 20 days. In 2002, the sector fished for 165 days.
Ex-vessel value:	$10 M annual additional revenue ($2-4 M profits) for member companies derived as a direct benefit of the cooperative. This is related to the percent of edible product from total harvest increasing significantly after the first year of cooperative fishing (pers. comm. Gil Sylvia, 2006). CPs are not required to complete a landing receipt, which are, thus, not available to calculate a traditional ex-vessel value.
Consolidation:	Since 1997, only 6-7 of the 10 eligible CPs participated in the fishery per year. This occurs because companies with multiple qualified CPs choose to operate fewer vessels because of the efficiencies gained via the cooperative.
Stock status:	Currently - Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	Based on mutual consent of the cooperative members, eligible participants hold a limited entry permit with the appropriate vessel length endorsement and agree to abide by the cooperative's membership agreement. Currently there are 4 firms with 10 eligible catcher-processor vessels.
Duration:	Open ended. The Council can change the sector allocations, which could cause dissolution of the cooperative. Changing the non-tribal whiting allocation would require a FMP amendment.
Transferability:	Transferable within cooperative. Leasing occurs.
Accumulation:	The Justice Department specifically approved this cooperative and a certain amount of accumulation could raise anti-trust issues.
Initial Allocation:	NMFS/Council determined allocation to sector, firms negotiated relative shares.

Management

Identified Costs:	Management costs for the sector may have declined because industry has taken responsibility for funding real-time reporting.
Cost recovery:	PWCC members voluntarily assess themselves a tonnage fee that is used to fund co-op administrative costs, scientific research (stock assessment and bycatch avoidance) and public education.

Monitoring:	Full time observer coverage. There is a scientific data collection program and in addition 100% of all harvests are monitored independently by NMFS-certified observers. Total catch and detailed species composition are reported on a daily basis to the observer program and to a private reporting service. Individual vessel reports are shared to inform bycatch avoidance measures and improve fishing efficiency.

LAP Spotlight #6: Pacific Sablefish Permit Stacking Program

Vital Stats

First year:	2001
Type of LAP:	Permit Stacking. Fixed gear limited entry permits convey the privilege of harvesting all groundfish species. Certain permits also carry a sablefish endorsement. Limited entry permit holders with sablefish endorsements are eligible to participate in the primary sablefish fishery. Each sablefish-endorsed limited entry permit is assigned to one of three tiers, which determine the amount of sablefish that may be harvested with each permit in a particular year's primary sablefish fishery. Under the permit stacking program, a vessel owner may register up to three limited entry fixed gear, sablefish-endorsed permits for use with their vessel to harvest each of the primary season sablefish cumulative limit tier assignments associated with the stacked permits. There are three levels of tier assignments which vary annually based on the OY. For example, for 2007, the Tier 1 endorsement is 48,500 lbs, Tier II is 22,000 lbs, and Tier III is 12,500 lbs.
Management Units:	The Pacific Coast Groundfish Fishery Management Plan's limited entry fixed gear, primary sablefish fishery off Washington, Oregon, and California.
Vessels /Gear Types	Fixed Gear (Longline and/or Pot)

Available Trend Data

Season Length	Was 9-10 days before stacking program, Apr.1-Oct 31 currently.
Ex-vessel Value:	2000 (CA,OR,WA): ~$21M; 2004 (CA,OR,WA):~17M.
Consolidation:	There continues to be 164 sablefish endorsed permits. Prior to 2001, most vessels fished one sablefish endorsed permit during the primary season. Since the implementation of the stacking program, 60 to 80 vessels participate in the fishery, typically stacking two or three sablefish-endorsed permits during primary season.
Stock Status	Currently – Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	Prohibition on ownership of permits by partnerships or corporations (unless grandfathered); an owner-on-board requirement; and a prohibition on at-sea processing of sablefish.
Duration:	Open ended. Council can end the program through the normal process.
Transferability:	A sablefish-endorsed permit and the remaining harvest level of the sablefish associated with the tier may be transferred to another eligible individual or entity and/or registered to another vessel. Permits may not be registered to another vessel more than once per calendar year. Neither the sablefish endorsement nor the associated cumulative limit may be transferred separately from the permit.
Accumulation:	No vessel may stack (register) more than three sablefish-endorsed permits during the sablefish primary season. No individual or entity may own or hold (lease or otherwise obtain) more than three permits

unless that individual or entity owned more than three permits as of 11/1/00**.**

Initial allocation: Based on historical harvest associated with the limited entry permit.

Management

Identified Costs: 2007 estimated costs are $0.160M without cost recovery. Region has not itemized costs for this fishery but will be for future implementation of a cost recovery program.

Cost Recovery: Currently being developed.

Monitoring: This program is monitored as part of the West Coast Groundfish Observer Program administered by NMFS, Northwest Fisheries Science Center, and by the three state fish ticket and port sampling programs.

LAP Spotlight #7: Gulf of Mexico Red Snapper
http://sero.nmfs.noaa.gov/pubann/pa06/pdfs/FB06-038.pdf,
http://sero.nmfs.noaa.gov/sf/RedSnapper/RedSnapperDocs.htm

Vital Stats

First year:	2007.
Type of LAP:	IFQ.
Management units:	Gulf Red Snapper.
Vessels / Gear types:	Bottom longlines, handlines, and bottom trawls

Available Trend Data

Season length:	Fishing year will be from January 1 through December 31.
Ex-vessel value:	$10M (2004).
Consolidation:	This will be dependent on the ownership cap established in the Final Rule (2% cap = 50 possible owners; 5% cap = 20 possible owners; 10% = 10 possible owners; 7% cap = 12 possible owners). (Class 1 only).
Stock status:	Overfishing: YES; Overfished: YES

Nature of Harvest Privilege

Eligibility:	Initial eligibility would be restricted to persons who own a Class 1 or Class 2 red snapper license. Permanent resident aliens who currently own a Class 1 or Class 2 license would be included in the initial allocation subject to any other qualifications included in this IFQ program.
Duration:	There is no limit to the duration of the IFQ program. However, a program evaluation will occur every 5 years. Council can take action to end the program through the normal Council process.
Transferability:	IFQ shares/allocations can be transferred only to individuals/vessels with a valid commercial reef fish permit during the first 5 years of the IFQ program, and U.S. citizens and permanent resident aliens thereafter. Eligible individuals must be U.S. citizens or permanent resident aliens.
Accumulation:	For any single fishing year, no person shall own IFQ shares that represent a percentage of the total, which exceeds the maximum percentage, issued to a recipient at the time of the initial apportionment of IFQ shares.
Initial Allocation:	Initial IFQ shares would be allocated proportionately among eligible participants based on the average annual landings associated with their current red snapper license(s). These data are available for the years 1990-2004 for some Class 1 license holders, 1998-2004 for Class 1 historical captains, and 1998-2004 for Class 2 license holders (see Action 5 in Amendment 26 for details).

Management

Identified Costs:	2007 estimated costs are $0.856M w/o cost recovery, and $0.014M with cost recovery.
Cost recovery:	The fees are calculated at the time of sale to the registered IFQ dealer/processor. The IFQ dealer/processor is responsible for submitting such fees to NMFS. The collected fees are submitted quarterly. The cost recovery fee (3-percent) is based on the actual ex-vessel value of the red snapper landings.
Monitoring:	New electronic reporting and monitoring system.

LAP Spotlight #8: Wreckfish
http://www.safmc.net/Portals/6/Library/FMP/SnapGroup/SnapGroupAmend5.pdf

Vital Stats

First year:	1992.
Type of LAP:	ITQ
Management units:	Wreckfish (Atlantic offshore fishery)
Vessels / Gear types:	44-76 foot vessels with hydraulic reels fishing multiple circle hooks.

Available Trend Data

Season length:	NA
Ex-vessel value:	NA
Consolidation:	Boats left this fishery because of lower grouper prices. Wreckfish was a substitute product for grouper. In addition there were frequent closures for spawning and because of quota limitation which disrupted market channels and lowered the price. 2003 had 2 boats with landings.
Stock status:	Currently - Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	5000+ pounds total dressed catch 1987 through 1990 and documented landings 1989-1990.
Duration:	Open ended. Council can end the program through the normal Council process.
Transferability:	Quota shares are transferable. Yearly allocations are transferable to other share holders.
Accumulation:	10% initial cap, no cap thereafter.
Initial Allocation:	Half of shares divided equally among eligible participants, half divided according to1987-1990 catches.

Management

Identified Costs:	2007 estimated costs are $0.016M w/o cost recovery.
Cost recovery:	None.
Monitoring:	Dual entry system with coupons issued by NOAA Fisheries. Boats must have coupons for catch on board, fish houses must have dated coupons for fish in house.

LAP Spotlight #9: Surf Clam and Ocean Quahog ITQ
http://www.mafmc.org/mid-atlantic/fmp/history/scoq.htm
http://www.nero.noaa.gov/sfd/clams/

Vital Stats

First year:	1990.
Type of LAP:	ITQ.
Management units:	Surf Clams, Ocean Quahogs, and Maine Ocean Quahogs.
Vessels / Gear types:	Mostly larger vessels with hydraulic clam dredges - landings in standard cages with cage tags. Maine fishery is smaller-scale.

Available Trend Data

Season length:	Six hours every other week pre-IFQ, to full year currently.
Ex-vessel value:	1990: ~$44M; 2004: $59.2M.
Consolidation:	From 1988 to 1994 the number of firms in the fishery declined 50% in the surf clam fishery and 29% in the ocean quahog fishery. From 1990 to 1997, numbers of active vessels declined by 74% in the surf clam fishery and 40% in the ocean quahog fishery.
Stock status:	Overfishing: NO; Overfished: NO

Nature of Harvest Privilege

Eligibility:	No foreign ownership but otherwise anyone can buy and fish quota.
Duration:	Open ended. Council can end the program through the normal Council process.
Transferability:	Fully tradable and there has been an active market.
Accumulation:	None.
Initial Allocation:	Initial ITQ shares of the fishery quota were issued to vessel owners based on a formula of historical catches (80%) and vessel size (20%).

Management

Identified Costs:	$274.000.
Cost recovery:	None.
Monitoring:	Cage-tagging requirement and mandatory reporting to NMFS by vessel owners and dealers of clams landed and purchased. Allocation permit numbers must be reported on both vessel logbook reports and dealer-processor reports. Dealers and processors must have annual permits. Enforcement relies heavily on shoreside surveillance, the cage tag system, and cross-checking logbooks between vessels and processors. At-sea and air surveillance is conducted to reduce the possibility that vessels with state permits or cage tags may stray into federal waters.

LAP Spotlight #10: Georges Bank Cod Hook Sector

http://www.nero.noaa.gov/nero/regs/frdoc/06mulhook.pdf

http://www.ccchfa.org/pages/4/25/

Vital Stats

First year:	2004.
Type of LAP:	Sector Allocation.
Management units:	The Georges Bank Hook Sector, fishing in the Georges Bank Cod Hook Sector Area, an area that represents only a portion of the overall Georges Bank Regulated Mesh Area. Sector has been allocated 10-13% of the total Georges Bank cod Target TAC. Most vessels participate in other fisheries.
Vessels / Gear types:	In 2004, 58 vessels between 23 and 42 feet. Vessels use benthic longline (tub trawl), jigging, or handlining (non-automated).

Available Trend Data

Season length:	8.33% of the Sector's cod quota is allocated to each month of the fishing year. Quota that is not landed during a month is rolled over into the next month. Once the aggregate monthly quota is reached, no participating vessel will be authorized to use fishing gear capable of catching species managed under the Plan.
Ex-vessel value:	$110M (entire groundfish fishery, 2003 data); Sector allocation is ~ 11.5% of the Georges Bank cod TAC but only 35% of Sector TAC caught in 2004/2005
Consolidation:	When/if cod recover and the hook sector can catch its TAC, it will have to deal with the issue of its overcapitalization. With the 2004/2005 TAC there are only about 1200 pounds of cod quota per boat per month
Stock status:	Overfishing: YES; Overfished: YES. However, in FY 2004/05 the Hook Sector was allocated 371 metric tons and only landed approximately 130 metric tons (286,190.0 pounds) of Georges Bank cod.

Nature of Harvest Privilege

Eligibility:	To qualify for membership in the Sector, each member must possess a limited access permit with Days at Sea (DAS) and must qualify with landings of Georges Bank cod. Members sign a legally binding contract that commits their vessel and permit to the Sector Agreement for the fishing year.
Duration:	Open ended. Annual Operations Plan must be approved by NMFS after consultation with Council. Council can take action to end the program through the normal Council process. NMFS can withdraw approval of a Sector after consultation with the Council.
Transferability:	Participating vessels and/or permits may transfer or lease DAS to other Participating vessels and/or permits, provided that the Manager has given its prior written consent to such transfer or lease.
Accumulation:	A vessel may not lease in more DAS than its 2001 DAS allocation. Permanent consolidation of DAS can occur through the DAS Transfer Program.
Initial Allocation:	Sector allocation set annually.

Management

Identified Costs:	NMFS has estimated annual implementation and monitoring to be $13,000.
Cost recovery:	The Hook Sector assesses per pound fees to pay for administration costs.
Monitoring:	Members must call or email sector manager prior to sailing. Required to turn in dealer and Vessel Trip Reports within 48 hours. About 40% has VMS.

Appendix 2. Excessive Share Details.

Economic Foundation for the Basic Principle

While the actual determination of an excessive share rate involves more than economics, a conceptualization of the economic issues can serve as a useful framework for policy formulation when applying the basic principle and for a discussion of the types and details of analysis that would ideally be necessary. The essence of the framework can be summarized in the hypothetical example presented in Figure A2.1. The choice of the share limit, s, is important because it can affect the net value of goods and services produced in the economy. Depending on the market conditions of the particular situation, the choice of s will allow for, or cause, economic inefficiencies. The dollar amount of efficiency losses will vary with the level of s as shown in Figure A2.1.

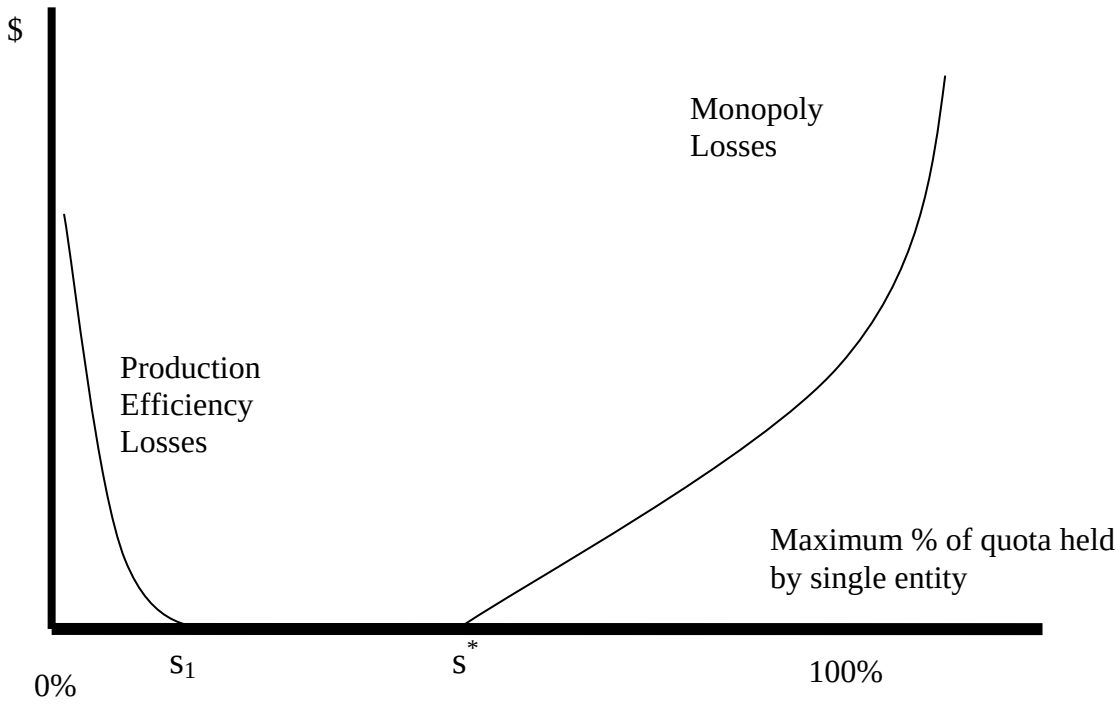

Figure A2.1 Excessive shares framework

At higher levels of s, there is the potential for efficiency losses due to monopoly pricing. Whether such losses will occur will depend upon the given set of market conditions and the TAC level. In some cases there will be no potential for monopoly losses even if s equals 1. If such losses will exist when s equals 1, (as is the case in the hypothetical situation depicted in the figure) then they will monotonically decrease as s is decreased. For purposes of this discussion, s^* has been defined as the highest share rate which will

prevent any monopoly losses. In terms of Figure A2.1, s^* is the market power excessive share limit. While it would be very difficult to estimate how monopoly losses will vary with s, when there is adequate economic information, it is relatively easy to obtain an estimate of s^*, the share rate when the monopoly losses fall to zero, which is all that is necessary for policy purposes.

On the other hand, at lower levels of s, there will be the potential for a different type of efficiency loss. If the output level of firms is constrained by the choice of the s rate, the cost of producing the TAC may be higher than necessary and, further, incentives to develop more efficient vessels and higher quality products may be blunted. The size of these losses will depend upon the number and types of vessels in the fleet and the potential technological and market innovations. In the hypothetical case here, s_1 is the share level when production constraints will start to affect at least one vessel. As s is reduced below s_1, more vessels will be affected and the constraints will cause higher costs and so the sum of efficiency losses will increase.[10]

While the concept of output constraints imposing inefficiencies is straightforward, it will be a very difficult task to measure them in actual LAP programs. This would be true even if fleet size and technology remained constant. However, as permanent quota shares and annual harvest privileges (AHP) are traded, and especially if the LAP program replaces a TAC or other regime which affect vessel operation, there will be incentives for fleet size and technology to change. It would be difficult to measure the efficiency losses for the existing fleet, but it will be that much more difficult to predict how the fleet will change and then estimate how the s rate will affect efficiency. However, for policy purposes, it is the production inefficiencies that may occur with the hard to predict changes that will be important.

Ignoring the measurement difficulties for the moment, assume that the curves in Figure A2.1 show how inefficiency losses will vary with s. As far as economic efficiency is concerned the s rate should be no higher than s^*. That will correct for any possible monopoly losses. At the same time any rate between s_1 and s^*, will have exactly the same effect. All of them will correct for potential monopoly losses and yet none of them will cause any production efficiency losses.

Therefore if a Council desires to achieve a management objective by reducing the share rate, there will be no economic concern as long as the chosen rate is higher than s_1. However, if a lower share rate is chosen, there will be efficiency losses. Conceptually if the share rate is to be less than s_1, the gains from achieving the management objective, although they will be measured in a different metric, should be greater than the efficiency losses.

[10] It is assumed, as will likely be the case, that the two curves do not cross. If they did, which would be the case if s^* is so small that curing for monopoly would lead to other economic inefficiencies, then the critical cost point would be at the s where the sum of the two curves is a minimum.

Details on Market Power Analysis

The fundamental policy question is: What is the maximum percentage of the TAC that can be given to a single entity before there will be incentives to withhold production. Using basic microeconomic principles, it is possible to derive a formula for determining what that percentage should be for any given market situation. The calculated value of s^* will prevent undue market power in both the market for fish and the market for shares.

If we let the market demand and supply curves of fish be represented as:

$$P_D = P_D(Q) \quad \text{Demand}$$
$$P_S = P_S(Q) \quad \text{Supply}$$

where Q is the level of market output, the required formula is:

$$s^* = -[1-\{P_S(TAC))/P_D(TAC)\}]/[1/e_D-\{P_S(TAC)/ P_D(TAC)\}/e_S] \qquad (1)$$

The terms e_D and e_S, represent the elasticity of demand and supply, respectively. They and P_D and P_S must be evaluated where Q equals the TAC in the LAP fishery.[11]

Since e_D is negative, s^* will be positive. As the difference between the demand and the supply price increases, s^* will increase. Likewise as e_D and e_S get larger, s^* will increase. The calculated value can be greater than 1, which means that given the parameters values, the marginal revenue (MR) and marginal cost (MC) curves for 100 percent of the AHP intersect at an output lower than the TAC.

Looking at the two extreme cases can make interpretation somewhat simpler. If the demand curve is horizontal so e_D is equal to infinity, the equation reduces to:

$$s^* = -[P_D/P_S(TAC) - 1]e_S \qquad (2)$$

If the supply curve is horizontal so the P_S equals the constant MC of production, the elasticity of supply is infinite and the s* equation becomes:

$$s^* = -[1-MC/P_D(TAC)]e_D \qquad (3)$$

In the above expression, s^* is proportional to the elasticity of demand and the ratio of proportionality will always be less than one. The higher the elasticity of demand and the lower MC is relative to price, the higher will be the value of s^* and the less concern there will be for possible monopoly actions.

[11] The values for P_D and P_S will be different because the price of AHP drives a wedge between the demand and the supply curve where Q equals the TAC.

Practical Applications

While the general formulation of the s^* equation is rather complex, its value can be calculated using three parameters: the elasticities of demand and supply and the ratio of P_S to P_D, all evaluated at the TAC level of output. Nonetheless, it may be difficult to obtain estimates of these parameters for practical policy analysis. The problem is made even more difficult because while the decision of an excessive share value will likely be made before a LAP program is implemented, the introduction of the program will likely change demand and supply conditions through changes in product quality and harvesting and processing technology.

To be more explicit, the market parameters used to calculate s^* must be the ones that will apply in the working LAP fishery which, for reasons discussed below, will often, after a transition period, be different than the ones that apply in the *status quo* market. Since staff will only have (incomplete) *status quo* data, the calculated value of s^* must be interpreted with care. A related point is that the analysis of the possible inefficiency costs that will be imposed by setting a MO limit less than the MP limit to obtain a management objective, should also consider the cost structure that could potentially occur under the unfettered operation of the LAP program.

But perhaps the potential inability to obtain accurate estimates of the necessary parameters may not always pose a problem. Consider Table A2.2 which shows the value of s^* for a range of P_S/P_D and elasticities of supply when the elasticity of demand is equal to -2. Except for the top left hand corner of the table, the values are quite large even for this moderate value for the elasticity of demand. As the fixed value for the elasticity of demand is increased, this becomes more pronounced. See Table A2.3 where the elasticity of demand is set at –10. In the lower right hand part of the tables, the s* values are listed as being equal to 1, because the calculated value is greater than 1. This means that no share limit is required to prevent output reduction.

And while the elasticity of demand for a particular fishery is an empirical question, it is safe to assume that it will generally be elastic. There are many substitutes for most fish products, including other types of fish and sources of protein from other animals. Further, it should be remembered that the demand curve under consideration is the one facing the producers in the particular fishery under LAP management. That is, there may be a LAP program for “green fish” in one region but there may be other sources of the exact same fish from other regions. One could assume that the demand curve facing the producers in the LAP fishery would be quite elastic, perhaps even perfectly elastic.

Note that while the left hand column is the ratio of supply price (MC) to demand price, for practical purposes the demand price at the TAC level of output will likely be known. The important issue is the MC. Note that that the excessive share limit increases with MC. The reasoning is as follows. The benefits from withholding production are the higher

prices for the remaining output and the cost savings from the reduction in output. Therefore, all else equal, firms with higher costs will have higher benefits from restricting output and will require tighter excessive share limits.

Ps/Pd			e_D = -2								
0.9	0.06	0.07	0.07	0.09	0.11	0.12	0.13	0.13	0.14	0.14	0.15
0.8	0.13	0.14	0.15	0.19	0.22	0.24	0.26	0.27	0.29	0.30	0.30
0.7	0.21	0.23	0.25	0.31	0.35	0.38	0.41	0.43	0.44	0.46	0.47
0.6	0.31	0.34	0.36	0.44	0.50	0.54	0.57	0.60	0.62	0.63	0.65
0.5	0.43	0.47	0.50	0.60	0.67	0.71	0.75	0.78	0.80	0.82	0.83
0.4	0.58	0.64	0.67	0.78	0.86	0.91	0.95	0.98	1.00	1.00	1.00
0.3	0.78	0.84	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
e_S	0.75	0.90	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00

Table A2.1. Comparative Values of s^* When the Elasticity of Demand is –2.

Again, while the ratio of MC to price in any LAP fishery is an empirical question, there are reasons to believe it will be not be excessively high and perhaps that it might be quite low. To make a long story short, it depends upon the vertical difference between the post LAP demand curve and the long-run efficient supply curve at the TAC level of output. The larger that difference, the lower the MC/P ratio.

Ps/Pd			e_D = -10								
0.9	0.08	0.09	0.10	0.14	0.18	0.22	0.25	0.28	0.31	0.33	0.36
0.8	0.17	0.20	0.22	0.32	0.40	0.48	0.55	0.61	0.67	0.72	0.77
0.7	0.29	0.34	0.38	0.53	0.67	0.79	0.90	1.00	1.00	1.00	1.00
0.6	0.44	0.52	0.57	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.5	0.65	0.76	0.83	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.4	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0.1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
e_S	0.75	0.90	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00

Table A2.2. Comparative Values of s^* When the Elasticity of Demand is –10.

From a casual perusal of the two tables and the understanding that the elasticity of demand will *tend* to be high and the MC/P ratio will *tend* to be low, it does not appear that monopoly restrictions of output will be very likely in LAP fisheries. It is an indication that the concern over monopolistic excessive share is ill founded. Put another way, the excessive share limits that have been set in real world fisheries (20 percent in New

Zealand and less than one percent in the Alaska Halibut fishery) will likely prevent any monopoly problems whatever the reason for their implementation.

The above analysis suggests that in the absence of the required parameters, a useful approach to determining a s^* for a real world fishery would be to come up with the best estimate of the elasticity of demand and use it to construct a table similar to those in the text. Unless there is reason to believe that the parameters that apply to this fishery are in the range where the s^* value is less than 1, there is no need to set a monopoly excessive share limit. In the opposite case, try to come up with the best rough estimate of the other two parameters and set the s^* accordingly using a conservative approach.

Finally, it should be stressed that even if all of the values in the table equal 1, it does not follow that no excessive share limits are necessary. The analysis here has focused solely on monopoly power excessive share limits. Share limits which address fishery management objective or equity concerns have not been considered.

As a final note, it was stated above that to properly calculate the value of s^* for a particular fishery, it would be necessary to use market parameters that would exist in the fully operational LAP fishery. However, since the incentives in the LAP market will tend to reduce costs and increase price (i.e., reduce the MC/P ratio), all else equal using the *status quo* estimates of MC and P will result in a MP limit that is more restrictive than necessary, which will provide something of a safety margin.

Appendix 3. Types and Uses of Auctions

1. Single-round sealed-bid auction

In a sealed-bid auction participants simultaneously submit bids for desired quantities of fishing privileges along with the per-unit prices they are willing to pay. This auction uses only one round of bidding to allocate all the auctioned privileges. Participants each submit one or multiple bids that reflect their value of holding specific quantities of fishing privileges. For example, a bidder might be willing to pay $100 per unit for the first 100 units, but only $75 per unit for the next 100 units, and could submit a two-part bid to reflect these preferences. The auction authority collects the bids and orders them from highest to lowest price to form an aggregate demand schedule. The point at which the aggregate demand schedule equals the available supply of fishing privileges determines the clearing price. All bids above the clearing price are accepted. Any remaining privileges are then rationed among bids equal to the clearing price, for example by dividing them in proportion to the bid quantities or by lottery. Bids below the clearing price are rejected. See Figure A3.1 for an illustration.

Determining prices paid. With sealed-bid auctions the *quantities* that successful bidders win are determined by the quantities specified in their accepted bids. There are several standard approaches for determining the *prices* that each winning bidder pays. Different pricing rules will result in different bidding incentives and strategies, so the pricing rule is a very important component of the auction design. Under pay-your-bid pricing, participants pay the prices specified in their successful bids. Under uniform pricing, all successful bidders pay the clearing price, which is the price of the lowest successful bid.[12]

Bidding incentives, revenue, and economic efficiency. With pay-your-bid pricing, the auction in the figure above would raise revenue equal to the area under the aggregate demand schedule and to the left of the supply of fishing privileges. With uniform market-clearing pricing the auction in the figure above would raise revenue equal to the area of the rectangle bounded on top by the clearing price and on the right by the supply of fishing privilege. In the figure, pay-your-bid pricing would result in more revenue than uniform pricing.

The analysis in Figure A3.1 ignores an important consideration, however, which is that bids under uniform pricing likely will be higher overall than bids under pay-your-bid pricing. Bidders under pay-your-bid pricing have substantial incentives to "shade" their bids by bidding below their true value of holding fishing privileges in order to reduce the prices that they pay. Bids below the clearing price are not accepted, however, so bidders need to guess what the eventual clearing price will be and bid above it. Uniform pricing reduces the incentive for bidders to shade their bids.

[12] Alternatively, uniform pricing could use the price of the highest unsuccessful bid. See below for empirical evidence regarding the effects of these different pricing approaches on bidding behavior and revenues in laboratory experiments.

Which of these pricing approaches is most efficient and raises the most revenue must be determined empirically. The results of recent laboratory experiments designed to simulate New Zealand fishery auctions suggest that bids are higher under uniform market-clearing pricing than under pay-your-bid pricing, as expected, but that pay-your-bid pricing still generates more revenue. Both pricing approaches led to equally efficient initial allocations.[13]

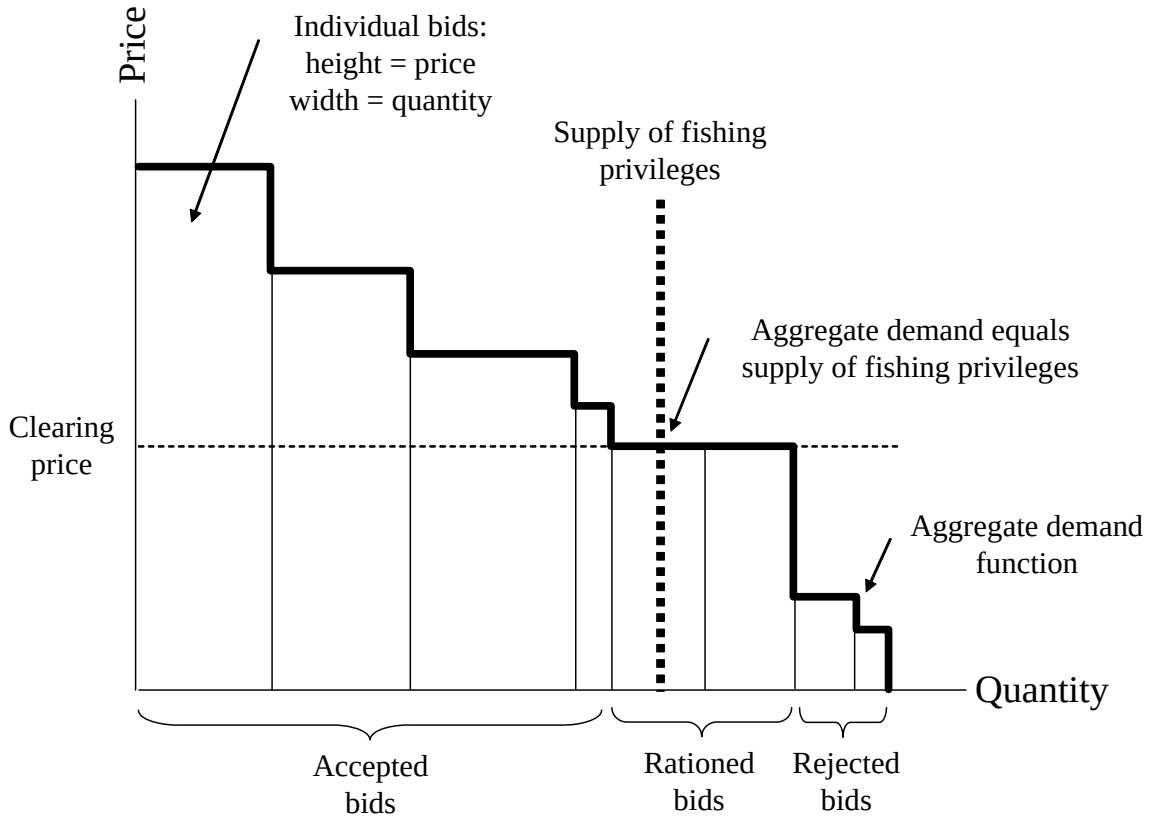

Figure A3.1. Single-round Sealed-bid Auction.

[13] An economist named Vickrey developed a pricing approach for sealed-bid auctions that, at least in theory and under certain conditions, should result in the most economically efficient outcome. Under Vickrey pricing each participant pays an amount equal to the total value (i.e., price times quantity) of the of the unsuccessful bids submitted by the participant's competitors that would have been accepted had the participant not submitted any bids at all. The key to Vickrey pricing is that bid shading does not reduce the amount paid, because prices depend wholly on the bids of others, but bid shading does reduce the chances of winning. Bidders therefore have an incentive to submit bids that reflect their "true" value of holding different quantities of fishing privileges, resulting in economically efficient initial allocations. In practice, bidders may be reluctant to report their true values if they fear that such information, if made public, could hurt them in future auctions or negotiations. Vickrey pricing is considerably more complicated than pay-your-bid or uniform pricing, can lead to low revenues, and may be more susceptible to collusion among bidders.

2. Multiple-round clock auction

A clock auction uses multiple rounds of bidding to allocate fishing privileges. In a clock auction the "clock" indicates the current price, which starts low. Participants submit bids for the amount of fishing privileges they are willing to purchase at that price. The auction authority adds up the bids and reports the total quantity demanded at that price. If aggregate demand exceeds the supply of available fishing privileges the auction authority increases the price on the clock either by a predetermined increment, according to some rule, or based on discretion. The process repeats until aggregate demand falls below the supply of available fishing privileges. At this point the auction authority accepts all remaining bids at the previous price and rations any remaining fishing privileges among participants that reduced their demand in the final round. An "activity rule" is needed to encourage active participation in the auctions early rounds. The rule is that bidders may not increase their demand as the price increases.[14,15]

Other Issues and Challenges in Auction Design

1 Avoiding collusion

Collusion occurs when bidders explicitly or implicitly agree to avoid bidding up prices. Collusion is most likely to be a problem in multiple round auctions, because bidders can use early rounds to signal and coordinate their behavior, and can retaliate in later rounds against bidders who deviate from potential agreements.

There are several ways to mitigate collusion. First, Councils should promote broad participation, because it is more difficult to collude when there are many bidders. Second, Councils can limit the amount of information that is made public between rounds in multiple round auctions. For example, the auction authority need only reveal the total quantity demanded between rounds in a clock auction. Finally, the auction authority

[14] Ascending-bid auctions are multiple round versions of sealed-bid auctions. Each round operates just like a sealed-bid auction. The clearing price following each round is preliminary. If nobody wants to increase any bids, the auction ends, and the winning quantities are determined just as in any sealed bid auction. If any bidder wishes to improve a bid in light of the preliminary clearing price another round is offered. Councils generally will prefer an ascending-clock auction to an ascending-bid auction. Bidding is simpler in the ascending-clock auction, because bidders submit just a single quantity bid in each round. The activity rule is simpler. The auction ends sooner, because bidders only have one bid to change in each round. The auction is less susceptible to collusion, because the auction authority need only report total demand following each round.

[15] An economist named Ausubel developed an ascending-clock auction with a modified allocation and pricing rule. The auction authority accepts bids as they are "clinched" and at the price where this occurs. A bidder clinches fishing privileges when the total quantity demanded by everyone else falls below the available supply. At this point the bidder is guaranteed of winning an amount equal to the total available supply minus the total quantity demanded by everyone else, so this is how much the bidder clinches. Everyone's clinched privileges are removed from available supply following each round, and the clock then continues to increase. Analogous to the Vickrey auction above, under certain conditions Ausubel auctions give bidders the incentive to report quantities that reflect their "true" demand for fishing privileges, resulting in efficient initial allocations.

should require that participants bid in round numbers in both types of ascending auctions to prevent bidders from encoding messages in their bids.

2. Reducing the effects of the Winner's Curse

The winner's curse befalls auction participants who overestimate the value of fishing privileges and win by bidding too high. This is most likely to happen when the value of holding fishing privileges is highly uncertain at the time of the auction, such as when new species are brought under limited access management. Bidders might be uncertain about future market prices for fish products, changes in the health of the fishery, a shifting TAC, new fishery regulations, and other factors that might affect the value of holding fishing privileges. Under these circumstances bidders that win at auction may be those that overestimate the value of fishing privileges the most. Knowing this, auction participants will respond to uncertainty by lowering their bids to protect against paying too much.

Some experts argue that multiple-round auctions deal with the bid-lowering effects of the winner's curse more effectively than sealed-bid auctions. This occurs because bidders in multiple-round auctions learn how others value fishing privileges with each successive round, thereby gaining confidence in their own bids, eventually leading to higher prices. This is most likely to occur when auction participants have bidders similar to themselves (e.g., similar size and harvesting techniques) that they can look to for comparison.[16]

Some experts argue that a sealed-bid auction with pay-your-bid pricing will expose bidders to an increased risk of the winner's curse relative to uniform pricing, thus leading to more cautious bidding and lower expected revenue from the auction. Therefore it may be preferable to use a uniform pricing scheme for sealed-bid auctions.

3. Reducing uncertainty

While choosing an appropriate auction method has the potential to mitigate the effects of uncertainty on bidding behavior and auction revenues, Councils can do a number of things prior to the auction to reduce uncertainty directly. Such actions include disseminating scientific and market information about the fishery, establishing predictable and transparent procedures for setting TAC in future years, and dealing with foreseeable regulatory issues immediately rather than delaying such issues to the future.

Fishery participants might be particularly wary when bidding on "permanent" fishing privileges that last the full duration of the limited access program. Councils might consider auctioning only annual privileges initially and auctioning privileges lasting a

[16] Some experts argue, however, that ascending-bid auctions actually may exacerbate the winner's curse when auction participants do not compete with similar bidders. The rationale is that advantaged bidders, such as those with lower harvesting costs, will bid more aggressively in the auction's initial stages, causing weaker bidders to be especially cautious, because outbidding a stronger bidder is evidence that you have overestimated value substantially. The result is that stronger bidders usually win and pay low prices. This argument suggests that sealed-bid auctions, which give weaker bidders a better chance of winning, encourage more aggressive bidding overall.

longer duration at a later date after fishery participants have had an opportunity to observe price information in secondary markets and in auctions of annual privileges.

4. Auctioning privileges for related species or fish stocks

In some cases the value of fishing privileges for different species or stocks will be interdependent. To take one extreme example, if species A and B are caught simultaneously in precisely equal quantities, the privilege to harvest a single unit of species A is worthless unless one also holds a matching privilege for species B. Conducting multiple clock auctions for different species simultaneously would allow fishermen to update their bids as the auctions progressed to ensure that they have fishing privileges in the appropriate combinations. Sealed-bid auctions do not allow fishermen to update their bids to ensure appropriate combinations and therefore could result in cautious bidding and low auction revenues, although fishermen would still have the option of acquiring appropriate combinations of fishing privileges in the secondary market. Multiple clock auctions require modified activity rules and have other unique features that are beyond the scope of this discussion, so Councils should research these auctions thoroughly before implementing them.

Some auction approaches allow bidding on particular "combinations" of fishing privileges, such as a bid on 100 units of species A and 200 units of species B for a total of $1500. Auctions that allow bidding on particular combinations may result in more efficient initial allocations and can raise additional revenue but are complicated to implement in practice and likely beyond the needs of most Councils. Councils that determine that bidding on combinations is important should research such auctions thoroughly.

5. Determining a reserve price

The auction authority can set a reserve price below which no bids are accepted. A reserve price can limit the gains from collusion because bidders will always pay a minimum price. A reserve price also guarantees that the seller will receive a minimum amount for any privileges sold.

The reserve price should reflect the value of fishing privileges. It is easy to determine the reserve price when a secondary market for fishing privileges already exists: the reserve price should roughly equal the price of fishing privileges in the secondary market, with perhaps a modest cushion to avoid setting the reserve price too high. Even when no secondary market exists, such as when a new species is brought under limited access management, it might be possible to estimate a likely range of values based on the market price of fish, harvesting costs, and other industry data.

In cases where Councils are unable to generate a reliable estimate of the value of fishing privileges, Councils may choose not to set a reserve price. Auctions without reserve prices are most likely to be successful when Councils expect strong competition for fishing privileges. Whether or not Councils expect strong competition, however, they

might consider auctioning annual fishing privileges rather than privileges that last the full duration of the limited access program. This would limit the effects of an inappropriately low sales price to one year, and Councils subsequently could use secondary market prices to set reserve prices for future auctions.

6. Avoiding loopholes and remaining credible

Councils should scrutinize auction rules closely for any loopholes that might lead to unintended outcomes. For example, the rules should make clear that all bids accepted by the auction authority are binding. Otherwise, participants might decide to default on their commitments at a later date.

Councils also should make sure that they are able to enforce the auction rules credibly. For example, if the auction authority sets the reserve price too high and no fishing privileges are sold, it might be pressured to lower the reserve price after the fact, reducing its future credibility regarding reserve prices and other auction rules. The auction authority therefore should set a reserve price and other auction rules it knows it can commit to and select these rules with care.

Fishery managers will also have to make decisions about whether to reveal the identities of bidders and/or the magnitude of their bids. Some analysts argue that allowing bidders to know the identities and bids of other bidders can make colluding easier and disadvantage smaller bidders, particularly in multiple round auctions. In auctions for Treasury securities, even the identity of winners is considered confidential business information. Others believe transparency is valuable and appropriate for federal programs. In auctions for New Zealand fishing privileges, only the prices and quantities of winning bids are made public, while the identities of winning bidders are not. In auctions for SO2 allowances, the identities of all bidders and their winning and losing bids are made public.

A review of existing public auctions for fisheries and other natural resources

Fisheries in New Zealand[17]

New Zealand introduced a quota management system (QMS) for its marine fisheries in 1986. The system is characterized by a total allowable catch (TAC) set annually for each fish stock, individual transferable quotas (ITQ) that each represent a share of the TAC, and annual catch entitlements (ACE) that flow from the ITQ and depend on the level of the TAC.

The Maori (indigenous New Zealanders) receive 20 percent of the ITQs for any new fish stock incorporated into the QMS. If harvesters' catch histories together exceed 80%

[17] See Straker et al. (2002) and National Research Council (1999) for summaries of New Zealand's quota management system for marine fisheries; see Gardner Pinfold (2005) for a summary of its use of auctions to allocate fishing privileges.

percent of the initial TAC, the Ministry of Fisheries (MFish)[18] allocates the remaining ITQs to harvesters in proportion to their catch histories. Otherwise each harvester receives only enough ITQs so that his ACE equals his catch history, and the remaining ITQs go to the government. In the past the government has auctioned both ITQs and ACE. Auctions of ITQs and ACE in 2004 and 2005 raised revenue totaling about U.S.$3 million.[19]

MFish commissioned a study in 2005 to review options for auctioning government-held quota.[20] The study compared different auction mechanisms using various criteria, including to what extent the auctions resulted in efficient initial allocations, whether they provided quality price information, how much revenue they raised, their transparency and simplicity, and their acceptance by industry. The study also addressed the logistical and practical implementation of different auction approaches. The study concluded that a sealed-bid auction would be much easier to implement than an ascending auction. The study then compared pay-your-bid versus uniform pricing for sealed-bid auctions, but did not express a preference.

Bidding in the most recent New Zealand fisheries auction for ITQs in over 100 fish stocks closed in February 2006. This was a standard sealed-bid auction with pay-your-bid pricing. The auction was administered by Commercial Fisheries Services Limited (FishServe),[21] an industry-owned organization that serves as the government's quota broker and administers some aspects of the QMS. Bidders were instructed to enter their bids on official bidding forms and submit them to FishServe by the auction's closing date.[22] Withdrawal of bids was permitted prior to the close date, after which MFish acceptance of bids at specified quantities and prices was binding.

Auction instructions stated that MFish would set a reserve price for each fish stock and was unlikely to accept bids below the reserve price, but that MFish reserved the right to accept any bid. These reserve prices appear to never have been published. Many species of fish had well-developed secondary ITQ and ACE markets prior to auction, which appears to have helped MFish set reserve prices. Earlier New Zealand fisheries auctions have been conducted using similar auction approaches.

U.S. SO_2 permits

Title IV of the 1990 Clean Air Act Amendments established a national cap-and-trade system to control sulfur dioxide (SO_2) emissions, which are generated by the burning of fossil fuels, such as coal and natural gas, and are a component of acid rain. The SO_2 program is administered by the Environmental Protection Agency (EPA) and began

[18] MFish commercial fishing website: http://www.fish.govt.nz/commercial/index.html
[19] Results of ACE auction: http://www.fish.govt.nz/commercial/info/ace-tender.html; results of ITQ auction: http://www.fish.govt.nz/commercial/info/crown-tender.html.
[20] See Gardner Pinfold (2005).
[21] FishServe website: http://www.fishserve.co.nz/
[22] New Zealand fishery auction bidding form: http://www.fishserve.co.nz/news/Tender_Document_2006_01.pdf

limiting SO_2 emissions in 1995.[23] The program caps total emissions from power plants nationwide and requires that each facility hold a permit or "allowance" for each unit of SO_2 that it emits. The cap on emissions is analogous to the TAC in a limited access fishery program, and allowances are analogous to annual fishing privileges. Facilities are allowed to buy and sell allowances.

Annual allowances are allocated to electric generating units that began operating in 1995 or earlier in proportion to their historical consumption of fossil fuel energy. Units that began operating in 1996 or later do not receive annual allocations and must purchase allowances in the secondary market or in auctions. Together with trading in the secondary market, auctions promote price discovery and provide a way for newer electric generating units to obtain allowances.

The EPA sets aside a reserve of approximately 2.8 percent of each year's allowances for auction. EPA returns the proceeds earned on the 2.8 percent of allowances it withholds for auction on a proportional basis to those units from which EPA originally withheld allowances to create the auction reserve. The SO_2 allowance auctions therefore raise no revenue for EPA. Half of the auctioned allowances are sold in "spot auctions" just prior to the first year in which they can be used, and the other half are sold in "advance auctions" seven years prior to the first year in which they can be used. Successful bidders in the most recent EPA spot auction in the spring of 2006 paid a total of over $110 million, while successful bidders in the advance auction paid a total of over $34 million. Total payments of about $145 million were nearly five times larger in real terms than in 2000.

The EPA offers the allowances it sets aside for auction with a reserve price of zero. EPA spot auctions also allow participation by non-EPA sellers. This leads to two-sided auctions where buyers submit sealed bids to purchase allowances,[24] and sellers can submit sealed offers to sell allowances.[25] Bids are ordered from highest to lowest price to form an aggregate demand schedule, and offers are ordered from lowest to highest price to form an aggregate supply schedule. Then bids and offers are matched, starting with the highest bids and lowest offers, with trade occurring at the buyer's bid. Matching stops at the point where aggregate demand meets aggregate supply. This strange pricing rule creates an incentive for sellers to bias their offers downward—perhaps even below the value to them of keeping the allowances—to be matched with the highest bidders. It turns out that this issue usually is irrelevant, however, because few allowance holders submit offers to sell their allowances. In fact, no such offers were submitted in 2005 or 2006. Nonetheless, Councils that contemplate using two-sided auctions for fishing privileges should use uniform market-clearing pricing. EPA advance *auctions* are standard (i.e., one-sided) sealed-bid auctions with pay-your-bid pricing.

[23] EPA Acid Rain Program: http://www.epa.gov/airmarkets/arp/index.html
[24] EPA SO2 allowance bidding form: http://www.epa.gov/airmarkets/forms/auctions/2006BidForm.pdf
[25] EPA SO2 allowance offer form: http://www.epa.gov/airmarkets/forms/auctions/2006OfferForm.pdf

Marketable U.S. Treasury securities

To finance the debt of the U.S. federal government, the Treasury Department sells Treasury bills, Treasury notes, Treasury bonds, and Treasury Inflation Protected Securities (TIPS) at more than 150 auctions held throughout the year.[26] These securities are marketable, meaning that they are fully tradable in secondary markets. At almost 4.4 trillion dollars in total bids accepted last year, these are by far the largest auctions in dollar terms conducted by the federal government.[27] The U.S. treasury typically raises from 6 to 24 billion dollars in total face value at each auction. Each auction offers a fixed total face value of a single kind of bill, note, or bond. Treasury auctions are similar to fishing privilege auctions in that the auction must allocate a fixed number of identical assets.

Treasury auctions allow two types of bidding: competitive and noncompetitive. Each competitive bidder enters a single bid in the form of the lowest interest rate the bidder is willing to accept and a dollar amount for the total face value desired. Noncompetitive "bidders" state only the total face value they wish to purchase and accept whatever market-clearing interest rate results from the auction. Investors who do not consider themselves expert securities traders usually bid noncompetitively. In recent years, the volume of non-competitive bids has averaged between 10 and 25 percent of the issues sold. Individual bidders cannot bid noncompetitively for more than $5 million in any one auction. Offering a noncompetitive bidding option may be useful in some limited access fisheries in which there are a number of small operators who are not comfortable with bidding. Fishery managers must ensure, however, that there are enough competitive bidders to set an efficient price.

The Treasury posts its tentative schedule of auctions, and then confirms the date and time a few days in advance. All auctions are open to the public. The Treasury accepts sealed bids until the cutoff date. After the cutoff, a computer system ranks the interest rates offered by competitive bidders (noncompetitive bidders do not offer interest rates). The system identifies the set of winners such that the total face value of winning competitive bids plus the total of all noncompetitive bids matches the total face value that the Treasury intended to auction. In this single-price auction, all successful bidders are awarded securities at the interest rate equivalent to the highest accepted rate of the accepted competitive bids. Thus, Treasury may reject a competitive bid, grant the bidder less than the amount requested, or grant the bidder the full amount requested.

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[26] Treasury bills are short-term government securities with maturities ranging from a few days to 26 weeks (http://www.treasurydirect.gov/indiv/products/tbills_glance.htm). Bills are sold at a discount from their face value, and do not earn interest. Treasury notes are government securities that have maturities of 2, 3, 5 and 10 years and earn interest every six months (http://www.treasurydirect.gov/indiv/products/tnotes_glance.htm). Treasury bonds have a term longer than 10 years, up to a current maximum of 30 years. Bonds earn interest every six months. TIPS are marketable securities whose principal is adjusted by changes in the Consumer Price Index.

[27] As determined from 2005 data available at http://www.publicdebt.treas.gov/of/ofaicqry.htm. February 27, 2006.

Treasury conducts only single price (i.e., uniform price) single round auctions. About eight years ago, Treasury converted from a multiple price (pay-your-bid) approach to single price auctions. The rationale for this change was that bidding in a single price auction is less risky and helped bidders avoid a "winner's curse." If bidders are more comfortable bidding aggressively, then in theory the Treasury could raise the required funds at lower total cost. Empirical evidence suggests that this was indeed the case.[28] In addition, analysts argued that since single price auctions are strategically simpler, bidders may be more inclined to bid directly in auctions rather than through specialized dealers. This behavior leads to lower transactions costs and a more efficient system.

One important feature of the Treasury bill market is the robustness of the secondary market. Investors who want to buy bills other than at regular auction and those wishing to sell their bills prior to maturity may do so easily, and with low transactions costs. The secondary market in Treasury bills is the largest and most efficient of any money market instrument. The secondary market in bills is maintained principally by a group of security dealers known as primary dealers. All Treasury bills are now issued and held electronically, which facilitates secondary transactions.

U.S. radio spectrum

In 1993, the Federal Communications Commission (FCC) received the statutory authority to use competitive bidding to allocate radio spectrum licenses. Prior to this historic legislation, the FCC mainly relied upon comparative hearings and lotteries to select a single licensee from a pool of competing applicants for a license. In general, the licenses allow users to broadcast radio signals in certain frequency bands, at specified maximum power levels, in specified locations. Some licenses have other restrictions, such as what kind of service can be provided with the airwave access.

FCC auctions are open to any eligible company or individual that submits an application and upfront payment and is found to be a qualified bidder by the FCC. FCC auctions are conducted electronically and are accessible over the Internet. The Commission has found that spectrum auctions are more effective than either comparative hearings or lotteries. Also, by using auctions the FCC has greatly reduced the average time from initial application to license grant.

The FCC applies some of the most complicated auction approaches used by the federal government. In its simultaneous multiple-round (SMR) auctions, all licenses are available for bidding throughout the entire auction, thus the term "simultaneous." SMR auctions have discrete, successive rounds, with the length of each round announced in advance by the Commission. After each round closes, round results are processed and made public. At that time bidders learn about the bids placed by other bidders. This provides information about the value of the licenses to all bidders and increases the likelihood that

[28] http://www.treas.gov/offices/domestic-finance/debt-management/auctions-study/upas2.pdf
Uniform Price Auctions: Update of the Treasury Experience. 1998.

the licenses will be assigned to the bidders who value them the most. The period between auction rounds also allows bidders to adjust their bidding strategies. In a SMR auction, there is no preset number of rounds. Bidding continues until a round occurs in which no bids have changed, at which time the auction closes. Depending on the auction design, number of bidders, and the number of licenses being offered, an auction might run from one day to several weeks.

The FCC SMR auctions are different than the multiple round clock auctions discussed above. In particular, the set of licenses that the FCC auctions simultaneously are not necessarily identical items, and bidders bid individually on each license with an individual price. The two kinds of auctions also have different rules about how a bidder must change or can change bids from one round to another. Also, while not an inherent property of the auctions, the FCC has generally revealed the bidder identities during SMR auctions but not during clock auctions. The FCC is planning to move to anonymous bidding for its next major auction (AWS-1 with 90 MHz), so this difference will not persist.

The FCC experience is quite instructive for fishery managers who are concerned about the distributional effects of auctions. Required by law to seek diversity in granting licenses, the FCC has given preference in auctions to certain categories of bidders, called "designated entities." Designated entities have generally included small, minority-owned, and women-owned businesses. The preferences have taken different forms. One approach was to offer designated entities a lower down payment and more time to pay for their winnings, with a low interest rate on the unpaid balance. Small businesses also received a 25 percent bidding credit, meaning that they actually paid only 75 percent of their winning bid. Although such approaches may seem like fairly simple ways to promote distributional goals, the results of the preferences are controversial, possibly quite costly, and ultimately ineffective.[29]

First, the evidence suggests that credits for bidding have led to designated entities' bidding up the prices for everyone else. Second, the value of the low interest loan also appears to have been capitalized into the price of the licenses. Third, some designated entities got in over their heads and defaulted on their bids, leading to delay and litigation. Finally, regulators have become concerned that large firms have been using small firms as "fronts" in the bidding. These issues have generated unpleasant press and credibility problems for the FCC. In conclusion, the lesson to fishery managers from the FCC's experience is that adjusting auction rules for certain classes of bidders is not likely to be an effective way to produce a more socially desirable outcome. If necessary, it would probably be preferable to reserve a share of privileges for direct allocation to certain groups.

Oil and gas leases in the U.S. Outer Continental Shelf

The U.S. Department of the Interior's Minerals Management Service (MMS) leases out access to certain oil and gas reserves in the outer continental shelf (OCS). The OCS is the submerged lands between three miles and about 200 to 300 miles from U.S. shores. State

[29] See a critique of the designated entity approach by Hazlett and Boliek, 1999, at http://www.law.indiana.edu/fclj/pubs/v51/no3/BabMac17.PDF

governments control the areas from the shoreline to three miles out. The leases grant the right to explore, develop, and produce oil and/or natural gas for a specific period of time from a specific tract of the OCS land. MMS collects about $5 billion per year in lease payments (called "bonuses"), rental payments, and royalties from OCS minerals.[30]

MMS schedules its offshore leasing according to a five year plan, an elaborate document that considers environmental factors, regional equities, projected energy demand, and other stakeholder interests. Once the agency issues a final notice of sale, firms may submit their sealed bids. Bidders can bid on any or all of the tracts offered. After the cutoff time, the agency opens and reads the bids publicly. MMS evaluates the bids for each tract individually (i.e., not allowing for combinatorial bidding), making sure that the high bids are legally and technically sound and that no anti-trust issues arise. The high bids are compared against a "fair market value" (i.e., reserve price) that the agency computes for the tracts. The government accepts the high bids (i.e., lease bonuses) that meet the fair market value test and grants the leases.

The lease agreement (disclosed before the bidding) specifies certain payments to the government in addition to the lease bonus paid at auction. Two additional payments generally apply. An annual rental payment applies until the production of minerals begins. Rental payments are generally $5 to $6.25 per acre for shallower water, $7.50 to $9.50 for deeper water, and more for Alaskan waters. After production begins or achieves a specified level, the lessee generally must pay the government a royalty (a percentage of the value of the mineral) for each unit of production, usually 11 to 17 percent. Rental and royalty payments reduce the amount that bidders will be willing to pay up front in auctions.

As long as the lessee is producing minerals from the tract, the lease is extended. When a field can no longer be produced economically and the lease expires, the lessee must plug and abandon all wells and remove the platform and any sub-sea devices.

[30] A recent write-up of the OCS program appears in "Leasing Oil and Natural Resources: Outer Continental Shelf," by the U.S. Department of the Interior's Minerals Management Service, available at http://www.mms.gov/ld/PDFs/GreenBook-LeasingDocument.pdf.

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GROUNDFISH ALLOCATION COMMITTEE REPORT ON AMENDMENT 20 TRAWL RATIONALIZATION ALTERNATIVES

The Groundfish Allocation Committee (GAC) met in Portland, Oregon on October 8 & 9, 2008 to discuss the preliminary preferred alternative chosen by the Council in June 2008. The following the meeting the GAC recommendations were summarized and reviewed by all members of the GAC. Draft rationale based on GAC discussion accompanies each recommendation. The draft rationale has not yet been reviewed by the GAC.

Shoreside Whiting Individual Fishing Quotas (IFQs) vs. Co-ops

The GAC recommends the Council go forward with IFQs in the shoreside whiting sector and discontinue consideration of co-ops for the shoreside sector if Congress had not taken action by a certain time ***(consensus)***.

> ***Rationale:*** The decision of whether the Council shall go forward with IFQs or a co-op for the shoreside whiting sector should be made soon because other decisions in this trawl rationalization process hinge on this sector decision. It would be difficult to leave that piece undecided or to leave the decision timeframe open ended.

Species Coverage (A-1.1)

The GAC recommends that the rationalization program for each 3 sectors cover all groundfish species, except

Longspine thornyhead south of 34°27';
California scorpionfish;
minor nearshore rockfish north and south;
cabezon;
kelp greenling;
black rockfish (WA);
black rockfish (OR-CA);
shortbelly;
other rockfish; and
spiny dogfish

These species are also listed in the top block of Table A-1 on page A-14 in Appendix A.

(consensus)

> ***Rationale:*** The GAC recommends the same species coverage for all three sectors in order to provide consistency and in anticipation of such things as the need for bycatch avoidance incentives when a species becomes overfished. Additionally accountability would be diminished if fewer species are covered (as would occur for the at-sea whiting sectors under either A-1.1, at-sea trawl Option 1 or 2 (see page 68 of chapter 2 or page A-14 of Appendix A). At the same time, while the success of the trawl rationalization program relies on individual accountability; it may not be necessary to make participants accountable for every species encountered. This is especially the case for those species that are encountered infrequently by the trawl sector. One concern is that each species will be allocated to each trawl sector even when the sector's catch of that species is very low relative to the optimum yield (OY). If the allocation for rarely taken species is based on the sector's average historical catch, variations from the average may lead to unforeseen consequences such as quota hoarding, market manipulation, or constraints on fishing activity. Because of the very low levels of trawl sector harvest for the species, these negative effects may come at little or no conservation or management benefit.

Gears and Fisheries Covered (A-1.1)

The GAC recommends vessels with a limited entry (LE) trawl permit using gears listed in Option 2 be included under the scope of the program and that certain gears be explicitly excepted, as follows.

Gears Covered Under the Program	Excepted Gears
1. Legal groundfish trawl (including California halibut trawl gear) 2. Anchored longline (except when used with a fixed gear permit); 3. Anchored fishpot (except when used with a fixed gear permit); 4. Anchored vertical hook & line; 5. Dinglebar; 6. Jig; and 7. Setnet 8. Rod and reel, and 9. Vertical hook & line.	The following gears are exempted from the program, even if they fall within the list of those gears covered under the program. • pink shrimp trawl, • ridgeback prawn trawl, • sea cucumber trawl, and • salmon troll, and • all other gears not explicitly covered.

(majority)

Rationale: To clarify Council intent with respect to the scope of the program a list of gears that can be used to fish for IFQs, as well as exceptions, should be explicitly stated. The exceptions should be limited, and it was recommended that no IFQ be required when fishing with those gears in the "excepted gear" category.

Gear switching/Gear Conversion (A-1.1 and A-7)

The GAC recommends the Council support gear switching at a frequency that is not constrained beyond what is necessary for the integrity of the program. A gear conversion provision would remain as something that could be added to the program in the future ***(consensus)***.

Rationale: Unconstrained gear switching would be permitted under the scope of the trawl rationalization program. Permanent gear conversion was added on as an option for analysis in June 2008, but was not designated as a preliminary preferred alternative. The purpose of allowing trawlers to change to other gear types (flexibility for the harvester and possible conservation benefits from reduced gear contact with the bottom) can be achieved with gear switching as is currently specified in the scope.

Area Management, Harvester Shares to Processors, Adaptive Management, and Landing Zones (A-1.2, A-2.1.1, A-3, and A-8)

The GAC recommends that

- 100 percent of the initial quota sharing (QS) allocation go to permits (i.e. no QS allocation for processing history), reaffirming its recommendation from May 2008 ***(majority)***.
- The adaptive management provision be crafted to have some kind of regional distribution. Such distribution should take a fair and reasonable approach to dividing the Adaptive Management pounds among the states ***(majority)***.
- In implementing adaptive management, recognize formal regional (or community) fishing associations ***(consensus)***.

- with respect to area management:
  (1) retain the lines that are part of the acceptable biological catch (ABC)/OY specifications;
  (2) review management lines that are used for conservation purposes; and
  (3) monitor the harvest of quota pounds (QP) within those management areas to see if harvest within an area could cause a concern relative to localized depletion.

  If there is a conservation concern in one of those areas, the Council could adjust harvest limits, as appropriate, in those management areas ***(consensus)***.

The GAC discussed but chose not to include in its recommendations regional landing zones.

Rationale: There was considerable discussion about how the various provisions could be designed to afford protection for communities (i.e., harvester shares to processors, adaptive management, and regional landing zones). Creation of different kinds of quota shares and pounds would result in a larger tracking task, which is not a trivial for NMFS, and therefore should have a compelling reason.

The GAC discussed how the adaptive management quota pounds could be divided. One suggestion was to use the same proportion as base period used in the trawl rationalization alternatives. Adaptive management quota pounds could be allocated to states/regions and subsequently distributed for use through independent processes (e.g., through regional or community fishing associations).

The GAC discussed Regional Landing Zones and it was noted that the provision requires landing, but not processing, in the zones. Some members of the GAC indicated they felt the adaptive management provision could do a better job of ensuring community protection than regional landing zones.

Although biological conservation is not the only reason to utilize an area management line to divide quota shares between northern and southern areas, the general feeling of the GAC was that management boundaries should have a clear biological benefit. Following that line of thought, the GAC found that the 40’10° North latitude line might not be appropriate or needed for all species in the ABC/OY table. For these reasons, the GAC wished to see more analysis by the Groundfish Management Team on area management, per the GAC recommendation above.

The GAC heard from California a proposal on one way adaptive management might work. The proposal indicated that only harvesters would be eligible to hold adaptive management quota pounds. If the intent of the adaptive management applicant were to help a community, that and the vessel that would fish the quota pounds would have to be specified in the application. NOAA General Counsel (GC) indicated that a potential private committee and the process to set one up would have to be thought through. An adaptive management committee might be an advisory committee under the Council, so that the Council could be involved in the adaptive management process but would not necessarily need to review every application. If this should go forward, the criteria for judging applications should be well defined by the Council before the committee receives and scores applications.

Attributing and Accruing Processing History (A-2.1.1.d)

The GAC recommends the Council select Option 3, which attributes processor history to the first receiver or to the processor. Disputes would be settled through an appeals process administered by the National Marine Fisheries Service ***(consensus).***

> ***Rationale:*** The GAC felt that actual processor history should be acknowledged rather than buying history and that proactive steps should be taken to facilitate its consideration, such as setting up an appeals process. NOAA GC indicated the need for criteria to use in settling disputes. These criteria might be developed by the Council during the implementation phase.

Accumulation Limits (A-2.2.3.e)

The GAC requested additional tables to be made available at the November Council meeting showing the number of entities at and below the accumulation limits with 100 percent harvester shares and no grandfather clause.

> ***Rationale:*** The GAC was unable to arrive at a recommendation on accumulation limits and control but did acknowledge the need to consider accumulation limits and control limits in the context of fleet consolidation and exertion of market power.

MS Processor Ties (B-2.2.2, B-2.4, and B.2.4.3)

The GAC recommends

- the maximum percent that a MS can process in a year be changed to 45 percent (B-2.2.2) ***(consensus)***
- no preferred option on obligated processor tie (B-2.4) ***(consensus)***
- allowing a coefficient of variation (CV) to deliver to the MS of its choice, rather than be required to participate in the non-co-op fishery, if the MS to which it is obligated withdraws from the fishery without the establishment of a mutual agreement (Option 2). In the event of such an occurrence, the tie to the departing mothership would be broken and a new tie established between the CV and the MS to which the CV chose to deliver (GAC recommends Suboption 2b for provision B-2.4.3) ***(consensus)***

The GAC requests additional analysis of the following variations on processor ties for catcher vessels with mothership endorsed permits:

(1) Option 2 of B-2.4 (90 percent of the catcher vessel's deliveries obligated to a mothership, 10 percent not obligated), and
vessels are obligated to the same mothership they were in the previous year, unless they participate for a year in the non-co-op fishery.

(2) Option 2 of B-2.4, and
vessels are obligated to the mothership that they delivered the majority of their catch to in the previous year, unless they participate for a year in the non-co-op fishery. ("Loophole": Catcher vessels could effectively switch motherships without participating in the non-co-op fishery by delivering their own unobligated catch and that of other vessels to a different mothership).

(3) Catcher vessels would declare whether they are in a cooperative or non-cooperative portion of the fishery each year

i. Catcher vessels electing to participate in the cooperative fishery would be required to identify annually (at a date TBD) the mothership to which they will deliver to in the coming season.
ii. Catcher vessels would be able to switch motherships by simply declaring their linkage to another mothership in a subsequent year

Note: this linkage would technically be made between the CV (MS) permit and the mothership permit in order to fit with the rest of the mothership sector alternative.

(4) Catcher vessels electing to participate in the non-cooperative fishery may deliver to any licensed mothership.

Rationale: By creating a linkage and a disincentive for breaking that linkage processors would be benefited; however, linkages may provide little or no advantage if there is a leasing loophole. Members of the public suggested the linkage could be declared before the season starts. Ties would be effective only for the fishing year. Prices negotiations would take place before any ties are established. This would diminish processor negotiating stance, as compared to a system with linkages. However, such a pre-season declaration would provide stability for the next year, which would benefit business planning. Therefore the pre-season declaration of a linkage option was added to the suite of options, a request for additional analysis was made, and no preferred option was identified.

PFMC
10/20/08

CALIFORNIA DEPARTMENT OF FISH AND GAME
REPORT ON ADAPTIVE MANAGEMENT

The California Department of Fish and Game presented a proposal for the Groundfish Allocation Committee (GAC) Meeting (October 8-9, 2008) to more clearly define the details of the adaptive management alternative under consideration for the trawl rationalization program (Agenda Item F.3). The proposal has been revised to reflect comments received at the GAC meeting and is provided here starting on page 4

Response to GAC Comments on the Adaptive Management Proposal by California Department of Fish and Game

The following is a response to specific questions from the Groundfish Allocation Committee on the "Clarification of the Adaptive Management Proposal by the California Department of Fish and Game" (page 4).

Summary

What is the purpose of Adaptive Management Pounds?

Adaptive Management Pounds (AMP) would be used to aid in community and regional development, create incentives for gear switching, mitigate unforeseen circumstances of trawl rationalization program implementation, promote attainment of a stable market to encourage sustainable fishing practices, and facilitate new entrants to the fishery. Adaptive Management Pounds would be a mechanism to increase profits to individuals or communities to allow them to eventually purchase their own Individual Fishing Quota (IFQ).

What percentage of the trawl allocation would be set aside for Adaptive Management?

A 10% set aside of quota shares is currently being analyzed for each trawl sector in the adaptive management program. The Council could request the Groundfish Management Team (GMT) analyze a range of set asides (e.g., 5%, 10%, 15%, 20%) to determine the amount of fish available and potential profits to the trawl sector under each option to help inform a Council decision. In determining the appropriate set aside for this program, the Council may also want to consider other processes, such as intersector allocation, which could affect the trawl sector allocation.

Who is eligible to apply for Adaptive Management Pounds?

AMP could be issued to harvesters (a person or entity that owns a vessel with a limited entry trawl permit) by sector on an annual basis though an application process. Although harvesters, processors, or other community entities can work collectively to formulate a plan that utilizes AMP, the AMP would be issued to the harvester since their vessel is subject to quota share accumulation limits.

The Council could choose to issue AMP to Regional/Community Fishing Associations. Under this option, the associations would be responsible for managing AMP awarded to their members. They would not be responsible for determining how the shares would be awarded to

the various states. If the Council elects to allow associations to manage AMP, exemptions from accumulation limits may be necessary.

How could Adaptive Management Pounds be regionally distributed?

Taking into consideration the goals and objectives of the adaptive management program, the Council could use a range of options to address concerns of regional distribution of AMP, including the following:

Option 1:
Use a competitive application process with no geographic subdivisions in AMP. This could result in consolidation of AMP in one area or state.

Option 2:
Use a competitive application process where AMP retains geographic subdivisions as determined by the Council for IFQ. Adaptive Management Pounds could only be used for the area they are issued. This option would provide limited protection from consolidation of AMP in one geographic area.

Option 3:
Use recent landings data (2004-2006) to determine proportion of landings in each state and distribute AMP based on those proportions. Distribution of AMP based on recent landings may better reflect current need. Under this option, AMP would be distributed as follows: WA = 15.9%; OR = 54.9%; CA = 29.2%

Conversely, the Council may choose to distribute AMP based on the inverse of 2004-2006 landings to provide additional benefit to states with lower landings. Additional harvesting opportunities provided by AMP shares could aid in local community development through the purchase of additional quota shares or upgrades to infrastructure. Under this option, AMP would be distributed as follows: WA = 54.9%; OR = 15.9%; CA = 29.2%

Option 4:
Base the distribution of AMP on the proportion of landings in each state over the window period used to allocate quota shares (1994-2003). Under this option AMP would be distributed as follows: WA = 17.0 %; OR = 47.2 %; CA = 35.8%.

Conversely, the Council may choose to distribute AMP based on the inverse of 1994-2003 landings to provide additional benefit to states with lower landings. Under this option, AMP would be distributed as follows: WA = 47.2%; OR = 17.9%; CA = 35.8%

Option 5:
Distribute AMP based on number of vulnerable communities in each state as determined in the trawl rationalization analyses.

Option 6:
Distribute AMP equally among the states.

What decision-making body and process determines who receives Adaptive Management Pounds?

The final decision on who will receive AMP will be made by the Council. The Council could provide guidance on which types of proposals they would give preference to prior to the start of the application process. Prior to reviewing applications, the application review committee would develop objectives to evaluate proposals, a ranking system to determine how well the applications are deemed to contribute to their objectives, a set of performance standards, and a mechanism for dealing with changes in business arrangements (i.e. how to deal with situations such as one member of the business plan going out of business).

Review of adaptive management applications could be conducted by either an ad-hoc committee within the Council or by individual state review committees. An ad-hoc committee would review all applications and report directly to the Council; individual state committees would review only state-specific applications and report to one individual (e.g., NMFS or other representative) who would then communicate with the Council.

Depending on what type of review committee the Council chooses, membership of the committee(s) could include economists, scientists, elected officials, business owners, harvesters, community members, etc. Although potential benefits to an ad-hoc committee could include more consistency in review of applications, finding individuals who have the expertise to effectively evaluate each state's needs may be more difficult and review of all applications could be labor intensive depending on the number of applications. Individual state review committees may have a better understanding of state-specific needs and be more able to effectively review the merits of each application and its impacts on local communities. State review committees may not be as consistent in their reviews and may require additional oversight by Council staff, NMFS, or PSMFC.

Clarification on the Adaptive Management Proposal
by California Department of Fish and Game

The California Department of Fish and Game presented a proposal for the Groundfish Allocation Committee (GAC) Meeting (October 8-9, 2008) to more clearly define the details of the adaptive management alternative under consideration for the trawl rationalization program (Agenda Item F.3). This report has been revised to reflect comments received at the GAC meeting.

Executive Summary

This proposal is a detailed description of how the adaptive management alternative might address changing fishery needs, support program development, and address unanticipated consequences from implementation of a trawl rationalization program. The Adaptive Management program would operate within the Council process and be subject to criteria and recommendations specified by the Council. Under this program harvesters would submit an application in the year prior to the start of the fishing year to gain access to adaptive management pounds (AMP). If the Council adopts an initial allocation for processors, they would not be eligible to participate in this program. Applications would be reviewed by a committee based on predetermined qualification criteria and those proposals that incorporate and make the best use of vulnerable communities, gear switching, stabilize existing processors, encourage new entrants (processors and harvesters) could be scored more highly. This program is intended to benefit small volume harvesters, small volume processors, and vulnerable communities. It allows individuals/entities to work together in a manner that is mutually beneficial to all.

Program Goals and Objectives

Goal

The goal of the Adaptive Management proposal is to provide more details on how this alternative can aid in community and regional development, create incentives for gear switching, mitigate unforeseen circumstances of trawl rationalization program implementation, promote attainment of a stable market to encourage sustainable fishing practices, and facilitate new entrants to the fishery. This program is intended to benefit small volume harvesters and processors and vulnerable communities.

Objectives

The Adaptive Management goal is supported by the following program objectives:

1. Provide a simplified mechanism that can address a variety of needs from individuals to communities
2. Provide a simplified mechanism that minimizes the number of quota share units to track reducing program costs.
3. Promote economic development and benefits in vulnerable communities
4. Provide a mechanism to mitigate unforeseen circumstances of program implementation
5. Promote practices that reduce bycatch and promote sustainable fishing practices
6. Promote practices that maintain and/or improve existing processing capabilities
7. Promote practices that stabilize employment and enhance the groundfish industry

8. Provide opportunities for new entrants

Adaptive Management Set Aside

This proposal would set aside up to 10 percent of each trawl sector's allocation of target and overfished species for each calendar year to respond to changing fishery needs, support program development, and to address unanticipated consequences from implementation of a trawl rationalization program. Harvesters (a person or entity that owns a vessel with a limited entry trawl permit) would apply prior to the start of the fishing year to gain access to this additional resource.

Adaptive Management Set Aside for Processors Option

If the Council adopts an initial allocation for processors, they would not be eligible to participate in the Adaptive Management program. One expected result of the trawl rationalization program is an increase in the number of non-whiting shoreside processors. Since there would not be an expectation of stranded capital, there would be no need for Adaptive Management Pounds (AMP) to mitigate any loss.

Issuance of Adaptive Management Pounds

Issuance of AMP to harvesters would be done on an annual basis though an application process. Although harvesters, processors, or other community entities can work collectively to formulate a plan that utilizes AMP, the AMP would be issued to the harvester since their vessel is subject to quota share accumulation limits for ownership and control. The Council could also choose to issue AMP to Regional/Community Fishing Associations. Under this option, the associations would be responsible for managing AMP awarded to their members. If the Council elects to allow associations to manage AMP, exemptions from accumulation limits may be necessary.

Application Review Committee

Applications would be reviewed annually during Council meetings by either an ad-hoc committee within the Council or by individual state review committees that operate subject to criteria specified by the Council. The reviews could occur using a two-meeting process, with final recommendations at the June meeting. The ad-hoc committee would review all applications and report directly to the Council; individual state committees would review only state-specific applications and report to the Council via a representative (e.g., NMFS or PSMFC representative). The committee would consist of individuals with broad interests (e.g., economists, scientists, elected officials, business owners, harvesters) where no more than 30% are directly linked to the fishing industry.

One potential benefit of a single ad-hoc committee would be more consistency in review of applications, although finding individuals who have the expertise to effectively evaluate each state's needs may be more difficult. Application review could also be labor intensive depending on the number of applications. Individual state review committees may have a better understanding of state-specific needs and be more able to effectively review the merits of each application and its impacts on local communities. State review committees may not be as consistent in their reviews and may require additional Council staff oversight.

Application Evaluation Criteria

The task of the committee(s) would be to review applications for AMP based on evaluation criteria to determine how much, if any, additional quota pounds would or could be granted to the harvester for the year. Prior to reviewing applications, the committee(s) would develop objectives to evaluate proposals, a ranking system to determine how well the applications are deemed to contribute to their objectives, a set of performance standards, and a mechanism for dealing with changes in business arrangements (i.e. how to deal with situations such as one member of the business plan going out of business).

The purpose of a point system is to minimize subjectivity in proposal evaluations. Applications would be scored on a predetermined point basis and a minimum score must be achieved to receive any AMP. Proposals that incorporate and make the best use of vulnerable communities, stabilizing existing processors or encouraging new ones, gear switching, or new entrants could be weighed more heavily and receive more points. The Council could provide guidance on which types of proposals they would give preference to prior to the start of the application process. Proposals that meet the minimum score would receive AMP subject to availability.

Any unused quota would be redistributed to the harvesters prior to the start of the fishing season based on proportions of quota shares.

The Council could include a provision for an application fee to cover program costs.

Restrictions on Use of Adaptive Management Pounds

The AMP will be valid for one year and only to the vessel for which they are issued. The AMP can not be transferred and the vessel cannot exceed accumulation limits. The geographic distribution of AMP management units would be determined by the Council. A harvester may hold AMP for an area in which it does not own quota shares.

Adaptive Management Program Implementation

Implementation of the Adaptive Management program could occur concurrent with the start of the trawl rationalization program or it could be suspended for the first two years. Implementation of the adaptive management program at the start of the trawl rationalization program could address community stability issues and mitigate for insufficient initial allocations of quota shares. If the Council chose this option the details of the Adaptive Management program (how much to set aside, members of application review committee, application review criteria) must be finalized at least one year prior to the start of the trawl rationalization program. This would allow the applications to go through the review process and return any unused quota pounds for the first year prior to the start of trawl rationalization program implementation.

Delaying implementation of the Adaptive Management program until a later date would provide additional time to finalize the details of the Adaptive Management program.

The Adaptive Management program would sunset 10 years after implementation, unless the Council chooses to extend its duration. If the Adaptive Management program sunsets, the quota pounds would be redistributed to quota share holders.

Adaptive Management Program Benefits

The Adaptive Management program will benefit some individuals and communities more than others. Presumably, greater benefits would be realized by smaller volume harvesters and vulnerable communities because proposals that incorporate them would be ranked higher in the application process and be considered for AMP before those that incorporate larger harvesters or more stable communities.

Smaller volume harvesters may not receive many quota shares initially and would benefit from the additional AMP as well as small to medium level processors who do not own their own vessels. Increased income from AMP could eventually allow them to purchase additional quota shares needed to maintain their current business plans. Benefits to vulnerable communities under this program could include new jobs to accommodate the increased business activity (e.g., ice, transportation) and increased profits to local businesses (e.g., fuel, groceries).

Harvesters who have reached their accumulation limits may not benefit under this proposal because they cannot apply for additional quota which would result in exceeding accumulation limits. Communities with strong infrastructure also may not benefit as much because preference may be given to those proposals from harvesters who choose to operate in a vulnerable community in an attempt to rebuild infrastructure.

The Adaptive Management proposal can address the needs of community and regional development, unforeseen circumstances, and community stability using a simplified mechanism that provides equal opportunities for industry and communities by increasing earning potential(s) for participants. The Adaptive Management proposal allows individuals/entities to work together in a manner that is mutually beneficial to all. The fishing industry's survival is dependent on reliable participation from everyone involved - harvesters, processors, and communities. The Adaptive Management proposal allows participants to address issues (e.g., rebuilding lost infrastructure, ensuring constant product supply) by providing capital via the sale of fish to build up infrastructure or to purchase quota shares to leave to harvesters that will land fish locally.

Because this program is voluntary, it does not restrict harvesters to specific areas and allows for flexibility in business planning. The number of quota share units to track under Adaptive Management would also be substantially reduced, resulting in decreased monitoring costs.

Examples of AMP uses:

1. **Community stability** – a harvester may submit an application for AMP to ensure a more reliable supply of product to processors in a particular port to maintain local processing jobs and stimulate the economy. Applications that include a declaration of intent to land in a vulnerable community may receive a higher overall ranking, resulting in AMP that may offset any increased costs of operating in that area. Applications that include harbor district contracts for local services (e.g., ice, delivery trucks, offloading) may also receive a higher ranking.

Examples for Shoreside Trawl:
Local community - in some vulnerable communities, members (e.g., harbor districts, local businesses, environmental groups, processors) could work together to form a business plan identifying the participants and detailing contractual agreements. The designated harvester could then apply for AMP which would be issued to individual vessel(s) (subject to accumulation limits). Profits from AMP could eventually be used by the community to purchase additional quota shares for that area.

2. **Gear Switching** – harvesters could apply for AMP that will allow them to catch additional fish while using gears with lower bycatch.

Examples for Shoreside Trawl:
Harvester – harvesters could apply for AMP using fishing gear that lead to a more efficient fishery, sustainable fishing practices and reduction in bycatch.

Example for Catcher-Processors in the At-sea Sector:
Harvester – Catcher-processors could apply for AMP as an incentive to test new gears (e.g., salmon excluders) that lead to a more efficient fishery, sustainable fishing practices and reduction in bycatch. Profits could be used to offset the costs of purchasing and testing the new gear.

3. **Mitigation of unforeseen circumstances** – in the event that new federal or state programs are implemented after rationalization that restrict a harvester's ability to prosecute their quota shares, the harvester could apply for AMP to mitigate this impact. Events may include, but are not limited to, new national marine sanctuaries or marine protected areas which restrict trawling or alternative energy projects which close off portions of the ocean for wave energy.

Examples for Shoreside Trawl:
National Marine Sanctuary – implementation of a national marine sanctuary that restricts trawling could inhibit a harvester's ability to harvest their quota shares. In some instances national marine sanctuaries can be very large and effectively close off profitable fishing ground. If a national marine sanctuary encompasses remote ports, the ability for a harvester to re-locate to a new area or travel to new fishing grounds outside the sanctuary may be limited. Switching to new gear that meets sanctuary restrictions may be prohibitively expensive without additional economic assistance. Profits from AMP could be used to offset the costs of purchasing the new gear.

4. **Long term business planning** – a harvester may submit an application for AMP of a particular species for which their accumulation limit has not been reached to allow for expanded fishing opportunities.

Examples for Shoreside Trawl:
Harvester – initial distribution of quota shares may result in a species portfolio for some harvesters that is not indicative of their current business practices. Profits gained from AMP could be used to purchase additional quota shares to more closely match their species portfolio prior to the trawl rationalization program. This may make fishing more economically feasible for some harvesters with low initial quota shares.

Processor – a small level processor that does not own a permitted vessel could enter into an agreement with a harvester to maintain a reliable product supply through exclusive access. The harvester could then apply for AMP which would be issued to individual vessel(s) (subject to accumulation limits). Profits gained from AMP would allow a processor to purchase quota shares at a later date to meet their production needs.

Examples for Catcher Vessels Delivering to Motherships in the At-sea Sector:
Harvester – For some harvesters, the initial distribution of quota shares may result in a whiting allocation that is not indicative of their current business practices. Profits gained from AMP could be used to purchase additional quota shares to more closely match their species portfolio prior to the trawl rationalization program. This may make fishing more economically feasible for some harvesters with a low initial quota shares.

5. **New entrants** – intended to provide a mechanism for entering the fishery. This could allow for development of specialty opportunities addressing niche markets or provide increased revenue to vulnerable communities.

Examples for Shoreside Trawl:
Processor – processors wanting to enter the fishery in vulnerable ports or create a niche fishery could contract with individual harvesters to guarantee product supply. The AMP would be issued to the vessel(s) (subject to accumulation limits), but written contracts would guarantee product supply to the processor. Profits gained could eventually be used to purchase quota shares.

Deckhand – deckhands wanting to enter the fishery can form a contract with a harvester and the harvester can apply for AMP. The AMP would be issued to the vessel(s) (subject to accumulation limits), but a written contract would solidify terms of the contract (e.g., what proportion of the profits the deckhand would receive). Profits gained from AMP may eventually allow a deckhand to purchase their own shares which they could then put on someone's vessel.

Example for Catcher Vessels Delivering to Motherships and Catcher Processors in the At-sea Sector:
Deckhand – deckhands currently working on a catcher vessel delivering to a mothership or catcher-processor may aspire to own quota shares. The deckhand could form a contract with the vessel and apply for AMP. The AMP would be issued to the vessel(s) (subject to accumulation limits), but a written contract would solidify terms of the contract (e.g., what proportion of the profits the deckhand would receive). Profits gained from AMP may eventually allow a deckhand to purchase their own shares which they could then put on someone's vessel.

6. **Increased Product Recovery** – Mothership operators in the whiting sector could apply for AMP that will allow them to catch additional fish while increasing product recovery rates.

Example for Motherships in the At-sea Sector:

Harvester – Mothership operators could apply for AMP as an incentive to test new processing equipment to minimize the amount of bycatch that is discarded or turned into fish meal. Profits could be used to offset the costs of purchasing and testing the new gear.

ENFORCEMENT CONSULTANTS REPORT ON FISHERIES MANAGEMENT PLAN AMENDMENT 20-TRAWL RATIONALIZATION

The Enforcement Consultants (EC) have evaluated the alternatives for the Fishery Management Plan Amendment 20-Trawl Rationalization, and have the following comments.

Where indicated, our comments will reference the Groundfish Allocation Committee (GAC) October 8th and 9th meeting minutes (Agenda Item F.3.e), Appendix A, (Agenda Item F.3.c Attachment 2, Analysis of Components, Elements, and Options for the individual fishing quota (IFQ) alternative trawl individual quota [TIQ] Components Analysis) or Appendix B, (Agenda Item F.3.c, Attachment 3, Analysis of Components, Elements, and Options for the Harvest Cooperative Alternative Cooperative Components Analysis). Although the EC is prepared to comment on a number of the proposals and options, the EC will have no comments on allocation of quota share (QS).

SHORESIDE IFQ PROGRAM

A-1.1 Scope of IFQ Management

The EC endorses the GAC recommendation that Amendment 20 exclude certain species for all sectors as listed in Table A-1, top block on page A-14, Appendix A.
For the shoreside trawl sector, IFQ is not required for:

Longspine South of 34º 27´	California Scorpionfish
Minor Nearshore Rockfish N	Cabezon
Minor Nearshore Rockfish S	Kelp Greenling
Black Rockfish (WA)	Shortbelly
Black Rockfish (OR-CA)	Other Rockfish
Spiny Dogfish	

Gears and Fisheries Covered

The EC endorses the GAC recommendation that vessels with a limited entry (LE) trawl permit using the following gear type should fall under the scope of the program: legal groundfish trawl; anchored longline (except when used with a fixed gear permit); anchored fishpot (except when used with a fixed gear permit); anchored vertical hook and line; dinglebar; hand jig; setnet, vertical hook and line to include rod and reel; and California halibut gear.

Gear Switching /Gear Conversion

The EC supports the GAC recommendation that gear switching be allowed at a frequency that is not constrained beyond what is necessary for the integrity of the program. Gear switching and gear conversion will add complexity to regulation development and tracking mechanism. For this reason, the EC supports the GAC recommendation that gear conversion be considered as a trailing amendment some time after implementation of the program.

A-1.3 General Management and Trawl Sectors
The EC endorses the preliminary preferred alternative calling for three trawl sectors; shoreside, mothership, and catcher-processor as described on page A-36 of Appendix A.

A-1.4, Management of Non-Whiting Trips
The EC endorses A-1.4, Management of Non-Whiting Trips as described on page A-39 of Appendix A.

A-1.5 Management of Whiting Trips
The EC endorses A-1.5 Management of Whiting Trips as described on page A-40 of Appendix A.

A-1.6 Groundfish Permit Length Endorsement
The EC endorsed A-1.6, eliminating the length endorsement restrictions for vessels using limited entry trawl gear described on page A-41 of Appendix A.

A-2.2 Permit/Holding Requirements and Acquisition

A-2.2.1 Permit/IFQ Holding Requirement

The EC endorses Elements 1 and 2, Element 3 as amended (see A-2.2.2.b Surplus and Deficit of this statement), Element 4 as amended, and Option 3 of Element 6, (page A-182, Appendix A). Under these provisions, four management components will define and direct an LE trawl vessel's groundfish harvesting privilege.

1. The vessel itself will need to be eligible; i.e. USCG doc number, state registration, hull was not built in a foreign country, etc.
2. A limited entry groundfish trawl permit must be assigned to the vessel.
3. The vessel holds a current observer certification declaring the vessel is safe and can appropriately accommodate an observer.
4. Quota pounds have been assigned to the vessel IFQ account controlled by the vessel owner or operator.

What happens when a vessel upon making a landing incurs a deficit in its IFQ account? Although the details will need to be developed administratively, one option may be the immediate issuance of a letter, notifying the account holder that they have thirty days to cover their deficit. After thirty days, the deficit will be investigated as a violation of Federal law. If the vessel is found fishing using gear covered by the scope of IFQ management while in deficit, an additional charge would be investigated.

Element 4 expands the list of prohibited fisheries while a vessel is in deficit. The application of this element should be restricted to only those fisheries that fall within the scope of the IFQ program.

Element 5 reads*: for vessels with an overage, the limited entry permit may not be sold or transferred until the deficit is cleared.* The original intent of this element was to "freeze" the fishing asset by freezing the LE permit. Quota pounds will be assigned to the vessel's IFQ account and not the LE permit. Couple this with the fact that numerous latent LE permits will be

available because of the expected consolidation within the fishery, and this element may not achieve the original intent.

The EC has had initial discussions with NOAA General Counsel (GC) and General Counsel for Enforcement Litigation (GCEL) on enforcement of the TIQ program elements found in Appendix A, with particular emphasis on enforceability and due process. NOAA GC and GCEL have noted that Element 5 would require NMFS to promulgate a rule which pre determines a sanction flowing from a violation where a vessel exceeds its quota pound allotment. It was also noted by NOAA GC and GCEL that Element 5 lacks due process. The EC has concluded Element 5 is unnecessary and more importantly, procedurally unacceptable.

Some may ask why this "permit sanction" is different than being prohibited from fishing with a deficit account. Analogy to a past primary whiting fishery provides the explanation for why the prohibition on fishing while in deficit is not a sanction. The primary whiting fishery received an allocation of whiting and bycatch, and was closed upon attainment of that allocation, in this case the canary cap. A vessel's IFQ account is in essence, an individual allocation. And just as with the whiting fishery, when the allocation was reached and the fishery was closed, upon attainment of an individual allocation, the individual vessel's season is closed. Fishing with an IFQ deficit is analogous to fishing during a closed season. After 30 days the initial deficit violation and subsequent closed fishing violations would be addressed through the enforcement process where discovery, investigation, penalties, permit sanctions, and reconciliation of the account deficit would all be addressed.

Element 6 began as a discussion of how to deal with covering overages that involve overfished species where QS or quota pounds (QP) may not be available to cover landed catch deficits. Options 1 and 2 of Element 6 have expanded this discussion to cover all species. The EC believes this is beyond the scope of the concern regarding QP availability. QS and QP for workhorse stocks will be readily available for sale or lease. An exception to the requirement to cover a landed deficit as articulated in Element 4 for these stocks is unwarranted.

Options 1 and 2 of Element 6 have given the EC notable concern regarding tracking and compliance monitoring. As with Element 5, NOAA GC and GCEL have concerns that Options 1 and 2 lack due process, and would again require the NMFS to promulgate a rule which pre-determines sanctions flowing from an event where a vessel exceeds its quota pounds. Therefore, we find Options 1 and 2 of Element 6 procedurally unacceptable.

We have noted since the beginning of the discussions around this issue that fishermen have discussed entering into contracts amongst themselves to create by-catch insurance coops where by-catch allocations will be pooled with other fisherman to give coverage to fishermen who experience a "lightning strike" involving overfished species. This may be in fact the "best alternative." The EC recommends Option 3 of Element 6, (No exceptions to Element 4 of this provision) be included in the preferred alternative.

A-2.2.2 IFQ Annual Issuance

A-2.2.2.a Annual Quota Pound Issuance.
The EC endorses A-2.2.2.a, as described on page A-195, Appendix A. Upon initial issuance, QP will be issued to QS holders on an annual basis. Once issued, QP are assigned by the QP holder

to a vessel's IFQ account. Once QPs are assigned to a vessel IFQ account, the QP are controlled by the vessel owner. The QP themselves will hold no ownership distinction throughout the assigned calendar year other than their assignment to a vessel IFQ account. This lack of distinction will allow for overage and rollover issues to be administered through the vessel IFQ account without having to track ownership of the multiple QS holders who may have assigned QP to the IFQ account.

Schemes that would tie QP use to an owner on board provision would require QP to have an ownership designation. This would be expensive. Ownership distinction of QP is analogous to a bank tracks dollars in an account, not only by dollar amount, but by individual serial number of the dollars in that account.

A-2.2.2.b Surplus or Deficit
The EC supports allowing a deficit in a vessel's QP account from one year to be carried over and covered with QP from a subsequent year, but does not support allowing a surplus in a vessel's QP account to be carried over from one year to the next (page A-196 of Appendix A).

Carryover of a deficit is necessary to administer A-2.2.1 Element 4 and is therefore justified, but we have identified a complication in administering A-2.2.1 Element 3 that we believe needs to be addressed. Per Element 3, all catch taken on a trip must be covered with QP within 30 days of the landing for that trip unless the overage is within the limits of the carryover provision.

The EC's original support of the carryover provision contained within Element 3 was made with an assumption. Allowing overages within the carry over limits assumed that the QP assigned to a vessel IFQ account in the year a deficit occurs would again be assigned to the vessel IFQ account in the following year, whereupon the vessel IFQ account would reactivate, be made whole, with little risk to the resource.

But this may not be the case. Example: A vessel owner owns 100 pound of quota and has an additional 1900 QP assigned to his vessel by other QP holders for a total of 2000 QPs. On May 1, the vessel incurs a deficit of 199 QP, which is within the 10 percent (the proposed carryover allowance) of the QP assigned to the vessel and thus the vessel discontinues fishing. On January 1, when it is assumed that the vessel would have 2000 new QP assigned to the vessel, of which 199 QP would be deducted to cover the deficit, the vessel IFQ account in fact only contains the vessel owner's 100 QP. The other 1900 QP have been reassigned to other vessels by the other contributing QP holders. As a result, the vessel owner still has a 99 QP deficit, but has in fact delayed investigation and potential prosecution of the alleged overage violation for seven additional months.

QS/QP holders are not bound to a vessel in subsequent years and cannot be held accountable for a QP deficit incurred by a vessel owner without due process. Delaying investigation and subsequent prosecution of a violation is not and can not be the intent of the carryover provision. The EC recommends that the carryover provision contained within Element 3 of A-2.2.1 be eliminated.

LEP Trawl groundfish, whether managed under trip limits or IFQs, will be constrained by overfished species into the foreseeable future. This summer's experience in the whiting fishery is our most recent example. Under IFQ management, workhorse stock OY allocations might not

be achieved in the near term. They will be constrained to some level. Carryover of allocation at a ten to thirty percent level through a one year cycle is at best a marginal benefit which needs to be examined in relationship to cost.

Throughout this process, we have been reminded that there are three variables to cost. You can have it accurate, fast, or cheap. You can have any two in combination, but you can't have all three. The EC believes IFQ accounting needs to be accurate. We have heard from industry that they want IFQ accounting to be fast. Presumably this includes reconciling IFQ accounts at the end of the year. A carryover provision will make "fast" IFQ account reconciliation very expensive.

The Alaska Region included a roll over provision in its initial foray into IFQ programs, the Halibut and Sablefish IFQ program, but has since not included carryover in any of the numerous rationalization programs which have followed. The Sablefish/Halibut program closes in November and opens in March. It takes three months to reconcile IFQ accounts. Some of this delay can be attributed to the carryover provision. The advice received from the NMFS Alaska Region IFQ and Coop administrators on this issue has been *"don't go there." "It is unnecessary and costly."*

The EC is also reminded of the advice given to us by our Canadian neighbors who have spoken to the Council on IQ issues on numerous occasions. *"Walk before you run." "Keep it simple to begin with*." The discussion of carryover used in the Canadian fishery found on pages A-204 and 205 of Appendix A underscores our concern regarding complexity. Suspension of permits as done in Canada is not an option. Due process is again a concern.

Carryover of surplus adds an unnecessary administrative and enforcement burden and complication to an already overly complicated tracking and monitoring responsibility. For these many reasons, the EC recommends that rollover of surplus shares be held back from the initial implementation of the TIQ program, and if deemed necessary and affordable, be implemented as a trailing amendment.

A-2.2.3 IFQ Transfer Rules

The EC supports A-2.2.3.a, Eligible to Own or Hold IFQ Provisions and Options as stated on page A-212 of Appendix A.

> Those eligible to own QS/QP will be restricted to (i) any person or entity eligible to own and control a US fishing vessel with a fishery endorsement pursuant to 46 USC 12108 (general fishery endorsement requirements) and 12102(c) (75 percent citizenship for entities) and (ii) any person or entity that owns a mothership that participated in the West Coast groundfish fishery during the allocation period and is eligible to own or control that US fishing vessel with a fishery endorsement pursuant to sections 203(g) and 213(g) of the AFA.

A-2.2.3.b and c Transfers and Leasing

The EC supports the transfer and leasing provisions, options, and preliminary preferred alternative as stated on pages A-220 and A-222 of Appendix A.

> QS/QP will be transferable and transfers must be registered with NMFS. NMFS will not differentiate between a transfer for a lease and a permanent transfer.

QS will not be transferred in (Sub Option 2) the first two years of the program. QP will be transferable.

A-2.2.3.d Divisibility
The EC supports QS being highly divisible and the QP being transferred in whole pound units, (page A-225, Appendix A).

A-2.2.3.e Accumulation Limits (Vessels and Controls)
The EC supports the concept of Vessel Use Limits and Control Accumulation Limits as defined on page A-226 of Appendix A, and the Control Accumulation Limit Rule found on page A-230.

The EC supports Option 3 of the Grandfather Clause found on page A-237 of Appendix A.

There will not be a grandfather clause.

Grandfathering of QS is an additional complexity, with an additional tracking and monitoring cost, inserted into an already overly complex tracking and monitoring system.

A-2.3.1 Tracking, Monitoring, and Enforcement

A-2.3.1.a Discarding
The EC supports the preliminary preferred alternative for discarding found of page A-313 of Appendix A.

A-2.3.1.b Monitoring
The EC supports the preliminary preferred alternatives for At-Sea Catch Monitoring and Shoreside Landings Monitoring as described on Page A-314 of Appendix A.

A-2.3.1c Catch Tracking Mechanisms
The EC supports the preliminary preferred alternative listed on page A-316 of Appendix A.

The EC believes this element should not include reference to Vessel Monitoring System (VMS) based transmittals at this time. While the EC believes this is the future of logbook transmittals, the infrastructure which allows for VMS transmittal may not be in place at the time of IFQ implementation. We do not want to see an e-logbook requirement delayed because the VMS transmittal component is not yet in place. We recommend the reference to "VMS based" be removed from the preliminary preferred alternative.

A-2.3.1.d Cost Control Mechanisms
The EC supports the preliminary preferred alternatives of limited landing hours, shoreside site licenses, and vessel certifications, as described on page A-317 of Appendix A.

Shoreside site licenses will insure delivery sites have the infrastructure to support delivery and reporting of landing as required by the program. Vessel certifications will insure vessels are safe and can properly accommodate observers assigned to the vessel. Shoreside landing hour restrictions will facilitate scheduling of catch monitors.

In analyzing the concept of landing hour restrictions, the EC has identified an additional cost issue that needs to be addressed. Per this element, processors and vessel owners will be required to report landing immediately after off-load. What happens when the technology fails and the equipment precludes reporting "immediately?" There will need to be a backup plan, in this case, perhaps a real person to call and report the landing. This will require staffing, not necessarily dedicated staffing, but someone who can be called during business hours or extended business hours, 24/7 would be very costly. Controlling costs starts with a restricted landing hour provision.

Notification of Offload Times
Notification of offload times is a twist on the concept of designated landing hours that the EC would like added to the preferred alternative. Under this proposal, processors would be required to call and report anticipated offloads three hours (or some designated appropriate time period) prior to offload. This will allow enforcement the option of dispatching an officer/agent to monitor the offload. This is a program element that has proven beneficial in Alaska IFQ programs. Some have suggested that VMS would serve this purpose. But VMS can only tell you a vessel's location, not when an offload will commence. Given that processors will be scheduling offloading crews, processing crews, and catch monitors, it is assumed that the processors know well in advance when offloading of a particular vessel will begin.

A-8 Regional Landing Zones
The EC recommends A-8 regional landing zones be rejected. We recommend QS/QP carry designations for the species/species groups, area, and trawl sectors which reflect the OYs specified in the acceptable biological catch (ABC)/optimum yield (OY) table that are generated through the current groundfish biennial specifications process. The EC is concerned the alternative approaches creating regional landing zone restrictions, or splitting the species or species groups at the 40º 10´ line, other than to address a specific biological concern or management objective will lead to undue complexity for managing QS or QP.

AT-SEA COOPERATIVES

B-1 Whiting Sector Management under Co-ops

B.1.2 Annual Whiting Rollovers
The EC supports the preliminary preferred alternative, no roll over from one sector to another, (page B-20, Appendix B).

B-1.3 Bycatch Species Management

B-1.3.1 Bycatch Allocation Subdivision
The EC supports the preliminary preferred alternative found on page B-22, Appendix B.

B-1.3.2 Bycatch Management
The EC supports the preliminary preferred alternatives found on pages B-22-23, Appendix B.

B-1.4 At-sea Observers/Monitors
The EC recommends:

1. The current observer program is retained for motherships and catcher/processors. The sorting, weighting, and discarding of any IFQ or IBQ species must be monitored by an observer.
2. Require observers on catcher vessels delivering to motherships.
3. VMS required for catcher vessels, motherships, and catcher/processors
4. Mandatory logbooks for catcher/processors, motherships, and catcher vessels delivering to motherships.

B-2 Whiting Mothership Sector Co-op Program

B-2.1 Participation in the Mothership Sector
The EC endorses the concept of requiring catcher vessels (CV) to have a CV mother ship (MS) endorsed permit to participate in the mothership sector.

B-2.4.1 Formation and Modification of Processor Tie Obligations.
The EC's concerns for processor linkage are three fold: creating a race for fishing within the non coop mothership sector, creating a third regulatory program in the at-sea sector, and increased regulatory complexity and costs for enforcement. Alternatively, negating processor linkage in the at-sea sector reduces the need for government regulated coops. Absent processor linkage, a catcher vessel will receive quota, whereupon catcher vessels can form private contractual coops. Catch vessel coops can have formal relationships with motherships without the need for government regulations. Catcher/Processors have already demonstrated their ability to conduct business as a coop in the at-sea sector absent government regulation.

B-2.2.2 Mothership Processor Permit
The EC endorses the concept of a MS permit.

B-2.5 NMFS Role
The EC endorses the provisions of B-2.5 found on pages B-85-86.

Costs, what is Essential?
The proposed preliminary preferred alternative for Amendment 20 is not one LAP program, but in fact four: IFQs for shoreside; coops for catcher processors; coops for motherships; and within the mothership sector, an open access sector necessitated by processor linkage. As presented, these multiple programs will be very costly it terms of both agency costs, and continued need for Council meeting time. Prudent management would dictate that the preferred alternative be crafted in a manner that allows Amendment 20 to achieve the goals and objectives of the program within the three percent cap. This will require the Council to make hard choices about what is essential and what is not.

If IFQ management is adopted, allocation, catch accounting, tracking, and monitoring elements are essential. Enforceability is essential. When considering IFQ as a management tool, essential enforceability elements include: site licenses, vessel certification, landing hour restrictions, and notification of offload times.

In Summary

The EC recommends the following elements be included in the Council's preferred alternative for Fisheries Management Plan Amendment 20-Trawl Rationalization:

1. A-1.1, Scope of IFQ Management
    1. Exclude certain species for all trawl sectors as listed in Table A-1, Top Block on page A-14, Appendix A.
    2. Scope of the IFQ program to include: legal groundfish trawl; anchored longline (except when used with a fixed gear permit); anchored fishpot (except when used with a fixed gear permit); anchored vertical hook and line; dinglebar; hand jig; setnet, vertical hook and line to include rod and reel; and California halibut gear.
    3. Gear Switching be allowed at a frequency that is not constrained beyond what is necessary for the integrity of the program.
    4. Gear conversion is considered as a trailing amendment sometime after implementation of the program.

2. A-1.3, Option 1 of the preliminary preferred alternative: three trawl sectors; shoreside, mothership, and catch-processor, (page A-36, Appendix A).

3. A-1.4, Management of Non-Whiting Trips, (page A-39, Appendix A).

4. A-1.5, Management of Whiting Trips, (page A-40, Appendix A).

5 A-1.6, Eliminating Permit Length Endorsement, (page A-41, Appendix A).

6. A-2.2.1, Permit Holding Requirements, (page A-182, Appendix A).
    1. Elements 1, 2, and 4 as written.
    2. Element 3, but strike "unless the overage is within the limits of the carryover provision (Section A-2.2.2.b)."
    3. Amend Element 3 to only include those fisheries that fall within the scope of the IFQ program.
    4. Option 3 of Element 6.

7. A-2.2.2.b Surplus or Deficit (page A-196, Appendix A).
    Carryover of deficit only for purposes of administering A-2.2.1, Element 4

8. A-2.2.3 IFQ Transfer Rules, (page A-212, Appendix A)

9. A-2.2.3.b and c Transfer and Leasing, (pages A-220-222, Appendix A).
    1. QS/QP will be transferable and transfers must be registered with NMFS.
    2. NMFS will not differentiate between a transfer for a lease and a permanent transfer.
    3. QS will not be transferred in (Sub Option 2) the first two years of the program.
    4. QP will be transferable.

10. A-2.2.3.d, Divisibility, (page A-225, Appendix A).

11. A-2.2.3.e, Vessel Use Limits and Control Accumulation Limits as defined on page A-226 of Appendix A.
    1. Adopt the Control Accumulation Limit Rule found on page A-230.
    2. Set control limits lower than vessel limits.
    3. Modify implementation rule #2, (page 1 of Agenda Item F.3.c Additional Analysis November, 2008 to read: both QP and QS ownership count against the control limits but the vessel account is exempt from the control limit.
    4. No grandfathering clause.

12. A-2.3.1.b, Discarding, preliminary preferred alternative, (page A-313, Appendix A).

13. A-2.3.1.b, Monitoring, preliminary preferred alternative, (page A-314, Appendix A).

14. A-2.3.1.c, Catch Tracking Mechanism, preliminary preferred alternative, but strike reference to "VMS based," (page A-316, Appendix A).

15. A-2.3.1.d, Cost Control Mechanism, preliminary preferred alternatives for landing limit hours, shoreside site licensing, vessel certifications (page A-317, Appendix A).

16. Add Notification of Offload Times to A-2.3.1.d Cost Control Mechanisms and to the preferred alternative:
    Processors are required to call and report anticipated offloads three hours (or some designated appropriate time period) prior to offload.

17. B.1.2 Annual Whiting Rollovers, preliminary preferred alternative found on page B-20, Appendix B.

18. B-1.3.1 Bycatch Allocation Subdivision, preliminary preferred alternative found on page B-22, Appendix B.

19. B-1.3.2 Bycatch Management, preliminary preferred alternative found on pages B-22-23, Appendix B.

20. B-1.4 At-sea Observers/Monitors, include elements:
    1. The current observer program is retained for motherships and catcher/processors.
    2. The sorting, weighting, and discarding of any IFQ or IBQ species must be monitored by an observer.
    3. Catcher vessels delivering to motherships be required to carry observers.
    4. VMS required for catch vessels, motherships, and catcher/processors.
    5. Mandatory logbooks required for catch/processors, motherships, and catcher vessels delivering to motherships.

21. B-2.1 Participation in the Mothership Sector, require catcher vessels to have a CV (MS) endorsed permit to participate in the mothership sector.

22. B-2.2.2 Mothership Processor Permit, require motherships to have a MS permit to participate in the mothership sector.

23. Include the provisions of B-25, pages B-85.86 Appendix B.

PFMC
11/04/08

GROUNDFISH ADVISORY SUBPANEL REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT 20 – TRAWL RATIONALIZATION

The Groundfish Advisory Subpanel (GAP) spent a day and half discussing the trawl rationalization fishery management plan amendment. In addition to hearing presentations from Jim Seger and Merrick Burden, we reviewed the Groundfish Allocation Committee report and worked from the document Agenda Item F.3.b, Key Decisions. We took public comment on each issue that we deliberated on.

The GAP would like to encourage the Council to make as many final preferred option decisions as possible while acknowledging that there are many more minor decisions to be made in the coming months prior to final implementation.

The GAP has the following comments and recommendations:

1. Individual Fishing Quotas (IFQs) or Co-ops

The GAP recommends that the at-sea sectors (catcher/processors and mothership sectors) be managed by co-ops and that the shoreside fishery should be managed under an Individual Trawl Quota (ITQ) program. While the shoreside whiting sector voiced strong support for a cooperative approach to management, this option is not currently available to managers and would require an act of congress to move forward.

2. Species Covered

The GAP recommends that for species managed under an ITQ system, ITQ is required for all species except Longspine South of 34°27", Minor Nearshore Rockfish North, Minor Nearshore Rockfish South, Black Rockfish (WA), Black Rockfish (OR-CA), California Scorpionfish, Cabezon, Kelp Greenling, Shortbelly, Other Rockfish, Spiny dogfish. These species are either not caught or rarely caught in the trawl fishery and would be more easily managed through a monitoring system.

3. Number of Trawl Sectors

The GAP recommends that there be three trawl sectors and the shoreside whiting and non-whiting fisheries should be managed as one sector. The shoreside fisheries should be managed as one sector to maximize the flexibility of quota holders to cover overages or move quota to cover bycatch as necessary. If voluntary co-ops are to form in the shoreside whiting fishery it is essential that an adequate amount of bycatch to be brought to the pool. If the shoreside fisheries are managed as one sector it will maximize flexibility and enhance the formation of co-ops. Four sectors also drive up the administrative cost of the program.

4. Processor Linkage in the Mothership Co-op Program

A majority of the GAP (13 in favor, 1 against, 3 abstentions) recommends including a processor linkage in the mothership co-op program and there is strong support from the industry for a linkage. The GAP supports an option where 80 percent of a catcher vessel's catch must be delivered to the mothership that they delivered the majority of their catch to in the previous year, unless they participate for a year in the non co-op fishery (i.e. the GAC Option 2 with 80/20

linkage). The GAP supports the GAC recommendations for when the mothership leaves the fishery: allowing a catcher vessel to deliver to the mothership of its choice, rather than be required to participate in the non co-op fishery, if the mothership to which it is obligated withdraws from the fishery without the establishment of a mutual agreement. In the event of such an occurrence, the tie to the departing mothership would be broken a new tie established between the catcher vessel and the mothership to which the catcher vessel chose to deliver.

5. Initial Allocation of Quota Shares

The majority of the GAP supports an initial allocation to harvesters of 100% of the quota shares (11 in favor, 3 against and 2 abstentions). Further the GAP believes that the initial allocation formula for permits should include an equal sharing element and the allocation of incidentally caught overfished species be based on history or bycatch rates applies to quota share allocations using permit specific logbook information.

The GAP believes that the majority and minority view rationale will be well expressed through the public comment process.

6. Accumulation Limits

The GAP had a lengthy discussion regarding accumulation limits. And while we agree and recommend that the program contain accumulation limits, we are not prepared with the information we currently have, to make recommendations on percentage amounts for individual species. The GAP does recommend that the vessel limit and the individual control limit should be set equally. There was strong support for setting the limits in a fashion that did not negatively impact fishermen forcing them to divest quota shares. However there was also a discussion about how we want the fleet to look in the future with regards to consolidation. The choice of accumulation limits will be paramount to accomplishing the future fleet structure.

7. Area management / regional management zones. GAC Recommendation

The GAP believes that if there is a biological need that should be addressed through area management that it should be included in the program. We are not in favor of regional management zones.

8. Gear Switching

The GAP recommends gear switching be allowed in the trawl rationalization program with minimum constraints on fishermen. We are not supportive of permanent gear conversion now or in the future under this program.

9. Length Endorsements

The GAP is undecided on this issue and believes more analysis is necessary in order to make an informed recommendation on this issue. The GAP would like the Council to clarify their intention of whether this would apply to all limited entry permits held in each sector and the GAP believes that all permits should be treated the same.

10. Annual Whiting Rollovers

We recommend the Council adopt Option 2 (status quo) as the final preferred alternative. The Council identified Option 1 (no rollovers) as the preferred preliminary alternative (PPA) under B-1.2. The primary reason for including Option 1 in the PPA was the belief that with

rationalization of the whiting fishery there would never again be any unharvested whiting. However, Appendix B clearly states: "If a rollover mechanism is not established, harvestable amounts of the whiting OY are likely to be foregone, resulting in less revenue than would otherwise be the case." The analysis also suggests Option 1 may harm the fishery; that is, "Not allowing a rollover may mean that the available harvest is not realized in some years, potentially reducing economic activity." That is, the analysis shows that Option 1 could prevent attainment of the annual whiting OY and reduce economic benefits from the fishery. In contrast, there are no problems identified in the analysis with the status quo process for rollovers of unharvested whiting from one sector to another. Therefore, the GAP recommends maintaining the status quo discretionary authority that facilitates attainment of the whiting OY.

11. Program duration and modification

The GAP believes that the program should be reviewed periodically but that no sunset clause should be included with the program.

12. Adaptive Management

A majority of the GAP (10 in support, 7 against) recommends a set-aside of up to two percent of quota shares be set aside for adaptive management. The adaptive management must be more clearly defined and should only be used for those specific purposes which address unintended consequences of implementing the program. The adaptive management program should not be used to develop new fisheries or reallocate fish away from the trawl sector. The GAP believes that 10 percent of the quota share for adaptive management is excessive and equates to a significant amount of quota pounds that will negatively impact trawlers. If the set aside is not utilized then it should be returned to the fishermen.

PFMC
11/04/08

THE GROUNDFISH MANAGEMENT TEAM (GMT) REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT 20 – TRAWL RATIONALAIZATION

Accumulation Limits

General Considerations

The Groundfish Management Team (GMT) discussed the issue of accumulation limits for vessels and the additional analyses provided by Council Staff under Agenda Item F.3.c. Vessel limits are production unit level limits that can achieve the following objectives:

- assure that there is at least some minimum number of fishing vessels in the fleet in order to support more job positions and the demand for more equipment, supplies, and support from fishing communities;
- increase the likelihood that harvest will be geographically dispersed; and
- serve as a back-up to the control limit.[1]

Vessel limits should be distinguished from control limits. Control limits are intended to limit the amount of quota any one entity can own and have implications for issues like market power, the distribution of trawl rationalization benefits, and other social considerations. While the two limits are closely linked and sometimes difficult to separate, the GMT's discussion focused primarily on vessel limits because they appear to be more closely related to management goals such as fleet consolidation and harvesting efficiency.

The GMT identified a fundamental tradeoff associated with the setting of vessel limits. In short, lower limits create some risk of hampering harvesting efficiency (by potentially limiting the amount of revenue a boat can earn) whereas higher limits increase the potential for fleet consolidation, which can adversely affect some communities. Table 1 outlines some of the potential costs and benefits underlying this basic level tradeoff.

Table 1. Comparisons of trade offs for higher or lower vessel limits.

	Costs	Benefits
Higher limits	• Fewer jobs • Loss of vulnerable communities	• More profitable fleet • More efficient harvest
Lower limits	• Many vessels/Unharvested OY • Geographic discrepancies • Reduced fleet efficiency	• Community stability • Fleet diversity • Ease of correction

The GMT examined this fundamental tradeoff and identified basic differences between target species and overfished or otherwise constraining species; low value and high value species; and, species that are widely dispersed and those with a limited geographic range (e.g., Pacific cod). Discussions to date have focused on evaluating vessel limits based on past performance in the

[1] See p. A-228 of the Trawl Rationalization Decision Document

fleet. However, as discussed below, the GMT suggests that it may be equally or more informative to look forward at what harvesting behavior might look like under the individual fishing quota (IFQ) system.

The GMT spent considerable time discussing the issue and concluded that there is no easy or precise answer on what vessel limits should be. Most of the GMT's time was spent identifying this "big picture" framework. The GMT did not have time to go through and weigh the proposed species-specific limits in Option 1 and Option 2. Even with additional time to do so, the best the GMT could provide would be a mostly qualitative evaluation of how the general tradeoffs might apply for each species.

Given the complexity and uncertain effect of specific vessel limits, the Council's decision will inevitably remain a policy call. The GMT thus envisions that the Council might wish to revisit initial limits after implementation when information is available on the performance of the program. In light of this, the GMT discussed potential differences in the feasibility of raising limits versus lowering them after implementation. The initial impression of the GMT is that it would be easier to raise limits than to lower them.

Vessel Limits on Non-Overfished Species

Vessel limits for non-overfished species (or non-constraining species in particular) are not likely to operate in a manner that resembles control, except perhaps in extreme cases. This is because the degree of concentration of target species on particular vessels does not necessarily restrict access to the fishery, and also because many types of target species are sold into a similar market. For example, if one vessel was attempting to exert control over Dover sole, other vessels could potentially circumvent that effort by fishing another type of flatfish, which is a close substitute. Therefore, unnecessarily low vessel limits for non-constraining species could potentially effect the ability of individuals to specialize in a particular target strategy.

In general, for lower value target species that are caught in high volumes, a higher vessel limit would be needed for operations that might want to specialize in that strategy to be profitable enough to do so. Alternatively, species such as Dover sole are more ubiquitous in the trawl fishery and lower vessel limits might lead to less consolidation in the fleet and/or reduced ability to fully harvest the optimum yield (OY). In other words, if a vessel limit of 1 percent were set for Dover sole, then at least 100 vessels would be required to access the OY.

Vessel Limits on Overfished Species

Overfished species vessel limits are closely related to control. One concept discussed repeatedly in the trawl rationalization process is the ability to form risk pools. The Rationalization Environmental Impact Statement (EIS) indicates that the ability to form and maintain risk pools is heavily influenced by whether or not particular entities have the ability to dominate the outcome of that pool, and this can occur if few entities hold the majority of the overfished species quota. While vessel limits are not technically control limits, the outcome is similar when taken into the context of overfished species because the constraining nature exhibited by one overfished species cannot be overcome by substituting that species for another. This is different than many target species for several reason including, A) target species do not operate as a constraint to the fishery, and B) that many types of target species can be substituted for one another in the market place.

Since the constraining nature of some overfished species cannot be overcome by acquiring quota of another overfished species, the vessel limit can be viewed similarly to control. In order to ensure that risk pools can be formed and sustained, it is important to set vessel limits that do not allow individuals to exert particular control that may disrupt the risk pool. Based on Council staff analysis contained in Agenda Item F.3.c, Supplemental Analysis 2, control can be exerted if limits are set higher than 10 percent. While control may not be exerted at higher levels, the possibility of exerting control increases as the vessel limit is raised for overfished species.

Vessel Limits as a Function of Revenue

One way to look at vessel limits might be to examine the accumulation limits needed to achieve a given amount of revenue, based on current prices per pound for individual species. For example, if one assumes the set asides for the trawl fishery recommended by the Groundfish Allocation Committee in February 2008 applied to 2010 OYs, then the accumulation limits are the result of the number of vessels required to achieve the total revenue represented while each attaining $200,000 in gross landings (Table 2).

Table 2. Accumulation limits resulting from the 2010 OYs, the Groundfish Allocation Committee (GAC) recommended trawl allocation percentages and current prices per pound based on $200,000 gross landing revenue per vessel.

Gear Species (Area)	Trawl HG	Price per pound	Total Revenue	Minimum Vessel Number /a	Accumulation Limit
Longspine (N of 34°27')	2,153	$0.51	$2,420,853	13	8.3%
Shortspine	1,797	$0.83	$3,287,907	17	6.1%
TWL Sable (N. of 36°)	3,494	$1.24	$9,552,430	48	2.1%
Dover sole	16,500	$0.37	$13,459,083	68	1.5%
Petrale	2,393	$0.98	$5,169,818	26	3.9%
English Sole	9,745	$0.34	$7,304,455	37	2.7%
Arrowtooth Flounder	10,011	$0.11	$2,427,684	13	8.2%
Other Flatfish	4,737	$0.43	$4,490,930	23	4.5%

a. Minimum vessel number values are rounded.

This framework shows what limits would be required for a vessel targeting a single species or group to achieve a set amount of revenue. For example, a vessel fishing only DTS in 2010 would need to fully acquire vessel accumulation limits of 1 percent for Dover, 6 percent for shortspine thornyhead, 8 percent for longspine thornyhead, and 2 percent for sablefish in order to achieve $200,000 per individual target species or a combined DTS portfolio of $800,000 (Table 3). While this type of framework may not reflect any real-world operation, it can inform whether current vessel limit options are adequate for a given capacity level goal.

Table 3. Accumulation limits that result from various revenue amounts based on 2010 OYs, the GAC recommended trawl allocation percentages and current prices per pound.

Species	Revenue Unit Amounts and Associated Vessel Limit				Option 1	Option 2
	200K	300K	400K	500K		
Longspine (N of 34°27')	8%	12%	17%	21%	4%	6%
Shortspine	6%	9%	12%	15%	6.2%	9.3%
TWL Sable (N. of 36°)	2%	3%	4%	5%	4%	6%
Dover sole	1%	2%	3%	4%	3.6%	5.4%
Petrale	4%	6%	8%	10%	5.8%	8.7%
English Sole	3%	4%	5%	7%	20%	30%
Arrowtooth Flounder	8%	12%	16%	21%	10%	15%
Other Flatfish	4%	7%	9%	11%	20%	30%

Other issues arise when deciding whether to set limits on quota share or quota pounds. The GMT recognizes the increased efficiency gained by allowing vessel limits to be higher than control limits. One way to do that might be to allow accumulation limits of quota pounds to be higher than control limits based on quota shares. However we have concerns over the possibility of creating a loophole in the system whereby entities might use a vessel account to circumvent control limits. For example, whoever controls the vessel and its accumulation limits could have increased control over the associated shares based on the manner in which that vessel prosecutes fisheries.

Area Management

Background

Currently, the Council uses latitudinal and depth-based area closures as well as gear restrictions to achieve area management objectives. Latitudinal area management is outlined in the acceptable biological catch (ABC) and OY tables within the biennial specifications (e.g., North and South of 40º 10' N. Latitude.) and in the trip limit tables where, in some instances, limits differ from the ABC/OY delineations because of bycatch considerations. These subdivisions were created based on species distribution, stock assessment results, and distribution of different fleets and management entities.

After the transition to the IFQ system, the transferability and divisibility of quota share will drive quota toward the most efficient harvesters. In essence, this means that quota will flow to those that are able to harvest the trawl allocation ("trawl OY") for the least cost. Without any adjustments to the program, costs that are external to the trawl OY will not be taken into account. Some of these external costs included:

- socioeconomic considerations like community stability
- the biological costs of mis-specified OYs
- stock structure not reflected in the Council's management specifications
- catch of species that are not managed with IFQ

In other words, unlike the status quo system where harvest is influenced by geographically subdivided trip limits, under the IFQ system quota will redistribute geographically without

regard to any of these external costs. As discussed throughout development of the trawl rationalization program and documented in the preliminary EIS, this redistribution could have both biological and economic implications.

Biological Considerations
The GMT reviewed the GAC recommendations and data requests concerning the area management options. Specifically, the GAC asked which stocks the GMT felt could benefit from area management. Table 4 is a modified version of Table A-8 from Appendix A of the draft EIS. The GMT identified the following stocks which could benefit from area management north and south of 40º 10' N. Latitude, based on biological considerations:

- English sole
- Lingcod
- Other flatfish
- Petrale sole
- Starry flounder

The GMT notes that life history characteristics may also inform area management options. For example, slope species are broadcast spawners, have increased adult mobility, and increased genetic mingling. These life history characteristics may make them less susceptible to local depletion. In contrast, shelf species have low larval dispersal, high geographic loyalty, and high genetic diversity. Therefore, shelf species may be more susceptible to local depletion. However, geographic stock structure data are limited and thus providing a recommendation for appropriate management lines is difficult. Therefore, for species with sensitive life history characteristics, the Council may choose to be precautionary and implement area management lines. Alternatively, the Council may prefer to postpone implementing lines while paying particular attention to the status of species once the program has been implemented. Currently there is no established process to evaluate these data, therefore our ability to detect fine scale changes in stock status is limited.

The GMT notes that the effectiveness of a single latitudinal division will vary significantly from species to species. If significant trawling effort were to develop in southern California, then primarily southern species such as bocaccio, cowcod, and chilipepper rockfish could benefit from separate quotas north and south of Point Conception (34° 27' N Latitude). Bocaccio, for example, are mainly caught south of 40º 10' N Latitude, but evidence suggests that there are differences in recruitment and life-history characteristics for portions of the stock found north and south of 34° 27' N Latitude. Genetic and tagging studies of lingcod do not suggest area-specific stock structure. However, the northern and southern lingcod assessments estimate that spawning biomass of the southern stock is much more depleted and could therefore benefit from a separate quota.
A concerted research effort to compile and review available data on landings, survey indices, population structure and other factors could be part of a long-term strategy to inform area management. As data becomes available area management within the TIQ program is expected to evolve and adapt.

Economic and administrative considerations
Under rationalized fishery management, there is a concern that fishing effort will shift as a result of the removal of area-specific management measures. The Council may consider implementing

area management lines to address other goals and objectives of the trawl rationalization program (e.g., socio-economic considerations).

Management at an overly fine scale of spatial resolution is likely to reduce the flexibility necessary for fishermen to profitably harvest groundfish and to adapt to changing conditions. However, area management at too broad a level of spatial resolution may result in a localized concentration of effort that may have adverse biological impacts or negative economic impacts to vulnerable coastal communities. In addition to biological and economic impacts, area-based quota shares could substantially increase program complexity and administrative costs because each area is likely to require specific quota shares by species and rules that govern the quota shares held by permits operating in those areas.

Table 4. West coast groundfish stocks and stock complexes with harvest specifications. (Overfished stocks are in CAPS).

Stock	Geographic extent of specified optimum yields (OYs)	Latitudes that divide Status Quo (2008)Trawl Management Measures	Potential biological benefit of separate OYs N and S of 40°10' N lat. (if current OY is
English Sole	Coastwide	40°10' N. lat.	Likely
Lingcod	Coastwide	40°10' N. lat.	Likely
Other Flatfish	Coastwide	40°10' N. lat.	Likely
Petrale Sole	Coastwide	40°10' N. lat.	Likely
Starry Flounder	Coastwide	40°10' N. lat.	Likely
Longspine Thornyhead	Separate OYs N and S of 34°27' N lat.	40°10' N. lat.	N/A
Sablefish	Separate OYs N and S of 36° N lat.	40°10' N. lat., 36° N. lat.	N/A
Shortspine Thornyhead	Separate OYs N and S of 34°27' N lat.	40°10' N. lat.	N/A
Arrowtooth Flounder	Coastwide	40°10' N. lat.	Unknown
CANARY ROCKFISH	Coastwide	40°10' N. lat.	Unknown
Other Fish	Coastwide	40°10' N. lat.	Unknown
Splitnose Rockfish	Coastwide	40°10' N. lat.	Unknown
WIDOW ROCKFISH	Coastwide	40°10' N. lat.	Unknown
YELLOWEYE	Coastwide	40°10' N. lat.	Unknown
DARKBLOTCHED	Coastwide	40°10' N. lat. & 38° N. lat.	Unlikely
Dover Sole	Coastwide	40°10' N. lat.	Unlikely
Longnose Skate	Coastwide	40°10' N. lat.	Unlikely

N/A = Not applicable, the 40-10 management line would not be applied to species with a previously specified management division.

Adaptive Management

The GMT reviewed the adaptive management report submitted by the California Department of Fish and Game (Agenda Item F.3.f, CDFG Report) and the Washington Department of Fish and Wildlife (Agenda Item F.3.f, WDFW Report). Regardless of the amount or distribution of set-aside attributed to the adaptive management program, the Council may want to consider defining their priorities for the use of adaptive management pounds prior to issuance (e.g., community stability, deliveries to processors, habitat concerns, etc.).

Adaptive management set-aside

To help inform the relative amount of a 10 percent set-aside (the maximum value analyzed in the EIS), the GMT calculated the number and ex-vessel value of pounds that may be available under the proposed adaptive management program assuming 2010 OYs. The calculations are based on the GAC preferred alternative assuming a maximum 15 percent buffer and included tribal set asides for lingcod, Pacific cod, and sablefish. For those species without a formal trawl allocation (e.g., minor shelf rockfish and other fish), the GMT assumed a 50 percent allocation for their potential harvest.

For some species, access to adaptive management quota pounds could provide additional benefits. Profits for Dover sole and petrale sole could range from $1.0 - $1.5 million dollars. Adaptive management pounds for sablefish north of 36° N latitude could result in profits of approximately $380,000. For other species, the potential profits from adaptive management pounds are lower.

The GMT notes that the value attributed to the adaptive management pounds should be viewed with caution, especially for those species where the OY is significantly larger than market demand. For example, the amount of Dover sole available in the adaptive management program may far exceed market demands; therefore the value of those adaptive management pounds could be less. Alternatively the adaptive management pounds could displace the non adaptive QP. The Council may want to look at other IQ programs, like the British Columbia Groundfish Development Quota Program, to identify and address market displacement issues.

Table 5. Number and value of pounds corresponding to a 10 percent set aside under consideration for the adaptive management program.

Stock	2010 OY (mt)	2010 MT to allocate	10% set-aside for adaptive management		Average 2004-06 landings		Value of adaptive management pounds
			mt	lb	mt	lb	
Lingcod - coastwide	4,829	1,702.0			90.9	200,304	247,647.1
Pacific Cod	1,600	999.6	100.0	220,372	724.3	1,596,701	$145,445
Sablefish (Coastwide)	7,729				2,526.0		
N. of 36° N (Monterey north)	6,471	3,494.3	349.4	770,350	2,476.6	5,459,949	$508,431
S. of 36° N (Conception area)	1,258	528.4	52.8	116,482	49.4	108,935	$76,878
Chilipepper Rockfish	2,447	1,957.6	195.8	431,572	31.1	68,563	$284,838
Splitnose Rockfish	461	447.0	44.7	98,551	118.5	261,268	$65,044
Yellowtail Rockfish	4,562	4,014.4	401.4	885,021	202.2	445,822	$584,114
Shortspine Thornyhead - coastwide							
Shortspine Thornyhead - N. of 34°27' N	1,591	1,559.0	155.9	343,704	414.3	913,294	$226,845
Shortspine Thornyhead - S. of 34°27' N	410	237.8	23.8	52,425	164.0	361,530	$34,601
Longspine Thornyhead - coastwide							
Longspine Thornyhead - N. of 34°27' N	2,175	2,153.1	215.3	474,673	694.8	1,531,834	$313,284
Minor Rockfish North	2,283				166.1		$167,572
Shelf Species*	968	483.9	48.4		31.8	70,169	$30,874
Slope Species	1,160	939.5	93.9	207,117	133.5	294,378	$136,698
Minor Rockfish South	1,990				153.3	337,863	$61,424
Shelf Species*	714	357.0	35.7		4.2	9,183	$4,041
Slope Species	626	394.4	39.4	86,945	149.0	328,485	$57,384
Dover Sole	16,500	16,499.9	1,650.0	3,637,557	6,685.8	14,739,414	$2,400,788
English Sole	9,745	9,744.9	974.5	2,148,350	882.8	1,946,277	$1,417,911
Petrale Sole (coastwide)	2,393	2,392.9	239.3	527,528	2,418.7	5,332,208	$348,168
Arrowtooth Flounder	10,112	10,010.7	1,001.1	2,206,966	2,108.1	4,647,419	$1,456,597
Starry Flounder	1,077	936.9	93.7	206,540	66.0	145,412	$136,316
Other Flatfish	4,884	4,737.3	473.7	1,044,393	1,155.7	2,547,836	$689,299
Other Fish*	5,600	2,799.9	280.0		264.6	583,369	$99,173

GMT Recommendations:

1. The GMT recommends using status quo management lines for those species that have geographic divisions established for the OYs (Table A-8, Appendix A, PFMC and NMFS 2008).
2. The GMT recommends implementing an area management line at 40º 10' N for English sole, lingcod, petrale sole, starry flounder, and other flatfish. These are species for which a potential biological benefit exists (Table 4).
3. For those species with unknown stock structure or those that are not likely to benefit from the 40-10 line, the Council should consider management lines to meet other goals of the TIQ program.

PFMC
11/04/08

INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AND THE UNITED STATES OF AMERICA

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Agenda Item F.3.f
Supplemental IPHC Letter
November 2008

October 30, 2008

Mr. Donald Hansen, Chair
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: November 2008 Agenda Item F.3 – Trawl Rationalization

Dear Chairman Hansen:

The staff of the International Pacific Halibut Commission (IPHC) has reviewed the Trawl Rationalization analyses as it pertains to management of Pacific halibut bycatch. We offer the following comments for your consideration:

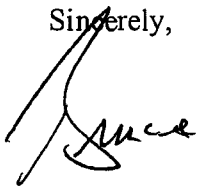
1. Halibut Individual Bycatch Quota (IBQ) – The Council has an option for an IBQ program within Amendment 20. The IPHC staff strongly supports this option. As we have observed in the trawl fishery in British Columbia, these types of programs provide the fishing industry with the necessary tools to reduce the bycatch of nontarget and prohibited species, including halibut. A strong observer presence is required to enable the necessary monitoring of bycatch. The rationalization plan discusses the need for a high level of observer coverage, not only for the IBQ option but also for the overall program. This will undoubtedly be an expensive component but is necessary to fully realize and verify the potential efficiencies available from rationalization.

2. Basis of trawl allocation for IBQs – The latest proposal by the Washington Department of Fish and Wildlife is to set the permissible trawl bycatch as a proportion of the Total CEY from 2005-2006 of ~15%. The conclusion in the analysis is that, under IQs, the trawl fishery should be able to reduce its halibut bycatch over time. However, we suggest that the Council consider the same framework for bycatch control as is followed in other jurisdictions. That is, the bycatch should be identified in the form of a Prohibited Species Catch (PSC) limit, not an allocation. The IPHC and other agencies do not recognize halibut bycatch mortality as an allocation, both because it is conceptually incorrect from a yield perspective, and an allocation of halibut can only be made for retention by legal halibut gear (hook and line). The PSC limit should also be associated with a mechanism, timeline, and target for reducing it from the initial level. A PSC limit should not be tied to the CEY of adult halibut because the abundance of sub-legal halibut is not indexed by the CEY of legal-sized halibut. Instead, the procedure followed in other jurisdictions is to identify the PSC limit for non-target

fisheries and implement procedures to reduce that limit over time, to the benefit of the directed sport, commercial and treaty tribal fisheries.

Gregg Williams of the IPHC staff will be attending the Council meeting and can elaborate on these topics if needed.

Sincerely,



Bruce M. Leaman
Executive Director

cc: Commissioners

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U.S DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
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West Coast Region
99 Pacific Street, Bldg. 200, Suite K
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October 29, 2008

Mr. Donald Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Comments on the Groundfish Trawl Fishery Rationalization

Dear Mr. Hansen:

Please accept comments from the Office of National Marine Sanctuaries (ONMS), West Coast Region on the Pacific Fishery Management Council's (PFMC) draft Amendment 20 to the Groundfish Fishery Management Plan: Rationalization Program for the West Coast Groundfish Trawl Fishery.

The west coast National Marine Sanctuaries support the rationalization of the west coast groundfish trawl fishery, particularly if the individual fishing quota (IFQ) system allows for fishermen to switch to non-trawl gear types that allow ecologically and economically sustainable fishing that is less damaging to the seafloor and reduces or even eliminates bycatch. An outcome of the PFMC's action should be to adopt such a system to provide a 'safer and cleaner way of fishing' in west coast waters, including the five west coast National Marine Sanctuaries.

National Marine Sanctuaries are formally designated, special areas that warrant special considerations. Given this, we are interested in working with the PFMC and others to reduce or eliminate trawling within sanctuaries because of its impacts on benthic habitats and bycatch levels, while also promoting the expansion of ecologically sustainable gear types for economically sustainable fisheries in sanctuary waters. By improving stewardship of fishery resources and community access to the resource, systems of IFQs have been shown to improve the economic and ecological sustainability of fisheries worldwide. The west coast National Marine Sanctuaries support regulatory and non-regulatory actions that lead to healthy ecosystems and healthy fisheries within sanctuaries. If designed properly with elements we have requested above, a system of IFQs for the groundfish fishery can help achieve this goal.

Thank you for the opportunity to provide public comment on the rationalization of the groundfish trawl fishery on the west coast.

Sincerely,

William J. Douros, Regional Director
West Coast Regional Office

SALMON ADVISORY SUBPANEL REPORT ON GROUNDFISH FMP AMENDMENT 20

Trawl rationalization will have many ripple effects throughout the fishing industry, including the salmon fishery. The Salmon Advisory Subpanel (SAS) has had very little time to review the rationalization documents and is hopeful that the Council can extend the input process as long as possible. We would note that after some lengthy discussion, there is a high interest in the development of community based quotas. The SAS also recommends there should not be an allowance for processor shares. Alaska's crab rationalization is a stark example of what processor shares will do to the fishery. The processors should be more mindful of the difference between their job and ours.

PFMC
11/02/08

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT 20: TRAWL RATIONALIZATION

The Scientific and Statistical Committee (SSC) received presentations from Mr. Jim Seger and Mr. Merrick Burden (Council Staff) regarding technical aspects of the trawl rationalization provisions for groundfish and Pacific halibut bycatch. The SSC also received a presentation from Ms. Heather Brandon (Council Staff) regarding area management provisions, and a presentation from Drs. Gil Sylvia and Michael Harte (Oregon State University) concerning an analysis they conducted of the option for a fixed-term auction of quota shares. The SSC also had discussions with Dr. Steve Freese (National Marine Fisheries Service Northwest Region) regarding the estimated costs for data collection, monitoring, enforcement and administration.

The SSC commends the Council staff for their hard work in assembling the multitude of analyses and documentation for Amendment 20.

Adaptive Management

Under the adaptive management option up to 10 percent of quota shares would be set aside to allow the Council flexibility during implementation of the trawl rationalization program. The details of this option have not been fully developed. The SSC agrees that an adaptive management provision is a desirable design feature but is concerned that currently there is little guidance on what activities will be eligible for support from the adaptive management program or how the program would be administered. Also, there should be supporting economic analyses to evaluate the consequences of a quota set-aside, such as impacts on marginal fishing vessels.

Monitoring

The SSC notes that while the 100 percent observer coverage provision of the trawl rationalization program is crucial for complete catch accounting, achieving full observer coverage will require a large increase in the number of observers compared to the current observer program. Given that the pool of trained observers is limited, costs per observer may be higher than currently estimated. Also, 100 percent observer coverage could provide the opportunity to collect comprehensive biological data that would be valuable for improving stock assessments. Observers hired for collection of biological data (as opposed to just monitoring bycatch) may require a greater degree of training and higher salaries, however.

The costs of on-board observers will be covered by direct payments from the vessels but other costs for administering and monitoring the rationalization program may exceed the cap for cost recovery (3 percent of exvessel revenue); thus the program may not be self-financing or some provisions of the monitoring program will need to be dropped.

The current version of the Preliminary Draft Environmental Impact Statement (DEIS) does not include any analysis of the types and levels of enforcement that will be needed to ensure an acceptable level of compliance.

The SSC supports mandatory collection of socioeconomic data to monitor and report on the effects of rationalization.

Regional Impact Model

An analysis of regional impacts was not included in the current version of the Preliminary DEIS. Council staff stated that time constraints, other priorities, and inability to quantify regional effects precluded its inclusion.

Accumulation Limits

Accumulation limits will influence the amount of consolidation in the fleet. Analyzing proposed accumulation limits relative to actual recent behavior (measured by the maximum relative landings by vessel) is a reasonable approach to this issue. The SSC endorses the Analytical Team's approach for showing the effects of accumulation limits relative to historic landings rather than the initial allocation (Agenda Item F.3.c, Additional Analysis, Figures 2-35).

Area Management

Area management could be implemented to achieve social objectives and biological conservation goals. The Preliminary DEIS includes rules that define how quota shares will be modified if an existing management unit is divided into several management units and if two or more management units are combined.

The ability to identify distinct biological stocks and detect localized depletion is poor for most of the Council's groundfish species. Identifying biologically-based area boundaries is difficult for most species. If requested, assessment authors could provide advice on how to use survey and catch-rate data to allocate optimum yields (OYs) spatially. However, the assignment of coastwide OYs to areas will not necessarily match existing removals by area. Regional landing zones that are not based on biological considerations could create mismatches between stock productivity and harvest rates, and possibly lead to localized depletion.

Fixed-Term Auctions

The SSC discussed the issue of fixed-term auctions and reviewed the associated analysis contained in Appendix F. Drs. Silvia and Harte made a presentation of their analysis to the SSC. The SSC notes that the rationale and goals of a fixed-term auction are not fully developed in the Preliminary DEIS; thus, it is difficult for the SSC to discuss the degree to which its goals would be met. Generally speaking, fixed-term auctions would capture for the public a portion of the rents generated by rationalization. Fixed-term auctions also affect the distribution of the economic benefits and may to some degree decrease the overall size of those benefits. Both of these latter effects would vary with the percentage of quota share (QS) that reverts to an auction. There are many different ways that fixed-term auctions could be implemented; the outcomes will depend on the details of the implementation.

Appendix F analyzes the potential effects of a fixed-term auction. A fixed-term auction increases the amount of uncertainty and risk associated with the holding of quota shares. This will tend to decrease the amount of investment QS holders are willing to make in the fishery, and in turn, reduce the economic benefits of rationalization. However, the conclusions in the appendix are stated too strongly and fail to acknowledge the uncertainty involved in predicting the outcomes.

There are several factors that may mitigate reductions in investment and economic benefits. First, the length of the initial allocation of QS is 15 or 16 years. This is a rather long time horizon and much of the fleet consolidation will likely take place well in advance of the 15 or 16 years. Thus, the remaining QS holders will tend to have larger QS holdings due to consolidation, and be the most efficient, profitable, and innovative operators. Second, most businesses operate in risky and uncertain environments regarding costs of inputs, and they tend to take actions to mitigate those risks. QS holders, for instance, could engage in contracts or purchase quota in the private market in anticipation of the auction. Third, investment time horizons may be shorter than those suggested in the appendix because returns on business investments usually need to be realized more rapidly. Generally, the effects of an auction on investment and economic benefits will depend on the percentage that is auctioned. If it is 1-5 percent, there may be very small effects. If it is closer to 20 percent, the effects would be larger.

The SSC also discussed the effect of fixed-term auctions on stewardship. The appendix asserts that fixed-term auctions would have a negative effect on stewardship because the returns to stewardship would be partially dissipated by any loss of QS that is not replaced. However, it is unclear to the SSC how large the stewardship incentive associated with QS ownership would be, even if held in perpetuity. The expected number of vessels that will operate in the rationalized fishery may be so large, and the percent of the quota owned by a single operator so small (due to accumulation limits) that the private gains to stewardship may not be significant enough to change operations in a meaningful way.

The SSC notes that the analysis in Appendix F is qualitative. As such, the analysis does not support the firm conclusions regarding the magnitudes of the effects, as stated in the report and described in Table 5.1 and Figure F-1.

PFMC
11/04/08

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE COMMENTS ON THE GROUNDFISH ALLOCATION COMMITTEE REPORT AND ON THE CALIFORNIA DEPARTMENT OF FISH AND GAME ADAPTIVE MANAGEMENT PROPOSAL CLARIFICATION

While recognizing the potential of the trawl rationalization program to greatly improve the overall profitability of the shoreside harvesting sectors, the Washington Department of Fish and Wildlife (WDFW) maintains significant concerns about negative consequences to coastal communities and fishery-dependent businesses in the state.

As described in Chapter 4 of the preliminary draft EIS, the trawl IFQ program is expected to lead to significant consolidation of the fleet that could potentially create disruptive shifts in the geographic patterns of landings and fishing activity on the west coast. Without any community protection measures in place, some businesses and coastal communities would face substantial uncertainty about their economic viability under the IFQ program, a situation that stands in stark contrast to the whiting harvest co-ops and the high degree of certainty they would provide to all participants in the at-sea sectors. In fact, the only reasonably certain guarantees provided by the shoreside IFQ program seem to be those enjoyed by recipients of quota share—and the considerable asset value that will likely accompany that quota—at initial allocation.[1]

With these concerns in mind, WDFW included three proposals in its motion to adopt the Council's preliminary preferred alternative in June: (1) the regional landings zone program; (2) the adaptive management program; and, (3) issuance of 20 percent of the quota share to processors at initial allocation.[2] WDFW included these three options in the preliminary preferred alternative to further assess their potential effectiveness at providing stability to communities, shoreside processors, and other business that have been substantially dependent on the shoreside groundfish trawl fisheries.

WDFW proposed the regional landings zone program as a possible measure to ensure that communities continued to receive a substantial portion of their historical landings after the transition to the IFQ system. However, based on the Groundfish Allocation Committee's (GAC) recommendation in October against further consideration of the regional landings zone approach (Agenda Item F.3.e, GAC Report), WDFW is now focusing its consideration on the remaining two alternatives. It is WDFW's view that the Council should recommend one, but not both, as part of the preferred alternative.

With respect to the adaptive management proposal, the details of the program remained largely undefined until the California Department of Fish and Game's (CDFG) offered its clarification at the GAC meeting (Agenda Item F.3.f, CDFG Report). After further consideration of CDFG's clarification of the proposal and the discussion that occurred at the GAC, WDFW offers the following comments:

[1] *See* Appendix F, section F.3.1.5 of the preliminary DEIS for a discussion of how the future profitability of the fishery is capitalized into the asset value of the quota share.

[2] For a description of the regional landings zone proposal, see section A-8 of the DEIS (p. A-355). The adaptive management proposal is described in section A-3 (p. A-340) and further considered in CDFG Report. Allocation of quota share processors is considered in section A-2.1 (*see* e.g., p. A-48).

- The adaptive management program has been proposed with several objectives in mind, including facilitating new entry into the fishery and providing incentives to switch fishing gear types and strategies. Although these other objectives undoubtedly have potential value to the fishery, *WDFW believes community stability should be the paramount objective of any adaptive management program.*

- *To achieve this objective, the adaptive management program would need to be in place and ready to issue quota pounds (QP) at the start of the IFQ program.* Even with a prohibition against permanent transfer of quota share (QS) during the first two years of the program, quota holders will be still be allowed to transfer QP in season through leases and other arrangements. Transfer of QP could be enough to result in significant and disruptive shifts in fishing activity and landings.[3] Moreover, as described in Appendix C of the preliminary DEIS, some communities and businesses could be disadvantaged based on the distribution of QS at initial allocation.[4] WDFW does not believe it is reasonable to assume that all unintended consequences of the IFQ program could be adequately redressed after the fact.

- *The amount of QP available to each state would have to be sufficient to meet community stability objectives*. It is uncertain that 10 percent, or even 15 percent of the quota, spread across the three states and the competing objectives of the adaptive management program would be enough to achieve any meaningful degree of community stability. To date, there has been little analysis of the likely effectiveness of an adaptive management program at addressing the adverse impacts associated from significant degree of consolidation in the harvesting sector.

- The QP set aside for distribution by the adaptive management program would have to be *equitably distributed among the states* based on historical participation and the degree of projected and actual economic and social impacts associated with implementation of the IFQ program. Again, the goal would be to distribute the QP in a manner that would attempt to moderate any substantial disruptions in landings patterns among communities and the states. The distribution of adaptive management QP between the states could be altered over time through an annual or biennial process based on new information on the performance and adverse impacts of the program.

- The adaptive management QP would be awarded through *separate but parallel processes in each of the three states*. Priorities and impacts are likely to differ between states, thus the distribution of adaptive management QP should be based on local expertise and reflect local priorities. The Magnuson-Stevens Act provisions on limited access privilege programs appear to provide multiple tools—e.g., regional fishery associations and community sustainability plans—the Council could employ to address the specific needs of the three states and their coastal communities.[5]

[3] The prohibition against permanent transfer of QS is intended to protect individual quota holders from making permanent business decisions before having sufficient information about the program and the asset value of their quota holdings. It is not intended as a community protection measure.

[4] *See* section C.1.4 of the preliminary DEIS (p. C-14).

[5] *See* sections 303A(c)(3) ("Fishing Communities") and 303A(c)(3)(c)(4) ("Regional Fishery Associations").

- The CDFG model of panel review of adaptive management applications based on a point system or other ranking criteria may not be effective or efficient for achieving community stability objectives. *Broader focused planning tools—such as community sustainability plans or regional fishery associations—might be more appropriate and should be explored.* Such tools could provide flexible, long-term measures for encouraging communities to build the infrastructure and business relationships that would lead to long-term viability under the IFQ system. In addition, evaluations by point and ranking systems are only as objective as the criteria they are based on. Unlike with initial allocation of QS, which is based on the relatively objective measure of landings history, some criteria in the adaptive management program would be very difficult to measure and rank. The application and point system could be helpful in evaluating competing uses of adaptive management QP, yet it seems unlikely that applications would fall out in a clean top-to-bottom list. If the trawl IFQ program does create significant disruption in the fishery, the demand for adaptive management QP could be high and the Council would be left with several allocative decisions that would be difficult to evaluate objectively.

In summary, WDFW's vision of the adaptive management program is one where quota is distributed amongst the states and then awarded based on independent, state-based processes designed to maximize local expertise and achieve local priorities. Minimizing adverse effects from the IFQ program on fishing communities and other fisheries to the extent practical is one of the eight objectives of the trawl rationalization program. In WDFW's view, this objective should be the primary objective guiding the distribution and use of adaptive management quota at the start of the program and should remain so until the Council has better information on the performance and effects of the IFQ system. Lastly, processing businesses are key components of fishing communities and the basic social and cultural framework of the fishery that the Council is required to consider in the design of the trawl rationalization program. Their economic stability and sustained participation should therefore also be important considerations in the design of the adaptive management program and its objectives.

SCHEDULE OF TRAWL RATIONALIZATION AMENDMENT HEARINGS
Pacific Fishery Management Council
October 27- 29 2008[a/]

Date Day/Time	Location	Council Member (Hearing Officer)	State Agency Representative	NMFS	USCG	Staff	Meeting Facility Contact
Oct 27 Monday 2 p.m.	Best Western Agate Beach Inn (2 sections of Ballroom TBD) 3019 N. Coast Highway Newport, OR	Rod Moore	Steve Williams/ Gway Kirchner	Frank Lockhart/ Kevin Duffy	BM1 Brant Soderlund	Merrick Burden Lynn Mattes	Noreen Hadley - Sales 541-265-9411 Tami O'Connor – Catering 800-546-5010
Oct 28 Tuesday 3 p.m.	Washington Dept. of Fish Wild Natural Resources Building 1st Floor, Room 172 1111 Washington Street SE Olympia, WA 98504	Dale Myer	Phil Anderson/ Michele Culver	Dayna Matthews	Brian Corrigan	Merrick Burden Corey Niles	Michele Culver 360-249-1211
Oct 28 Tuesday 2 p.m.	Red Lion Evergreen Ballroom 1929 Fourth Street Eureka, CA	Dan Wolford	Joanna Grebel	Frank Lockhart	LT Scott Parkhurst	Jim Seger Kit Dahl	Kimberly 707-441-4711
Oct 29 Wednesday 3 p.m.	Holiday Inn Express Riverview 1 and 2 205 West Marine Drive Astoria, OR	Frank Warrens	Steve Williams/ Gway Kirchner	Kevin Duffy	ENS Joe Miller & LTJG Chad Thompson	Heather Brandon Jennifer Gilden	Caroline Wuebben 503-325-6222
Oct 29 Wednesday 3 p.m.	University Inn and Conf Center Sierra Room 611 Ocean Street Santa Cruz, CA	Kathy Fosmark	Marija Vojkovich	Frank Lockhart	LTJG Brittany Steward	Jim Seger Johanna Grebel	Charla 831-466-1252 or 831-426-7100

a/ The Council will also receive public comment at the San Diego, California meeting during the week of November 3-7 , 2008.

PFMC
10/21/2008

TRAWL RATIONALIZATION (AMENDMENT 20) HEARING SUMMARY – OLYMPIA

Date:	October 28, 2008	Hearing Officer:	Dale Myer
Location:	Olympia, Washington	Other Council Members:	Phil Anderson Mark Cedergreen
		NMFS:	Dayna Matthews
Attendance:	40	Coast Guard:	Brian Corrigan
Testifying:	20		
		Council Staff:	Merrick Burden Heather Brandon
Organizations Represented: Pacific Seafood Group, Coalition of Coastal Fisheries, Fishing Vessel Owners Association, Jessie's Ilwaco Fish Co., Express Materials LLC, Washington Department of Fish and Wildlife, Pacific Whiting Conservation Cooperative, Ocean Conservancy, United Catcher Boats, Supreme Alaska Seafoods, The Nature Conservancy, Arctic Storm Management Group, American Seafoods, Washington Dungeness Crab Fishers Association, Washington Trollers, Ocean Gold Seafoods, Columbia ColStor, Environmental Defense, Bornstein Seafoods Inc., F/V Muir Milach, F/V Miss Leona			

Synopsis of Testimony

Of the 20 people testifying:

- 15 explicitly indicated they supported rationalization
- 2 explicitly indicated they did not support rationalization, but could support it under certain conditions
- Of the 15 that support rationalization, 9 supported the preliminary preferred alternative (PPA) while 6 did not support the PPA
- Of all testifiers:
  - 2 were opposed to rationalization
  - 10 supported an allocation of quota share to processors or a processor linkage
  - 10 did not support an allocation of quota share to processors or a processor linkage
  - 1 supported adaptive management
  - 7 did not support adaptive management

Harvester Sector Comments

Nine of the testifiers can be identified as a harvester, belonging to a harvesting association, or being related to a harvester. Of these testifiers, three identified themselves as being or representing non-trawl harvesters. The majority of harvesters supported no direct allocation of quota shares to processors for a variety of reasons including: that processors don't need an initial allocation; that making an allocation to processors would set precedent for future rationalization efforts; harvesters have few options of where to sell fish and an initial allocation to processors would only make it harder; that processor initial allocation or linkages would reduce competition; that it would make it

difficult for fishermen to get a fair price; and that making an allocation of groundfish and whiting to certain processors would adversely impact processors of other fish species.

Other comments included the support of accumulation limits. Some harvester comments supported relatively low accumulation limits because it would disperse quota ownership and protect communities. Other harvester comments supported accumulation limits, but would like to allow for a three year time period to divest of quota share if an entity receives more than the accumulation limit through the initial allocation.

Shoreside Processing Sector Comments

Six of the testifiers identified themselves as being affiliated with shoreside processing, representing both whiting and non-whiting. Two of these commenters did not support rationalization, but indicated that if a rationalization program is adopted they supported an initial allocation of quota share to processors. Other commenters indicated they would rather support status quo than a rationalization program with no initial allocation of quota share to processors. This group supported an initial allocation to processors for a variety of reasons including: that an initial allocation to processors provides processors some certainty in an uncertain environment; that an initial allocation to processors will help future collaboration between harvesters and processors; that harvesters may not act in a way that also benefits processors; that an allocation to processors is necessary to support shoreside capital; and that an allocation to processors is necessary to have a balance of power between harvesters and processors.

Three of these testifiers indicated they did not support an adaptive management provision because it has not been clearly specified and they do not understand how it would work and/or an adaptive management program would be temporary and would therefore not help processors develop business plans.

Other shoreside processor comments included the support for accumulation limits as high as 20 percent, and that rationalization be constructed with three goals in mind: 1) conservation, 2) maximize the value to the public (not necessarily economic value), and 3) stabilization of the industry.

Environmental and Conservation Interest Comments

One commenter identified themselves as representing an environmental organization. This individual supported adaptive management as the best tool for addressing community concerns. The details of the adaptive management program would become easier to develop once the initial allocation decision is made. Environmental comments did not support an initial allocation to processors and this was for several factors including: that allocation to harvesters would best achieve conservation goals; and that allocation to processors would not achieve community stability.

This commenter supported several other topics including: a 3 year divestiture period for entities that receive an initial allocation of quota share that is larger than the accumulation limit; 100 percent observer coverage; a carryover provision to provide flexibility; and area management to prevent localized depletion.

Other Industry Comments

Two individuals identified themselves as being associated with businesses that cannot be defined as

a seafood processor or harvester. These individuals represented a trucking company and a cold storage company. Both commenters supported the initial allocation of quota share to processors because it would provide stability for their companies and help maintain their existing relationships with seafood processors.

Mothership Processing Sector Comments

Two commenters identified themselves as representing mothership sector processing companies. Both commenters supported most aspects of the mothership sector preliminary preferred alternative and specifically supported processor linkages. These commenters indicated that processor linkages were necessary to stabilize the mothership sector and to provide some certainty to mothership operations.

Other recommendations were made including: the catcher processor sector should have accumulation limits; that a combined whiting sector limit should be established and one reasonable limit might be 17 percent; and that a processor linkage is not an antitrust issue. In addition, one commenter suggested that several aspects of the existing alternatives deserved additional consideration before being made final. In particular, comments indicated that more analysis should be done on the vessel length endorsement before that endorsement is eliminated, that more information and discussion should occur regarding the mandatory socio-economic data collection program, and that the adaptive management provision has not been specified enough for final action.

Written Statements (Attached)

PFMC
11/02/08

October 27, 2008

Mr. Donald K. Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Chairman Hansen:

The members of Fishermen's Marketing Association, California, representing trawl harvesters, and the members of the Fishing Vessel Owners' Association of Seattle, representing longline interests, requested a paper from a noted and recognized economist, Dr. Jim Wilen, on why giving harvester's quota to processors is a bad idea. Dr. Wilen is a professor with the Department of Agriculture & Resource Economics at the University of California, Davis. The two associations are submitting Dr.Wilen's conclusions and comments as part of the overall record for Trawl Individual Transferable Quotas. Below are some excerpts of Dr. Wilen's conclusions.

> The most remarkable aspect of the proposal to allocate harvester quota to processors is that it is a "solution" for which there is no corresponding "problem".
>
> The real reason that processors are insisting that they be granted harvester quota is money. The estimate that I have made (which I believe is conservative) is that the Council's "preferred alternative" that allocates harvester quota to processors will, if granted, be worth 100 million dollars to small number of owners of the processing sector. This dispute over processors allocations thus must be recognized for what it is—a power struggle over money rather than over a policy option that "fixes" some problem.

In most other industries where oligopoly or oligopsony power is present, a concentration level in which 4 industries handle 60% of the product is deemed high. On the Pacific Coast, 2-3 companies process 80% of the product.

On the Pacific Coast, the degree of market power in the groundfish market is probably more correctly described as a "dominant firm monopsony" in light of the extreme concentration of market power in a single buyer.

This is consistent with EIS descriptions of the harvesting sector, which is depicted as making zero economic profit, even after a buyback program that substantially reduced the number of participants.

Current options to carve processor allocations out of harvester quota subvert the normal policy process. This is because they have been added to the system design purely for political reasons rather than to address a National Standards objective or a shortcoming of a purely harvester-based rationalization program.

Just as important, granting incumbent processors allocations will disadvantage potential entrants, precisely the players most likely to bring innovation to product marketing and higher values to the whole fishery as a result.

Fishermen's Marketing Association

Peter Leipzig
Executive Director

Fishing Vessel Owners' Association

Robert D. Alverson
Manager

Why Giving Harvester Quota to Processors is Bad Policy

By

James E. Wilen
Dept. of Agric. & Resource Econ.
University of California, Davis

October 27, 2008

Discussion Points for PFMC Meeting
November 1-7, 2008

Why Giving Harvester Quota to Processors is Bad Policy

The decision of the Pacific Council to even contemplate allocating harvester quota to processors is an unprecedented step in fisheries policymaking. There have been over 150 individual quota programs implemented to date around the world, and not a single one has carved a share of harvester quota out to grant to processors. There are good reasons why, at similar junctures, other policymakers have chosen to allocate quota only to harvesters. It behooves the Council to acknowledge this radical departure from accepted practice, and to understand the significant negative ramifications that such a policy will generate.

Justification

The most remarkable aspect of the proposal to allocate harvester quota to processors is that it is a "solution" for which there is no corresponding "problem". Proponents have attempted to justify this policy using arguments that have shifted and morphed over the past couple years. The initial argument was that processors would suffer "stranded capital" losses if a quota program were implemented. As I have argued, the stranded capital claim by processors is overblown; it is likely that true stranded capital losses will be negligible.[1] In any case, if there were stranded capital losses, good policy would call for not for an arbitrary quota allocation, but rather remedies based on measured capital losses, as has been typically done in public utility regulation. It now appears that while processors have abandoned the original stranded capital justification, they have not abandoned their quest for part of the initial harvester allocations. What justifications are now offered? A more recent argument delivered in testimony to the Council is that without processor allocations, processors will be disadvantaged in the ex vessel market after rationalization. In the extreme version of this argument, processors argue that they would be forced to pay prices that would bankrupt (the entire) processing industry. This is also a spurious argument. With the degree of concentration of market power that now exists in the ex vessel market, processors will continue to enjoy their asymmetric position of power, even after quotas are introduced. Another recent argument has been made that, without harvester quota allocations, processors would have to move plants and local employment would be lost. This has been addressed with various regionalization options, but it still raises the question: exactly how will allocations to processors alter decisions if economic conditions favor geographic shifts? Again it is not clear; there is no argument that I can discern that explains how processor allocations would keep plants in unprofitable locations. A final argument is that it is "fair" to allocate harvester quota to processors. This argument seems the hardest to justify since the contemplated transfer involves taking from a couple hundred small businesses with asset values on the order of a million dollars each to give to a handful of individuals (primarily two) who own businesses worth on the order of a billion dollars. The point is that all of arguments made that attempt to logically justify the need for harvester

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[1] Wilen, James E. Stranded Capital in Fisheries: the Pacific Coast Groundfish/Whiting Case, forthcoming in *Marine Resource Economics*, 24(1), April 2009. See also: Wilen, James E. Stranded Capital in Fisheries, White Paper prepared for Environmental Defense Fund, August 2008.

allocations to processors in order to solve a "problem" do not hold up under closer scrutiny.

The real reason that processors are insisting that they be granted harvester quota is money. The estimate that I have made (which I believe is conservative) is that the initial proposal to allocate harvester quota to processors to cover "stranded capital" was worth 100 million dollars to the small number of owners of the processing sector.[2] This dispute over processor allocations thus must be recognized for what it is---a power struggle over money rather than over a policy option that "fixes" some problem. If the Council bows to political pressure rather than logic and responsible program design in this decision, it will surely reduce its own legitimacy in the eyes of the public. When the well-placed prevail simply because of their power, observers start to believe that the process is unfair, and that outcomes are essentially determined the simple "follow the money" notion.

Implications

There is more at stake than simply the question of how to split a fixed pie between contending interests. In this case, the decision to allocate to processors will also generate economic inefficiencies, some of which will negate the very reasons for implementing the policy in the first place. It will also have severe ramifications in terms of future rationalization programs, since it will open the door to unlimited wrangling and process holdup. Finally, it will reduce some of the incentives for stewardship and conservation motives that are among the more important reasons for implementing a quota program in the first place. These are reasons why no other quota design of the 150 that have been implemented has included the step of allocating to processors.

In the sections below, we summarize various implications of allocating harvester quota to processors.

Economic Implications

- ***Processor allocations reinforce existing market power in the ex-vessel market***

Allocating harvester quota to processors will exacerbate the power imbalance in an ex-vessel market that is already uncompetitive. As the EIS document outlines, both the whiting and non-whiting groundfish exvessel markets are dominated by an unusually small number of buyers. Generally, markets dominated by small numbers of input buyers are referred to as "oligopsonies". Oligopsonists exploit their buyer's power by under-paying resource suppliers (harvesters), and hence collect an 'oligopsonist premium" as a result of their market power.[3] In most other industries where oligopoly or oligopsony

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[2] See Appendices in Wilen (2009, 2008), *op. cit.* Estimates based on proposals to allocate 50% of shoreside whiting to processors and 25% of non-whiting groundfish to processors. Current preferred alternative proposals are worth (conservatively) 60 million dollars to processors.

[3] Alaska's pre-AFA inshore pollock fishery is a good example of an unusually effective oligopsony. Throughout much of its history, just 3 companies have dominated the inshore pollock market, 2 of them owned by Japanese conglomerates and the other (Trident) owned by an American family. The Japanese conglomerates have had every incentive to negotiate the lowest possible ex vessel prices, so that profits in their integrated operations can be shifted to Japan. Likewise, Trident has had every incentive to go along with those low prices. How effective has this exercise of market power been? In the inshore pollock

power is present, a concentration level in which 4 industries handle 60% of the product is deemed high. On the Pacific Coast, 2-3 companies process 80% of the product.

While the EIS documents the small number of buyers in the Pacific Coast groundfish market, it does not go far enough in its description of the asymmetry in current processor market power. This is because it ignores the ramifications of the interaction among the small number of dominant buyers. On the Pacific Coast, the degree of market power in the groundfish market is probably more correctly described as a "dominant firm monopsony" in light of the extreme concentration of market power in a single buyer. A dominant firm monopsony is able to exploit suppliers to an even greater degree than a small group of oligopsonists. Typically, a dominant firm sets its buying price at a level just barely enough to induce suppliers to remain in business. This is consistent with EIS descriptions of the harvesting sector, which is depicted as making zero economic profit, even after a buyback program that substantially reduced the number of participants. When a dominant firm monopsony exercises its control over a market, there are few incentives for other fringe firms to deviate since they benefit from the price leadership of the dominant monopsony. With high barriers to entry, this form of market power and the exercise of such power over ex vessel prices can be very stable, and can persist under substantial changes in economic, regulatory, and institutional circumstances.

The EIS punts on the market implications of this policy, stating "it is not clear how the Council's preferred alternative (which allocates 80% to shoreside harvesters) will impact ex vessel prices relative to status quo conditions". In reality, it is clear. A dominant firm is likely to be able to exercise full control in a market, even if **all** quota is granted to harvesters. With this extreme degree of concentration, harvesters will still be at the mercy of asymmetric market power in the exvessel market, and reducing their holdings to 80% will certainly not make the market more competitive. This is clearly a move in the wrong direction; the Council ought to be encouraging rather than discouraging vigorous ex-vessel market competition for reasons we next discuss.

- ***Processor allocations reduce incentives to generate market-side innovations***

There is virtually unanimous evidence that rationalization programs in place around the world have generated new and often significant gains in economic returns. Most often this is attributed to the **cost savings** that emerges when quota is consolidated and vessels are retired and/or reconfigured after the race to fish is eliminated. The EIS for the Pacific groundfish program outlines similar expectations, ascribing the potential gains from rationalization to input cost savings via consolidation. Less appreciated, however, is the fact that **revenues** have also increased significantly in many rationalized fisheries.[4] How does this happen? Basically by innovation by processors and handlers as

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fishery, real ex-vessel prices prior to the AFA were virtually constant to harvesters year after year. These ex vessel prices barely covered expenses for harvester vessels, leaving them with close to zero economic profit. Remarkably, ex-vessel prices did not vary even though the yen/dollar exchange rate varied widely over the same period. In a competitive market, exchange rate variation would be reflected in ex-vessel prices.

[4] See See Casey, K., C.Dewees, B. Turris, and J. Wilen. 1995. The Effects of Individual Transferable Harvest Quotas in the British Columbia Halibut Fishery, *Marine Resource Economics*, 10(5). See also

they create new product forms, establish new market niches, and increase raw fish quality. But product innovation requires vigorous competition among processors and handlers. A policy design that locks in the existing dominant firm status of the current ex-vessel market will delay if not forego important market-side gains that have proven so significant in many other rationalized fisheries. Just as important, granting incumbent processors allocations will disadvantage potential entrants, precisely the players most likely to bring innovation to product marketing and higher values to the whole fishery as a result.[5] There is a significant amount at stake here; market-side rents that have been generated from marketing innovation have been on the order of 40-50% of total industry revenues in some fisheries.[6] Moreover, these gains are realized almost immediately, whereas gains associated with consolidation and cost savings often take years to realize. The lesson is that, in fisheries as in every other industry, innovation is the engine of new wealth generation, and competition is the engine of innovation.

- ***Processor allocations reduce the efficiency of initial harvester allocations***

All rights-based systems have generated conflict over who among harvesters should receive initial allocations, and if so, how much. In virtually all cases, however, initial allocations bear close connection with the catch histories of the vessels in question. As Liebcap has argued, this **is** the most efficient way to determine initial allocations among incumbents.[7] The reason is that the historical pattern of catch records already reflects an intense competitive process among incumbents, and existing agglomerations are consistent with optimal production scale and size. The proposal to carve 20-30% off historical catch records to give to processors is equivalent to a tax of that magnitude on incumbent harvesters, and it will thus reduce the efficiency of operating vessels that have been built and operated to harvest efficiently under current conditions. Reducing harvester allocations below the levels that have been revealed as efficient will require many new rounds of trades of both leased and owned quotas, the paying of transactions costs that are incurred with these market operations, and adjustment by an industry that has already configured itself into production units that exhibit efficiency. The process of consolidation normally takes several years to work its way through the vessel capital structure. It make sense from an efficiency point of view to begin the process with vessels and catch histories that are close to production portfolios that will emerge after

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Homans, F. and J. Wilen. 2005. Markets and Rent Dissipation in Regulated Open Access, *Journal of Environmental Economics and Management*, 49(2):381-404.

[5] In British Columbia, we interviewed processors before and after the IFQ program was implemented as background for a study of IFQ impacts (Casey et. al. 1995, *op. cit.).* The more striking comments detailed how innovative buyers opened up new markets for halibut in the middle of Canada where supermarket consumers had never seen halibut under the race to fish. These new markets were created by vigorous competition and market innovation among both established processors and new (generally small) handlers, innovation that was responsible for higher profits to processors and buyers as well as increases in ex-vessel prices.

[6] Cf. Wilen, James. 2006. Why Fisheries Management Fails: Treating Symptoms Rather than Causes, *Bulletin of Marine Science*, 78: 529-546.

[7] Liebcap, Gary (2007). Assigning Property Rights in the Common Pool: Implications of the Prevalence of First-Possession Rules for ITQs in Fisheries, *Marine Resource Economics*, 22(4): 407-424, pg. 408.

adjustments have taken place. By reducing harvester allocations to allocate to processors, existing harvesters will begin the adjustment process below production levels likely to be long run equilibrium levels.

Policy and Process Implications

- ***Processor allocation options are a subversion of Council process***

Current options to carve processor allocations out of harvester quota subvert the normal policy process. This is because they have been added to the system design purely for political reasons rather than to address a National Standards objective or a shortcoming of a purely harvester-based rationalization program. When processors argued that they needed allocations to compensate for stranded capital, there was at least a possibility of designing policy remedies to address that problem, if indeed it was a problem. Sensible remedies would have involved measuring actual stranded capital, and tying compensation to measured losses with a hold-back fund or similar option. But by abandoning the stranded capital justification, there is no new credible justification for arguing that processor allocations are needed. Yet they remain part of the preferred alternative.

If the new argument is that processor allocations are needed to ensure that they can maintain their current power imbalance in the ex vessel market, then they also subvert the Council's "constraints and guiding principles" provisions, which state that goals and objectives should be achieved while "avoiding provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors". If one believes that quota programs will give harvesters a bargaining advantage, then adding the processor allocation to address that effect flies in the face of the Council's own "constraints and guiding principles". If one does not believe that harvester-only quotas will affect market power, then there are virtually no credible justifications for them in the first place.

- ***Processor allocations will induce future policy holdup***

Pacific Council members will not be thanked by members of other fisheries management councils for veering from precedent in designing quota programs. Moreover, the fallout will not be simply shunted to other regions and will likely come back to haunt future Pacific Councils as other west coast fisheries are rationalized. This is because a decision to allow processors to claim part of the initial harvester allocation will invite holdup of the process everywhere. Designing efficient quota programs is difficult enough to get right, and it is contentious enough to determine a qualifying period and set of allocation rules that allocate among harvesters. The processor allocations that are part of the Council's preferred options here will, if granted, open the door to endless wrangling over similar programs in the future. Enormous amounts of effort and funds will be spent lobbying, wasting future Council members' time, and delaying the implementation of programs that produce genuine new wealth for the industry. In the limit, processor allocations will delay creating real wealth that could be going to fishermen and processors, and instead waste it on attorneys, lobbyists, expert witnesses,

and political campaigns in endless wrangling and needless dispute. This aspect of processor allocations is the least discussed effect to date, and will probably turn out to be the most important in the long run.

- ***Processor allocations open up future rationalization programs to irresolvable conflict***

A critical problem with allowing a stakeholder group to simply make an arbitrary claim on initial allocations is that it opens up future disputes to conflict that will be literally irresolvable. With processor allocations that are currently in the preferred alternatives, there is neither problem-based justification for adopting them in the first place, nor a logical mechanism that connects the proposed remedy to the problem. Moreover, there is no quantitative assessment of the alleged problem or a careful quantitative analysis of how the proposed remedy will fix the "problem". If the Council goes ahead anyway and adopts processor allocations, it will set precedent and signal willingness to consider claims that are virtually without limit. If claims for 20% are granted without need to rigorously justify the policy amendment, why not try for 50%, or 75% next time? Good policy that preserves the legitimacy of the process requires that radical departures from accepted practice have a logical and transparent reason being adopted.

- ***The tenuousness of politically allocated distribution***

Allocations that are seen as rewarding political connections are generally tenuous and prone to the need to be revisited and overturned in the future. The crab rationalization program in Alaska is a good example. Crab processors succeeded in convincing policy makers to deviate from accepted practice and implement so-called individual processor quotas that required harvesters to deliver to their past handlers. In many cases, this restriction on deliveries meant that processors gained monopsony status in certain regions. The regional monopsonies required another artificial negotiated market to be established to prevent processors from exercising their administratively-granted monopsonies. But after only a few years, these artificial and negotiated markets are already under review for their deficiencies. For example, harvesters are chafing against provisions that force them to deliver 90% of their catch to the same processors who historically processed their fish. Participants also claim that the price negotiation process reduces the incentives of processors to innovate with new products and create new market niches. In addition, there are objections to the barriers to entry that are created by the limited entry plan that processors also convinced the Council to adopt in order to protect them from "stranded capital" losses. This process of unraveling artificial restrictions and administrative constraints will continue as long as the special favors that have been granted to particular stakeholders prevent profit-making opportunities from being exploited.

Conservation and Stewardship Incentives

- ***Processor allocations will subvert conservation objectives***

A primary reason for establishing a quota system in the Pacific Coast groundfish fishery is to reduce bycatch and encourage other ecosystem conservation measures. Conservation and stewardship ethics automatically emerge in rights-based fisheries precisely because quota takes on value.[8] When quota becomes valuable, it is in the interest of the quota holder to take actions that maintain that value, both individually and collectively. But quota held by harvesters will generate a different set of incentives and actions than the same quota allocated to processors. Quota allocated to harvesters will dominate their wealth portfolios and hence they will each have strong incentives to take actions that conserve the productivity of the resources they have a financial stake in. In contrast, processors' wealth portfolios will be dominated by the value of their plant and equipment, and quota holdings will be insignificant in comparison. Thus when tradeoffs occur between decisions that affect both plant and equipment capital and quota value, processors will tend to make decisions that favor the larger part of their assets. And quota allocated to processors will inevitably involve conflict between profits and conservation objectives. In contrast, harvester/owners' profits are linked directly to the biological health of the fishery ecosystem. This provides incentives to conserve the resource productivity and exhibit stewardship behavior that has been observed in many harvester-based quota systems around the world.

Fairness

- ***Pacific Coast processor allocations are essentially unfair***

This policy has been argued as "fair" because allocation will be made to both the harvesting and processing sectors. In fact, however, the policy of processor allocations is not one where allocations are split among sectors so much as among individuals. The reality is that income will be taken from over a couple hundred small businesses with vessel-value wealth on the order of a million dollars each, and allocated primarily to two very wealthy private individuals who control companies with sales on the order of a billion dollars. This is not the definition of "fairness" that most people have in mind when they argue for fair political processes.

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[8] Cf. Wilen, James. 2006. Why Fisheries Management Fails: Treating Symptoms Rather than Causes, *op.cit.*

Recommended changes

1. After initial allocation of shore based whiting and nonwhiting species QS, in order to own and control additional QS or as a first time quota share holder a individual person must be appointed for ownership and control purposes to the NMFS. The individual must be able to document 150 days at sea in any U.S. fishery in order to qualify to own and control QS following initial allocation. The QS will then be registered in that persons name with the NMFS.

ADAPTIVE MANAGEMENT OPTIONS

2. a. Shore based whiting only. Each state (Council) may designate protected historical whiting ports. Those receiving whiting QS for shore side designation will inform NMFS before the new fishing season begins which port they will be delivering into for the new season. If the port is not one of the protected historical whiting ports that persons QS holders units will be diminished by 10% and added to the vessels who continue to deliver to the PHWPs.

   b. 10% set aside of the shore based whiting and nonwhiting QS will be available for assisting ports and communities to remain as fishing communities. On a (annual, biannual,tri annual) basis the Council may receive and review proposals from fishing associations, individuals, processors or port authorities for the best use of this part of the QS program that addresses the primary objective, to keep fishing communities viable. This program will attempt to apportion the set aside proportionate to historical deliveries existing, at the time this action is taken, between the three coastal states states.

   c. Same as b only using shore based whiting

   d. Same as b but using key species instead of all 20 plus QS species, such as sablefish, whiting, flounders etc.

ENVIRONMENTAL DEFENSE FUND
finding the ways that work

October 25, 2008

Mr. Donald K. Hansen, Chair
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Amendment 20: Trawl Rationalization

Dear Chairman Hansen and Members of the Pacific Fishery Management Council:

First, we want to thank the Council for its dedication over the past five years in developing alternative program design options for reforming the west coast trawl fishery. It has been a long and arduous process, involving countless hours of work by staff, advisory groups, and Council members themselves. Now at the November Council meeting, the Council is scheduled to make the basic design decisions for the program that are necessary to assure that trawl LAPP management will not only achieve its critical biological, economic and social goals but will be a model for other US fisheries around the country.

Environmental Defense Fund (EDF) has been actively involved in the design process since the beginning. We strongly believe that a well designed IFQ program will provide both the incentive and accountability to reduce bycatch, improve gear selectivity and decrease habitat impacts as well as result in significantly improved data on which to base management decisions. Evidence from fisheries around the world also shows that IFQ programs can greatly improve the economic performance of the fisheries. We believe that the west coast IFQ program will be no exception. The one area where IFQ programs have gotten mixed reviews is in the social impacts resulting from the distribution of these benefits. Once again, the decisions that the Council makes in November will greatly impact how well the program meets its social objectives. EDF offer the following recommendations in support of a program which will best meet the needs of the resource, the industry and the coastal communities that depend on the west coast trawl fishery.

Adaptive Management Provision

We urge the Council to include an Adaptive Management Provision as part of their preferred alternative in November. In June, the preliminary preferred alternative included three mechanisms to address community stability concerns: a landing zone requirement, processor allocation and the AMP. ***We support the Groundfish Allocation Committee's recommendation that neither processor allocation or the landings zone requirement move forward and that community issues be addressed through the AMP.***

We also agree with the GAC that the AMP should provide an equitable regional distribution of a modest amount of quota pounds that will provide coastal communities (and the industry

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participants within the communities including processors) in each state having the opportunity to benefit from the AMP. An upfront percentage distribution of the AMP among the three states would allow different state priorities to be taken into account when awarding AMP quota pounds.

We appreciate that many industry members have been concerned about the AMP because the details have not been fully developed. Since the June Council meeting, both the State of California and the State of Washington have put considerable thought into AMP program design. We applaud these efforts and also suggest that further progress on the details of the AMP will be greatly enhanced when the initial allocation decisions are finalized. Therefore we make the following recommendations to complete AMP program development:

1. In November, the Council should make the following decisions as part of the Council's final preferred alternative:
    a. Initial allocation of QS: 100% to permit holders;
    b. Include the AMP as part of the program and decide on:
        i. Overall percent of annual TAC that can be used for AMP; and
        ii. Percentage division of AMP among states and the method for adjusting relative state percentages.
        iii. Priority uses of AMP (with the understanding that the ranking of these may vary state by state)
2. Post November, complete the design of the AMP:
    a. Charge each State, working with their stakeholders and with support from Council and NMFS staff, with developing state processes for deciding how state-associated AMP quota pounds are awarded, including relevant formulas and ranking criteria
    b. Determine how state processes will be incorporated into Council/NMFS rulemaking process
    c. Formalize resulting AMP program design through appropriate rulemaking process (trailing amendment or regulatory rule) so that AMP could be implemented at the outset of the overall program itself.

Initial Allocation Issues

Who should be initially allocated QS?

As discussed above, EDF believes initial allocation should be based on LE permit ownership. EDF believes that processors are a critical part of the groundfish industry and coastal communities, and our recommendation on this point is not intended to be nor should it be construed as "anti processor". However, IFQ programs rely on changes in fishing behavior to reap the conservation benefits from the program. One of these anticipated benefits is improved bycatch avoidance, which in turn will allow increased landings of healthy stocks. Allocating quota to those who fish (or control the operation of the vessel) is most likely to result in the changes in fishing activities that will produce the very conservation benefits which the program is intended to promote because they will stand to benefit most directly from those improvements. These increased landings will, however, benefit both harvesters and processors. The Council's decision document states that "overall, the IFQ program will likely reduce operation costs and make west coast products more competitive on the global market, thus increasing the volume of

what processors are able to see at a normal profit level even if processors do not receive an initial allocation". [1]

Our arguments against initial processor allocation based on processing history are further summarized below:

Processor allocation sets a precedent that will have a chilling effect on other rationalization efforts.
Initial allocation of harvesting quota based on processing history has not occurred in any program worldwide. Increased use of LAPPs for management has been a national priority strongly supported by EDF. We believe that a significant initial allocation of harvesting shares to processors based on processing history would negatively impact the ability to initiate programs elsewhere, resulting in the inability to reap the conservation and economic benefits associated with LAP programs.

Processor allocation is an inappropriate tool to address undocumented and largely unfounded stranded capital claims.
We have provided an analysis in earlier testimony arguing against the need for initial allocation to "compensate" for stranded capital.[2] The Council Decision Document also finds stranded capital in the non-whiting fishery unlikely to occur because landed volume should rise and the fishery has not operated as a derby fishery for years.[3]

Processor Allocation does not guarantee community stability.
A more recent argument that has been used in support of processor shares is that initial allocation is needed in order to assure access to raw product. This has sometimes been couched in a community stability framework.

First, this argument overlooks the most basic fact that fishermen need access to processors to realize the value of their catch, and that an economically viable processing sector is an essential element of an economically viable industry. Harvesters need processing capabilities under the current system, and they will need processing capabilities under LAPPs. The notion that fishermen will systematically deny processors access to raw product ignores this most basic fact: each needs the other.

Secondly, we believe that the AMP is a far better way to address community stability issues. We fully anticipate and hope that AMP criteria will encourage enhanced partnerships with processors and harvesters that demonstrate a commitment to work together to assure that quota pounds provide the greatest direct and indirect returns to coastal communities possible. Many fishermen today have a long-term relationship with a processor that they hope to maintain after rationalization. The Decision Document shows that processor allocation would actually shift quota away from associations like these which were in place in 2004-2006. In fact, the

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[1] Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pg 69
[2] Wilen, James E. University of California at Davis, White Paper on Stranded Capital in Fisheries, prepared for Environmental Defense Fund, May 2008
[3] Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. pg 414

document states that most of these fishermen/processor relationships would be better funded initially with 100% allocation to permit holders than with a 75/25% split.[4]

Even where processor allocation does reflect current community landing patterns, initial allocation of harvesting quota to processors carries with it no guarantees that that quota will be utilized in the community where it was "earned". While processors have testified that they will use their initially allocated pounds to "attract" fishermen (and their respective QS) to sell to them, they may also decide to stack that quota on vessels that they own, making it more difficult for fishermen to buy or lease enough quota to stay in business.

Post initial allocation, QS is likely to flow to processors.
In general, processors may be in a better position to purchase quota in the market place once permanent transfers are allowed as they likely have better access to capital and a longer time horizon to realize the returns on the purchase.[5] A processor may also be willing to pay more for a unit of quota since he intends to use that unit as leverage to access more raw product for processing while its value to the fishermen is only its own stream of earnings.[6] Therefore, if a processing company wants to acquire quota for additional supply security or as a hedge against competition, it should be in a good position to do so in the marketplace. In the British Columbia groundfish fishery, the processing sector has a mix of successful companies, some of whom had partial ownership in boats and quota prior to when the IVQ program was implemented, some who purchased quota later, and others that operate successfully without any quota ownership.

Opportunity for Divestiture if Over Accumulation Limits
While EDF in general supports the intent of the "no grandfather clause", we do believe that it may make sense to allow some opportunity for those over the accumulation cap to recoup some return on investment that may have put them over the accumulation cap. Therefore, we could also support a 3 year divestiture period for QS holders to sell any initially allocated QS above accumulation limits.

Other Program Elements

Tracking and Monitoring
EDF supports the preliminary preferred alternative requirement for 100% at-sea and shoreside monitoring. We believe that 100% monitoring is vital to the success of the program as it is difficult to have full individual accountability without it. The monitoring system grounds the incentive based behavior that results in both conservation and economic returns under an IFQ program.

Gear Switching
EDF supports the gear switching provision in the preliminary preferred alternative. While we do not believe that electronic monitoring techniques are advanced enough today to satisfy the 100%

[4] "most" is defined as fishermen/processor associations where at least $40,000 of annual ex-vessel revenue is associated – see Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pg 97

[5] See Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pages 61-62.

[6] Ibid, Appendix E, pages 16-17.

monitoring requirement in the mixed species non-whiting trawl fishery, it may be possible to achieve 100% with at-sea electronic monitoring in lieu of observers for other gears. If studies show this to be true, then we would support allowing electronic monitoring as a cost effective alternative that could also provide additional incentives for gear switching.

10% carry over

The Council's final preferred alternative should retain the 10% carry over provision to provide flexibility for fishermen and to eliminate the incentive to fish to the limit each year in order to avoid a "forfeit" of the uncaught quota. Although this may increase the complexity of the tracking and monitoring somewhat, that has not proven much of an issue in British Columbia. Their experience is that any increase in complexity is off set by the conservation benefits as fishermen tend to "underfish" rather than overfish as a result of the ability to carry over a percentage of unused quota.

Area management

We remain concerned that shifts in landings patterns could result in an increased potential for localized overfishing. The discussion at the GAC indicated a similar concern when they specified that areas where management lines are used for conservation purposes should be closely monitored and further subdivided if localized depletion concerns arose.

We agree that the $40^{o}\ 10^{'}$ split is somewhat arbitrary. However, in the absence of more definitive information of the range of distinct substocks, even this one split may help to prevent isolated geographical depletion due to shifting fishing patterns.

A better approach, however would be to proactively review all of the available information and then make some more selective precautionary area-specific quotas where possible. We suggest that the Council convene a working group of scientists to determine if there are any species of particular concern where additional subdivisions would be advisable even if substock identification is not definitive. This could occur in the first six months of 2009 and then the results could be incorporated in the final package that moves forward for Secretarial review and approval.

While a process is currently included for implementing after-the-fact area splits should new biological information identify a need, there may be more resistance to further subdivision once quota has been traded based on an expectation of coastwide use. This argues for being precautionary from the outset, as well as being explicit that further subdivisions could occur in the future.

Conclusion

Environmental Defense Fund thanks the Pacific Fishery Management Council and NOAA Fisheries for its perseverance on this important matter. We would like to encourage the Council to move forward with a final vote in November on the highest priority and most critical design and allocation issues in order to complete the Draft EIS. EDF remains committed to working constructively with the Council, NOAA, States and all stakeholders to bring the IFQ to completion and implementation.

TRAWL RATIONALIZATION (AMENDMENT 20) HEARING SUMMARY – ASTORIA

Date:	October 29, 2009	Hearing Officer:	Frank Warrens
Location:	Astoria, OR	Other Council Members:	Phil Anderson, Dale Myer, Steve Williams
		NMFS:	Kevin Duffy
Attendance:	44	Coast Guard:	Chad Thompson
Testifying:	14		
		Council Staff:	Heather Brandon Jennifer Gilden
Organizations Represented: Environmental Defense Fund, Lower Columbia Alliance for Sustainable Fisheries, Oregon Fishermen's Cable Committee			

Synopsis of Testimony

Of the 14 people testifying:

- One said they supported trawl rationalization but did not support an allocation to processors.
- Five said they did not want a 20 percent allocation to processors, but were not clear on whether they supported trawl rationalization over the status quo.
- Three said they supported the preliminary preferred alternative if it includes the 20 percent initial allocation to processors. Some expressed other reservations about the program.
- Three supported the adaptive management provision.
- Two did not support the adaptive management provision.
- One supported the area management provision.
- Two said they preferred status quo over trawl rationalization; one of these said that if rationalization goes forward, processors need to be protected.

Harvester Sector Comments

Fishermen will still go to the same processors even if processors don't get a 20 percent allocation of quota share. A 20 percent allocation is too much for fishermen to give away, especially when combined with other allocations for adaptive management, etc.

Concerned about processor shares being owned by foreign companies.

Fishermen stay with the same processors for many reasons; will not switch processors after rationalization. Sees the 20 percent allocation to processors as taking 20 percent from fishermen's income.

Cannot afford to participate in bottom fishing anymore. Generally anti-rationalization.

Wants to retain 20 percent processor share for fishermen.
Concerned about lack of new people entering fishery; concerned that rationalization will lead to a

loss of small fishing businesses and entry-level jobs for community members, especially those without college educations.

Concerned about protecting small fishing businesses. Against processor quota. Concerned about bigger fishing and processing businesses buyout out smaller businesses. Feels processors do not need extra protection.

Processing Sector Comments

Supports processor allocation. Processors build and maintain community infrastructure. Adaptive management proposal is flawed, temporary relief that cannot be counted on for long-term planning. Carryover provision should be 30 percent, not 10 percent.

Concerned about protecting processor investments through the processor quota. Concerned that fishermen will switch processors. A harvester-only quota creates a new class of quota owners; those without quota (including processors) will suffer, along with communities. Concerned about foreign ownership/leasing of quota. Has reservations about adaptive management provision; doesn't understand how it would work.

Supports processor allocation. Processing is an expensive business; don't want to have to buy back into the business after investing so much. Concerned that individual fishing quotas offer an opportunity for speculation.

Prefers status quo, but need protection for processors and their investments. Concerned about negative impacts of Canadian rationalization program on processors.

Concerned about eligibility window for processor shares.

Environmental and Conservation Interest Comments

Supports adaptive management provision over processor allocations or landing zones. Supports dividing adaptive management among the three coastal states. Opposes initial allocation to processors.

Supports area management with break at 40º10' for species not already managed through area management. Supports adaptive management, but believes more details are needed. Would like more quantified economic analysis of community impacts under different scenarios. Would like impacts of Amendment 20 and 21 to be considered together.

Community Member Comments

None.

Other Comments

None.

Written Statements (Attached)

Thank you Mr. Chairman: Testimony Astoria-Mike O-10/29/08

My name is Mike Okoniewski: I represent Pacific Seafood: I am responsible for the operations in our Woodland Washington division. We employ 100 people on a year around basis and up to 325 in peak production. This is a 300 ton freezing plant that represents an $8.5 million dollar investment. Our primary focus is whiting, bottom fish, and sardines.

We are here to today to discuss a new management system: Trawl Individual Quota: Objectives, even though analyzed over five years and in thousands of pages of documents remain ill defined.

In my mind there should only be three primary objectives: First: The best conservation practices to maintain healthy stocks. Second: Obtain the maximum value to the Public for the resource-This is not measured only by ex-vessel price and the lease price for quota pounds: and Third: Stabilize and Promote a healthy Industry which enhances market confidence and development.

No one has analyzed what different effects a Harvester Only TIQ against a Processor Shared plan would have on the markets. It appears most analysis treats the Processor as the end market. That is very short-sighted. In fresh Bottom-fish for example, we are in a dog fight for shelf space. The number one fillet in the world is Tilapia. Farmed salmon is in supermarket cases 365 days a year. Our real competition is Aquaculture. They have the unified strategy, capital investment (in billions), along with foreign government support, that places a laser focus in driving their products into that shelf space. We continue to fight each other. The market is not the fish plant-it is the consumer.

Whiting is different as it largely an export item and requires large freezing plants. Processors have invested amounts that far surpass boat investments. Processors were the ones that explored and created the original markets, and now new markets so we could move away from a surimi dominated profile. Now that we have made those investments and created those markets we are told we can step aside and grant all control to the permit owners.

I have been told by certain fishermen that nothing will change. They like where they deliver and if we ante up we can continue to have their catch.

The exact opposite will be true. There is excess freezing capacity. It was developed in order to service the whiting and sardine fisheries. In a Harvester Only TIQ the same thing will happen to the US whiting processor as in Canada. Each processor will either reduce their margins to cover just the operating costs in order to entice fishermen or they will not receive fish. This no longer will have the present checks and balances.

The only way around this is to buy or lease quota. This is capital investment that moves you away from product form and market development solely to protect our investments. It should be noted that not all processors will be able, or will want to, select this option; and again, like in Canada, they will shut down their plants.

A Harvester only Quota creates a third class of participants in the industry: We now have two: Harvesters and Processors. What we will add would be the Quota holder class. Whereas there is presently equilibrium; the Quota holders will hold all power in the New World. There will be only one economic driver: Extract Maximum Rent value for the lease of that quota. Quota holders that still own boats can fish or lease as they see fit. Harvesters that own no quota will either "sharecrop" or go out of business. Processors with no quota will lose control of their ability to run their businesses and will either buy quota or shut their doors. The communities and markets will be the ones that suffer the collateral damage.

It may not be politically correct to say this; but in this scenario it will only be a matter of time before the Quota holders will want the option to lease their quota offshore.

In the Olympia testimony we heard from a large holder of Alaska quota. He is in favor of nothing for the processor. Predictable: However, it is interesting that some of those who were huge benefactors from being Alaska quota recipients are now seemingly involved in the TIQ process. We know that some of these same Quota recipients no longer fish their vessels. They claim to be involved in the community and yet it

seems that much of the product they deliver goes through those communities to the metropolitan areas for processing. In addition it would be an interesting economic study to establish how much of the monetary gain from IQ handouts in Alaska is now being used to target permit or quota acquisition in other regions.

This quota consolidation and consortium structure is exactly what we have seen in Canada. It is also what we can expect if we hand all Trawl quota shares over to the LE permit holders. If Processors are allocated quota at Pacific it will be used to retain and promote the health of our entire fleet. We do not want another buyback event.

My preference is and has always been a Cooperative approach. Allocating limited access privilege to resource automatically triggers adversarial relationships. This is the opposite of what we need if the industry is going to thrive, and not atrophy. If we are going to meet the real competition and achieve the greatest return of the resource it will take balance and cooperation-not a battle over the resource.

Perhaps cooperatives could emerge if the processors were allocated 20% of the shares? The logic for cooperation is still there; if the goal is to promote the entire Industry and not just a few.

Adaptive management: We simply do not know how it could work. We have many doubts whether it could be constructed into a viable business plan.

Again we believe the only rational and equitable solution we have before us is to allocate a minimum of 20% to the Processors. Please support the June Council Preferred Alternative. If no quota is allocated to Processors the last 5 years will look tame in comparison to the war we start. This Industry which many of us love will go into a self-destruct mode. The bleed over will extend far beyond the ground-fish and whiting fishery. It will impact every fishery, those markets and all fishing communities on the West Coast. There will be no winners in the end. <u>We can avoid this by choosing the June preferred alternative.</u>

Thank you

Mr. Donald K. Hansen, Chairman
Pacific Fishery Management Council

Bernie Bjork
36293 Bartoldus Loop
Astoria, OR 97103

October 29, 2008

Dear Chairman Hansen;

My name is Bernie Bjork, and I live at 36293 Bartoldus Loop, Astoria. Thank you for allowing me to speak before you. I am a retired commercial fisherman of 30 plus years and am here to promote an IFQ system for our local independent small boat drag fishermen, without any quota for processors. My experience in the Alaska Halibut fishery for over 20 years, 9 of those years under an IFQ system, gives me first hand knowledge of how well that system works. The Alaska Halibut IFQ system works very well without any processor quota shares.

The following local Warrenton based drag fishermen asked me to represent them at this meeting; Blair Miner–F/V Columbian Star, Paul Kujala–F/V Cape Windy, Kelly Smotherman–Fate Hunter, Scott Smotherman–Cape St. James, Gary Wintersteen – F/V Nicole, and Gary Sjostrom-Home Brew,

We have acquired four very important pieces of information supporting our opposition to processor quota shares. The first one is two letters written by Bob Alverson, a former member of the Pacific Fishery Management Council (PFMC). In his first letter he clearly shows how in the only other fishery that has a Processor quota system, the Bering Sea King Crab Fishery, a full 50% of the processor shares are controlled by the Japanese. In his supplemental letter he clearly states that the shorebased processors chose an investment strategy that did not include the huge liability risks involved with fishing vessels. Therefore, they are not entitled to 20% of the quota.

The second piece of evidence is an email that I received from Johanna Thomas, West Coast Director of Oceans for Environmental Defense Fund. In the email she explains that the most important groundfish advisory group to the PFMC, the Groundfish Allocation Committee (GAC) clearly advises the PFMC that there should not be processor quota.

The third very important piece of information supporting our side is a letter written by Senators Wyden, Feinstein, and Boxer, along with numerous Representatives including Peter DeFazio and Darlene Hooley. The letter states, "fishermen and other constituents have expressed serious concern with one element of the IFQ package-initial allocation of harvesting shares to processors. The Council's decision to grant 20% of the quota to processors will harm fishermen by increasing consolidation and marketing power in the processing sector, while failing to meet the Council's stated goal of protecting coastal communities. This component sets bad precedent and could undermine the success of any IFQ program."

And the fourth bit of information supplied is the Resolutions the Clatsop County Commission passed at their August 27th meeting, and the Warrenton City Commission passed at their September 23rd meeting. The County Commission and Warrenton city Commission, after being asked by local processors to rescind their first Resolutions, upheld their original Resolutions.

The information that I have provided demonstrates the concern of many very influential people. They clearly feel, like I do, that processor shares should not be a part of our local Groundfish Fisherman's IFQ system.

Truly;

Bernie Bjork

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SINCE 1914

August 19, 2008

Mr. Donald Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Chairman Hansen:

The Fishing Vessel Owners' Association ("FVOA") represents 95 independent fishing families and the vessels they operate. All of our members are fixed-gear harvesters. The members fish approximately 45 fixed-gear limited-entry permits off the lower coast and have about 10 trawl limited-entry permits. Our interest is representing the concerns of our members who have purchased these trawl permits. We support the development of a market-based IFQ format for the future of the West Coast trawl fisheries. We support the current sector splits and other regulatory requirements found in the preliminary preferred action taken by the Pacific Council at its June 2008 meeting.

We oppose the allocation of 20% of the earned trawl individual Transferable Quota (TITQ) by a vessel owner to the shorebased processors. The rationale for this allocation was stated in June as to offset alleged new marketing "power" realized by the harvesters once TITQs are issued. However, it has been noted by the Council that, currently, under the status quo management, the marketing power favors the shorebased processors. We believe the 20% proposed allocation is solely an economic allocation and is, therefore, prohibited by National Standard 5. We also believe that, because it is the fishermen's earned fishing history that serves as the basis for quotas, and the proposed 20 % allocation to processors would arbitrarily transfer quota earned by fishermen and not by processors, the allocation is prohibited by National Standard 4. The impact on communities, described below, runs afoul of National Standard 8.

National Standard 4 states: "...If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (a) fair and equitable to all such fishermen; (b) reasonably calculated to promote

conservation; and (c) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges."

National Standard 5 states: "Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources, except that no such measure shall have economic allocation as its sole purpose."

The current status of the trawl fishery is the result of several major decisions of the Council taken over three decades. There was an overarching goal by the Council to have a fishery that supplies markets year-round. This goal has failed because the Council has never been able to match the goal of 12-months' availability of fish with harvesting capacity and the ever-changing catch limits (TACs). The Council is now ready to adopt a market-based program that will allow the fleet to match harvest capacity with the availability of resources and market demand for these resources.

For the first time in three decades, this will allow harvesters to enjoy an "open market," a market where the "goods" (fish) produced are not encumbered by bi-monthly trip limits which, relative to market demand, funnel too much fish in too short a period of time to a few processors. The current bi-monthly trip limit structure for harvesting and landing fish results in a form of a "closed market" to harvesters. The time to set up fish deliveries based on negotiated prices, and the ability to hold product until the market becomes more competitive, is the new power we believe the Council identified in June but did not articulate fully.

The bi-monthly deliveries, because of the collapse of the TACs and still too many vessels, has resulted in the fleet fishing the last days of one bi-monthly timeframe and harvesting the next bi-monthly trip limit in the beginning of that time-frame. This structure causes most of the available fish for a four-month period to be delivered in 2-to-3 weeks. The harvesters have been forced to adopt this harvesting strategy in order to catch enough volume to operate economically. To harvest the bi-monthly limits in some other timeframe would result in an insufficient income to operate and attract a crew.

The status quo has created a bi-monthly pulse fishery forcing the harvesters into the position of flooding the market three times a year. Phil Anderson mentioned the current situation puts the processors in a position of power over the harvesters. We agree. None of the above operational actions by the harvesters would be logical, if the harvester operated in an "open market," where one could reasonably negotiate each delivery such as is done through the Homer Auction, FVOA's Seattle Fish Exchange, Holland's reverse auction, and the Japanese Segul Market Auction System. When using these forms of competitive bidding, the harvesters have never before been required to allocate 20% of their fish to the buyers as a prepayment for competing in an open market. It is instructive that never before has there been any justification identified that supported implementation of such an allocation.

The Council's 8-to-4 vote would imply most Council members believe there truly is a new economic power provided to the harvester with the TITQ program. We maintain that the so-called new power of harvesters is nothing more than a restoration of the open market position they enjoyed, before the resources declined and fleet capacity became too large relative to the available harvests. That power is simply the ability to ask two or more buyers to provide competitive bids for the goods produced by the harvester. The processors have received the fish under a closed market situation from the harvesters, as noted by Phil Anderson, and in turn, have sold their finished product to various North American, Asian, and European markets (i.e., open markets).

The ability to enjoy an open market where there are two or more suppliers and two or more buyers is fundamental to the optimal operation of Capitalism. Without the ability to negotiate freely, market distortions are unavoidable. The so-called new power provided to the harvester is a marketing opportunity harvesters should enjoy in accordance with the principles of our economic system. The power of the open market to the harvesters under a TITQ program is matched by power that the processors have always exercised, the ability to negotiate with their buyers at the 1st, 2nd, and 3rd wholesale levels. Seafood Business shows the following for gross sales by processors:

North America's Top Seafood Markets

#2 Trident Seafoods	$1,000 Million
#3 Pacific Seafoods	$875 Million
#6 Unisea	$750 Million
#7 American Seafoods	$550 Million
#12 Ocean Beauty	$420 Million
#11 Aqua Star	$430 Million
#14 Icicle Seafoods	$350 Million
#22 Peter Pan Seafoods	$240 Million
#22 Golden Alaska Seafoods	$240 Million

....Seafood Business, May 2008

With TITQs, the harvesters will no longer be held hostage to a market distorted by bi-monthly delivery requirements.

The open market that the processors have enjoyed over the last three decades has benefited them greatly. However, the Pacific coastal harvesting vessels, that do not have some Alaskan opportunities, are currently near bankruptcy, are poorly maintained, often do not have insurance, are frequently tied up, and generally produce poverty-level wages. This contrasts with the tremendous wealth reflected in gross sales of the processors, as reported by NMFS. The Council's proposal to have fishermen pay a 20% premium to the processors for being granted an open market is entirely unfair and arbitrary.

There is no economic theory that justifies the kind of transfer proposed by the Council which is placed on the back of harvester labor and small family vessels owners. Not surprisingly, there is no justification provided in the EIS. The proposal is for nothing more or less than solely an economic allocation proscribed by Magnuson-Stevens Act National Standard 5.

The Pacific Council must recognize that processor leverage and marketing power are not just limited regionally to the area of responsibility to the Pacific Council. The processor assets through the American Fisheries Act ("AFA") legislation and Bering Sea/Aleutian Islands crab rationalization program in Alaska provide marketing leverages on the Pacific Council area. The Japanese fish company of Maruha and Nichiro recently merged, making Maruha now a $9 billion in sales company. The merged operation has many marketing agreements with the at-sea processors, motherships, and shorebased operators in the Pacific Council area of authority, as well as in Alaska. Through these marketing agreements control over IFQs and processor shares is being exerted both in Alaska and off the lower Pacific Coast.

The Washington State's and Alaska's Attorney General's offices have been looking into these market relations recently due to the merger of Nichiro and Maruha, each was a global seafood buyer. Together they are now the largest seafood buyer in the world. The U.S. Government allocated crab processor quota share privileges to the Bering Sea processors. These processor quotas guarantee each processor their historical share of processed Bering Sea crab. The shares are published by National Marine Fisheries Service (NMFS) and are as follows:

Trident Seafoods Corporation	26%
Unisea, Inc. & Royal Aleutian	21%
Peter Pan Seafoods, Inc.	15%
Westward Seafoods, Inc.	13%
Icicle Seafoods, Inc.	10%
Alyeska Seafoods, Inc.	5%
Snopac Products, Inc.	4%
Yardarm Knot, Inc.	4%
Others	2%

Unisea, Inc., Peter Pan Seafoods, and Westward Seafoods are each 100% owned by Japanese interests. Alyeska Seafoods is owned with about 50% Japanese interests. The total processing shares controlled by Japanese investors of U.S. crab processing rights is over 50%. In addition to this, Maruha now owns 100% of Peter Pan Seafoods, 100% of Westward Seafoods and 50% of Alyeska Seafoods with the recent merger in Japan. Maruha alone controls nearly 38% of all processed U.S. crab. Prices to fishermen are now controlled through government imposed arbitrations to help make sure the harvesters get a fair price. Japanese-controlled companies control over 50% of the wholesale markets for Bering Sea crab. This

marketing power has an impact on the lower coast Dungeness processing and their competitive position as processors.

Trident Seafood representatives have testified before the NPFMC stating the overall crab asset rights maybe worth $1.1 to $1.2 billion and crab processors shares worth $89,684,941. Pollock, if valued at $2500 to $3000/ton, has an asset value of $2.5 to $3 billion, and non-pollock species in the Bering Sea has an asset value of $1.0 billion.

In the AFA, pollock was similarly allocated to certain groups. The Act allocated pollock 50% to catcher vessels harvesting pollock for processing by the inshore component, 40% to catcher/processors and catcher vessels that catch and deliver to a catcher processor and 10% to catcher vessels delivering to mother ships.

The percent of processor control of the shore based allocations by the Japanese investors for pollock is: Peter Pan Seafoods (Maruha) – 2.876%; Unalaska Co-op (Alyeska) (50% owned by Maruha) – 12.181%; Unisea Fleet Cooperative – 25.324% and Westward Seafoods – 18.906% (Maruha). The Japanese investors control 53% of the shorebased processing of pollock, with Maruha controlling 27.7%.

Trident Seafoods, through Akutan Catcher Vessel Association, controls 31.145% of the shorebased pollock plus pollock harvested by their catcher processor fleet such as the *America Enterprise, Kodiak Enterprise,* and *Seattle Enterprise*. Trident, at a minimum, controls 25% of all crab processing rights in addition to significant Pollock co-op rights and at-sea processor pollock rights. Seafood.com recently reported the pollock company of Alaska Ocean, Inc., sold to Glacier Fish for $185 million. It was reported they controlled 40,000 tons of pollock. Trident's control of pollock is more than this and that asset value enables them to be very competitive off the lower Pacific Coast, relative to any new competitive power that might be provided to the harvesters or new processors. The request by the processors for 20% of the fishermen's TITQs is a grab-for-asset value. It utterly fails to address the Pacific Council's problem statement of bycatch and race for fish.

The Pacific Council needs to recognize the tremendous asset value many of the processors off the Pacific Coast have already received through their Alaskan operations and marketing arrangements. The Pacific Council must recognize that allocating 20% of the harvesters TITQs to the processors will put the harvesters in a dramatically and unfairly weaker condition to negotiate than Phil Anderson described. The EIS suggests the harvesters will need to consolidate by 40%. This will require harvesters to buy each other out. If the processors have 20% of the quota, consolidation will likely be more like 60%, putting an even greater economic burden on the harvesters. Allocating 20% of the fishermen's quota will only exacerbate this economic power the processors already have over the harvesters. Unfortunately the Council has not put any design features into the TITQ program with respect to the shorebased sector that would differentiate between harvester quota and processor owned TITQs. Based on the current design, the fishery will

likely be vertically integrated in a short period of time with the harvester in an increasingly weakened negotiating position.

The Council heard from a number of economists from the "Panel of Experts" that the Council put together. The resulting input, including that below, shows that the proposed allocation to processors runs afoul of National Standard 8, which provides: "Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities."

The Council was informed, as follows:

> To meet the second objective of preventing the location of landings from shifting radically from the current communities, an analysis would have to demonstrate why the processing sector would be any less likely to shift locations than fishing vessels, once issued IFQs.
>
> Currently, siting of processing plants responds at least partly to the location of fishing fleets. With control of IFQs, processors could exploit economies of scale in processing by consolidating into fewer plants and requiring that the fishing vessels who lease their IFQs land at those sites. Thus, there are potential community instabilities exacerbated under the processors quota options. These are issued requiring analytical attention.
>
> Issuing IFQs to processors introduces some additional possible complications that are not discussed in the presentation of alternatives. Suppose that one or a few processors have a dominant position in the processing industry and that they also deliver a large enough fraction of the fresh groundfish in local markets to affect price. Does the Processor Quota alternative then give them additional market power (monopoly power to restrict supply to achieve a higher market price for groundfish in product markets, or monopsony power to restrict purchases of fish from the fishing fleet to reduce price of landed fish)?

The members of FVOA believe that the 20% allocation of fishing history is economic corporate welfare and tribute to the processors in order to enjoy an open market by the harvesters. We believe this allocation falls under National Standards 4, 5, and 8. Phil Anderson, at the June Council meeting, mentioned the current regulations give processors the superior negotiating position, and we agree. The processors have far more than adequate marketing power with their leverage in Alaska and the lower coast without further strengthening their position by taking 20% of the quota and income base away from the harvesters, harming those who

earned the quotas and adversely affecting fishery dependent communities. We urge rejection of the 20% allocation of TITQs to the processors.

Sincerely,

Robert D. Alverson
Manager

RDA:cmb

FISHING VESSEL OWNERS' ASSOCIATION
INCORPORATED

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SINCE 1914

October 17, 2008

Mr. Don Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Trawl ITQs – Supplemental Comments for non-whiting & shoreside whiting QS

Dear Chairman Hansen:

The following comments are supplemental to the ones we submitted on August 19, 2008. There are several provisions of the preferred Council action on TITQs that we would like amended. We have a recommendation with regards to excessive shares, and we are concerned that there are few safeguards in the proposed action to help shape the control and usage of non-whiting and whiting quota shares. We remain opposed to the 20% allocation to the shorebased processors and have added a few comments regarding this issue. The following are our requested changes to the TITQ program.

1. Excessive shares – Once the Council determines the level of excessive shares, if a recipient of TITQs is in excess of the limit, we request the Council provide three years for that entity/person to liquidate the excessive amount. There have been suggestions that if an entity/person is in excess of the limit set by the Council, that NMFS would only be authorized to allocate an amount less than the excess share limit. We would point out that the Council has never established an excessive share of owning or controlling existing trawl permits. Therefore, people have made investments based on existing Council decisions. We believe the Council's TITQ program would be more legally defensible with our suggested three-year sell-off provision and fairer to current L.E. permit holders.

2. Shorebased quota shares non-whiting and whiting – The Council has not deemed it necessary to put ownership and control mechanisms that would recognize the current social and cultural relationships within the coastal communities between harvesters and processors. There are no restrictions proposed once TITQ quota shares are issued that would prevent processors, or any other investors from buying up to a maximum limit. In quota share proposals developed in New Zealand, where

there were no restrictions on ownership and control between processors and harvesters, the fishery quickly evolved into vertically owned operations with the second generation harvester being forced out. We request the Council add a restriction that keeps QS in the hands of harvesters. In other words, the quota allotted to harvesters would become harvester quota and not eligible to be purchased by processing interests. Such a restriction will help keep harvesters harvesting and processors, processing and protect the fishing communities from "company store" vertical integration. Without an owner restriction of this sort, the independent shorebased harvester will be eliminated from the West Coast.

3. We oppose the Council's preliminary preferred action to allocate 20% of the non-whiting and shorebased whiting to the shorebased processors. Some Council members have indicated they have not heard well reasoned arguments against allocation of harvesting shares to processors. The following are rationale against the allocation to shorebased processors in addition to the comments previously provided to you by the Association.

   (a) The choice of someone's investment strategy provides insight into the expected return on investment. A processor can invest as a catcher processor, a mother ship, or a shorebased processor. Each investment has different risks and expectations. A catcher processor's investment allows you to be vertically invested with no raw product cost, such as, paying an ex-vessel cost to a harvester. It allows you to go from raw product to the retail market. It can provide a high quality product, as fish are processed quicker than shoreside. The investment does come with the risks of knowing how to hunt and catch fish, gear investments, and hiring of harvester personnel. A mothership allows an investor to be on the grounds for high quality processing, from at-sea harvesting vessels.

   The mothership can offer faster trips for a harvesting vessel because their running time to a shorebased processor is eliminated. It provides efficiency to the catcher vessel and high quality to the floater. However, the mothership does not invest in the risks of catching the fish. The shorebased investor could have invested as a CP or mothership, but chose a different investment.

   The shorebased investor knows that a competitive price and distance to the fishing grounds are his economic advantages or disadvantages. The shorebased processor has chosen not to be a harvester and specifically avoided the high cost and legal ramifications of operating as a catcher vessel, mothership, or CP. The liability aspects are significant once you're invested in a boat. You avoid those risks with shorebased investment. The catcher boat's investment is based on the ability to hunt and harvest fish and deal with closed areas for habitat or RCAs and bycatch of over fished species.

   Catcher processor, mothership, shoreside processor, or "harvesting-only vessel" investments, each have certain unique investment motives providing

unique benefits to each investment choice. Taking the "harvester only" fish and giving it to the shoreside processors cannot be justified based on the investment risks of a shoreside processor. Each investor knows what they were getting into. Each has a unique rationale and expectations for their initial investment choice. If you are a shorebased investor, you know you are going to be restricted to your ability to be competitive in a port with other processors. If you are not competitive, a harvester can move to other processors or ports based on the Port Preference Act of the Constitution. It states:

"No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another."

There is no investment risk made by the shorebased processors that justifies the catcher vessels catch going to the shorebased processor.

(b) Choosing a QS program based on certain years of participation and production is much like our national policies in the past for granting rights to homesteaders who work the soil for five years, growing wheat, or corn. Does it make sense that the granary would get a portion of the homesteading production or land? We believe the answers to be no for either a farm or a fisherman.

(c) The Council invested in the advice from a panel of economic specialists that told the Council the following:

"The presumption is that such an allocation is intended either to compensate established processors for potential losses associated with "stranded assets" or to prevent the location of landings from shifting radically from the current communities. To meet the second objective of preventing the location of landings from shifting radically from the current communities, an analysis would have to demonstrate why the processing sector would be any less likely to shift locations than fishing vessels, once issued IFQs." This has not been done.

"With control of IFQs, processors could exploit economies of scale in processing by consolidating into fewer plants and requiring that the fishing vessels who lease their IFQs land at those sites. Thus, there are potential community instabilities exacerbated under the processor quota options."

"Issuing IFQs to processors introduces some additional possible complications that are not discussed in the presentation of alternatives. Suppose that one or a few processors have a dominate position in the processing industry and that they also deliver a large enough fraction of the fresh groundfish in local markets to affect price. Does the Processor Quota alternative then give them additional market power (monopoly power to

restrict supply to achieve a higher market price for groundfish in product markets, or monopsony power to restrict purchases of fish from the fishing fleet to reduce price of landed fish, or .....

According to the Stock Assessment and Fisheries Evaluation documents for the groundfish fishery, three shoreside companies account for 75% of all landings. In fact, as it turns out, the concerns of the economic specialists are real ones.

(d) In our previous paper to you, we showed you how the processors have been profitable. The gross sales are as follows:

#2 Trident Seafoods	$1,000 Million
#3 Pacific Seafoods	$875 Million
#6 Unisea	$750 Million
#7 American Seafoods	$550 Million
#12 Ocean Beauty	$420 Million
#11 Aqua Star	$430 Million
#14 Icicle Seafoods	$350 Million
#22 Peter Pan Seafoods	$240 Million
#22 Golden Alaska Seafoods	$240 Million

The Council-sponsored study on the economic effect of IFQ management in the Pacific groundfish fishery found that groundfish fishermen currently have a profit margin of "zero".

In summary, we have provided the Council with some suggested final actions on dealing with excessive ownership caps, separate ownership and control between harvesters and processors for harvester QS, and added some arguments in opposition to an allocation to shorebased processors. Thank you for your consideration.

Sincerely,

Robert D. Alverson
Manager

RDA:cmb

Subject: update on IFQ vote - reinforces negative public attitude about processor quota allocation
From: "Johanna Thomas" <JThomas@edf.org>
Date: Thu, 9 Oct 2008 16:15:36 -0400
To: <darbfishing@earthlink.net>, <patjroberts@ipinc.net>

Hi Bernie and Pat,

Bernie asked if I would send an update on today's vote by the Groundfish Allocation Committee (GAC) about processor shares.

The GAC is composed of all the State and Federal agencies that sit on the Pacific Fishery Management Council, and the GAC's direction is very important for the full Council. The council usually adopts the GAC's recommendations wholecloth since the GAC makes very measured decisions.

Today, the GAC voted against processor allocation. In doing so, they reaffirmed the vote they took in May. They also voted strongly in favor of using the Adaptive Management Program as the best way to provide community stability under the IFQ program.

I hope this is helpful as Clatsop County Commission and Newport Port Commission contend with the processors' late efforts to get these bodies to reconsider their vote. In a nutshell, the processors' proposal to get a share of fishermen's quota is being widely viewed as poor public policy and counter to communities and states' interest in supporting fishermen to make a more sustainable livelihood. I hope the commissions don't feel like they have to bow to the interests of the largest seafood processors. (As an aside, according to the federal government, three large processors - with Pacific Seafoods and Bornsteins being # 1 and # 2 - process more than 80% of the Pacific groundfish harvest, so the fear tactics about the IFQ leading to processor consolidation ring a little bit hollow given the consolidation has already taken place.)

Please let me know if you have any questions about this.

Thank you,

Johanna Thomas

Re: Keep up the good work!

Subject: Re: Keep up the good work!
From: "Johanna Thomas" <JThomas@edf.org>
Date: Tue, 14 Oct 2008 10:27:15 -0400
To: "Bernard Bjork" <darbfishing@earthlink.net>, "Shems Jud" <sjud@edf.org>, "Stan Devereux" <Devereux@pacwestcom.com>

Hi Bernie, I just saw this. Yes, the GAC includes the state and federal agencies that sit on the pfmc: oregon, wa, ca, NOAA and Pacific States Marine Fisheries Commission. So it is important and influential. The fact that they voted down the processor shares indicates that it doesn't have much political support. If Astoria votes that way, they will be in good company.

Johanna Thomas
(415) 293 6069

Congress of the United States

Washington, DC 20515

October 15, 2008

Dr. James W. Balsiger
Acting Assistant Administrator
National Marine Fisheries Service
1315 East-West Highway, Room 14743
Silver Spring, MD. 20910

RE: West Coast Groundfish Individual Fishing Quota for Processors

Dear Dr. Balsiger:

Thank you for your efforts thus far to reform the West Coast groundfish fishery and ensure the longevity of this important resource. As the Pacific Fishery Management Council considers the development of an individual fishing quota (IFQ) program, precise details of the program's design will be critical to restoring the fishery's economic and ecological health. Properly constructed improvements can significantly benefit fishermen and the coastal communities that depend on the groundfish resource.

We understand that the Pacific Fishery Management Council reached a milestone in June when it voted on a preliminary preferred alternative as part of the draft EIS for the IFQ program. It is encouraging to know that NMFS has been supportive of Council efforts to improve management of this fishery.

However, fishermen and other constituents have expressed serious concern with one element of the IFQ package – initial allocation of harvesting shares to processors. The Council's decision to grant 20% of the quota to processors will harm fishermen by increasing consolidation and marketing power in the processing sector, while failing to meet the Council's stated goal of protecting coastal communities. This component sets bad precedent and could undermine the success of any IFQ program.

According to the most recent Stock Assessment and Fishery Evaluation document for the groundfish fishery, the three largest processing companies process well in excess of 75% of the groundfish on the Pacific coast. In contrast, a Council sponsored study on the economic effects of IFQ management in the Pacific groundfish fishery found that groundfish fishermen in aggregate currently have a profit margin of zero. Not only would allocation to processors take a 20% bite out of fishermen who are already struggling to stay in business, but it would also give powerful processors even more ability to mandate landing times and prices.

More importantly however, allocating quota to processors will not protect coastal communities, which was the stated rationale of many Council members. Because the quota will be allocated to processors on a company basis rather than a plant basis, and because many large processors own more than one facility, there is nothing to prevent

those processors from consolidating that quota into a single plant. Nor is there anything to prevent processors who hold quotas from moving to another location or simply selling their quotas to processors in another port. Similar consolidation has happened in the processing sector in the recent past, and there is nothing to prevent it from happening again.

Finally, in all the IFQ programs that we are aware of in this country and around the world, harvesting quota has never been granted to processors except for the recent and highly controversial BSAI crab rationalization program in the North Pacific. Even when processors have later been permitted to purchase harvest quota shares from fishermen, this has sometimes resulted in excessive consolidation.

If the Council does not at least eliminate initial processor shares from the IFQ program, it will send the signal to processors around the country that they should seek their own allocation. This would make IFQ implementation much more contentious and likely put a chilling effect on the further adoption of important IFQ management reforms.

In closing, we want to encourage NMFS to support a fair, well-designed IFQ program that will transform the groundfish fishery from a fishery struggling with by-catch problems and economic stagnancy into a vibrant, ecologically, and economically sustainable fishery that will benefit fishermen, processors, coastal communities, and the fishery resource. If you have any questions, please do not hesitate to contact Susan Jane Brown (susanjane.brown@mail.house.gov; 202-225-6416) in Congressman DeFazio's office.

Sincerely,

Representative Peter DeFazio
Member of Congress

Senator Ron Wyden
Member of Congress

Representative Mike Thompson
Member of Congress

Senator Barbara Boxer
Member of Congress

Senator Diane Feinstein
Member of Congress

Representative George Miller
Member of Congress

Representative Sam Farr
Member of Congress

Representative Lois Capps
Member of Congress

Representative Rick Larsen
Member of Congress

Representative Darlene Hooley
Member of Congress

Representative Anna Eshoo
Member of Congress

Representative Earl Blumenauer
Member of Congress

Representative Thomas Allen
Member of Congress

cc: Governor Arnold Schwarzenegger
Governor Christine Gregoire
Governor Ted Kulongoski
Mary Glackin, Deputy Under Secretary for Oceans and Atmosphere, NOAA
Alan Risenhoover, Director of Sustainable Fisheries, NOAA

IN THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

RESOLUTION SUPPORTING THE PACIFIC FISHERIES MANAGEMENT COUNCIL'S DEVELOPMENT OF AN INDIVIDUAL FISHING QUOTA SYSTEM FOR THE WEST COAST TRAWL GROUNDFISH FISHERY AND OPPOSING ALLOCATION OF HARVESTING SHARES TO FISH PROCESSING COMPANIES	)	RESOLUTION AND ORDER

Whereas: The West Coast Trawl Fishery adds an important component to the State of Oregon's coastal economy, producing more than 4,000 jobs, and creating $120 million in economic impacts, and;

Whereas: The West Coast Trawl Fishery adds an important component to the local economy of Clatsop County producing more than 800 jobs and creating more $30 million in economic impacts, and;

Whereas: The West Coast Groundfish Fishery is the largest component of the West Coast Trawl Fishery, and the Columbia River is the home port of the largest number of trawl vessels of any area in Oregon, and;

Whereas: The Pacific Fishery Management Council is developing an Individual Quota Program to strengthen the West Coast Groundfish Trawl Fishery and increase the economic benefit to coastal economies by increasing the incentives to conserve the fishery resource and by increasing the amount of harvest of species of fish from healthy stocks while avoiding the capture of species of fish from unhealthy stocks, and;

Whereas: The number of fish processing companies along the West Coast has decreased to a level where a very few companies process the groundfish landed by the West Coast Groundfish Trawl Fishery, and;

Whereas: The only rational to issue fish harvesting shares to processors that has been presented to the Pacific Fishery Management Council is to use these shares in an anti-competitive manner to prevent new processing companies from processing groundfish, and;

Whereas: No conservation benefit to the resource has been demonstrated by the allocation of harvesting shares to fish processing companies, and;

Whereas: A strong, healthy and stable fishing fleet is necessary to support healthy processing industries and realize the economic potential of the groundfish fishery, and;

Whereas: Allocating groundfish harvesting shares to processors weakens the fishing fleet and jeopardizes the ability of the West Coast Trawl Fishery to realize the maximum economic benefit possible, and;

Whereas: The motivation to conserve the fishery resources is weakened by allocating harvesting shares to processors and jeopardizes the conservation of the groundfish resource,

Therefore, be it resolved: Clatsop County supports the efforts of the Pacific Fishery Management Council to develop and implement an Individual Fishermen's Quota program for the West Coast Groundfish Trawl Fishery and opposes issuing harvesting shares to fish processing companies.

Dated this _____ day of _____, 2008

BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

_____
Patricia J. Roberts, Chairperson

RESOLUTION NO. 2240

Introduced by: All Commissioners

Supporting the Pacific Fisheries Management Council's Development of an individual Fishing Quota System for the West Coast Trawl Groundfish Fishery and Opposing Allocation of Harvesting Shares to Fish Processing Companies

WHEREAS, the West Coast Trawl Fishery is an important component of the Oregon Coastal Economy; and

WHEREAS, the West Coast Trawl Fishery is an important component to the city of Warrenton, providing jobs and vital economic impacts to the community; and

WHEREAS, the West Coast Groundfish Fishery is the largest component of the West Coast Trawl Fishery, and;

WHEREAS, the Columbia River is the home port of the largest number of trawl vessels of any area in Oregon, and;

WHEREAS, the Pacific Fishery Management Council is developing an Individual Quota program to strengthen the West Coast Groundfish Trawl Fishery and increase the economic benefit to coastal economies by increasing the incentives to conserve the fishery resource and by increasing the amount of harvest of species of fish from healthy stocks while avoiding the capture of species of fish from unhealthy stocks; and

WHEREAS, the number of fish processing companies along the West Coast has decreased to a level where a very few companies process the groundfish landed by the West Coast Groundfish Trawl Fishery; and

WHEREAS, the only rational to issue fish harvesting shares to processors that has been presented to the Pacific Fishery Management Council is to use these shares in an anti-competitive manner to prevent new processing companies from processing groundfish; and,

WHEREAS, a strong health and stable fishing fleet is necessary to support healthy processing industries and realize the economic potential of the groundfish fishery; and

WHEREAS, allocating groundfish harvesting shares to processors weakens the fishing fleet and jeopardizes the ability of the West Coast Trawl Fishery to realize the maximum economic benefit possible; and

WHEREAS, the motivation to conserve the fishery resources is weakened by allocating harvesting shares to processors and jeopardizes the conservation of the groundfish resource.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF WARRENTON that the City of Warrenton supports the efforts of the Pacific Fishery Management Council to develop and implement an Individual Fishermen's Quota program for the West Coast Groundfish Trawl Fishery and opposes issuing harvesting shares to fish processing companies.

Adopted by the City Commission of the City of Warrenton this 23rd day of September, 2008.

APPROVED

Gilbert Gramson, Mayor

ATTEST

Linda Engbretson

Linda Engbretson, City Recorder

October 26, 2008

Mr. Donald K. Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Chairman Hansen:

I am the owner and operator of the trawler Cape Windy which operates out of Warrenton, Oregon.

I feel the 20% processor allocation alternative is extremely anticompetitive and detrimental to fisherman and the traditional groundfish industry. Below I have described some of the major factors that exist in the current processor/harvester relationship.

Processors enjoy considerable advantages in negotiations under the current system. These advantages will be defensible for them even without initial allocation of harvester shares. A few of the major factors giving processors increased bargaining power over harvesters are:

- There are approximately 100 vessels harvesting vs. 3 major processors accounting for 85% of the processing.
- Boats have harvesting limits that prevent growth and consolidation. Processors have no limit on the percentage of fish they are allowed to process. This allows them to control huge market shares and achieve economies of scale that by law harvesters cannot do. ITQ's will still have harvesting and ownership caps that will maintain this disadvantage for harvesters.
- High degree of vertical and horizontal integration within processing sector. This allows them to not only cross subsidize between seafood products, but also apply processing profits to subsidize their boats. Harvesters that are not involved in processing are disadvantaged because they have to compete without processing profits to invest in their boats. Horizontal and vertical integration also allows them to apply pressure on the retailer through controlling the flow of multiple products other than groundfish to them.

Evidence of this leverage over harvesters can be most easily demonstrated in a few ways:

1. Current average ex-vessel price of groundfish has remained largely stagnant for 10 years while the retail price has increased. Harvesters operate at break-even or below but cannot attain any of this increase (see attached graphics which use PacFIN data and can also be found on the FMA website www.trawl.org).
2. Major processors command a fuel surcharge while the fleet cannot.
3. During the tie-up in 2007, all price increases were negotiable but processors refused to even negotiate.
4. There are no laws preventing fisherman from selling to whomever they want, or marketing fish themselves, yet the vast majority sell to major processors.

Any new entrants in processing would have to overcome the above obstacles as well as the following barriers to entry

- High initial investment- plants can cost millions
- High fixed costs
- Huge economies of scale enjoyed by current processors. e.g. multiple product distribution, shared sales force
- Huge market shares that exist with current processors

Evidence of these barriers can be seen in the consolidation of the processing side as well as the absence of new entrants into the industry.

These factors will still exist under ITQ even if the processors do not receive initial allocation. ITQ implementation will in fact increase the disadvantage of harvesters in some ways:

1. Increased competition. ~ 100 permits currently pursuing traditional groundfish now vs. ~170 permits receiving allocation. ITQ parameters may increase efficiency allowing more permit holders to pursue traditional groundfish.
2. Potential increase in amount of fish to harvest if species of concern are avoided.

More fish and more participants equates to more competition and potentially lower price.

Finally, if processors do receive initial allocation and use it the way that they have stated in public comment, it will further disadvantage harvesters.

1. 20% of any lease fees that exist will go to the processors. This will transfer 20% of the profits from the harvesting sector to the processing sector. The sector that is already getting 100% of the processing profits.
2. 20% processor allocation would be enough to control the remaining 80% by leveraging harvesters to deliver to them. This has been testified to by the processors themselves. This scares me most of all. I would argue that this would have the same effect as issuing processor shares directly and have the effect of establishing 100% shoreside processing privileges. Therefore, this would be illegal under MSA.

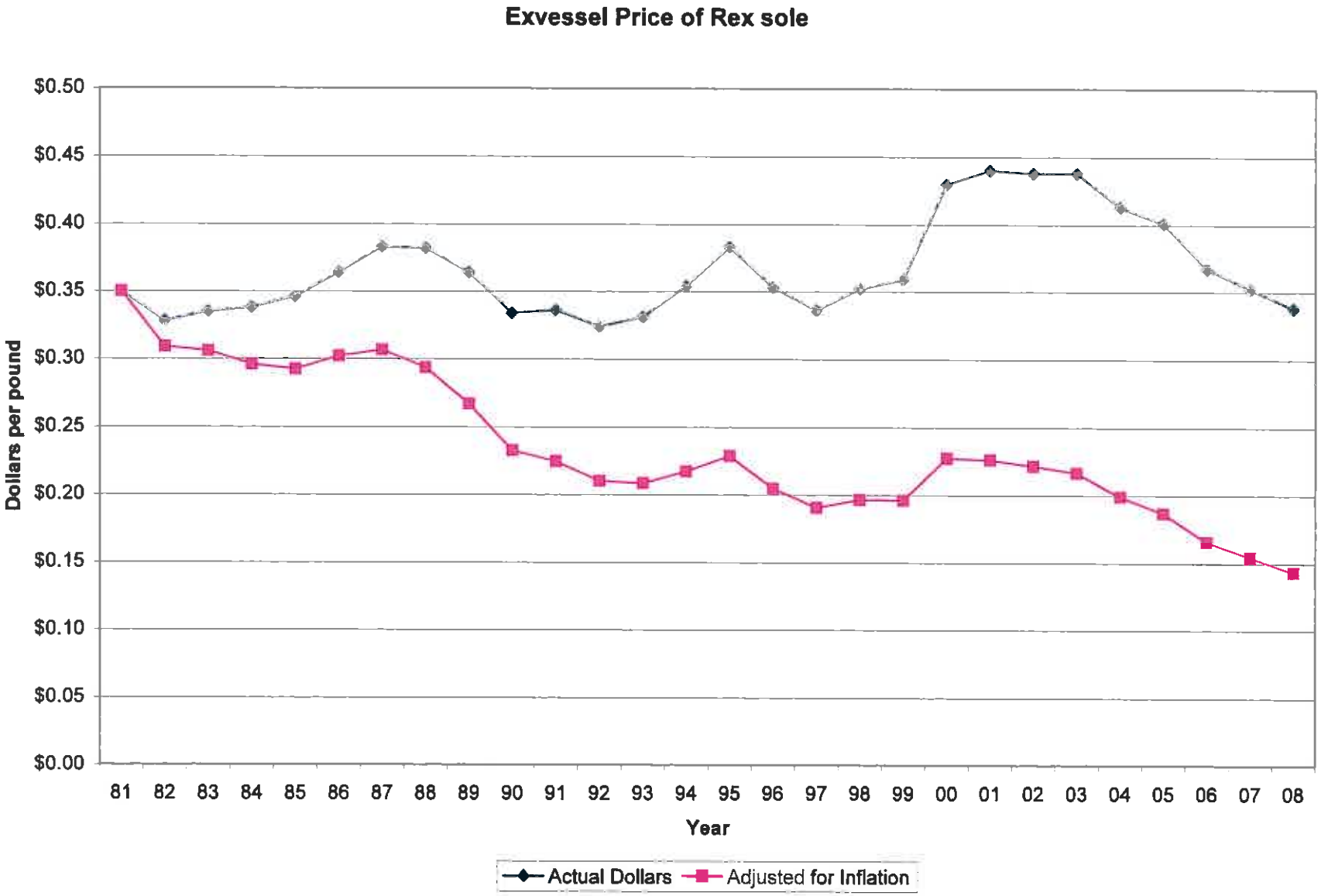
For these reasons, amongst many others, I would ask the council to take the GAC and TIQ committee's recommendation and adopt a 0% processor share alternative.

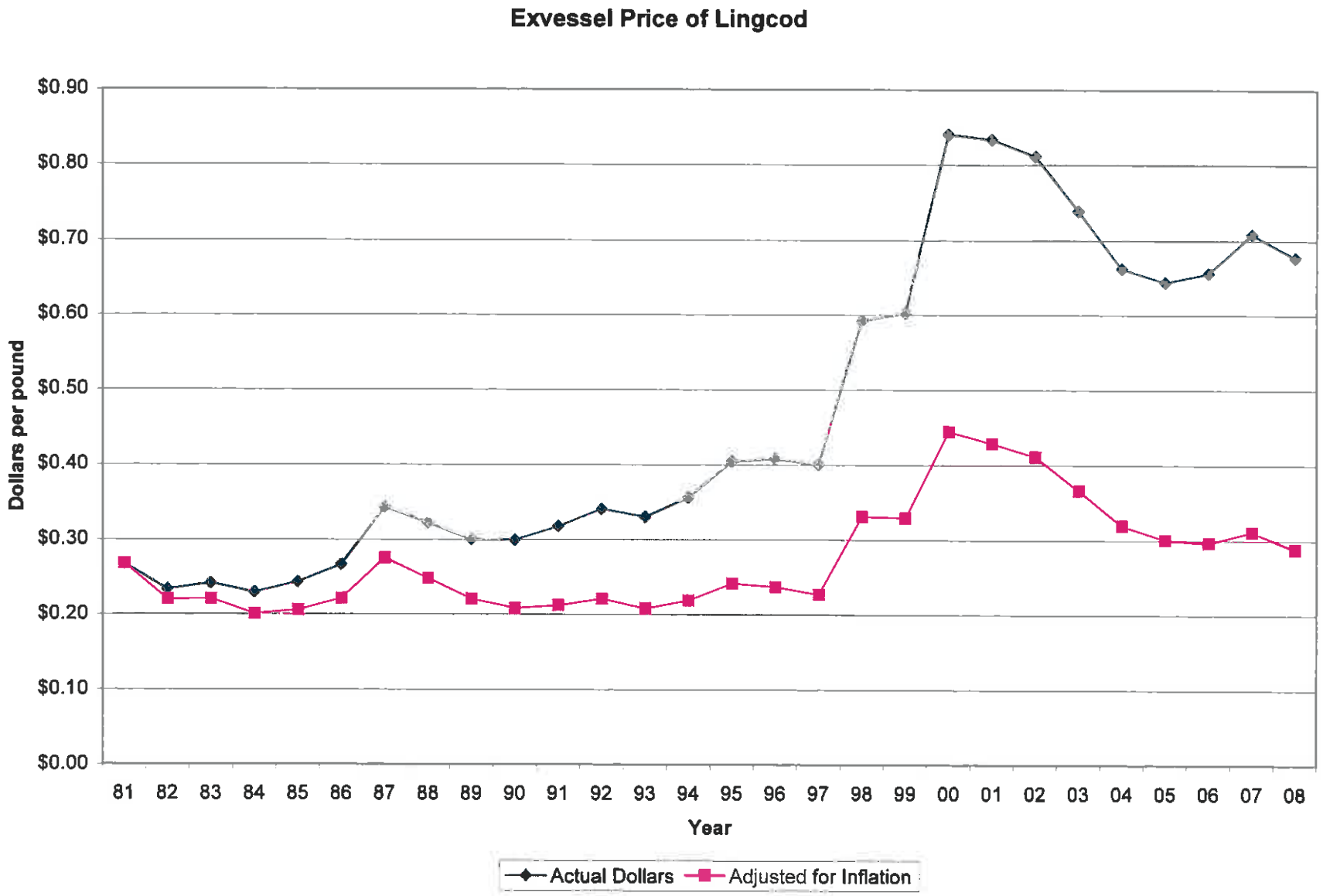
Thank You,

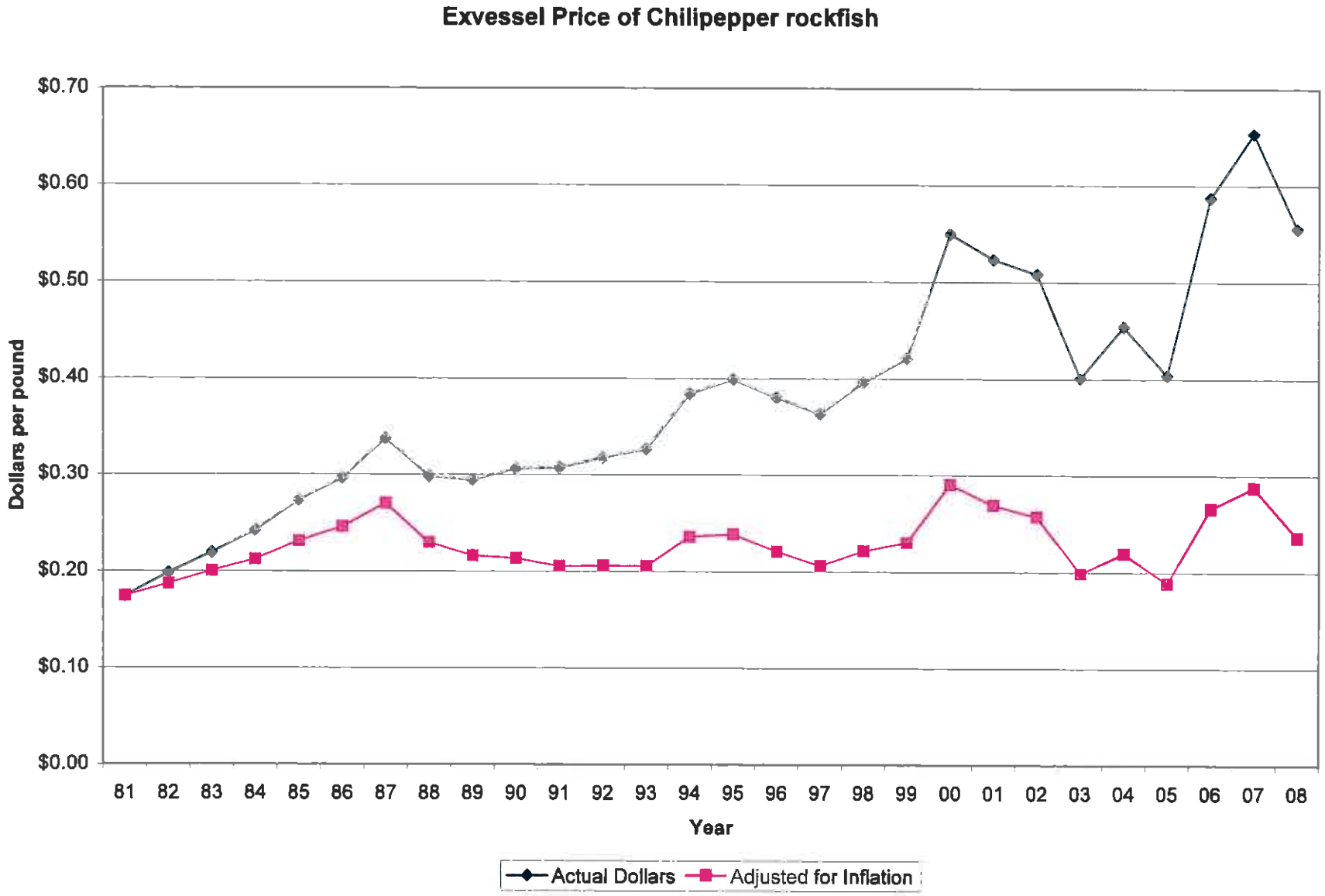
Bernie Bjork
for Paul Kujala

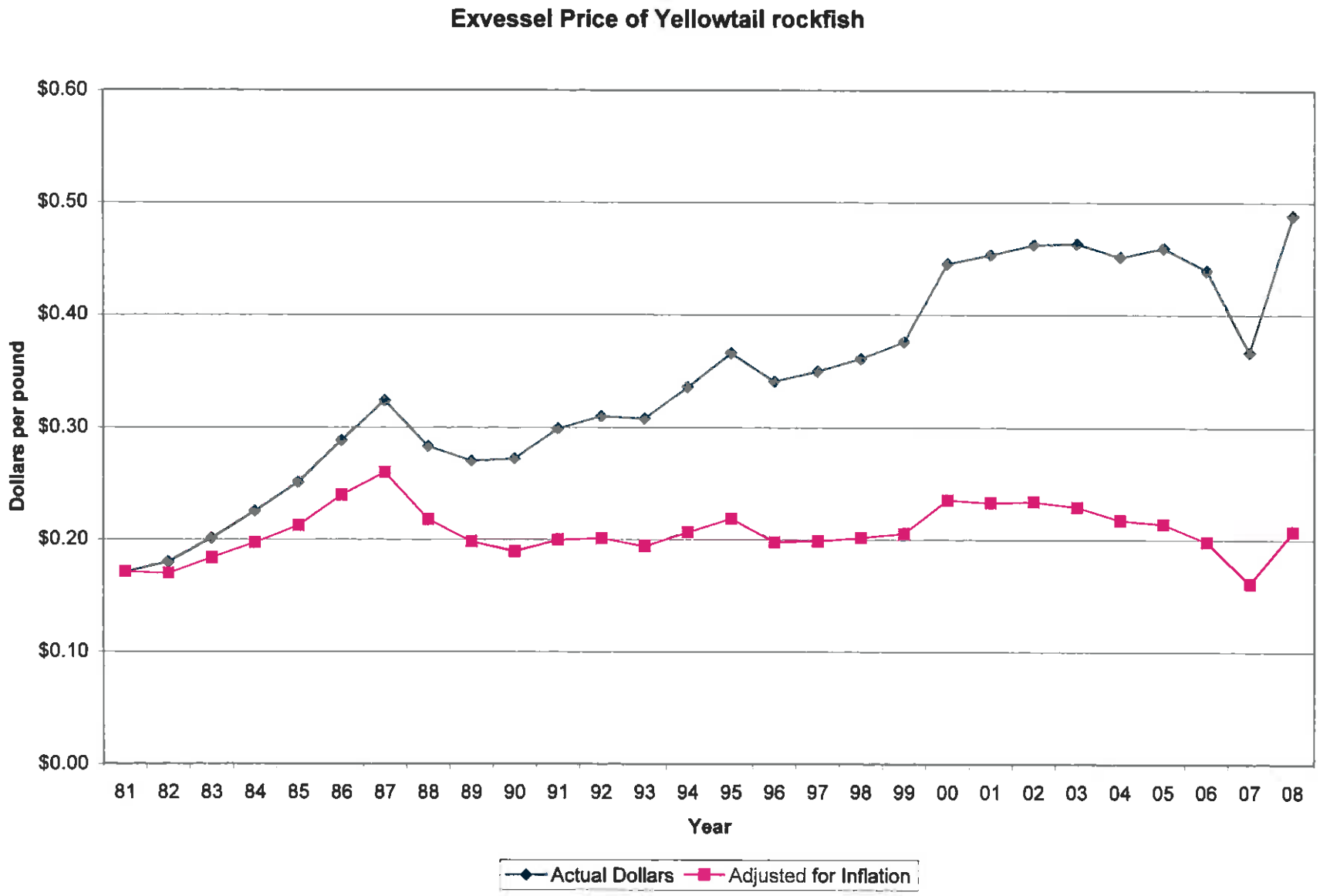
Paul Kujala

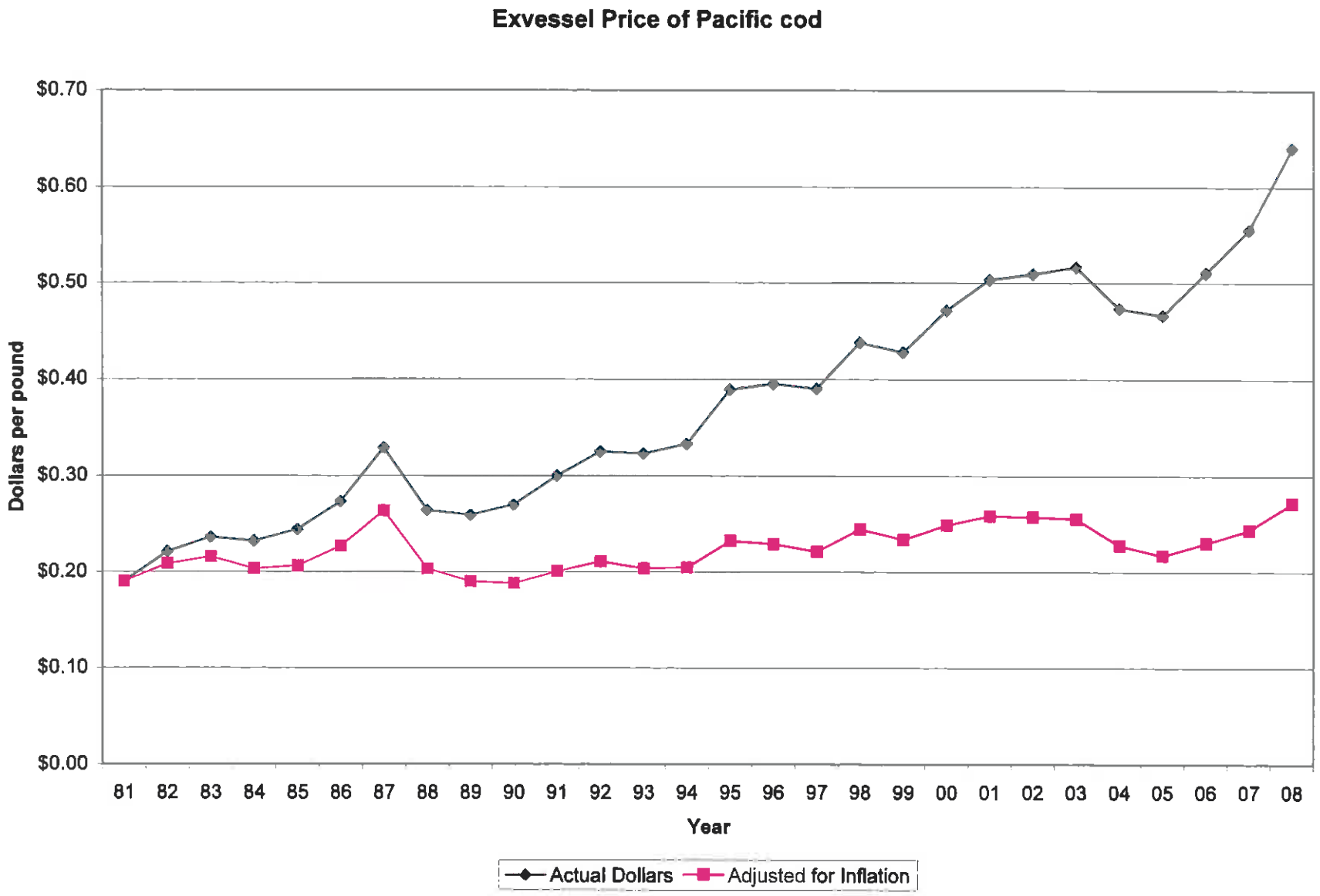

Exvessel Price of Petrale sole
$1.20
$1.00
$0.80
$0.60
$0.40
$0.20
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation

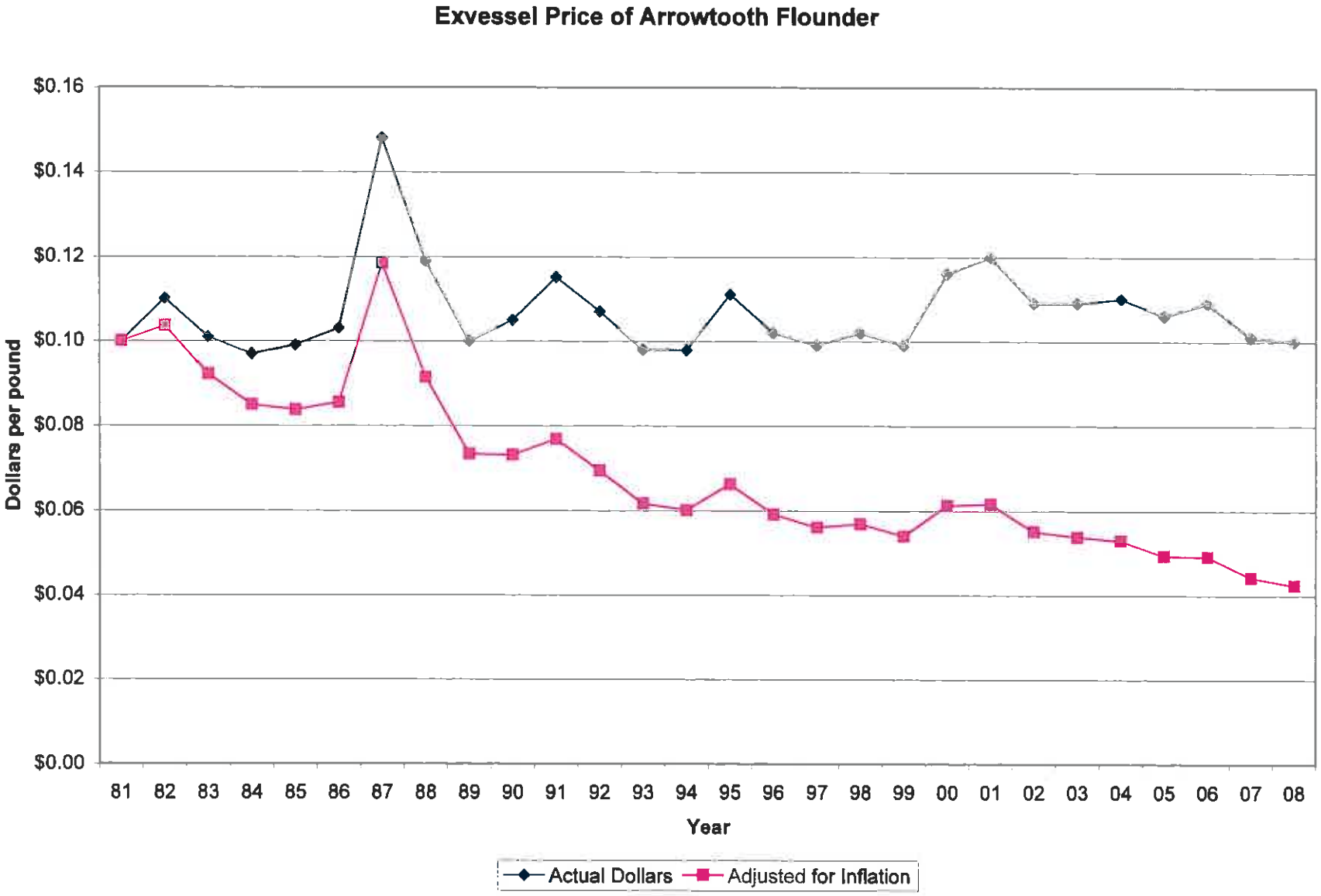

Exvessel Price of Rex sole
$0.50
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation

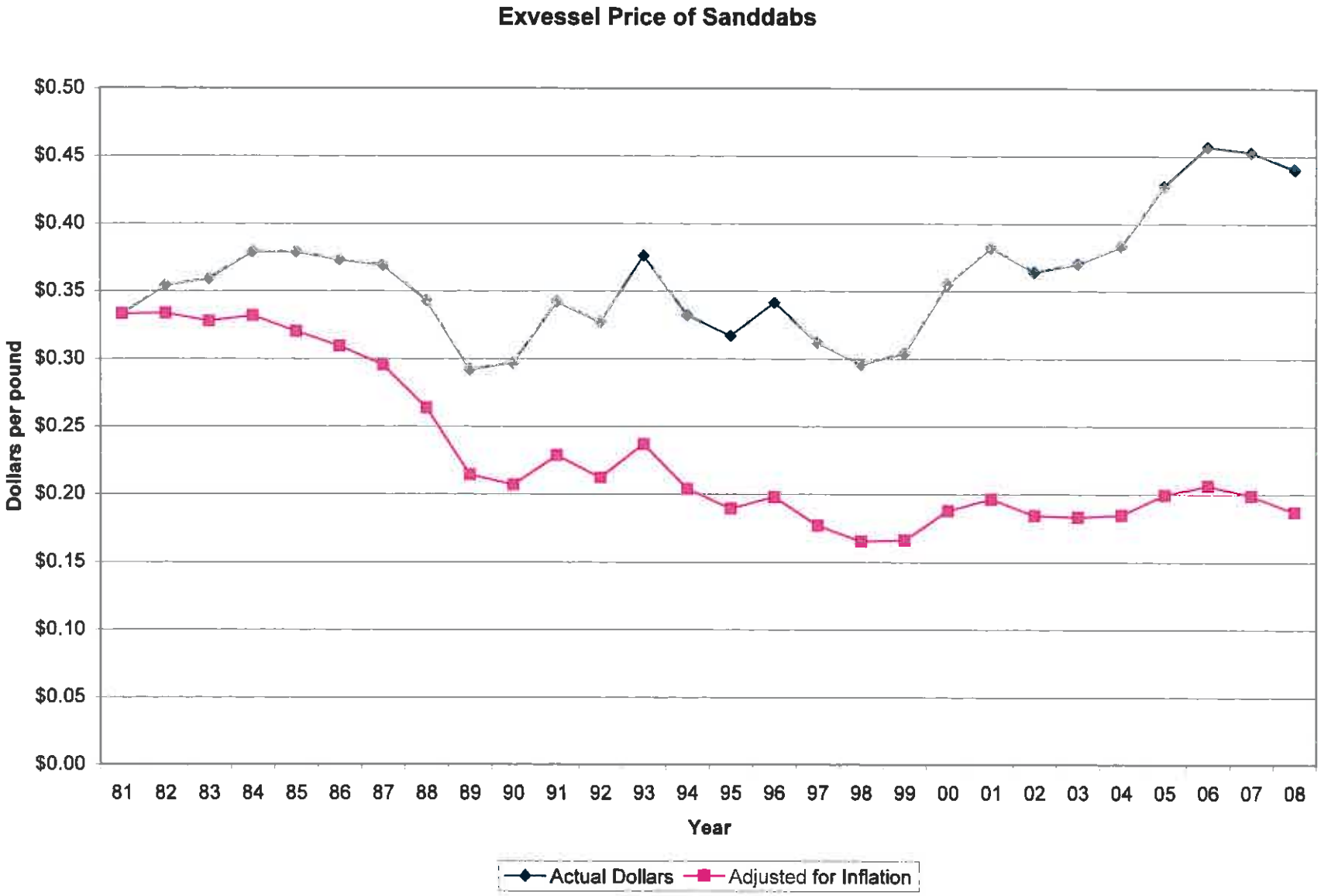

Exvessel Price of Lingcod
$0.90
$0.80
$0.70
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation

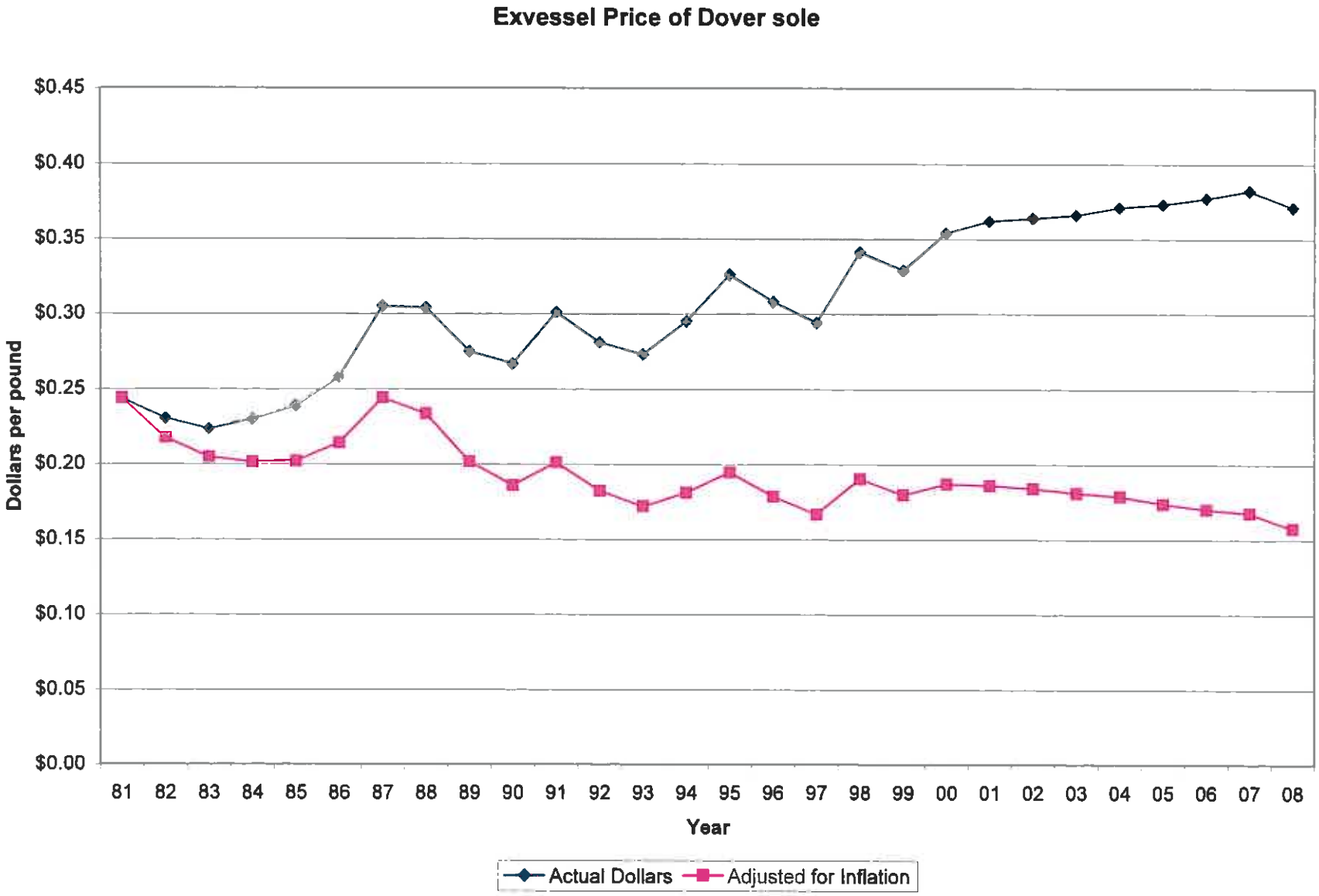

Exvessel Price of Chilipepper rockfish
$0.70
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of Yellowtail rockfish
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of Pacific cod
$0.70
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of Arrowtooth Flounder
$0.16
$0.14
$0.12
$0.10
$0.08
$0.06
$0.04
$0.02
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of Sanddabs
$0.50
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of Dover sole
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation


Exvessel Price of English sole
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflations

TRAWL RATIONALIZATION (AMENDMENT 20) HEARING SUMMARY – NEWPORT

Date:	October 27, 2008	Hearing Officer:	Rod Moore
Location:	Newport, OR	Other Council Members:	Frank Lockhart Steve Williams (ODFW)
Attendance:	~70	Coast Guard:	Brant Soderlund
Testifying:	24	Council Staff:	Merrick Burden Heather Brandon
Organizations Represented: Fishermen's Marketing Association Environmental Defense Fund Coos Bay Trawlers Association.			

Synopsis of Testimony

Of the 24 people testifying:

- Ten said they supported the preliminary preferred alternative if it includes the 20 percent initial allocation to processors.
- Ten said they supported trawl rationalization but did not support an allocation to processors.
- Four said they preferred status quo or trawl rationalization in some other form than that proposed by the Council.

Harvester Sector Comments

The Council should move quickly on trawl rationalization in November. The whiting fishery is an extreme derby fishery, and we need to do something. Move forward with shoreside whiting individual fishing quotas (IFQs) in one sector and do not wait for legislation for a shoreside whiting co-operative. As a conservation method, IFQ management is the best tool we have come up with. Additionally, full retention should be implemented in order to eliminate discards.

Harvester shares for processors will not help the fishery. Trawl rationalization should be for greater conservation and sustainability, and shares to processors do not address the waste of bycatch. Fleet consolidation combined with shares for processors will eliminate more jobs than rationalization of the fishery without shares for processor. An allocation of shares to processors will redistribute the wealth away from harvesters and crew. Adaptive management is preferable over processor shares, or some other tool to compensate processors without giving them harvester shares.

The PFMC may not have the legal authority to allocate initial shares to processors, because it is akin to allocating processing privileges. No other Council has ever done it.

If there is an initial allocation of harvester shares to processors, not all processors will get shares and

that gives preference to certain processors. Some processors are already advantaged to a greater degree, and those processors should not have more market power. The initial allocation dates for processors should be the same as the CVs, if processors do get an initial allocation.

Adaptive management needs more work or may not be the right solution, but communities will still need some protection. Adaptive management should not be done right off the bat, so that we can see where the problems really are.

Regional landing zones were not supported. IFQ should fall (through initial allocation) where they had been harvested. However, something should be done to keep the fleet spread out and prevent localized depletion.

The 2003 control date and the highest level at that time should be used for accumulation limits. There should be no grandfather clause. The only people that would be cut out would be those who gambled after that date. The detailed math on accumulation limits would not have to be done in November, but rather the Council should lay a foundation for how we will move forward on accumulation limits.

Gear switching is not ready for implementation, it needs more work, and it might need to lags behind the trawl rationalization program so that further development can be done. If there is a push towards trawlers using fixed gear to catch IFQ, then be consistent and allow fixed-gear harvesters (not open access harvesters) to buy quota sharing (QS) and fish it without also obtaining a limited entry (LE) trawl permit. Include an opportunity for the fixed-gear fleet, rather than crowding the fixed-gear fishery. Conversely, the trawlers should be able to buy blocks from vessels in the fixed-gear fishery and fish them. One suggestion is to allow vessels that currently have both permits to switch back and forth as a pilot program.

There has not been enough analysis of impacts on other fisheries, especially shrimp fisheries.

Processing Sector Comments

Support processor shares to stabilize processing companies and the communities they are in.

The goal must be to promote the entire fishery, not just harvesters. A large scale business plan is needed, and at a minimum that should start with a 20 percent initial allocation to processors.

Capital will chase IFQ as it moves up and down the coast (or off-shore). There will be erosion of the current shore-based capital in both processing and harvesting. Processors shares would provide an incentive for the processors to evolve with the harvesters.

Processors have incredible capacity from the derby fishery, and that capacity will allow processors to compete for deliveries down to the direct operating expense. Then we will not be able to reinvest in the fishery or innovate.

Please separate the non-whiting and whiting fisheries and allow one to go forward in the rationalization process even if the other does not.

Environmental and Conservation Interest Comments

Support the October 2008 GAC recommendation that supports Adaptive Management and opposes processor shares.

Adaptive Management is the most flexible and responsive tool you can use to address issues and communities.

Support the following provisions in the trawl rationalization PPA: 100 percent observer coverage, 10 percent carryover, 40°10' North Latitude line split. Support the GAC recommendation to look at other areas where area management or subdivision could occur.

Written Statements (Attached)

PFMC
11/02/08

Pacific Fishery Management Council
9700 NE Ambassador Place Suite 101
Portland, OR 97220-1384

October 25, 2008

Dear Council Members,

This letter is from a group of small trawlers who have concerns about the rationalization program for the west coast groundfish trawl fishery.

The proposal to give 20% of quota to processors is a tough pill to swallow. Groundfish prices to the fleet have never kept up with inflation. It will be very hard to get a fair price if the processors have a quota share.

Another area of concern is the full time observer requirement. We are all smaller boats, most under 50 feet in length, and living quarters are already crowded with a standard crew of two plus the captain. The cost of the observer, on top of the buy back tax and the cost of fuel, is one more expense we cannot afford.

We are all owner operated vessels that fish crab in the winter. We will all be gearing up for the December 1 opening and will not have time to attend the San Diego meeting to give testimony in person. Therefore, the undersigned, want the west coast groundfish trawl fishery to remain status quo.

Sincerely,

Permit Holder	Vessel	Permit #
Thomas R. Nowlin	Apache	GF0308
Donny Caldonal	Lundal	GF0087
Dennis S. Hockema	Brandy	GF0689
John M. Hockema	Husky	GF0616
[illegible]	OVERCAST	GF0885
Richard [illegible]	Nel Ron Dic	GF0032

Amount of groundfish made available for the Adaptive Management Program under two different scenarios of groundfish specifications.

Submitted to the PFMC by
Fishermen's Marketing Association
10/27/2008

The Adaptive Management Program (AMP) has been offered as a method of redressing unexpected consequences of the implementation of the Individual Fishing Quota (ITQ) program by the Pacific Fishery Management Council. The AMP has also been offered as a way to compensate processing companies if they are able to show that they have been harmed by the ITQ program.

The AMP that has been discussed throughout the development of the ITQ program has been based on an amount of fish equal to 10% of the ITQ quota pounds that will be distributed. Recently questions have been raised as to whether an AMP based on 10% of the available quota pounds is large enough to address the needs of this kind of program.

This paper is intended to show the range of quota pounds that will be available for the Adaptive Management Program.

The quota pounds that will be distributed as AMP pounds will be based on the overall total of quota pounds available for ITQ distribution. These quota pounds will equal the Optimum Yield (OY) amounts that are adopted in the annual specifications. OYs may equal acceptable biological catch (ABC) numbers for some species or be reduced to insure that certain species do not become overfished, or if a species is already overfished, to insure that it will rebuild.

Currently catches are much lower than the OYs that are likely to be in place once the ITQ program is implemented. In fact, catches today are much lower than the OYs that are in effect now. While it is difficult to predict what the OYs will be in the future is reasonable to assume that at the time of implementation they will be at least as high as those that are in place for the 2010 season. It is also reasonable to believe that OYs will not be higher than the ABCs that are in place for the 2010 season.

It is important to remember that fishery managers will not need to build additional conservatism into future OYs. The individuals will have the responsibility to stay under their individual quotas and observers will be on board the boat to insure that all catches are counted.

Attached Tables 1-A shows the OYs that have been adopted for the 2010 season. Table 2-A shows the ABC values that have been adopted for the 2010 season. These tables bracket the range of available quota pounds that will be available once the ITQ program is in place. These not only become the basis for quota pounds available for harvest, they also show the tremendous potential of landings that can be possible if fishermen can learn to avoid catching extremely restricted species of fish.

The first column in Table 1-A shows the currently adopted OYs for 2010 and in Table 2-A shows the currently adopted ABCs. The second column in each chart shows the percentage that will go to the trawl industry based on the recommendations of the Groundfish Allocation Committee (GAC) (table attached at end of packet). The third column in table 1-A is that amount of OY that will be assigned to the trawl industry, based on the 2010 OYs and the recommendations of the GAC, and in table 2-A is the same number based on the 2010 ABC values and the recommendations of the GAC.

These charts indicate that the sum of the OYs for non-whiting groundfish and therefore the amounts available for distribution for ITQ pounds will be between 64,129 Metric Tons (MT) and 89,587 MT. Shoreside Whiting OYs are likely to be 98509 MT.

Table 1-B shows the quota pounds, in Metric Tons, that will be placed into the AMP based on the low end of the range and Table 2-B shows the AMP tonnage of the high end of the range. Percentages used demonstrated in the tables are 5%, 10%, 15% and 20%.

Table 1-C and 2-C show the catches of groundfish for each State and totals for the entire Coast for 2003, the last year of the window period being used for quota share distribution. Table 1-D and 2-D show landings for each state and totals for the entire Coast for the 2007, the last complete year of catches. These charts will be used to show possible distributions of AMP pounds between the state.

The total landing figures on these charts show how much lower current landings are than OY levels. This is reflected in the next tables that show AMP pounds as a percentage of current landings.

Table 1-E shows AMP pounds as a percentage of current landings if the lower end of the OY range is used. Table 2-E shows these percentages if the AMP pounds are based on the high end of the OY range. These tables reveal the true impact of varying percentages used to determine AMP pounds.

Current landings probably reflect the current state of the available market for non-whiting groundfish. Although larger amounts of non-whiting groundfish will become available for harvest with implementation of the IFQ program, it will take a period of time to increase the market for these fish. Therefore, the immediate market for non-whiting groundfish is likely to remain at current levels for a period of time after implementation of the ITQ program.

Quota holdbacks for the AMP will become available for use with implementation of the ITQ program. Because of the lag in increasing market availability, AMP pounds have the possibility of being a much larger share of total landings than the percentage of total quota pounds used to determine the amount of holdback. As an example, a 10% quota hold back represents between 37.2% and 51.9% of current non-whiting landings. 20% of total quota pounds for AMP represents between 74.3% and 103.8% of current non-whiting landings.

At the latest GAC meeting, the committee voted to explore distributing the AMP pounds among the states. One suggestion is to distribute the pounds based on the relative distributions of landings for either during the window period or for the current year. Tables 1-F and 2-F show distributions to the state that reflect the relative percentage of landings for 2003, the last year of the window period, and for 2007, the last complete year of landings. The landings amounts that are the basis for these distributions are shown in tables 1-C, 1-D, 2-C and 2-D.

Tables 1-G and 2-G show the percentage of total quota pounds needed to achieve various percentages of current total landings. As an example, if 10% of current landings of non-whiting were considered the appropriate amount of AMP pounds, then the percentage of total non-whiting quota pounds that would be needed would be between 1.927% and 2.692%.

In summary, because of the large amount of OY available for distributions as quota pounds, percentages held back for AMP pounds are likely to be a much larger share of landings than the percentage used to determine their amount. An AMP based on 10% of available quota pounds, the amount discussed in the Environmental Impact Statement, would be 37.2% and 51.9% of current total landings.

Table 1-A: Estimated amount of groundfish, by speices, that would be available for distribution in the Pacific Groundfish Trawl IFQ Program

	MT OY in 2010	Percent Trawl	MT for IFQ
Lingcod	4,829	40.0%	1,932
P Cod	1,600	98.0%	1,568
Sablefish - North	6,471	48.0%	3,106
Sablefish - South	1,258	42.0%	528
POP	200	99.0%	198
Shortbelly	6,950		0
Widow	509	91.0%	463
Canary	105		0
Chilipepper	2,447	80.0%	1,958
Bocaccio	288		0
Splitnose	461	97.0%	447
Yellowtail	4,562	88.0%	4,015
Shortspine north	1,591	98.0%	1,559
Shortspine - south	410	58.0%	238
Longspine - north	2,175	99.0%	2,153
Longspine - south	385	5.0%	19
Cowcod	4		0
Darkblotched	291	98.7%	287
Yelloweye	17		0
Black	1,464	0.0%	0
Minor SlopeRock - north	1,160	81.0%	940
Minor SlopeRock - south	626	63.0%	394
Dover	16,500	100.0%	16,500
English	9,745	100.0%	9,745
Petrale	2,393	100.0%	2,393
Arrowtooth	10,112	99.0%	10,011
Starry flounder	1,077	87.0%	937
Other Flats	4,884	97.0%	4,737
Other Fish	5,600		0
Longnose Skate	1,349		0
Dogfish		70.0%	0
Total Non-whiting	89,463		64,129
Whiting	234545	42%	98,509

Notes:
OY is based on Preliminary Annual Specifications document - August 2008, Table 2-1b, page 16-17

Trawl percentage is based upon GAC recommendation to PFMC April 2008, Table 1, page 4

The allocation for Sablefish takes 10% off the top for tribes, 8% off the balance for Open Access and then divided 42% for Fixed Gear and 58% for Trawl.

Whiting is 267545 mt minus 35,000 mt for tribes. Perent is shorebased allocation.

Table 1-B: Amount of Groundfish that would be made available at various set aside percentages

Adaptive Management Percentage	Tons of fish provided	
	whiting	non-whiting
5%	4,925	3,206
10%	9,851	6,413
15%	14,776	9,619
20%	19,702	12,826
25%	24,627	16,032

Table 1-C: Trawl landings of Groundfish by State for 2003

	Metric Tons				Percentage		
	WA	OR	CA	Total	WA	OR	CA
Whiting	17,013	36,581	1,740	55,334	30.7%	66.1%	3.1%
Non-whiting	5,206	9,362	7,306	21,874	23.8%	42.8%	33.4%
Total	22,219	45,943	9,046	77,208	28.8%	59.5%	11.7%

Table 1-D: Trawl landings of Groundfish by State for 2007

	Metric Tons				Percentage		
	WA	OR	CA	Total	WA	OR	CA
Whiting	45,672	42,801	2,968	91,441	49.9%	46.8%	3.2%
Non-whiting	2,968	8,075	6,220	17,262	17.2%	46.8%	36.0%
Total	48,640	50,876	9,187	108,703	44.7%	46.8%	8.5%

Source: PacFIN report r010Ctwl.P03 and r010Ctwl.P07

Table 1-E: Distribution between States of the Groundfish set aside for Adaptive Manageement using landings distribution from 2003 and 2007

Adaptive Management Percentage	Tons of fish provided by State using 2003 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	1,514	763	3,256	1,372	155	1,071
10%	3,029	1,526	6,512	2,745	310	2,142
15%	4,543	2,289	9,769	4,117	465	3,213
20%	6,057	3,052	13,025	5,489	620	4,284
25%	7,572	3,816	16,281	6,862	775	5,355

Adaptive Management Percentage	Tons of fish provided by State using 2007 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	2,460	551	2,305	1,500	160	1,155
10%	4,920	1,102	4,611	3,000	320	2,311
15%	7,380	1,654	6,916	4,500	480	3,466
20%	9,840	2,205	9,222	6,000	639	4,621
25%	12,301	2,756	11,527	7,499	799	5,777

Table 1-F: The magnitude of the Adaptive Management set aside compared to actual landings in 2003 and 2007

Adaptive Management Percentage	Adaptive Management fish as a percentage of Coastwide Annual Landings			
	2003		2007	
	whiting	non-whiting	whiting	non-whiting
5%	8.9%	14.7%	5.4%	18.6%
10%	17.8%	29.3%	10.8%	37.2%
15%	26.7%	44.0%	16.2%	55.7%
20%	35.6%	58.6%	21.5%	74.3%
25%	44.5%	73.3%	26.9%	92.9%

Table 1-G: The percentage that the Adaptive Management set aside would need to be set at to achieve a given portion of actual landings in 2003 and 2007

Adaptive Management Percentage of current Landings	Percentage of IFQ needed to achieve a percentage of current landings using 2003 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	2.809%	1.705%	2.809%	1.705%	2.809%	1.705%
10%	5.617%	3.411%	5.617%	3.411%	5.617%	3.411%
15%	8.426%	5.116%	8.426%	5.116%	8.426%	5.116%
20%	11.234%	6.822%	11.234%	6.822%	11.234%	6.822%
25%	14.043%	8.527%	14.043%	8.527%	14.043%	8.527%

Adaptive Management Percentage of current Landings	Percentage of IFQ needed to achieve a percentage of current landingsusing 2007 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	4.641%	1.346%	4.641%	1.346%	4.641%	1.346%
10%	9.283%	2.692%	9.283%	2.692%	9.283%	2.692%
15%	13.924%	4.038%	13.924%	4.038%	13.924%	4.038%
20%	18.565%	5.383%	18.565%	5.383%	18.565%	5.383%
25%	23.206%	6.729%	23.206%	6.729%	23.206%	6.729%

Table 2-A: Estimated amount of groundfish, by speices, that would be available for distribution in the Pacific Groundfish Trawl IFQ Program

	MT ABC in 2010	Percent Trawl	MT for IFQ
Lingcod	4,829	40.0%	1,932
P Cod	3,200	98.0%	3,136
Sablefish - North	7,717	48.0%	3,704
Sablefish - South	1,500	42.0%	630
POP	1,173	99.0%	1,161
Shortbelly	6,950		0
Widow	6,937	91.0%	6,313
Canary	940		0
Chilipepper	2,576	80.0%	2,061
Bocaccio	793		0
Splitnose	615	97.0%	597
Yellowtail	4,562	88.0%	4,015
Shortspine north	1,916	98.0%	1,878
Shortspine - south	495	58.0%	287
Longspine - north	3,119	99.0%	3,088
Longspine - south	552	5.0%	28
Cowcod	14		0
Darkblotched	440	98.7%	434
Yelloweye	32		0
Black	1,781	0.0%	0
Minor SlopeRock - north	1,160	81.0%	940
Minor SlopeRock - south	626	63.0%	394
Dover	28,582	100.0%	28,582
English	9,745	100.0%	9,745
Petrale	2,751	100.0%	2,751
Arrowtooth	10,112	99.0%	10,011
Starry flounder	1,578	87.0%	1,373
Other Flats	6,731	97.0%	6,529
Other Fish	11,200		0
Longnose Skate	3,269		0
Dogfish		70.0%	0
Total Non-whiting	125,895		89,587
Whiting	234545	42%	98,509

Notes:
ABC is based on Preliminary Annual Specifications document - August 2008, Table 2-1b, page 16-17

Trawl percentage is based upon GAC recommendation to PFMC April 2008, Table 1, page 4

The allocation for Sablefish takes 10% off the top for tribes, 8% off the balance for Open Access and then divided 42% for Fixed Gear and 58% for Trawl.

Whiting is 267545 mt minus 35,000 mt for tribes. Perent is shorebased allocation.

Table 2-B: Amount of Groundfish that would be made available at various set aside percentages

Adaptive Management Percentage	Tons of fish provided	
	whiting	non-whiting
5%	4,925	4,479
10%	9,851	8,959
15%	14,776	13,438
20%	19,702	17,917
25%	24,627	22,397

Table 2-C: Trawl landings of Groundfish by State for 2003

	Metric Tons				Percentage		
	WA	OR	CA	Total	WA	OR	CA
Whiting	17,013	36,581	1,740	55,334	30.7%	66.1%	3.1%
Non-whiting	5,206	9,362	7,306	21,874	23.8%	42.8%	33.4%
Total	22,219	45,943	9,046	77,208	28.8%	59.5%	11.7%

Table 2-D: Trawl landings of Groundfish by State for 2007

	Metric Tons				Percentage		
	WA	OR	CA	Total	WA	OR	CA
Whiting	45,672	42,801	2,968	91,441	49.9%	46.8%	3.2%
Non-whiting	2,968	8,075	6,220	17,262	17.2%	46.8%	36.0%
Total	48,640	50,876	9,187	108,703	44.7%	46.8%	8.5%

Source: PacFIN report r010Ctwl.P03 and r010Ctwl.P07

Table 2-E: Distribution between States of the Groundfish set aside for Adaptive Manageement using landings distribution from 2003 and 2007

Adaptive Management Percentage	Tons of fish provided by State using 2003 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	1,514	1,066	3,256	1,917	155	1,496
10%	3,029	2,132	6,512	3,834	310	2,992
15%	4,543	3,198	9,769	5,751	465	4,488
20%	6,057	4,264	13,025	7,669	620	5,984
25%	7,572	5,330	16,281	9,586	775	7,481

Adaptive Management Percentage	Tons of fish provided by State using 2007 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	2,460	770	2,305	2,095	160	1,614
10%	4,920	1,540	4,611	4,191	320	3,228
15%	7,380	2,310	6,916	6,286	480	4,842
20%	9,840	3,080	9,222	8,381	639	6,456
25%	12,301	3,850	11,527	10,477	799	8,070

Table 2-F: The magnitude of the Adaptive Management set aside compared to actual landings in 2003 and 2007

Adaptive Management Percentage	Adaptive Management fish as a percentage of Coastwide Annual Landings			
	2003		2007	
	whiting	non-whiting	whiting	non-whiting
5%	8.9%	20.5%	5.4%	25.9%
10%	17.8%	41.0%	10.8%	51.9%
15%	26.7%	61.4%	16.2%	77.8%
20%	35.6%	81.9%	21.5%	103.8%
25%	44.5%	102.4%	26.9%	129.7%

Table 2-G: The percentage that the Adaptive Management set aside would need to be set at to achieve a given portion of actual landings in 2003 and 2007

Adaptive Management Percentage of current Landings	Percentage of IFQ needed to achieve a percentage of current landings using 2003 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	2.809%	1.221%	2.809%	1.221%	2.809%	1.221%
10%	5.617%	2.442%	5.617%	2.442%	5.617%	2.442%
15%	8.426%	3.662%	8.426%	3.662%	8.426%	3.662%
20%	11.234%	4.883%	11.234%	4.883%	11.234%	4.883%
25%	14.043%	6.104%	14.043%	6.104%	14.043%	6.104%

Adaptive Management Percentage of current Landings	Percentage of IFQ needed to achieve a percentage of current landingsusing 2007 landings distribution					
	Washington		Oregon		California	
	whiting	non-whiting	whiting	non-whiting	whiting	non-whiting
5%	4.641%	0.963%	4.641%	0.963%	4.641%	0.963%
10%	9.283%	1.927%	9.283%	1.927%	9.283%	1.927%
15%	13.924%	2.890%	13.924%	2.890%	13.924%	2.890%
20%	18.565%	3.854%	18.565%	3.854%	18.565%	3.854%
25%	23.206%	4.817%	23.206%	4.817%	23.206%	4.817%

Accumulation Limits and Control Dates

The establishment of accumulation caps is something that must be done in the IFQ program. This is important to: 1) ensure that quota is distributed and remain in the hands of relatively many individuals, and 2) satisfy the Magnuson Act requirement that there are not excessive shares being held by any single entity.

The IFQ committee proposed that accumulation caps (or control caps) be established as the greatest percentage of catch, for any entity, that occurred during the window period for each species where quota will be issued. The window period is the time frame that will be used to determine catch history in calculating quota shares. The IFQ committee further recommended that in calculating the greatest catch for any entity, that the ownership arrangements that existed on the control date (suggested using January 1, 2004) should be used to define "entity" for the purpose of this calculation.

The IFQ committee also recommended that there not be exceptions to the accumulation limits through mechanisms such as a "grandfather clause". This is critical because exceptions would create two classes of entities within the program. Most people would be limited in accumulation to the establish cap levels while the other class would be allowed to exceed these caps. Since many entities in this program will be corporations, the opportunities for "grandfather" exceptions to expire are very limited. Ownership of shares would remain within a corporation even after the death of corporate owners.

Additionally, since quota shares will be issued to the current owner of permits when the program is implemented, it is impossible to know what level of accumulation will exist on January 1, 2010. If individuals know that they will be provided a grandfather exception 18 months from now, there would likely be an effort to further acquire permits in advance of the implementation date; thus threatening the goal of ensuring wide distribution of shares and preventing excessive share ownership.

When the development of this program began the Council set a "control date" and NMFS published this in the Federal Register. This control date put the world on notice that activities after this date may not qualify for the issuance of quota shares. If any entity has acquired trawl permits, after the control date, in an attempt to increase quota share holdings on the date of issuance and these holdings are greater than the accumulation limits, they should not be "grand fathered" into this program. They were on notice that this would not count. Anyone that did engage in this behavior either was not paying attention to the business or was gambling that some exception would be provided. In either case they should not be rewarded now with an exception to the accumulation rule that the vast majority of permit holders must live with.

One last detail, the IFQ committee recommended that **if** the Council were to choose to set the accumulation limits at levels lower than those recommended by the IFQ committee, the allocation should be made with a limited time grand fathering to allow the entity to divest the holdings that would be in excess of the Council's approved level but only up to the amount recommended by the IFQ committee.

The IFQ committee recommended setting the accumulation limit at the maximum that any one entity actually had caught. So if the Council were to set the accumulation limit at some low level, then it is possible that someone would exceed this limit at the out set of the program. This is a very different situation than described above where an individual may have ignored the control date warning. In this case the individual simply caught more fish during the window period than the Council believes is good for the industry.

If this situation were to occur, then it is important for the integrity of the program that the initial allocation made not exceed the maximum percentage realized by any one entity during the window period. In other words, the grand fathering only applies to the amount over the level approved by the Council and up to the maximum that any one entity actually had caught during the window.

Resource stuffing can not be rewarded.

Peter Leipzig
June 1, 2008

REASONS THAT HARVESTING ALLOCATIONS SHOULD NOT BE GIVEN TO FISH PROCESSORS

Submitted to the PFMC by
Ralph Brown
10/27/2008

The Pacific Fishery Management Council (PFMC) is developing a Dedicated Access Program (DAP) for the Groundfish Trawl Fishery along the West Coast of the United States. The probable format of the DAP for the portion of the fishery that delivers to shore-based processors (as opposed to processor that process on factory ships at sea) is an Individual Transferable Fisherman Quota (ITQ). The simplest description of an ITQ is that the available quota is allocated to individual fishermen on an annual basis, who then can plan their fishery around a business plan that works best for boat and the businesses that purchase that fish from the boat. The amount of the individual allocation will be a percentage of the total annual quota, based on an as yet undecided formula. Once the annual percentage is determined it will be a permanent allocation that can be kept, or divided and traded or sold.

Most of the major components of the ITQ program are non-controversial; however, establishing the initial allocation has not been settled and is very contentious.

Very early in the process, processors started making statements that they were entitled to 50% of the harvesting shares of the fishery. They claim this entitlement is based on their investment in the fishery and should be based on their harvesting history during a certain time frame. Fishermen are opposed to allocations of harvesting privilege to processors.

During the development of the ITQ program, public comments were taken at several meetings of the PFMC. While processors used this opportunity to push their claims on harvesting shares, the fishermen and environmentalists that were present had to comment on other aspects of the program, such as observer coverage, and methods to address unintended consequences of the program. While these elements are critical to the functioning of the program, public comment time spent on them could not be spent on the issue of harvest allocations to processors.

Recently comments have been made by members of the PFMC that they have not heard well reasoned arguments against allocation of harvesting shares to processors. This paper is an attempt to address this and give those reasons.

WHY PROCESSORS CLAIM TO NEED AN ALLOCATION

The rationale given before the PFMC for allocating harvesting shares to processors has evolved over time, but in general, the claim by processors is that without an allocation of harvesting shares they will be put out of business and lose their investment in processing equipment and plants because boats will sell their fish to other markets.

They have never adequately explained why that is more likely to happen with ITQs than under the present system where all of the fish is allocated to fishermen, and there are no restrictions on where a boat can sell fish.

PROTECTING EXISITING COMPANIES FROM COMPETITION IS BAD PUBLIC POLICY

Processors make the claim that without protection, fishing vessels will find or develop new companies to sell their fish to and existing processers will be harmed.

Fishing vessels will only move to other companies if there is a benefit to them to do so. Benefit usually is in the form of higher prices for their fish or better conditions for the sale of the product. New companies can only pay higher prices than existing companies if they are somehow better at processing and selling the fish. Unless the new processing company can make more money on the processing of the fish then existing companies, they cannot pay higher prices.

Existing companies only need protection is there is a better way to do the processing and marketing of fish than they are currently doing. However, if there is a better way to do the processing and marketing of fish then encouragement of this is a better public policy than trying to protect the less efficient company.

HOW THE PROCESSOR ALLOCATION WILL REALLY BE USED

The processors claim that the harvesting rights that they will be allocated will be used to entice boats to sell to them, by allowing the boats to fish the company quota in addition to the boat controlled quota.

While the description by the processors of how they will use this allocation may be accurate as far as it goes, there are several details that are left out.

The first use of the processor allocation will be on processor owned boats. Whatever is surplus to their vessel needs will be available for lease to other boats.

To get a lease of the processor quota, the vessel will be required to sell all of its products to the processor, regardless of the fishery it is in, at prices and conditions, dictated by the processor. A letter to the PFMC by the West Coast Processors Association actually states:

> "Our intent is to use quota directly allocated to our processors as an enticement to vessels to deliver to historical processors. In other words, we want to put our quota on boats that fish for our plants, so long as we are the purchaser of all fish caught by that vessel."

The boat will be charged a lease fee to use this quota. Quota lease prices in other regions have been as high as 50% of the ex-vessel price of fish.

THE RESULT OF THIS USE OF QUOTA

The prices paid to the boats that lease processor quota will become the basis for the pricing of all other product purchased by the company, giving the company the ability to dictate prices to the entire fleet of boats who sell to them, and to a large degree for the larger companies, this gives control to the processor over the entire fleet. The fleet will not have any ability to negotiate with the companies and essentially become "price takers" at the mercy of the companies.

The lease amounts paid by the boat effectively work as a discount on product purchased by the company such that the real price of fish paid by the company is the "vessel price" minus the lease fees paid back to the company.

This use of the quota results in a company that not only can dictate to its fleet the price of fish but also enjoys a tremendous price advantage over companies that don't control quota. Because the boat has to

sell all of its products to the company, not just groundfish, the processor who has quota enjoys this advantage for all fisheries that the company participates in, not just groundfish.

The effects of this are even more profound for the West Coast of the United States then they might be in other parts of the world. The degree of consolidation among the West Coast fish processing industry is such that the companies have tremendous control l over the industry already, and have had for many years. Boats currently have very little opportunity to negotiate sale conditions for their fish or to switch to other companies to sell their fish. It is predictable that boats will not be given markets for their fish unless they also fish the company quota at prices and conditions dictated by the companies. This gives the few processors that get quota from the Groundfish ITQ program the ability to control the entire West Coast processing sector.

Given that the processors that are the largest processors of groundfish are also the largest distributors of fish along the West Coast; the discounted price of fish that they will enjoy also gives them control over the distribution sector of the industry.

MONOPOLY OF THE WEST COAST SEAFOOD INDUSTRY BY A VERY FEW COMPANIES IS NOT GOOD FOR THE INDUSTRY

Monopolies are generally viewed as undesirable in United States Industries. The problems of no competition, such as inefficient companies, lack of product development and arrogance by the companies resulting in poor customer service are generally well recognized as problems resulting from monopolies. Ultimately allowing a few companies to monopolize the west coast seafood industry destroys the ability of the industry to survive in a world market.

THE POTENTIAL FOR MONOPOLIZATION OF THE WEST COAST SEAFOOD INDUSTRY IS VERY REAL

The potential for the monopolization of the West Coast seafood industry is very real. We are very close, if not at, that stage now. Giving a few companies additional control over the industry will make monopolization a certainty.

Fishermen are already afraid of the companies that they have to deal with, and are very afraid of giving these companies more control.

CONTROL OF THE INDUSTRY IS NOT GOOD FOR THE INDUSTRY, FOR COMMUNITIES, OR FOR THE FISH

Giving control of the industry to a few companies is obviously not good for the seafood industry. What may not be quite as apparent is that it is not good for coastal communities or for the fish themselves.

CONSOLIDATION MEANS FEWER COMMUNITIES HAVE PROCESSING BUSINESSES

The consolidation of the processing industry that has already occurred has resulted in fewer communities getting the benefit of seafood processing. As a few companies started dominating the seafood processing sector, other plants were forced to close, either through competition or by the stronger company buying the completion. The companies that closed have not been replaced; instead fish that was delivered and processed in smaller harbors has been moved to a few concentrated processing centers. This has occurred either because the stronger processor has developed buying stations in the ports where fish is purchased and then shipped to the processing centers or because the fleet has had to move to find a buyer.

The economic impact of fish that is delivered into a port is a combination of the economic impacts of the money paid to the boats and of the money paid to processing plant employees and suppliers. When processing plants close, much of the value of the fish delivered into a community is lost. When the fleet has to leave, all of the value of the fish delivered into a community is lost.

CONSOLIDATION WILL CONTINUE IF PROCESSORS GET HARVESTING ALLOCATIONS AND FEWER COMMUNITIES WILL GET THE BENEFIT OF THE FISHING INDUSTRY

Today there are only five ports along the West Coast that have a substantial seafood processing industry, and only a few more that have any processing at all. Three companies process 80% of the non-whiting groundfish landed along the west coast and virtually all of the non-whiting groundfish is processed by only five companies. If these companies gain more control of the seafood industry by being allocated harvesting shares of quota, there will not be any increase in the number of communities that receive benefit of the west coast trawl industry and, in fact further reductions in the number of communities that have a fishing industry will occur.

The processing companies have said that they will use the fish to attract boats to sell to fish to them. They will use this fish to attract boats to the lowest cost locations for the processor to purchase fish. This will not be in ports where the company has to pay the cost of shipping to its processing facility. Boats will have to leave small port with only buying stations and move to those one of those ports with processing facilities. Once the boats leave the port, the port will lose its processing infrastructure and will not be able to support processing in the future. These ports will probably never get their fishing industry back.

GIVING HARVESTING ALLOCATIONS TO PROCESSORS WILL NOT PROTECT COMMUNITIES

Processors assert that communities will be protected by giving harvest quota to processors. Nothing could be farther from the truth. Harvest allocation given to processors is not tied to any community. West Port, Garibaldi, Coos Bay, Crescent City , Monterrey are all examples of communities that have had processing facilities bought by larger companies only to have the facility shut down and the fish processed in another place. Many times this has resulted in the fishing fleet being forced to move away from their home in order to continue selling fish. The processing jobs are, of course lost to the community

Other businesses are hurt in communities when the fishing industry is lost. Empty harbors are not good for the tourist industry. It is not possible to buy locally caught seafood in most ports along the coast. It is difficult to find Oregon caught groundfish in Oregon.

In most cases, the owners of the few companies left don't even have personal ties to the communities along the coast, as they do not live in the communities where they process fish. They do not experience the loss to the community when the fishing industry is lost. Fishermen do.

Under the ITQ plan being considered by the PFMC, harvest allocation given to processors will be based on processing history, with the largest processors getting the largest share. Large processors are located in communities with large landings of fish and therefore are not vulnerable to losing the processing industry.

Small ports with small fishing industries will get little, if any, fish allocated to processors in their ports. Since the principle use of the harvesting allocation that goes to processors is to give them a competitive

edge of other plants, processors in small ports are more likely to go out of business. New processing companies that try to replace failed companies will find it nearly impossible to compete.

Giving harvesting allocation to processors under the plan proposed in the PFMC ITQ proposal will cause further constriction of the fishing industry, with smaller ports losing their fishing industry completely.

Large ports with large fishing industries are not helped, as the size of the fishing fleets in those ports will guarantee that the processor sector will be located there.

GIVING PROCESSOR ALLOCATION TO PROCESSORS WILL CAUSE MORE CONSOLIDATION AMONG THE HARVESTING SECTOR

Giving harvesting allocations to processors will cause the size of the fleet to be reduced more than it would be if all harvesting allocations were distributed to the boats. The use of the processor owned harvest allocation to lower ex-vessel prices was described above. The lower price paid to the boat for groundfish means that only boats that have large landings of groundfish will be able to stay in business, resulting in an industry that supports fewer boats and fewer people employed in the business.

The resulting weak harvesting sector will always be a threat to communities, and to local processing.

ALLOCATING HARVEST SHARES TO LARGE PROCESSORS CAN HARM THE FUTURE DEVELOPMENT OF THE PROCESSING INDUSTRY

The implementation of an ITQ system for the West Coast Trawl fishery is expected to result in larger harvests of trawl caught fish. This is a result of vessels being able to change their fishing practices to catch more of the available healthy stocks of fish while avoiding catching stocks of lesser abundance. This will not happen overnight but the ability to harvest these healthy stocks of fish is a strong incentive to innovate.

The potential benefits of larger catches are not evenly spread along the Coast but are of course more likely to be realized in ports adjacent to areas of the coast where surplus stocks are found. The State of Washington is located to receive major harvesting benefits from the ITQ program.

Reductions of catches of healthy stocks of fish due to restrictions on Canary Rockfish have been greater there than in other areas of the coast. Washington has a large continental shelf area off of its shores. Because of this much of its fishery was found in depths where Canary rockfish lived and therefore has been curtailed to protect Canary Rockfish.

Landings of rockfish, much of it yellowtail rockfish, into Washington in 1999 were 4,625 Metric tons (mt). They had dropped to 858 mt by 2005. Similar catch histories for arrowtooth flounder and dover sole occurred. Arrowtooth landings were 4,133mt in 1999 and only 940 mt in 2005, while dover fell from 1,130mt in 1999 to 742mt in 2005. These are abundant species of fish. The 2008 Optimum yield (OY) for Yellowtail rockfish is 4,548 Mt. Arrowtooth is 5,800mt and dover is 16,500. Coastwide catches are much lower than OYs for these species, indicating the amount of growth that is possible.

Washington is ideally suited to have these fish delivered and processed in its ports. This will require new processing capability. This is unlikely to develop if harvest allocations are given to existing processers. Processers that would get allocations based on past processing have plants in the relatively nearby ports of Astoria and Warrenton, and do not have plants that process groundfish on the coast of Washington. They will use their allocation to induce boats to deliver the increased catch of yellowtail,

Many of the plants are not even dependant on local fish for their processing. Recently the trawl fleet along the coast tied up in an attempt to force processors to negotiate the terms of the sale of fish. Some processing plants didn't even stop working. They just bought fish from boats in Canada and processed it in west coast plants.

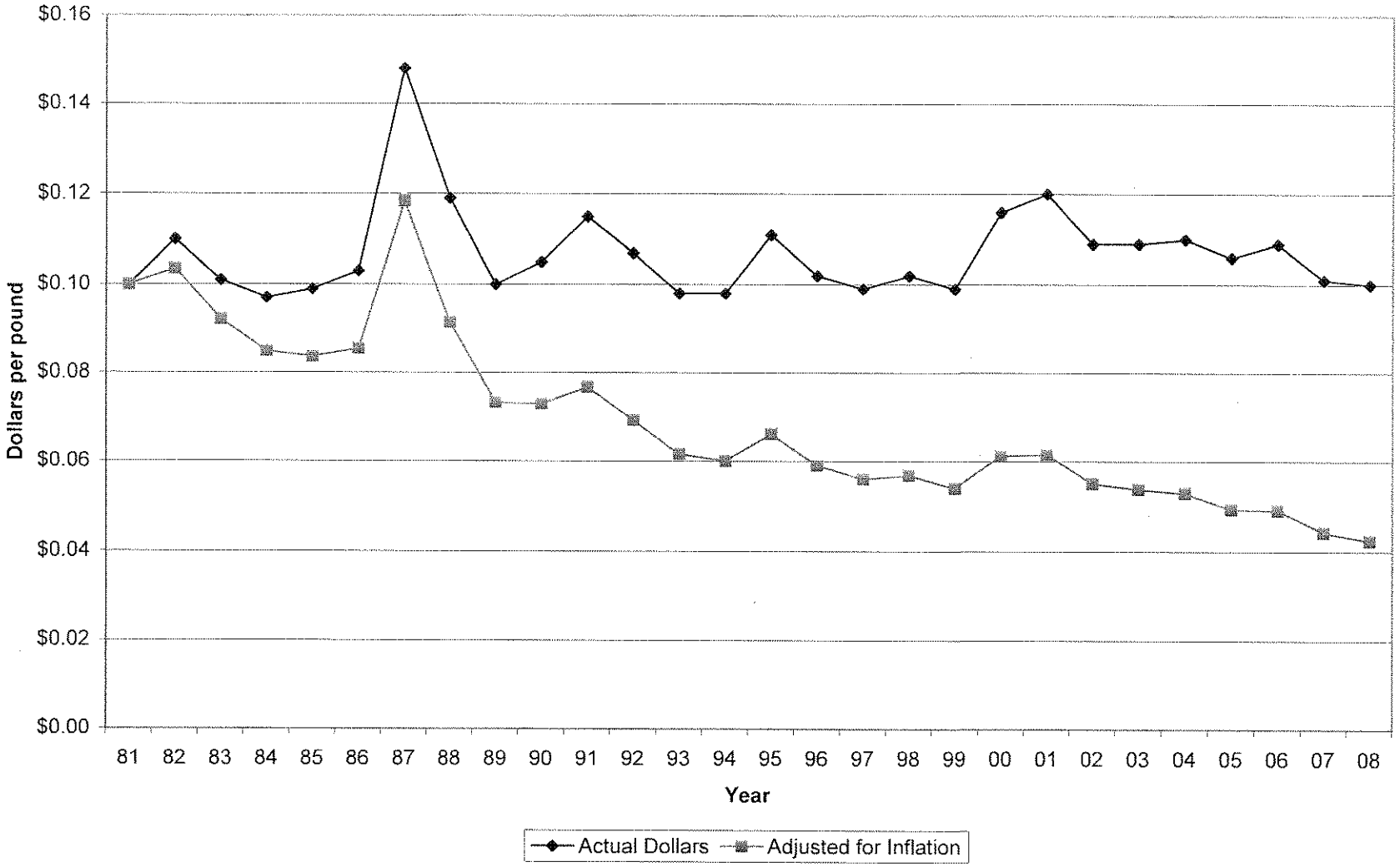
ALLOCATING HARVESTING QUOTA TO FISH PROCESSING COMPANIES IS BAD PUBLIC POLICY

The forgoing document has given numerous reasons why it is bad public policy to give harvesting allocations to processors. No one but a few processing company owners will benefit. Most people along the coast will be harmed. The fishing fleet will be reduced more than necessary, processing will become even more concentrated into a few ports, development of new processing capability and techniques will be prevented and conservation benefits to fish stocks normally realized by ITQ programs will be reduced or non-existent. The processors arguments in favor of giving harvesting quota to processors have been shown to be self-serving and actually harmful to the seafood industry along the West Coast.

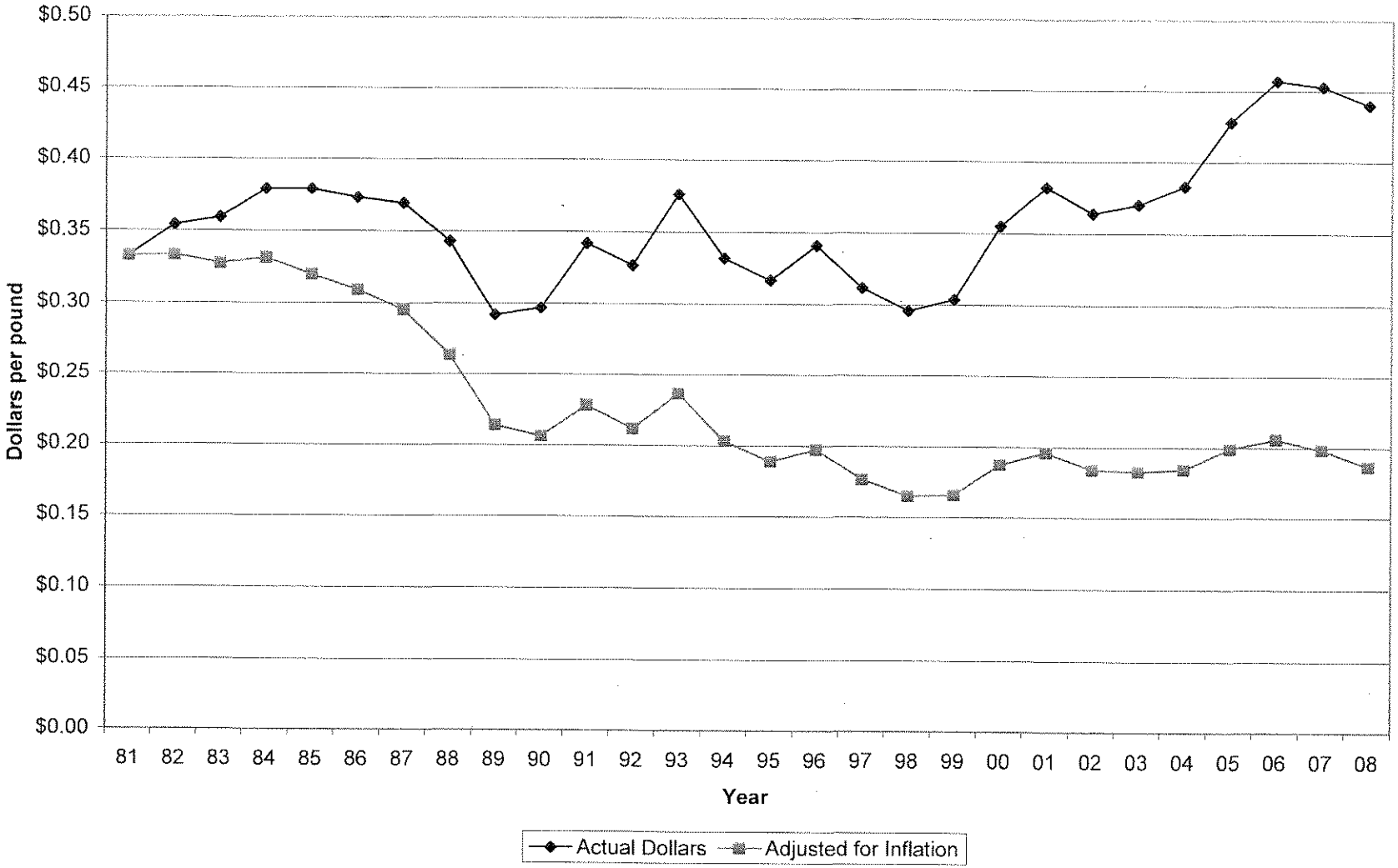
Development of the ITQ program has the potential of producing a tremendous benefit to the West Coast. Everyone wins in a well designed program. The industry is enhanced, communities enjoy the benefit of a larger and more stable fishing industry, and the environment benefits by the alignment of strong economic incentives with good stewardship of the resource.

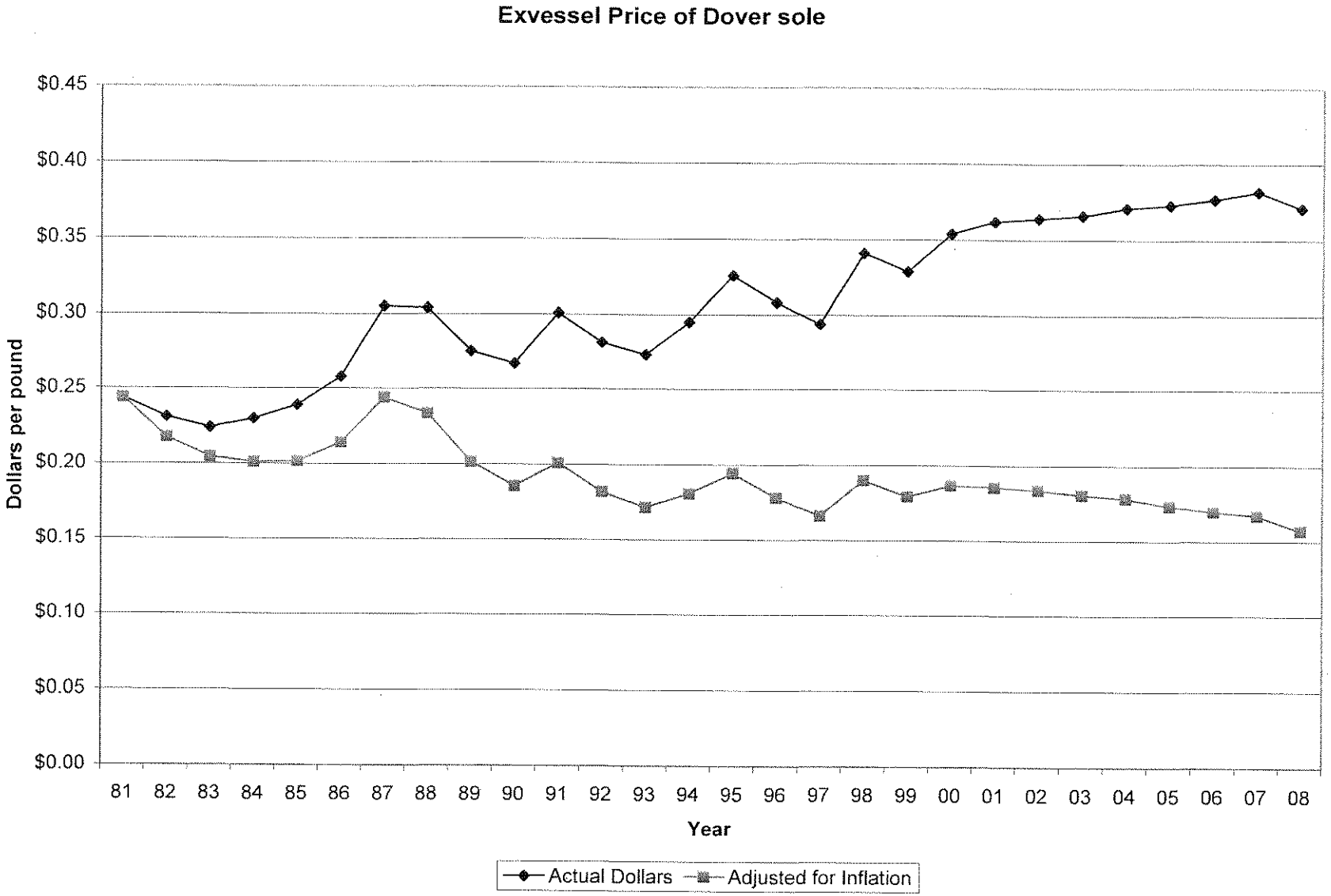
Giving harvesting allocation to processors negates all of those benefits and turns a winning solution to resource management into a loss.

Exvessel Price of Arrowtooth Flounder

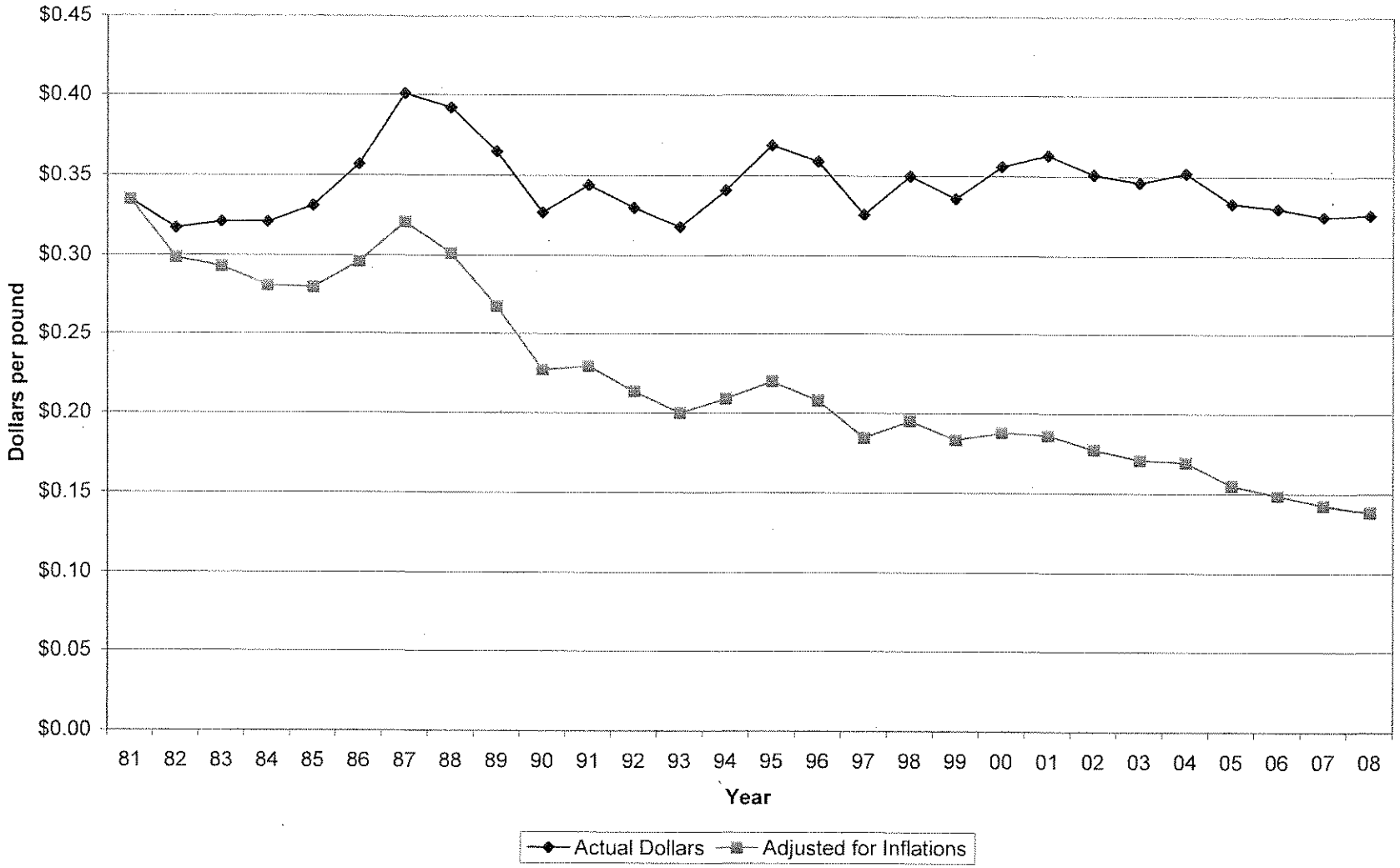


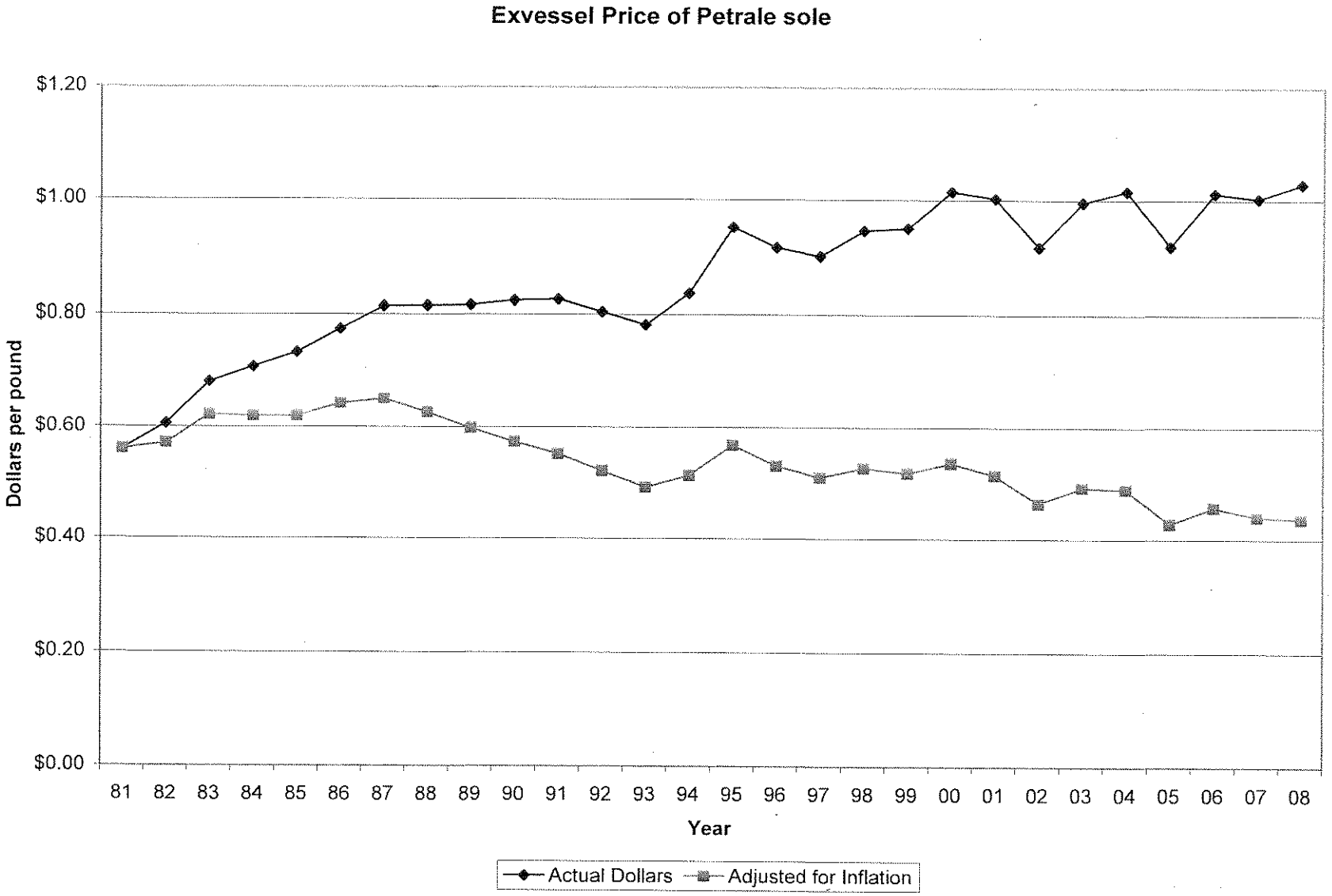
Exvessel Price of Sanddabs



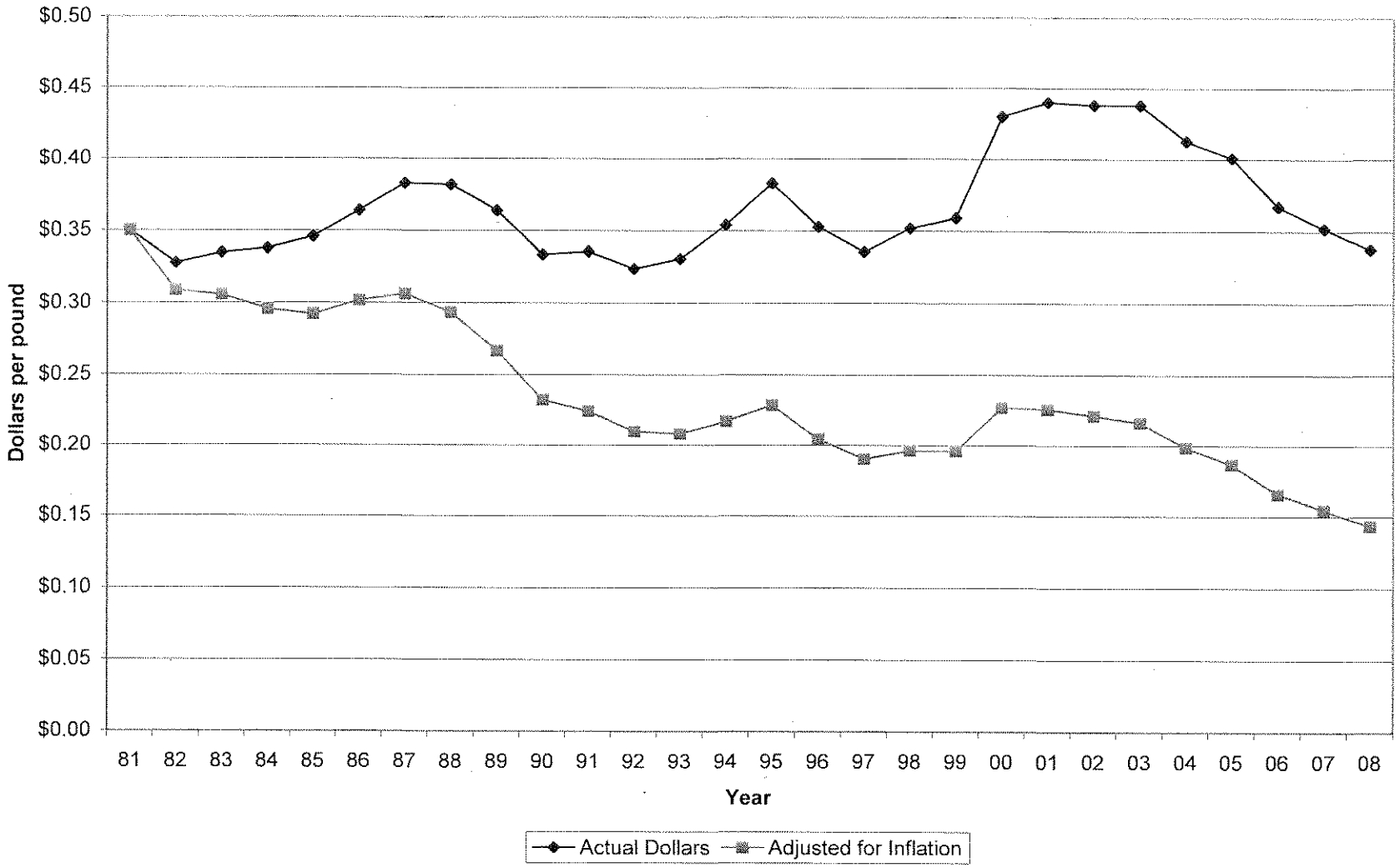

Exvessel Price of Dover sole
$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation

Exvessel Price of English sole

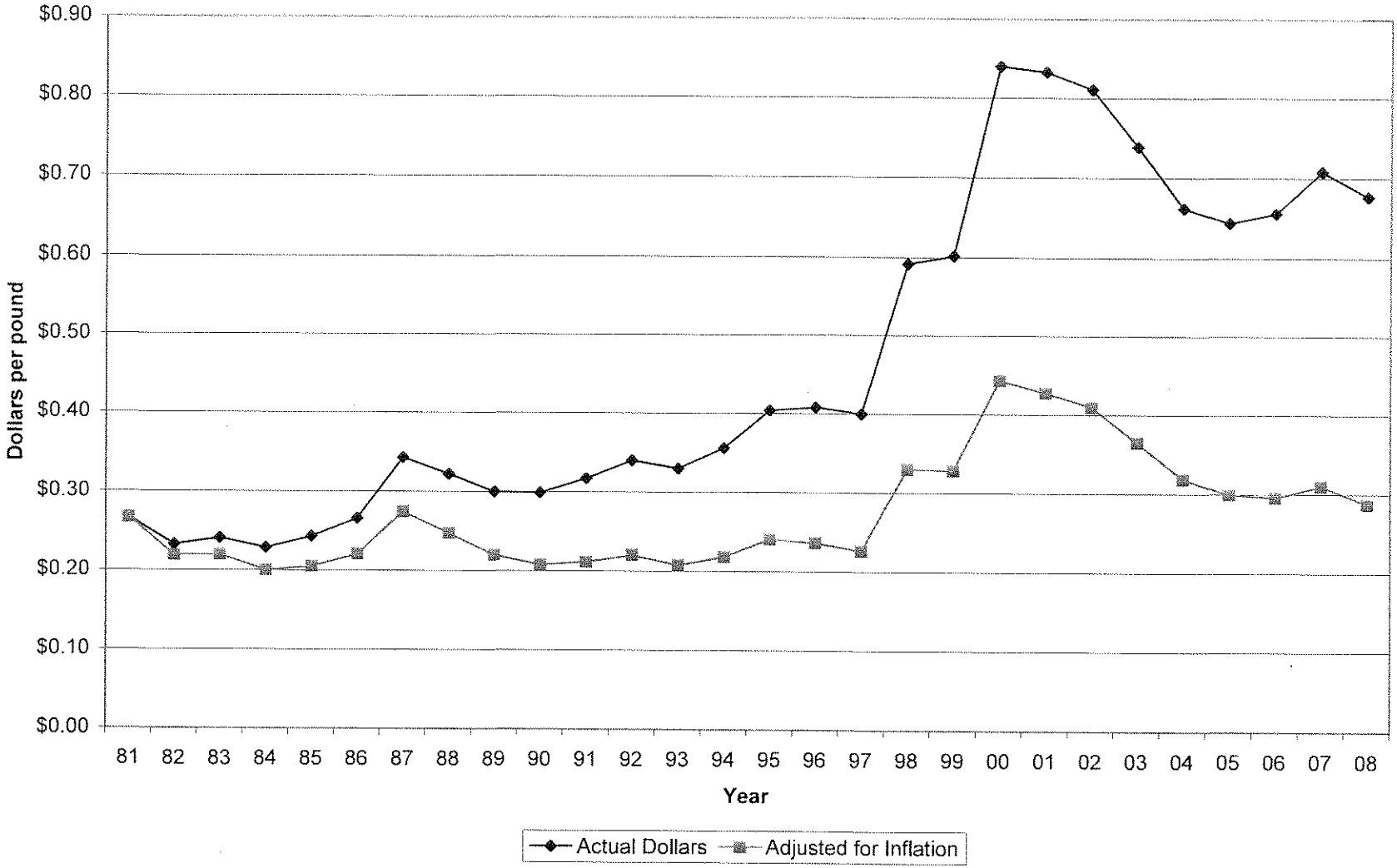



Exvessel Price of Petrale sole
$1.20
$1.00
$0.80
$0.60
$0.40
$0.20
$0.00
Dollars per pound
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08
Year
Actual Dollars
Adjusted for Inflation

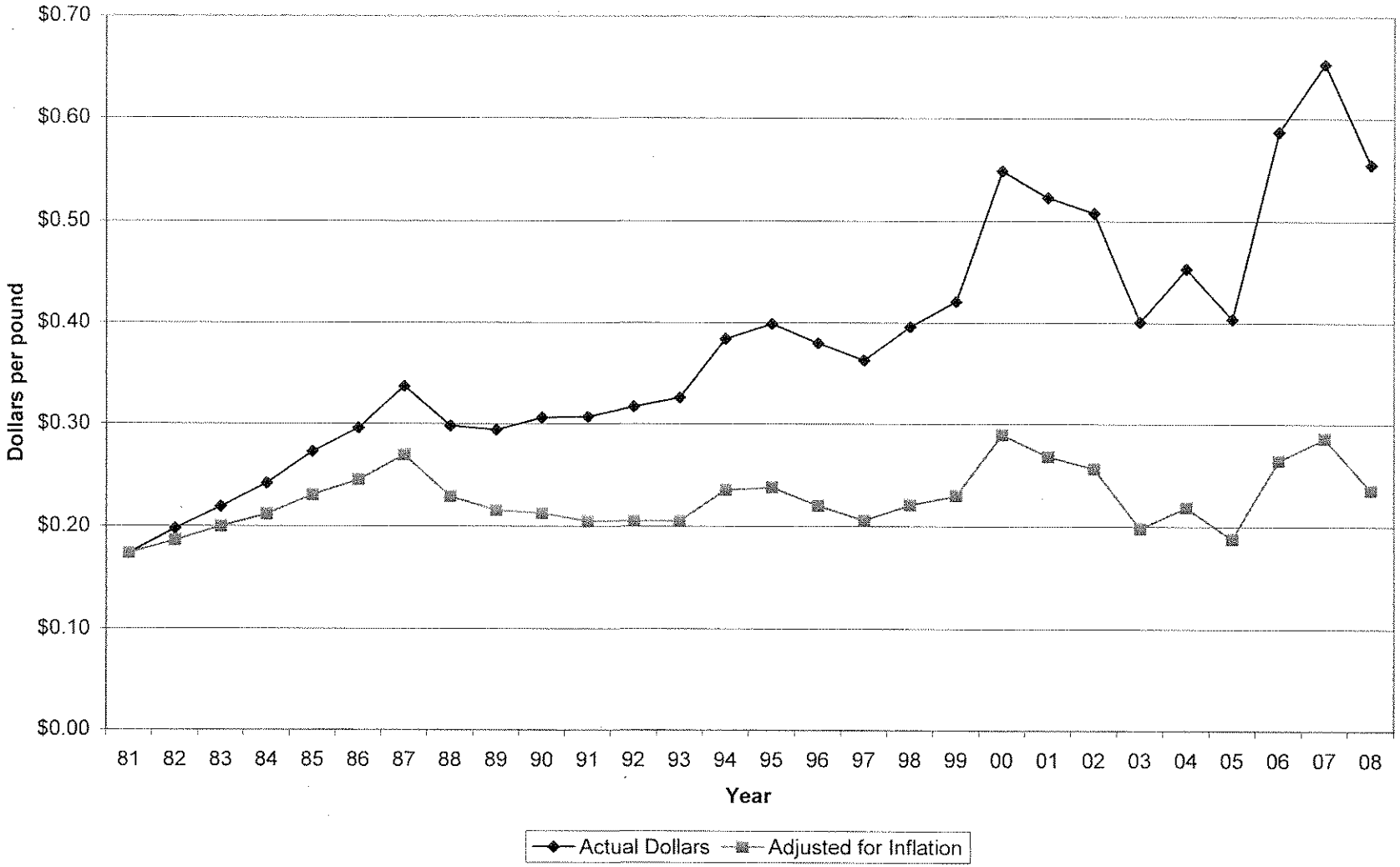
Exvessel Price of Rex sole



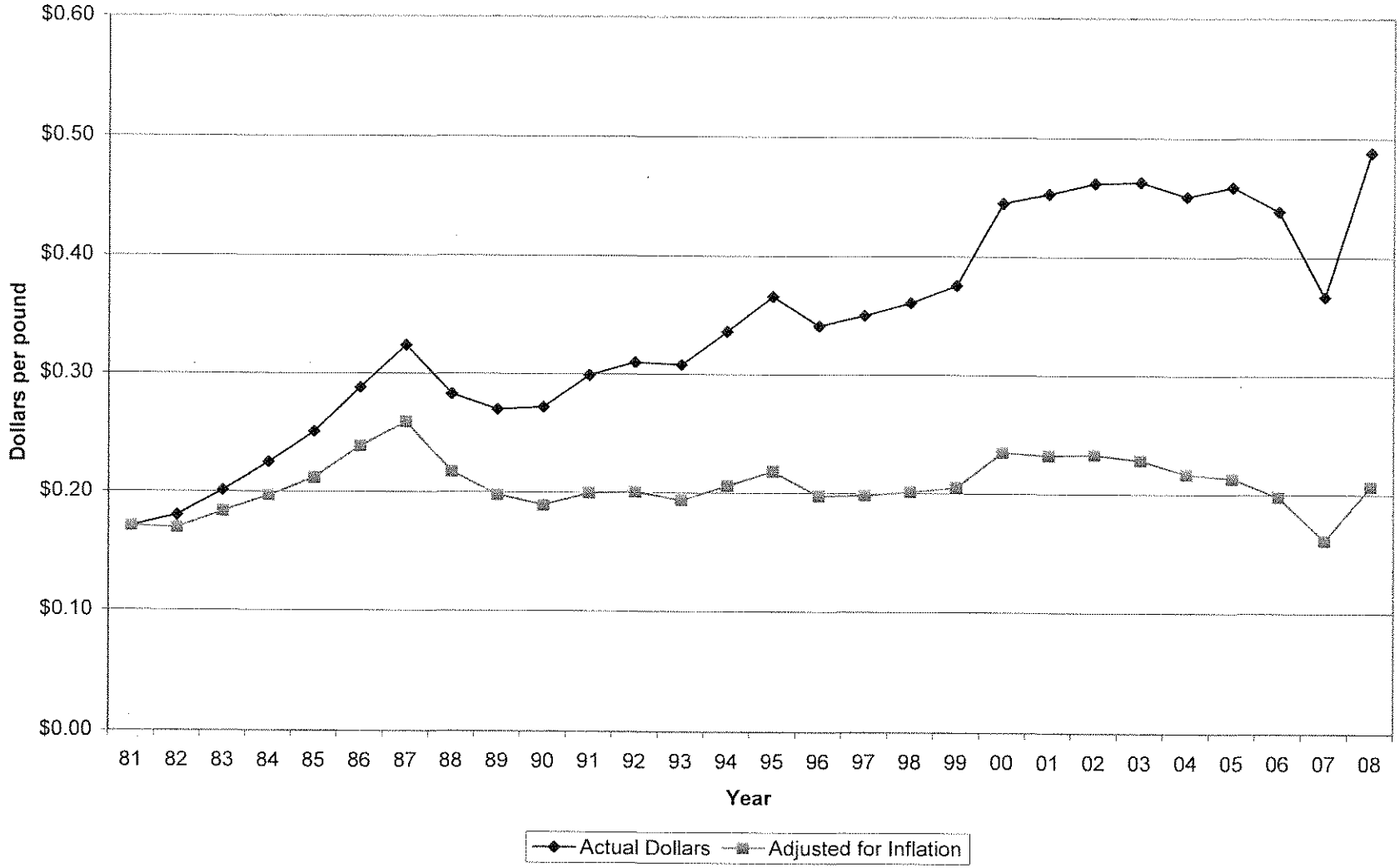
Exvessel Price of Lingcod



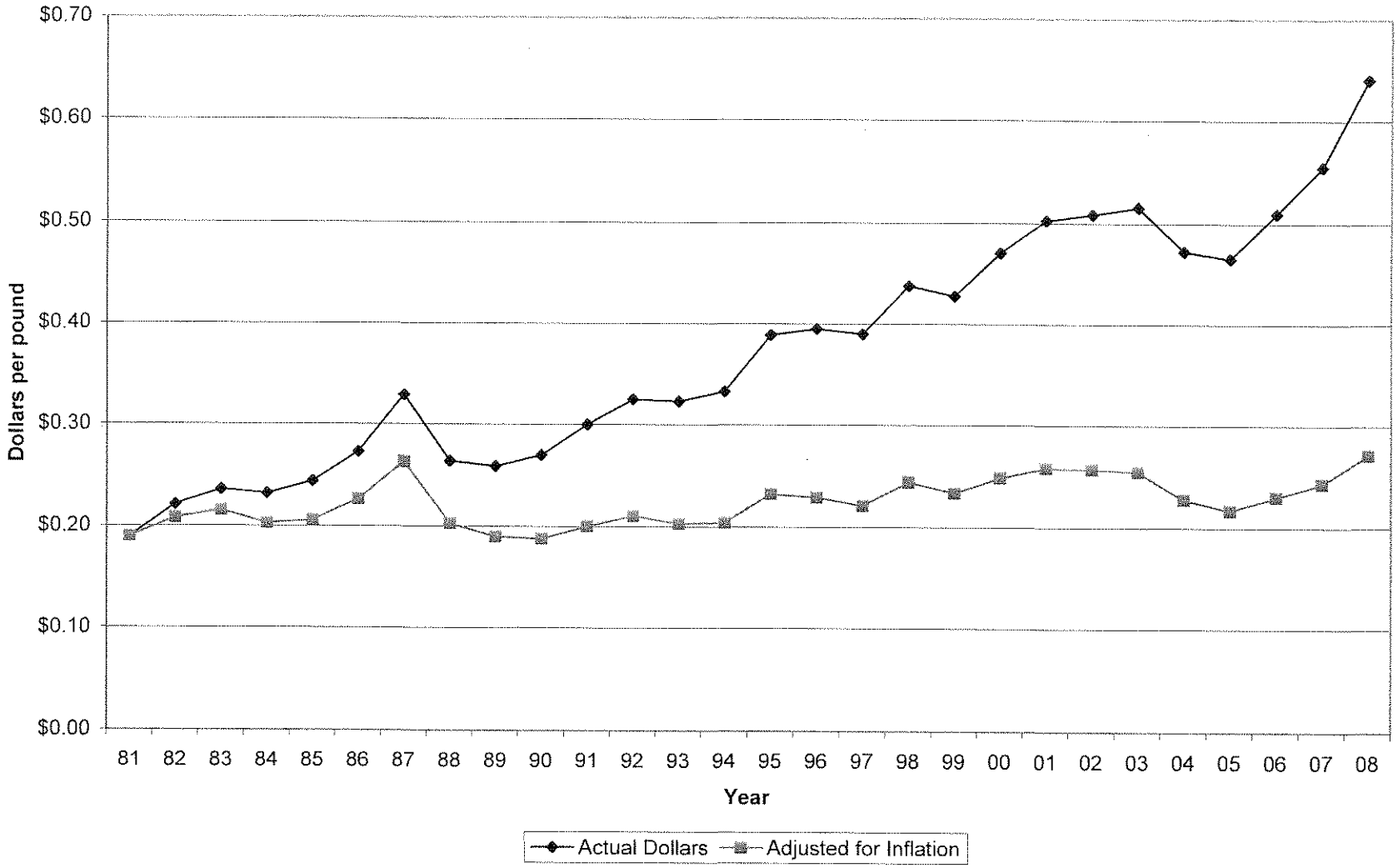
Exvessel Price of Chilipepper rockfish



Exvessel Price of Yellowtail rockfish



Exvessel Price of Pacific cod



TRAWL RATIONALIZATION (AMENDMENT 20) HEARING SUMMARY – EUREKA

Date:	10/28/2008	Hearing Officer:	Dan Wolford
Location:	Eureka, California	Other Council Members:	None
		State Agency Rep:	Joanna Grebel (CDFG)
Attendance:	19	NMFS:	Sarah McAvinchey
Testifying:	10	Coast Guard:	Lt. Scott Parkhurst
		Council Staff:	Jim Seger Kit Dahl
Organizations Represented: None.			

Synopsis of Testimony

Of the 10 people testifying:

- 5 said they supported the preliminary preferred alternative if it includes the 20% initial allocation to processors. Some expressed reservations about the program and would prefer status quo, but felt this was an unlikely outcome.
- 3 said they supported trawl rationalization but did not support an allocation to processors.
- 2 said they preferred status quo or trawl rationalization in some other form than proposed by the Council.

Harvester Sector Comments

Consolidation will result in the loss of trawl vessels in Eureka, adversely affecting other fisheries because of the resulting loss of infrastructure.

Eureka has the advantage of being closer to the fishing grounds and thus would have an advantage even under trawl rationalization.

The Council needs to move forward in November and not delay action; a few loose ends shouldn't delay the process.

There will be more fish available under trawl rationalization because overfished species bycatch will be tightly controlled. Target species will be harvested up to their OYs or ABCs. This makes it possible to support the adaptive management option. Also, processors shouldn't receive an initial allocation because they will have access to more fish than they currently process and will have no need to buy from others with quota shares.

Harvesters are paying for the costs of the buyback program; processors have not contributed to this cost. Also, prices being offered by processors are not competitive unless it is for an internationally traded product. For these reasons processors should not be given an initial allocation.

The expected increase in revenues compared to the program costs and observer costs does not justify the trawl rationalization program.

Processing Sector Comments

Processors have plans for expansion in Eureka but this can't be realized if processors do not receive at least a 20% initial allocation.

Despite claims, trawl rationalization is privatization of a public resource.

Eureka and Crescent City have lost a lot of processing and other fishery-related infrastructure. Trawl rationalization will make this problem worse.

Processor consolidation has not been the problem; it is that vessels moved out of the port.

Other fisheries will be adversely affected by the trawl rationalization program.

Environmental and Conservation Interest Comments

None

Community Member Comments

None

Other Comments

None

Written Statements (Attached)

PFMC
10/29/2008

October 27, 2008

Mr. Donald K. Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Chairman Hansen:

The members of Fishermen's Marketing Association, California, representing trawl harvesters, and the members of the Fishing Vessel Owners' Association of Seattle, representing longline interests, requested a paper from a noted and recognized economist, Dr. Jim Wilen, on why giving harvester's quota to processors is a bad idea. Dr. Wilen is a professor with the Department of Agriculture & Resource Economics at the University of California, Davis. The two associations are submitting Dr.Wilen's conclusions and comments as part of the overall record for Trawl Individual Transferable Quotas. Below are some excerpts of Dr. Wilen's conclusions.

> The most remarkable aspect of the proposal to allocate harvester quota to processors is that it is a "solution" for which there is no corresponding "problem".
>
> The real reason that processors are insisting that they be granted harvester quota is money. The estimate that I have made (which I believe is conservative) is that the Council's "preferred alternative" that allocates harvester quota to processors will, if granted, be worth 100 million dollars to small number of owners of the processing sector. This dispute over processors allocations thus must be recognized for what it is—a power struggle over money rather than over a policy option that "fixes" some problem.

In most other industries where oligopoly or oligopsony power is present, a concentration level in which 4 industries handle 60% of the product is deemed high. On the Pacific Coast, 2-3 companies process 80% of the product.

On the Pacific Coast, the degree of market power in the groundfish market is probably more correctly described as a "dominant firm monopsony" in light of the extreme concentration of market power in a single buyer.

This is consistent with EIS descriptions of the harvesting sector, which is depicted as making zero economic profit, even after a buyback program that substantially reduced the number of participants.

Current options to carve processor allocations out of harvester quota subvert the normal policy process. This is because they have been added to the system design purely for political reasons rather than to address a National Standards objective or a shortcoming of a purely harvester-based rationalization program.

Just as important, granting incumbent processors allocations will disadvantage potential entrants, precisely the players most likely to bring innovation to product marketing and higher values to the whole fishery as a result.

Fishermen's Marketing Association

Peter Leipzig
Executive Director

Fishing Vessel Owners' Association

Robert D. Alverson
Manager

Why Giving Harvester Quota to Processors is Bad Policy

By

James E. Wilen
Dept. of Agric. & Resource Econ.
University of California, Davis

October 27, 2008

Discussion Points for PFMC Meeting
November 1-7, 2008

Why Giving Harvester Quota to Processors is Bad Policy

The decision of the Pacific Council to even contemplate allocating harvester quota to processors is an unprecedented step in fisheries policymaking. There have been over 150 individual quota programs implemented to date around the world, and not a single one has carved a share of harvester quota out to grant to processors. There are good reasons why, at similar junctures, other policymakers have chosen to allocate quota only to harvesters. It behooves the Council to acknowledge this radical departure from accepted practice, and to understand the significant negative ramifications that such a policy will generate.

Justification

The most remarkable aspect of the proposal to allocate harvester quota to processors is that it is a "solution" for which there is no corresponding "problem". Proponents have attempted to justify this policy using arguments that have shifted and morphed over the past couple years. The initial argument was that processors would suffer "stranded capital" losses if a quota program were implemented. As I have argued, the stranded capital claim by processors is overblown; it is likely that true stranded capital losses will be negligible.[1] In any case, if there were stranded capital losses, good policy would call for not for an arbitrary quota allocation, but rather remedies based on measured capital losses, as has been typically done in public utility regulation. It now appears that while processors have abandoned the original stranded capital justification, they have not abandoned their quest for part of the initial harvester allocations. What justifications are now offered? A more recent argument delivered in testimony to the Council is that without processor allocations, processors will be disadvantaged in the ex vessel market after rationalization. In the extreme version of this argument, processors argue that they would be forced to pay prices that would bankrupt (the entire) processing industry. This is also a spurious argument. With the degree of concentration of market power that now exists in the ex vessel market, processors will continue to enjoy their asymmetric position of power, even after quotas are introduced. Another recent argument has been made that, without harvester quota allocations, processors would have to move plants and local employment would be lost. This has been addressed with various regionalization options, but it still raises the question: exactly how will allocations to processors alter decisions if economic conditions favor geographic shifts? Again it is not clear; there is no argument that I can discern that explains how processor allocations would keep plants in unprofitable locations. A final argument is that it is "fair" to allocate harvester quota to processors. This argument seems the hardest to justify since the contemplated transfer involves taking from a couple hundred small businesses with asset values on the order of a million dollars each to give to a handful of individuals (primarily two) who own businesses worth on the order of a billion dollars. The point is that all of arguments made that attempt to logically justify the need for harvester

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[1] Wilen, James E. Stranded Capital in Fisheries: the Pacific Coast Groundfish/Whiting Case, forthcoming in *Marine Resource Economics*, 24(1), April 2009. See also: Wilen, James E. Stranded Capital in Fisheries, White Paper prepared for Environmental Defense Fund, August 2008.

allocations to processors in order to solve a "problem" do not hold up under closer scrutiny.

The real reason that processors are insisting that they be granted harvester quota is money. The estimate that I have made (which I believe is conservative) is that the initial proposal to allocate harvester quota to processors to cover "stranded capital" was worth 100 million dollars to the small number of owners of the processing sector.[2] This dispute over processor allocations thus must be recognized for what it is---a power struggle over money rather than over a policy option that "fixes" some problem. If the Council bows to political pressure rather than logic and responsible program design in this decision, it will surely reduce its own legitimacy in the eyes of the public. When the well-placed prevail simply because of their power, observers start to believe that the process is unfair, and that outcomes are essentially determined the simple "follow the money" notion.

Implications

There is more at stake than simply the question of how to split a fixed pie between contending interests. In this case, the decision to allocate to processors will also generate economic inefficiencies, some of which will negate the very reasons for implementing the policy in the first place. It will also have severe ramifications in terms of future rationalization programs, since it will open the door to unlimited wrangling and process holdup. Finally, it will reduce some of the incentives for stewardship and conservation motives that are among the more important reasons for implementing a quota program in the first place. These are reasons why no other quota design of the 150 that have been implemented has included the step of allocating to processors.

In the sections below, we summarize various implications of allocating harvester quota to processors.

Economic Implications

- ***Processor allocations reinforce existing market power in the ex-vessel market***

Allocating harvester quota to processors will exacerbate the power imbalance in an ex-vessel market that is already uncompetitive. As the EIS document outlines, both the whiting and non-whiting groundfish exvessel markets are dominated by an unusually small number of buyers. Generally, markets dominated by small numbers of input buyers are referred to as "oligopsonies". Oligopsonists exploit their buyer's power by under-paying resource suppliers (harvesters), and hence collect an 'oligopsonist premium" as a result of their market power.[3] In most other industries where oligopoly or oligopsony

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[2] See Appendices in Wilen (2009, 2008), *op. cit.* Estimates based on proposals to allocate 50% of shoreside whiting to processors and 25% of non-whiting groundfish to processors. Current preferred alternative proposals are worth (conservatively) 60 million dollars to processors.

[3] Alaska's pre-AFA inshore pollock fishery is a good example of an unusually effective oligopsony. Throughout much of its history, just 3 companies have dominated the inshore pollock market, 2 of them owned by Japanese conglomerates and the other (Trident) owned by an American family. The Japanese conglomerates have had every incentive to negotiate the lowest possible ex vessel prices, so that profits in their integrated operations can be shifted to Japan. Likewise, Trident has had every incentive to go along with those low prices. How effective has this exercise of market power been? In the inshore pollock

power is present, a concentration level in which 4 industries handle 60% of the product is deemed high. On the Pacific Coast, 2-3 companies process 80% of the product.

While the EIS documents the small number of buyers in the Pacific Coast groundfish market, it does not go far enough in its description of the asymmetry in current processor market power. This is because it ignores the ramifications of the interaction among the small number of dominant buyers. On the Pacific Coast, the degree of market power in the groundfish market is probably more correctly described as a "dominant firm monopsony" in light of the extreme concentration of market power in a single buyer. A dominant firm monopsony is able to exploit suppliers to an even greater degree than a small group of oligopsonists. Typically, a dominant firm sets its buying price at a level just barely enough to induce suppliers to remain in business. This is consistent with EIS descriptions of the harvesting sector, which is depicted as making zero economic profit, even after a buyback program that substantially reduced the number of participants. When a dominant firm monopsony exercises its control over a market, there are few incentives for other fringe firms to deviate since they benefit from the price leadership of the dominant monopsony. With high barriers to entry, this form of market power and the exercise of such power over ex vessel prices can be very stable, and can persist under substantial changes in economic, regulatory, and institutional circumstances.

The EIS punts on the market implications of this policy, stating "it is not clear how the Council's preferred alternative (which allocates 80% to shoreside harvesters) will impact ex vessel prices relative to status quo conditions". In reality, it is clear. A dominant firm is likely to be able to exercise full control in a market, even if **all** quota is granted to harvesters. With this extreme degree of concentration, harvesters will still be at the mercy of asymmetric market power in the exvessel market, and reducing their holdings to 80% will certainly not make the market more competitive. This is clearly a move in the wrong direction; the Council ought to be encouraging rather than discouraging vigorous ex-vessel market competition for reasons we next discuss.

- ***Processor allocations reduce incentives to generate market-side innovations***

There is virtually unanimous evidence that rationalization programs in place around the world have generated new and often significant gains in economic returns. Most often this is attributed to the **cost savings** that emerges when quota is consolidated and vessels are retired and/or reconfigured after the race to fish is eliminated. The EIS for the Pacific groundfish program outlines similar expectations, ascribing the potential gains from rationalization to input cost savings via consolidation. Less appreciated, however, is the fact that **revenues** have also increased significantly in many rationalized fisheries.[4] How does this happen? Basically by innovation by processors and handlers as

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fishery, real ex-vessel prices prior to the AFA were virtually constant to harvesters year after year. These ex vessel prices barely covered expenses for harvester vessels, leaving them with close to zero economic profit. Remarkably, ex-vessel prices did not vary even though the yen/dollar exchange rate varied widely over the same period. In a competitive market, exchange rate variation would be reflected in ex-vessel prices.

[4] See See Casey, K., C.Dewees, B. Turris, and J. Wilen. 1995. The Effects of Individual Transferable Harvest Quotas in the British Columbia Halibut Fishery, *Marine Resource Economics*, 10(5). See also

they create new product forms, establish new market niches, and increase raw fish quality. But product innovation requires vigorous competition among processors and handlers. A policy design that locks in the existing dominant firm status of the current ex-vessel market will delay if not forego important market-side gains that have proven so significant in many other rationalized fisheries. Just as important, granting incumbent processors allocations will disadvantage potential entrants, precisely the players most likely to bring innovation to product marketing and higher values to the whole fishery as a result.[5] There is a significant amount at stake here; market-side rents that have been generated from marketing innovation have been on the order of 40-50% of total industry revenues in some fisheries.[6] Moreover, these gains are realized almost immediately, whereas gains associated with consolidation and cost savings often take years to realize. The lesson is that, in fisheries as in every other industry, innovation is the engine of new wealth generation, and competition is the engine of innovation.

- ***Processor allocations reduce the efficiency of initial harvester allocations***

All rights-based systems have generated conflict over who among harvesters should receive initial allocations, and if so, how much. In virtually all cases, however, initial allocations bear close connection with the catch histories of the vessels in question. As Liebcap has argued, this is the most efficient way to determine initial allocations among incumbents.[7] The reason is that the historical pattern of catch records already reflects an intense competitive process among incumbents, and existing agglomerations are consistent with optimal production scale and size. The proposal to carve 20-30% off historical catch records to give to processors is equivalent to a tax of that magnitude on incumbent harvesters, and it will thus reduce the efficiency of operating vessels that have been built and operated to harvest efficiently under current conditions. Reducing harvester allocations below the levels that have been revealed as efficient will require many new rounds of trades of both leased and owned quotas, the paying of transactions costs that are incurred with these market operations, and adjustment by an industry that has already configured itself into production units that exhibit efficiency. The process of consolidation normally takes several years to work its way through the vessel capital structure. It make sense from an efficiency point of view to begin the process with vessels and catch histories that are close to production portfolios that will emerge after

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Homans, F. and J. Wilen. 2005. Markets and Rent Dissipation in Regulated Open Access, *Journal of Environmental Economics and Management*, 49(2):381-404.

[5] In British Columbia, we interviewed processors before and after the IFQ program was implemented as background for a study of IFQ impacts (Casey et. al. 1995, *op. cit.)*. The more striking comments detailed how innovative buyers opened up new markets for halibut in the middle of Canada where supermarket consumers had never seen halibut under the race to fish. These new markets were created by vigorous competition and market innovation among both established processors and new (generally small) handlers, innovation that was responsible for higher profits to processors and buyers as well as increases in ex-vessel prices.

[6] Cf. Wilen, James. 2006. Why Fisheries Management Fails: Treating Symptoms Rather than Causes, *Bulletin of Marine Science*, 78: 529-546.

[7] Liebcap, Gary (2007). Assigning Property Rights in the Common Pool: Implications of the Prevalence of First-Possession Rules for ITQs in Fisheries, *Marine Resource Economics*, 22(4): 407-424, pg. 408.

adjustments have taken place. By reducing harvester allocations to allocate to processors, existing harvesters will begin the adjustment process below production levels likely to be long run equilibrium levels.

Policy and Process Implications

- ***Processor allocation options are a subversion of Council process***

Current options to carve processor allocations out of harvester quota subvert the normal policy process. This is because they have been added to the system design purely for political reasons rather than to address a National Standards objective or a shortcoming of a purely harvester-based rationalization program. When processors argued that they needed allocations to compensate for stranded capital, there was at least a possibility of designing policy remedies to address that problem, if indeed it was a problem. Sensible remedies would have involved measuring actual stranded capital, and tying compensation to measured losses with a hold-back fund or similar option. But by abandoning the stranded capital justification, there is no new credible justification for arguing that processor allocations are needed. Yet they remain part of the preferred alternative.

If the new argument is that processor allocations are needed to ensure that they can maintain their current power imbalance in the ex vessel market, then they also subvert the Council's "constraints and guiding principles" provisions, which state that goals and objectives should be achieved while "avoiding provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors". If one believes that quota programs will give harvesters a bargaining advantage, then adding the processor allocation to address that effect flies in the face of the Council's own "constraints and guiding principles". If one does not believe that harvester-only quotas will affect market power, then there are virtually no credible justifications for them in the first place.

- ***Processor allocations will induce future policy holdup***

Pacific Council members will not be thanked by members of other fisheries management councils for veering from precedent in designing quota programs. Moreover, the fallout will not be simply shunted to other regions and will likely come back to haunt future Pacific Councils as other west coast fisheries are rationalized. This is because a decision to allow processors to claim part of the initial harvester allocation will invite holdup of the process everywhere. Designing efficient quota programs is difficult enough to get right, and it is contentious enough to determine a qualifying period and set of allocation rules that allocate among harvesters. The processor allocations that are part of the Council's preferred options here will, if granted, open the door to endless wrangling over similar programs in the future. Enormous amounts of effort and funds will be spent lobbying, wasting future Council members' time, and delaying the implementation of programs that produce genuine new wealth for the industry. In the limit, processor allocations will delay creating real wealth that could be going to fishermen and processors, and instead waste it on attorneys, lobbyists, expert witnesses,

and political campaigns in endless wrangling and needless dispute. This aspect of processor allocations is the least discussed effect to date, and will probably turn out to be the most important in the long run.

- ***Processor allocations open up future rationalization programs to irresolvable conflict***

A critical problem with allowing a stakeholder group to simply make an arbitrary claim on initial allocations is that it opens up future disputes to conflict that will be literally irresolvable. With processor allocations that are currently in the preferred alternatives, there is neither problem-based justification for adopting them in the first place, nor a logical mechanism that connects the proposed remedy to the problem. Moreover, there is no quantitative assessment of the alleged problem or a careful quantitative analysis of how the proposed remedy will fix the "problem". If the Council goes ahead anyway and adopts processor allocations, it will set precedent and signal willingness to consider claims that are virtually without limit. If claims for 20% are granted without need to rigorously justify the policy amendment, why not try for 50%, or 75% next time? Good policy that preserves the legitimacy of the process requires that radical departures from accepted practice have a logical and transparent reason being adopted.

- ***The tenuousness of politically allocated distribution***

Allocations that are seen as rewarding political connections are generally tenuous and prone to the need to be revisited and overturned in the future. The crab rationalization program in Alaska is a good example. Crab processors succeeded in convincing policy makers to deviate from accepted practice and implement so-called individual processor quotas that required harvesters to deliver to their past handlers. In many cases, this restriction on deliveries meant that processors gained monopsony status in certain regions. The regional monopsonies required another artificial negotiated market to be established to prevent processors from exercising their administratively-granted monopsonies. But after only a few years, these artificial and negotiated markets are already under review for their deficiencies. For example, harvesters are chafing against provisions that force them to deliver 90% of their catch to the same processors who historically processed their fish. Participants also claim that the price negotiation process reduces the incentives of processors to innovate with new products and create new market niches. In addition, there are objections to the barriers to entry that are created by the limited entry plan that processors also convinced the Council to adopt in order to protect them from "stranded capital" losses. This process of unraveling artificial restrictions and administrative constraints will continue as long as the special favors that have been granted to particular stakeholders prevent profit-making opportunities from being exploited.

Conservation and Stewardship Incentives

- ***Processor allocations will subvert conservation objectives***

A primary reason for establishing a quota system in the Pacific Coast groundfish fishery is to reduce bycatch and encourage other ecosystem conservation measures. Conservation and stewardship ethics automatically emerge in rights-based fisheries precisely because quota takes on value.[8] When quota becomes valuable, it is in the interest of the quota holder to take actions that maintain that value, both individually and collectively. But quota held by harvesters will generate a different set of incentives and actions than the same quota allocated to processors. Quota allocated to harvesters will dominate their wealth portfolios and hence they will each have strong incentives to take actions that conserve the productivity of the resources they have a financial stake in. In contrast, processors' wealth portfolios will be dominated by the value of their plant and equipment, and quota holdings will be insignificant in comparison. Thus when tradeoffs occur between decisions that affect both plant and equipment capital and quota value, processors will tend to make decisions that favor the larger part of their assets. And quota allocated to processors will inevitably involve conflict between profits and conservation objectives. In contrast, harvester/owners' profits are linked directly to the biological health of the fishery ecosystem. This provides incentives to conserve the resource productivity and exhibit stewardship behavior that has been observed in many harvester-based quota systems around the world.

Fairness

- ***Pacific Coast processor allocations are essentially unfair***

This policy has been argued as "fair" because allocation will be made to both the harvesting and processing sectors. In fact, however, the policy of processor allocations is not one where allocations are split among sectors so much as among individuals. The reality is that income will be taken from over a couple hundred small businesses with vessel-value wealth on the order of a million dollars each, and allocated primarily to two very wealthy private individuals who control companies with sales on the order of a billion dollars. This is not the definition of "fairness" that most people have in mind when they argue for fair political processes.

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[8] Cf. Wilen, James. 2006. Why Fisheries Management Fails: Treating Symptoms Rather than Causes, *op.cit.*

Eureka

Thank you for giving me this opportunity to speak to you today.

My name is David Pettinger. I have been involved in the commercial fishing business for over 45 years. I first started fishing at the age of 11 with my Father and brother, trolling for Salmon and Tuna in the summers.

I currently own a trawler that harvests Groundfish and Pink Shrimp off the Northern California and Southern Oregon coasts. My operation employs 4 full-time employees with family wage jobs.

I am against allocation of quota shares to processors for processing fish. Giving 20% of the quota to anyone but fishermen is bad policy.

It will only damage the fleet and exacerbate the amount of downsizing that will occur, with many selling out and quitting the business, as they will not be able to operate with 20% of their catch gone.

I like to think that one or more of my children will carry on in the fishing business when I retire. If 20% of my fish is taken away from me, it makes that scenario far less likely.

I have heard some processors say that fishermen won't need them, "that fishermen will vertically integrate". I can speak to this subject from experience.

I was partners with 15 other fishermen years ago in a fish processing facility and I realize how tough that part of the industry is, as I lost thousands of dollars. I certainly don't want to do that again.

Historically, fishermen have always caught the fish and delivered them to processors to process. That is what each side does.

I have sold my fish to the same processor for a number of years and I don't see that changing. We have always had a good working relationship and I would expect that to continue.

I hope to see the day when I can set down with my processor to plan out when they want the fish that I have been allocated, where we can work together to maximize that product's value.

Thank you again for this opportunity to speak and I hope that the Council makes the right decision next month.

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

We understand that the Pacific Fisheries Management Council is to meet in November to discuss and decide on initial allocation of ground fish and whiting quotas. We also understand that the preferred alternative adopted in June this year included a 20% allocation of these fisheries to processors and 80% to fishermen. A decision that was made based on 4 years of discussion and analysis. Local discussions, supported by a report from the PFMC indicate that an unbalanced plan, giving 100% of the quota to fishermen would have adverse impacts to local communities and jobs. The report indicates that Eureka is one of the ports on the list of those that would be most highly impacted under a 100% quota share to fishermen.

Our community can take no more job hits. We recently lost 215 jobs in our pulp industry. We don't know if and when those jobs might come back. Our only Ice and Cold Storage facility was forced to shut it's door and those jobs are gone, our ice supply is gone and we have no cold storage. And like many other communities, the current economic situation is putting several other businesses at risk. Our infrastructure is crumbling in our small coastal community and we need to preserve everything we have. If our fishing fleets leave the area we will lose an additional 300 processing jobs and potentially hundreds of fishing jobs. The trickle down effect will be devastating to our local economy.

We support our community and we support both our fishermen and our processing companies. Together, they make the industry. These are the folks that support our schools and sponsor our children's education and sporting programs. They support our sport and charter fishing friends. The pay millions of dollars per year in payroll and they buy our goods and services. We need our fishing industry to remain intact.

We encourage the Council to continue to support the balanced approach of the preferred alternative recommended at the June Council Meeting.

Sincerely,

Signed Business

Ben Smith CAFE WATERFRONT

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

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Sincerely,

Signed Todd Vanderhoya Business HUMBOLDT BAY OYSTER CO.

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

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Signed

Business

Oak Harbor Freight Lines inc

October 22, 2008

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Sincerely,

Signed Kris D. Swanson

Business Pine Hill School

October 22, 2008

Pacific Fisheries Management Council
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Portland, Oregon 97220

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Sincerely,

Signed Maureen Horne

Business Teacher

October 22, 2008

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7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

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Sincerely,

Signed Business

Debra M Komberg Secretary

October 22, 2008

Pacific Fisheries Management Council
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Portland, Oregon 97220

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Sincerely,

Signed Linda Burghart Business Educator

October 22, 2008

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Business Librarian / IT

October 22, 2008

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Signed _____ Business Bus Driven /Coast

October 22, 2008

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Business

Food Service Assistant

October 22, 2008

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Signed Bill Osborn Business Teacher

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Signed _____ Business Johns Used Cars & Wreckers

October 22, 2008

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Sincerely,

Signed _____ Business Johnston Construction

TRAWL RATIONALIZATION (AMENDMENT 20) HEARING SUMMARY – SANTA CRUZ

Date:	10/29/2008	Hearing Officer:	Kathy Fosmark
Location:	Santa Cruz, California	Other Council Members:	None
		State Agency Rep:	Joanna Grebel (CDFG)
Attendance:	13	NMFS:	Amber Morris
Testifying:	7	Coast Guard:	LTJG Brittany Steward
		Council Staff:	Jim Seger

Organizations Represented:
Environmental Defense Fund
Food and Water Watch
Natural Resourced Defense Council
Pacific Coast Federation of Fishermen's Associations

Synopsis of Testimony

- Supports trawl rationalization with no allocation to processors (one person and Environmental Defense).
- Supports the preliminary preferred alternative with 20 percent allocation to processors (one person).
- Supports Council trawl rationalization contingent on exact content of Council's November action (Natural Resources Defense Council).
- Supports status quo but might support some other form of trawl rationalization (quota management) (one individual and Pacific Coast Federation of Fishermen's Association).
- Support status quo and a strategic planning approach (Food and Water Watch).

Harvester Sector Comments

The Council has failed to consider all the alternatives, in particular regional fishing associations (RFA) and community associations. Provisions here will neither protect stranded capital nor communities. Half of the catch history associated with buyback permits should go to regional fishery and community associations and half held back for additional resource protection. If this is done, there should be no adaptive management provision. Some of the rockfish and sablefish held back for regional fishery and community associations should be used to benefit the open access and fixed gear permit holders. The half held back for conservation could be allocated back at a later time after certainty about stock status is improved. Area management and regional landing zones are good ideas that should be developed further.

Despite what is stated in the document, once issued the quota shares (QS) will become property rights. QS should go to the fishermen and QS owners should be required to be on board the vessel. Accumulation limits should be 1 percent for control and 1.5 percent for vessels usage. This would

maintain enough boats to support local ports. In the first two years of the program, transfers should be limited to those who are currently in it. If processors receive QS and they want to sell out it should go to captains or crewmen involved in the fishery. There should be a referendum among members of industry.

Supports Individual Transferrable Quotas to reduce discards and length of trips. Opposes 20 percent to processors. Opposes referendum.

Fishermen will not be able to pay for observers. Supports a four month cumulative limit with some trading to see if the system works.

Processing Sector Comments

Supports 20 percent to processors, opposes adaptive management program. If QS are going to a community who are they going to give it to? Waiting to see if they will have assurance of stability from 20 percent allocation to processors before deciding whether or not to re-establish an Ice and Cold Storage facility in Eureka.

Environmental and Conservation Interest Comments

Opposes moving forward. The program is not fully developed. Community needs have not been adequately considered and the impacts on communities not adequately analyzed. A more strategic approach is required. If the Council moves ahead, there should be a referendum. The buyback permit pool should be allocated entirely for adaptive management. There should be: no carry-over provision, a quota owner-on-board requirement, a 1 percent control cap, greater accumulation limits for RFAs, a process to assist new entrants, full cost recover, equitable sharing of costs, use of adaptive management to benefit processors only after the demonstration of harm, separate bycatch caps for each sector, fixed terms (10 years), collection of resource rents for public benefit, and an industry referendum.

Generally supportive of trawl rationalization. Because of the gear switching provision, species coverage should not be based on what is taken with trawl gear but what is taken with any gear that may be fished under the Individual Fishing Quota program. There should be a way to bring species into the program which are not covered by the program. Some key elements are 100 percent observer coverage, the adaptive management program, and gear conversion. The accumulation cap should be 3 percent with no grandfather clause but an exception for RFAs. The QS should be fixed term and rents collected through an auction.

Generally supportive of trawl rationalization. Concern about taking too much (20 percent) away from fishermen, making them less viable. Adaptive management set aside could be greater than 10 percent. Communities have been weighing in opposition to an allocation to processors (see attached listing).

Written Statements (Attached)

PFMC
11/02/2008

NRDC Recommendations for Trawl Rationalization **October 28, 2008**

NRDC acknowledges the tremendous amount of work that has been done, but finds the analysis incomplete for some elements of the program. For example, there are proposals not to assign quota to some species on the grounds they are rarely caught by trawls, yet we found no analysis of whether those species might be caught by fixed gear (a relevant question given gear switching), and no mention of triggers for assigning quota should conditions change. We recommend additional targeted analysis and a transparent process to address design issues that will not be resolved at the November Council meeting.

1. Adaptive Management Provision (AMP). Support an AMP of at least 10% to be used for environmental and socio-economic purposes, such as addressing unforeseen impacts; promoting economic development, stable employment and processing capability in vulnerable communities; and promoting bycatch reduction/sustainable practices. The AMP should begin at the start of the program.

Rationale: A multi-purpose AMP could promote lower-impact fishing practices, helping mitigate the ITQ program's inherent lack of incentive to reduce bycatch and habitat impacts related to non-quota species. Setting aside quota for unintended consequences makes sense given our inability to predict the future. The AMP could address adverse impacts on smaller volume fishermen and processors, balancing the economic efficiency focus of an ITQ program with social and conservation values. It has the potential to provide a more targeted means of stemming the loss of small processors and stabilizing vulnerable communities than processor quota, which would likely benefit larger operations disproportionately and could be transferred out of a community by a processor with multiple operations. We would support an increase in the AMP to 15% or more if a significant portion remains available for conservation purposes.

2. Gear Switching with Incentives for Permanent Conversion. We recommend combining the unrestricted gear switching provision (with full observer coverage) in the preferred alternative with a conceptual endorsement of incentives for permanent conversion to lower impact gears. We urge that fixed-gear limited-entry permit holders be qualified to buy trawl quota share, and that a committee with trawl, fixed gear, and conservation representation be formed to develop the details of this provision.

Rationale: Flexible switching will facilitate increased catch of target species without creating conservation benefits. In contrast, allowing fixed gear permit holders to purchase trawl quota share clearly shifts effort from trawl to lower impact gears. Likewise, permanent conversion from trawl to pots, for example, could reduce the intensity and possibly the extent of trawling, benefiting bottom habitat and reducing the catch of limiting species like yelloweye rockfish. Incentives for permanent conversion may appeal to trawlers in areas of high bycatch risk (Washington) and places with high consumer demand for non-trawl-caught fish (central and south central California).[1] A recent study found that pots consistently have the least overfished species bycatch and are the preferred choice of trawlers interested in conversion.[2] An incentive program could make gear conversion a viable alternative to selling out; it thus diversifies the fleet and may help stem the loss of fishing activity from vulnerable communities. Incentives could include supplemental quota from the AMP for the first couple of years after permanent conversion or funds to buy new gear, among other options. Without such incentives, the groundfish fleet may miss opportunities for a more optimal voluntary partition of quota between trawl and other sectors that could benefit fishermen and fish.

3. Accumulation Limits and No Grandfather Clause. We recommend an accumulation cap of 3% and the preferred alternative for no grandfather clause.

Rationale: The combination of these two measures should help prevent monopolistic control by big players. A provision requiring that the owner of quota share operate the permitted vessel would be even more effective and more difficult to circumvent.

4. Acknowledge Oceans as a Public Trust. There are a number of longer-term design options that recognize public ownership of the oceans. One is a fixed term for quota share (e.g. the 15- to 16-year period considered in the PEIS), which could be followed by auction of a portion of the QS on a rolling basis, or by reallocation to the former holder if performance standards are met. Another option is retention of a quota set aside of 3 to 5% after the transition to quota shares is complete (e.g. 5 years in), to be used for public purposes such as research and conservation improvements. These features should be designed to best meet the objectives of the trawl ITQ program.

Rationale: The Council is contemplating an enormous permanent gift of groundfish to the trawl fleet. This grant is likely to create a great deal of wealth, yet there is no mechanism to transfer that "rent" over time to the owner of the resource—the public. The preferred alternative lacks measures to ensure that bycatch of non-quota species will be reduced or habitat better conserved. These objectives will not be met automatically, and if quota holders lease out their quota, the lessors will lack a long-term stewardship incentive. We urge the Council and NMFS to endorse design features that recognize the public trust, per the recommendations of the U.S. Commission on Ocean Policy.

A fixed term can provide greater management flexibility and an opportunity to apply performance standards. Continuation of the AMP after the initial transition period, at a reduced rate, would provide a source of revenue or quota that could be used to achieve ongoing conservation needs and other public purposes not addressed by an ITQ program.

5. Broadest List of Species to Be Covered with Quota. Based on the incomplete analysis now available, we suggest assigning quota for all sectors for a broader range of species than recommended by the GAC at its most recent meetings (possibly to include such species as black rock, spiny dogfish and nearshore rockfish). Additional analysis is needed, as well as a mechanism and appropriate triggers to bring initially excluded species into the quota system. We concur that overfished species should be allocated as quota pounds, not quota share, until they are rebuilt.

Rationale: Unless all overfished species are assigned quota, the most valuable commodity will not be subject to the market incentives for more selective fishing, and much of the potential benefit of the trawl rationalization program will be lost. Quota for other groundfish species creates incentives to reduce bycatch of those species and individual accountability for unwanted impacts. The analysis in Appendix A examines historic catch by *trawlers* of species under consideration for exclusion from quota, but not past catch by *fixed gear*, which is relevant given gear switching. Species excluded from quota should have triggers for assigning quota, based on factors like change in status or catch rates by quota holders.

6. 100% Observer Coverage. We recommend 100% observer coverage as a top priority.
Rationale: 100% coverage is critical to understanding the impacts of the ITQ system and achieving (1) ITQ program objectives to reduce bycatch, discard mortality and ecological impacts; (2) FMP objectives to reduce non-groundfish mortality; and (3) MSA objectives to promote conservation and rebuilding.

7. Community Fishing Associations. We support the concept offered by The Nature Conservancy as a way to provide communities with options for collectively benefitting from an ITQ program, proactively mitigating potential adverse impacts, and helping anchor fishing and quota in a community.

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[1] Appendix A, Analysis of Components, Elements and Options for IFQ Alternative, Oct 2008, PFMC, NMFS A-25
[2] Jenkins, Lekelia, 2008. Gear Conversion as a Means of Reducing Bycatch and Habitat Damage in the U.S. Westcoast Sablefish Fishery, p. ii.

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ENVIRONMENTAL DEFENSE FUND

finding the ways that work

October 25, 2008

Mr. Donald K. Hansen, Chair
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Amendment 20: Trawl Rationalization

Dear Chairman Hansen and Members of the Pacific Fishery Management Council:

First, we want to thank the Council for its dedication over the past five years in developing alternative program design options for reforming the west coast trawl fishery. It has been a long and arduous process, involving countess hours of work by staff, advisory groups, and Council members themselves. Now at the November Council meeting, the Council is scheduled to make the basic design decisions for the program that are necessary to assure that trawl LAPP management will not only achieve its critical biological, economic and social goals but will be a model for other US fisheries around the country.

Environmental Defense Fund (EDF) has been actively involved in the design process since the beginning. We strongly believe that a well designed IFQ program will provide both the incentive and accountability to reduce bycatch, improve gear selectivity and decrease habitat impacts as well as result in significantly improved data on which to base management decisions. Evidence from fisheries around the world also shows that IFQ programs can greatly improve the economic performance of the fisheries. We believe that the west coast IFQ program will be no exception. The one area where IFQ programs have gotten mixed reviews is in the social impacts resulting from the distribution of these benefits. Once again, the decisions that the Council makes in November will greatly impact how well the program meets its social objectives. EDF offer the following recommendations in support of a program which will best meet the needs of the resource, the industry and the coastal communities that depend on the west coast trawl fishery.

Adaptive Management Provision

We urge the Council to include an Adaptive Management Provision as part of their preferred alternative in November. In June, the preliminary preferred alternative included three mechanisms to address community stability concerns: a landing zone requirement, processor allocation and the AMP. ***We support the Groundfish Allocation Committee's recommendation that neither processor allocation or the landings zone requirement move forward and that community issues be addressed through the AMP.***

We also agree with the GAC that the AMP should provide an equitable regional distribution of a modest amount of quota pounds that will provide coastal communities in each state having the opportunity to benefit from the AMP. An upfront percentage distribution of the AMP among the three states would allow different state priorities to be taken into account when awarding AMP quota pounds.

We appreciate that many industry members have been concerned about the AMP because the details have not been fully developed. Since the June Council meeting, both the State of California and the State of Washington have put considerable thought into AMP program design. We applaud these efforts and also suggest that further progress on the details of the AMP will be greatly enhanced when the initial allocation decisions are finalized. Therefore we make the following recommendations to complete AMP program development:

1. In November, the Council should make the following decisions as part of the Council's final preferred alternative:
    a. Initial allocation of QS: 100% to permit holders;
    b. Include the AMP as part of the program and decide on:
        i. Overall percent of annual TAC that can be used for AMP; and
        ii. Percentage division of AMP among states and the method for adjusting relative state percentages.
2. Post November, complete the design of the AMP:
    a. Charge each State, working with their stakeholders and with support from Council and NMFS staff, with developing state processes for deciding how state-associated AMP quota pounds are awarded, including relevant formulas and ranking criteria
    b. Determine how state processes will be incorporated into Council/NMFS rulemaking process
    c. Formalize resulting AMP program design through appropriate rulemaking process (trailing amendment or regulatory rule) so that AMP could be implemented at the outset of the overall program itself.

Initial Allocation Issues

Who should be initially allocated QS?

As discussed above, EDF believes initial allocation should be based on LE permit ownership. EDF believes that processors are a critical part of the groundfish industry and coastal communities, and our recommendation on this point is not intended to be nor should it be construed as "anti processor". However, IFQ programs rely on changes in fishing behavior to reap the conservation benefits from the program. One of these anticipated benefits is improved bycatch avoidance, which in turn will allow increased landings of healthy stocks. Allocating quota to those who fish (or control the operation of the vessel) is most likely to result in the changes in fishing activities that will produce the very conservation benefits which the program is intended to promote because they will stand to benefit most directly from those improvements. These increased landings will, however, benefit both harvesters and processors. The Council's decision document states that "overall, the IFQ program will likely reduce operation costs and make west coast products more competitive on the global market, thus increasing the volume of

what processors are able to see at a normal profit level even if processors do not receive an initial allocation". [1]

Our arguments against initial processor allocation based on processing history are further summarized below:

Processor allocation sets a precedent that will have a chilling effect on other rationalization efforts.
Initial allocation of harvesting quota based on processing history has not occurred in any program worldwide. Increased use of LAPPs for management has been a national priority strongly supported by EDF. We believe that a significant initial allocation of harvesting shares to processors based on processing history would negatively impact the ability to initiate programs elsewhere, resulting in the inability to reap the conservation and economic benefits associated with LAPP programs.

Processor allocation is an inappropriate tool to address undocumented and largely unfounded stranded capital claims.
We have provided an analysis in earlier testimony arguing against the need for initial allocation to "compensate" for stranded capital.[2] The Council document also finds stranded capital in the non-whiting fishery unlikely to occur because landed volume should rise and the fishery has not operated as a derby fishery for years.[3]

Processor Allocation does not guarantee community stability.
A more recent argument that has been used in support of processor shares is that initial allocation is needed in order to assure access to raw product. This has sometimes been couched in a community stability framework.

First, this argument overlooks the most basic fact that fishers need access to processors to realize the value of their catch, and that an economically viable processing sector is an essential element of an economically viable industry. Harvesters need processing capabilities under the current system, and they will need processing capabilities under LAPPs. The notion that fishermen will systematically deny processors access to raw product ignores this most basic fact: each need the other.

Secondly, we believe that the AMP is a far better way to address community stability issues. We fully anticipate and hope that AMP criteria will encourage enhanced partnerships with processors and harvesters that demonstrate a commitment to work together to assure that quota pounds provide the greatest direct and indirect returns to coastal communities possible. Many fishermen today have a long-term relationship with a processor that they hope to maintain after rationalization. The Decision Document shows that processor allocation would actually shift quota away from associations like these which were in place in 2004-2006. In fact, the

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[1] Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pg 69
[2] Wilen, James E. University of California at Davis, White Paper on Stranded Capital in Fisheries, prepared for Environmental Defense Fund, May 2008
[3] Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. pg 414

document states that most of these fishermen/processor associations would be better funded initially with 100% allocation to permit holders than with a 75/25% split.[4]

Even where processor allocation does reflect current community landing patterns, initial allocation of harvesting quota to processors carries with it no guarantees that that quota will be utilized in the community where it was "earned". While processors have testified that they will use their initially allocated pounds to "attract" fishermen (and their respective QS) to sell to them, they may also decide to stack that quota on vessels that they own, making it more difficult for fishermen to buy or lease enough quota to stay in business.

Post initial allocation, QS is likely to flow to processors.
In general, processors may be in a better position to purchase quota in the market place once permanent transfers are allowed as they likely have better access to capital and a longer time horizon to realize the returns on the purchase.[5] A processor may also be willing to pay more for a unit of quota since he intends to use that unit as leverage to access more raw product for processing while its value to the fishermen is only its own stream of earnings.[6] Therefore, if a processing company wants to be acquire quota for additional supply security or as a hedge against competition, it should be in a good position to do so in the marketplace. In Canada, the experience has shown that the processing sector has a mix of successful companies, some of whom had partial ownership in boats and quota prior when the program was implemented, some who purchased quota later, and others that operate successfully without any quota ownership.

Opportunity for Divestiture if Over Accumulation Limits

While EDF in general supports the intent of the "no grandfather clause", we do believe that it may make sense to allow some opportunity for those over the accumulation cap to recoup some return on investment that may have put them over the accumulation cap. Therefore, we could also support a 3 year divestiture period for QS holders to sell any initially allocated QS above accumulation limits.

Other Program Elements

Tracking and Monitoring

EDF supports the preliminary preferred alternative requirement for 100% at-sea and shoreside monitoring. We believe that 100% monitoring is vital to the success of the program as it is difficult to have full individual accountability without it. The monitoring system grounds the incentive based behavior that results in both conservation and economic returns under an IFQ program.

Gear Switching

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[4] "most" is defined as fishermen/processor associations where at least $40,000 of annual ex-vessel revenue is associated – see Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pg 97

[5] See Rationalization of the Pacific Coast Limited Entry Trawl Fishery, Decision Document for November 2008 PFMC Council meeting, October 2008. Appendix A, pages 61-62.

[6] Ibid, Appendix E, pages 16-17.

EDF supports the gear switching provision in the preliminary preferred alternative. While we do not believe that electronic monitoring techniques are advanced enough today to satisfy the 100% monitoring requirement in the mixed species non-whiting trawl fishery, it may be possible to achieve 100% with at-sea electronic monitoring in lieu of observers for other gears. If studies show this to be true, then we would support allowing electronic monitoring as a cost effective alternative that could also provide additional incentives for gear switching.

10% carry over

The Council's final preferred alternative should retain the 10% carry over provision to provide flexibility for fishermen and to eliminate the incentive to fish to the limit each year in order to avoid a "forfeit" of the uncaught quota. Although this may increase the complexity of the tracking and monitoring somewhat, that has not proven much of an issue in British Columbia. Their experience is that any increase in complexity is off set by the conservation benefits as fishermen tend to "underfish" rather than overfish as a result of the ability to carry over a percentage of unused quota.

Area management

We remain concerned that shifts in landings patterns could result in an increased potential for localized overfishing. The discussion at the GAC indicated a similar concern when they specified that areas where management lines are used for conservation purposes should be closely monitored and further subdivided if localized depletion concerns arose.

We agree that the 40° 10' split is somewhat arbitrary. However, in the absence of more definitive information of the range of distinct substocks, even this one split may help to prevent isolated geographical depletion due to shifting fishing patterns.

A better approach, however would be to proactively review all of the available information and then make some more selective precautionary area-specific quotas where possible. We suggest that the Council convene a working group of scientists to determine if there are any species of particular concern where additional subdivisions would be advisable even if substock identification is not definitive. This could occur in the first six months of 2009 and then the results could be incorporated in the final package that moves forward for Secretarial review and approval. While a process is included for implementing after-the-fact area splits should new biological information identify a need, there may be more resistance to further subdivision once quota has been traded based on an expectation of coastwide use. This argues for being precautionary from the outset.

Conclusion

Environmental Defense Fund thanks the Pacific Fishery Management Council and NOAA Fisheries for its perseverance on this important matter. We would like to encourage the Council to move forward with a final vote in November on the highest priority and most critical design and allocation issues in order to complete the Draft EIS. EDF remains committed to working constructively with the Council, NOAA, States and all stakeholders to bring the IFQ to completion and implementation.

Local Community Elected Commissions that have voted to oppose Processor Allocation:

Del Norte County Commission CA

Crescent City Harbor District CA

Crescent City Council CA

San Mateo County Harbor District CA

Morro Bay Harbor District CA

Moss Landing CA

Newport Port Commission OR*

Warrenton City Council OR*

Clatsop County Commission OR*

Brookings Harbor Commission OR

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* Those commissions with an asterisk had to vote a second time on their resolutions due to pressure from large seafood processors (Pacific Seafoods and Bornstein Seafoods). However in all three cases, the commissions held firm in their opposition to granting processor quota.

Santa Cruz Port District
RESOLUTION #08-08

October 28, 2008

ON THE MOTION OF COMMISSIONER GODDARD

DULY SECONDED BY VICE-CHAIRMAN GEISREITER

A resolution of the Santa Cruz Port District Commission stating its position on the concept of Individual Transferable Quotas proposed by the Pacific Fisheries Management Council "PFMC" for the ground fish industry.

WHEREAS, the Santa Cruz Port District Commission manages the Santa Cruz Small Craft Harbor; and,

WHEREAS, commercial fishing has been the centerpiece of a unique socio-economic community in the Santa Cruz area since the mid-1850's; and,

WHEREAS, the Santa Cruz community, including the Santa Cruz Commercial Fishermen's Marketing Association, harbor management, and conservation groups, has been working to transition the local fishery to a healthy, sustainable industry in the spirit and law of the Magnuson-Stevens Fisheries Conservation and Management Act; and,

WHEREAS, the PFMC will consider the implementation of Individual Transferable Quotas "ITQ's" in the harvest of ground fish including trawl, seine, hook and trap; and,

WHEREAS, this is an extremely complex matter which could cause the dislocation of fishing communities, fishermen and landside infrastructure such as buying stations, off-loading wharves, local fish processors, cutting services, cold storage, and ice production plants.

NOW, THEREFORE, BE IT RESOLVED that the Santa Cruz Port District Commission requests that the PFMC:

1. not grant an initial ITQ allocation to fish processors;

2. not create policy which would eliminate any historic fishing community such as Santa Cruz from the ground fish industry;

3. in all future ITQ processes, utilize Adaptive Management Principles as provided for in the Magnuson-Stevens Act, to ensure that historic fishing communities, like ours in Santa Cruz, are given the opportunity to fully participate in quota allocations

PASSED AND ADOPTED this 28th day of October, 2008, by the following vote:

AYES: MERRALL, GEISREITER, GODDARD, THOITS, LEE

NOES: NONE

ABSENT: NONE

APPROVED BY:

Ronald J. Merrall, Chairman

res0808-itq.doc

Giuseppe Pennisi
321 Laine Street
Monterey, California
(831) 521-4112

June 6, 2008

To Whom It May Concern,

I am Giuseppe Pennisi who since 1956 have owned and operated three trawlers out of Monterey Bay. I cannot understand or deal with rules that knowingly cause such enormous waste of fish. As the owner and operator of Royal Seafood, a fish processing plant, I feel that it is not right for processors to attempt to take any part of the quota allowed from those who have honorably earned and deserved it.

There's many trawl owners who have put their boots on for many years and have gone fishing in bad and good weather. They risk their lives and boats in order to earn a decent living for their families and themselves.

They paid for their boats, tackle, berthing, maintenance, engine repairs, and supplies in order to make a relatively small profit if they happen to be fortunate enough to be able to catch the relatively limited species and numbers which may be both legal and available from time to time.

They have taken the responsibility to pay their crews, including maintenance and cure when required by the provisions of virtual absolute liability provided by the Jones Act.

The question is: How is it that fish processors and others who have assumed none of the above burdens, losses and risks can qualify for a portion of the quotas merely through political lobbying, pressures and favoritism?

What species of fish should be caught? It is given that many species of fish dwell in the same locations and depths. How does it help anyone, including the fish to throw away and waste incidental catches of prime, valuable, delicious fish?

As an alternative to this inexcusable and lamentable mandatory discarding of edible fish which have already died in the harvesting process, there are areas which limit the time at sea for fishing boats, but permit them to catch and keep, not destroy, the fish which they are lucky enough to catch.

Trawl fishermen have already transitioned from "high rise" nets up to 35 feet to "low rise" nets of only 3-4 feet to prevent, or at least substantially minimize rock fish from being caught with bottom fish. Underwater movies prove that rock fish seek altitude when confronted by the "halo of the net" and resultant "dust cloud". The limitations on the height of the net therefore tends to minimize the catch of the rock fish as opposed to the

bottom fish. Restrictions on gear and mesh have proven successful in conservation goals of certain species, including juveniles. (Minimum mesh size has increased from unlimited to 4 1/2 inches , thereby already permitting escapement of innumerable juveniles.) For example, a "pineapple net" (upside down net) has proven effective in Europe and the U.S. to target bottom species, making it further inefficient to catch rock fish.

The present sad status of misplaced priorities on the identities of persons entitled to share in quotas and "rules of engagement" during the actual fishing process urgently require serious revision and rethinking. Every intentionally destroyed edible fish, of the tens of thousands discarded, is a serious responsibility for those who have created the grossly inefficient rules which presently govern the trawl fish industry.

Here is an example of a statement made by a biologist who has spent his lifetime dealing directly with the above problems and concepts: Dr. Richard Parish, esteemed biologist who worked for the National Marine Fisheries for decades says "I'm happy that I'm retiring because the rules just don't make sense any more."

On the subject of IFQ based on personal history, I believe that we, the industry, have been divided and conquered. I am opposed to any further division such as IFQs which in turn would turn a West Coast fisherman in the business of trawling from the freedom of fishing anywhere in the latitude of the West Coast to limiting and not being able to have the freedom to be able to choose where in the West Coast he may have a better chance to make a living due to the restriction on what type of fish are found in the southern waters verses the northern waters. Meaning, we don't have cod fish in the south in any quantity for example, if a boat from California were to fish out of Washington, they would have no history of cod fishing or other species pertinent to the Washington Coast and vise versa, which results in further putting what little freedom there is left in another box and eliminating the chance of choice.

On the subject of improvement reduction of walls of the current box where the quota allowed needs to be able to be mobile where a boat could choose to divert his quota to another boat regardless of the legal fishing gear used which would be of benefit to a boat that would transfer the specific fish quota to the receiving boat and would improve or benefit either boat.

In light of fuel price increases, cost of living increases, and hammered by cheap imported foreign product we certainly need to draw attention to the reality of trying to survive in this critical state that our industry is in. Our existence depends on solutions.

Thank you,

Giuseppe Pennisi

PS. I am open to discuss possible solutions.

we do not recognize the taxonomic validity of the bearded and ringed seal subspecies or the spotted seal species as described in this petition, the petitioner requests that we evaluate whether the spotted, ringed and bearded seals of the Bering, Chukchi, and Beaufort seas that are the subject of this petition constitute a DPS of the full species and/or represent a significant portion of the range of the full species and are therefore eligible for listing on such basis.

It is the petitioner's contention that ice seals face global extinction in the wild, and therefore, constitute a threatened or endangered species as defined under 16 U.S.C. 1532(6) and (20). The petition presents information on (1) ''global warming which is resulting in the rapid melt of the seals' sea-ice habitat;'' (2) ''high harvest levels allowed by the Russian Federation;'' (3) ''oil and gas exploration and development;'' (4) ''rising contaminant levels in the Arctic;'' and (5) ''bycatch mortality and competition for prey resources from commercial fisheries.'' The petition also presents information on the species' taxonomy, distribution, habitat requirements, reproduction, diet, natural mortality, and demographics, as well as a discussion of the applicability of the five factors listed under ESA section 4(a)(1). We have reviewed the petition, the literature cited in the petition, and other literature and information available in our files. Based on our review of the petition and other available information, we find that the petition meets the aforementioned requirements of the regulations under 50 CFR 424.14(b)(2) and therefore determine that the petition presents substantial information indicating that the requested listing action may be warranted.

Status Review

As a result of this finding, we will continue our ongoing status review to determine whether listing ringed, bearded, and spotted seals under the ESA is warranted. We intend that any final action resulting from this status review will be as accurate and as effective as possible. Therefore, we are opening a 60–day public comment period to solicit comments, suggestions, and information from the public, government agencies, the scientific community, industry, and any other interested parties on the status of the ice seals throughout their range, including:

(1) Information on taxonomy, abundance, reproductive success, age structure, distribution, habitat selection, food habits, population density and trends, habitat trends, and effects of management on ice seals;

(2) Information on the effects of climate change and sea ice change on the distribution and abundance of ice seals, and their principal prey over the short- and long-term;

(3) Information on the effects of other potential threat factors, including oil and gas development, contaminants, hunting, poaching, and changes in the distribution and abundance of ice seals and their principal prey over the short-term and long-term;

(4) Information on management programs for ice seal conservation, including mitigation measures related to oil and gas exploration and development, hunting conservation programs, anti-poaching programs, and any other private, tribal, or governmental conservation programs which benefit ice seals; and

(5) Information relevant to whether any populations of the ice seal species may qualify as distinct population segments.

We will base our findings on a review of the best scientific and commercial information available, including all information received during the public comment period.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: August 29, 2008.

James W. Balsiger,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. E8–20544 Filed 9–3–08; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 0808051052–81144–01]

RIN 0648–AW85

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Referendum Procedures for a Potential Gulf of Mexico Grouper and Tilefish Individual Fishing Quota Program

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS issues this proposed rule to provide potential participants information concerning a referendum for an individual fishing quota (IFQ) program for the Gulf of Mexico (Gulf) commercial grouper and tilefish fisheries. This rule informs the potential participants of the procedures, schedule, and eligibility requirements that NMFS would use in conducting the referendum. If the IFQ program, as developed by the Gulf of Mexico Fishery Management Council (Council), is approved through the referendum process, the Council may choose to submit the IFQ program to the Secretary of Commerce (Secretary) for review, approval, and implementation. The intended effect of this proposed rule is to implement the referendum consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

DATES: Written comments must be received on or before October 6, 2008.

ADDRESSES: You may submit comments on the proposed rule, identified by ''0648–AW85'', by any of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal e-Rulemaking Portal: *http://www.regulations.gov*.
- Fax: 727–824–5308; Attention: Susan Gerhart.
- Mail: Susan Gerhart, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701.

Instructions: All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields, if you wish to remain anonymous). You may submit attachments to electronic comments. Attachments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

Copies of supporting documentation for this proposed rule, which includes a regulatory impact review (RIR) and a Regulatory Flexibility Act Analysis (RFAA), are available from NMFS at the address above.

FOR FURTHER INFORMATION CONTACT: Susan Gerhart, 727–824–5305.

SUPPLEMENTARY INFORMATION: The reef fish fishery in the exclusive economic

zone (EEZ) of the Gulf is managed under the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The FMP was prepared by the Council and is implemented under the authority of the Magnuson-Stevens Act by regulations at 50 CFR part 622.

Background

The Council first considered an IFQ program for the Gulf grouper fishery in 2004. At that time, the Council anticipated future action was needed to further control effort in the Gulf grouper fishery. At its October 2004 meeting, the Council requested NMFS publish a control date to discourage speculative participation in the grouper fishery for the purpose of developing a catch history. The Council chose October 15, 2004, as the control date. NMFS published the control date in the **Federal Register** on November 16, 2004 (69 FR 67106) and requested public comment.

The Council is currently developing Amendment 29 to the FMP, which includes a multi-species IFQ program as the preferred management approach to address overcapacity issues and to rationalize effort in the Gulf commercial grouper and tilefish fisheries.

Section 303A of the Magnuson-Stevens Act specifies general requirements for limited access privilege (LAP) programs implemented in U.S. marine fisheries. A LAP is defined as a Federal limited access permit that provides a person the exclusive privilege to harvest a specific portion of a fishery's total allowable catch. This definition includes exclusive harvesting privileges allocated to participants under IFQ programs.

Section 303A(c)(6)(D) of the Magnuson-Stevens Act outlines specific requirements for IFQ program proposals developed by the Council. The Magnuson-Stevens Act requires such program proposals, as ultimately developed, be approved through referenda before they may be submitted for review and implementation by the Secretary. The Magnuson-Stevens Act also mandates the Secretary publish referendum guidelines to determine procedures for initiating, conducting, and deciding IFQ program referenda, as well as voting eligibility requirements. These procedures and guidelines are intended to ensure referenda conducted on IFQ program proposals are fair and equitable and will provide the Council the flexibility to define IFQ program referenda voting eligibility requirements on a fishery-specific basis, yet within the constraints of the Magnuson-Stevens Act and other applicable law. NMFS published proposed guidelines in the **Federal Register** on April 23, 2008 (73 FR 21893) and requested public comment.

Purpose of the Proposed Rule and the Referendum

NMFS, in accordance with the provisions of section 303A(c)(6)(D) of the Magnuson-Stevens Act, will conduct a referendum to determine whether the plan amendment for an IFQ program for the Gulf commercial grouper and tilefish fisheries, as developed by the Council, should be submitted to the Secretary for review, and possible approval and implementation. The determination will be based on a majority vote of eligible voters. The primary purpose of this proposed rule is to notify potential participants in the referendum, and members of the public, of the procedures, schedule, and eligibility requirements that NMFS would use in conducting the referendum. The procedures and eligibility criteria used for the purposes of conducting the referendum are independent of the procedures and eligibility requirements in the proposed IFQ program for the Gulf commercial grouper and tilefish fisheries contained in Amendment 29 to the FMP. The proposed IFQ program is being developed by the Council through the normal plan amendment and rulemaking processes and involves extensive opportunities for public review and comment during Council meetings, public hearings, and public comment on any proposed rule.

Referendum Process

How Would the Referendum Be Initiated?

According to the guidelines, a Council must have held public hearings on an IFQ program proposal, considered public comment on the proposal, and selected preferred alternatives for the proposed IFQ program, before submitting an initiation request letter to NMFS. The initiation request letter would allow NMFS to initiate the referendum process. As the above requirements have been fulfilled, the Council submitted an initiation request letter to NMFS on August 18, 2008.

The referendum initiation request letter must include recommended eligibility criteria for voting in the referendum, rationale for the recommendation, any alternatives to the recommendation, and supporting analyses for the recommendation. For a fishery managed with multi-species permits, the initiation request letter must also include recommended criteria for defining those permit holders who have substantially fished the species to be included in the referendum process.

If the referendum fails to approve the proposed IFQ program, any request from the Council for a new referendum in the same fishery must include an explanation of the substantive changes to the proposed IFQ program or the changes of circumstances in the fishery that would warrant initiation of an additional referendum.

Who Would Be Eligible to Vote in the Referendum?

Section 303A(c)(6)(D) of the Magnuson-Stevens Act establishes criteria regarding eligibility of persons who may vote in the referendum. For referenda conducted in New England fisheries, section 303A(c)(6)(D)(v) of the Magnuson-Stevens Act includes using income-dependent criteria when determining voter eligibility, i.e. crew members who derive a significant percentage of their total income from the fishery under the proposed IFQ program would be eligible to vote in the referendum. However, for Gulf fisheries managed with multi-species permits, such as the Gulf commercial grouper and tilefish fisheries, the Magnuson-Stevens Act states that those participants who have substantially fished the species considered for the IFQ program, would be eligible to vote in the referendum. The Council and NMFS interpret ''substantially fished'' to represent substantial contribution to the overall fishery production in total harvest. Therefore, the Council has established voter eligibility criteria in terms of annual grouper and tilefish landings thresholds. The decision to identify participants in terms of average annual harvest does not consider dependency on the fishery. A fishery participant may not meet the average annual grouper and tilefish landings threshold, but still be dependent on the fishery as a source of income.

In the Council's referendum initiation request letter, the definition of ''substantially fished'' states, ''Only commercial reef fish permit holders, with active or renewable permits (within one year of the grace period immediately following expiration), who have combined average annual grouper and tilefish landings from logbooks during the qualifying years of at least 8,000 pounds (per permit) be considered as having substantially fished.'' The qualifying years selected by the Council are 1999 through 2004, with an allowance for dropping one year. Therefore, NMFS will use landings data from logbooks submitted to and received by the Science and Research

Director, Southeast Fisheries Science Center by December 31, 2006, for the years 1999 through 2004, with the allowance for dropping one year, as the sole basis to determine those permit holders that meet the Council's eligibility criterion and will be eligible to vote in the referendum.

Would Votes Be Weighted?

The Council has proposed assigning one vote for each permit associated with qualifying landings from the years 1999 through 2004, with no additional vote weighting based on catch history.

How Would Votes Be Conducted?

On or about December 1, 2008, NMFS would mail eligible voters a ballot for each permit associated with qualifying landings from the years 1999 through 2004. NMFS would mail the ballots and associated explanatory information, via certified mail return receipt requested, to the address of record indicated in NMFS' permit database for eligible permit holders. The completed ballot must be mailed to Susan Gerhart, Southeast Regional Office, NMFS, 263 13th Ave South, St. Petersburg, FL 33701. A referendum ballot must be received at that address by 4:30 p.m., eastern time, no later than 30 days after the postmark date on the envelope containing the ballots provided by NMFS; ballots received after that deadline would not be considered in determining the outcome of the referendum. Although it would not be required, voters may want to consider submitting their ballots by registered mail.

How Would the Outcome of the Referendum Be Determined?

Vote counting would be conducted by NMFS. Approval or disapproval of the referendum would be determined by a majority (i.e., a number greater than half of a total) of the votes cast. NMFS would prepare a media release announcing the results of the referendum and would distribute the release to all Gulf reef fish permitees, including dealers, and other interested parties within 60 days of the deadline for receiving the ballots from eligible voters. The results would also be posted on NMFS' Southeast Regional Office's website at *http://sero.nmfs.noaa.gov*.

What Will Happen After the Referendum is Conducted?

NMFS would present the results of the referendum at the April 13–17, 2009, Council meeting. If the referendum fails, the Council cannot proceed with submission of Amendment 29 and regulations to implement an IFQ program for the Gulf commercial grouper and tilefish fisheries. If the referendum is approved, the Council would be authorized, if it so decides, to submit Amendment 29 and regulations to NMFS for review and possible approval and implementation of an IFQ program for the Gulf commercial grouper and tilefish fisheries. The proposed IFQ program was developed through the normal Council process that involved extensive opportunities for industry and public review and input at various Council meetings. The public will have additional opportunities to comment during public comment periods on the plan amendment and the proposed regulations.

Will the Referendum Be Conducted in a Fair and Equitable Manner?

The Magnuson-Stevens Act requires the Secretary to conduct referenda for potential IFQ programs in a fair and equitable manner. NMFS' referendum guidelines outline criteria that NMFS must consider when reviewing the Council's referendum initiation request letter and supporting analyses to ensure the referenda will be conducted in a fair and equitable manner and are consistent with the national standards and other provisions of the Magnuson-Stevens Act, and other applicable law. NMFS has reviewed these documents from the Council and has concluded that the proposed referendum criteria are consistent with the guidelines. NMFS has preliminarily concluded that:

1. The Council's referendum criteria are rationally connected to and further the objectives of the proposed IFQ program. The Council's definition of ''substantially fished'' includes those permit holders with both past and present participation in the grouper and tilefish fisheries and allows those who account for the majority of grouper and tilefish landings to vote in the referendum. The definition includes use of catch histories from a qualifying time period that would also be used for initial apportionment of IFQ shares in the proposed IFQ program.

2. Referendum voting eligibility requirements are designed to prevent any one person or single entity from obtaining an excessive share of the voting privileges. The Council has proposed assigning one vote for each permit associated with qualifying landings from the years 1999 through 2004, instead of weighting the votes.

3. The voter eligibility criteria enable validating a participant's eligibility. Landings data from logbooks submitted to NMFS and NMFS permit history records will be used to validate participants' eligibility to vote in the referendum.

4. The time period and format proposed to conduct the referendum is consistent with the referendum guidelines and provides for a fair and equitable process. NMFS would mail referendum ballots to eligible voters as soon as practicable after the final referendum rule is published. Eligible voters would have to submit their ballots to be received by NMFS no later than 30 days from the postmark date on the envelope containing the ballots provided by NMFS. NMFS would tally the votes and post the results within 60 days of receiving the ballots.

Summary Information About the Potential IFQ Program

The current management of Gulf commercial grouper and tilefish fisheries is based on a traditional command and control approach. This management approach has resulted in overcapitalization of the commercial grouper and tilefish fisheries which has caused increased derby fishing conditions and in some years has led to closures of these fisheries prior to the end of the fishing year. The purpose of implementing an IFQ program for the commercial grouper and tilefish fisheries is to rationalize effort and reduce overcapacity in the fleet. Amendment 29 to the FMP includes several management programs that would be capable of achieving these management goals, an IFQ program being the Council's preferred approach. The actions included in Amendment 29 include: Initial eligibility in the IFQ program, initial apportionment of IFQ shares, IFQ share categories, multi-use allocation and trip allowances, transfer eligibility requirements, IFQ share ownership caps, IFQ allocation ownership caps, adjustment to the commercial quota, establishment and structure of an appeals process, a ''use it or lose it'' policy for IFQ shares, a cost recovery plan, and approval of landing sites. The Council has selected its preferred alternatives for each of these actions through the normal Council process. If the referendum is approved, the Council, if it so decides, may continue with the submission of Amendment 29 for review, approval, and implementation.

Classification

This proposed rule has been determined to be not significant for purposes of Executive Order 12866.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this

rule would not have a significant economic impact on a substantial number of small entities. The basis for this certification follows:

The Magnuson-Stevens Act provides the statutory basis for the proposed rule. The proposed rule would implement a referendum on a potential IFQ program for the Gulf commercial grouper and tilefish fisheries, consistent with the requirements of the Magnuson-Stevens Act. The primary purpose of this proposed rule is to notify potential participants in the referendum, and members of the public, of the procedures, schedule, and eligibility requirements that NMFS would use in conducting the referendum.

Participation in the Gulf commercial grouper and tilefish fisheries requires a Federal reef fish permit. There are currently 1,080 Federal reef fish permits that are either active (non-expired) or expired but renewable. Within this fleet, over the 2005–2006 fishing years, 895 vessels recorded landings of reef fish species, valued at a total of approximately $46.3 million (2007 dollars), or an average of approximately $52,000 per vessel. Some fleet activity occurs in the reef fish fishery, such that some entities own multiple permits and vessels. The extent of such activity is unknown, however, and, for the purpose of this analysis, all permits or vessels are assumed to be independent entities.

One class of small business entities would be directly affected by the rule: Commercial fishing operations. The Small Business Administration defines a small business that engages in commercial fishing as a firm that is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $4.0 million (NAICS code 114111, finfish fishing) for all its affiliated operations worldwide. The proposed referendum qualifying criteria would allow 333 of the 1,080 entities with Federal reef fish permits to participate in the referendum. Economic profiles of these entities are not available. However, assuming all the reef fish revenues discussed above were attributable to just the 333 qualifiers, which is known with certainty to not be true, the average annual revenue from reef fish sales, based on 2005–2006 harvest data, would be less than $140,000 per qualifier. Thus, the average annual revenue per qualifying entity is determined to be less than $140,000 and all commercial entities that would qualify for participation in the referendum are determined, for the purpose of this proposed rule, to be small entities.

The proposed rule defines the procedures, schedule, and eligibility requirements that NMFS would use in conducting the referendum. There are no implementing regulations associated with the proposed rule. Because there are no implementing regulations, there would be no direct effects on current fishery participation, effort, harvests, or other use of the grouper and tilefish resources. All current entities can continue to participate in the fishery in the manner in which they currently operate. Therefore, all current harvests, costs, and profits would remain unchanged. Any effects, adverse or otherwise, on small entities that participate in the fishery would only occur if in the future an IFQ program is implemented as a result of subsequent rulemaking. The final expected impacts of the IFQ program are unknown since final approval of the specific program has not occurred. Estimates of variable costs savings attributable to the implementation of an IFQ system in the Gulf commercial grouper and tilefish fisheries are between $2.1 and $2.9 million per year, as well as unquantified reductions in fixed costs and increased ex-vessel prices. Final estimates of expected impacts will be identified should an IFQ program be proposed. Since the proposed rule would not directly affect fishery participation or harvest in any way, the rule would not reduce business profit for any fishery participants or related businesses. Profits are, therefore, not expected to be significantly reduced by the proposed rule. On this basis, it is determined that the proposed rule would not have a significant economic impact on a substantial number of small entities.

Accordingly, an initial regulatory flexibility analysis was not required or prepared. Copies of the RIR and RFAA are available (see **ADDRESSES**).

IFQ program referenda conducted under section 303A(c)(6)(D)(iv) of the Magnuson-Stevens Act are exempt from the Paperwork Reduction Act.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 29, 2008.

James W. Balsiger,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. E8–20543 Filed 9–3–08; 8:45 am]

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A Non-Profit Organization since 1997

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PFMC

Pacific Fishery Management Council
7700 Ambassador Place. Ste 101
Portland, OR 97220-1384

Dear Briefing Book Reader,

The entire fishing industry, both commercial and recreational, is shocked by the decision to give initial allocation of harvesting quotas to processors. The rationale the Council used for their decision was influenced by volume organized public testimony in favor of initial allocation to processors. The volume of testimony in favor of initial allocation to processors was produced by a clinical psychologist fish processor who told his workers that if he didn't get initial allocation of quota shares he would have to close his processing facilities. So much of that pivotal testimony came from the guts and hearts of people who believed their jobs were on the line over processor shares, jobs held, in some cases, for nearly thirty years were going to be terminated if processors didn't get their desired outcome as initial quota holders. How could the council members not realize that these workers were being duped and were being used as pawns to gain the desired outcome wanted by the processing sector. Mr. Anderson, in his prelude to the motion, indicated that the balance of power had been grossly in the processor's favor for decades and yet proceeded to take 20% of the pie from the fishermen who have undoubtably sacrificed the most for conservation and give it to those most responsible for deteriorating infrastructure up and down the entire coast.

A rationalization program that rewards processors for all the hard work fishermen do to conserve the resource is unconscionable and incredulous. There are several sound reasons for our position:

1. The fleet has been struggling for years to deal with the recovery of species that were considered fished down under management policy changing form F20 ro F40 on some key species of our catch. This triggered a groundfish strategic plan that called for removal of capacity of the harvesting sector to better line up with the decreased ABCs as fish populations changed under el Nino conditions. The buy-back program was initiated to reduce the fleet by nearly 50% and the fleet continues to pay back millions of dollars in federal loans without any help from the processing sector. ARE THE PROCESSORS GOING TO SHARE THE BUY-BACK VESSEL TIQ PORTION? IS THE PROCESSING SECTOR GOING TO BE LIABLE TO PAY BACK 5% OF THE BUY-BACK RECOVERY FEE THE REST OF THE FLEET PAYS FOR THEIR 20% ALLOCATION? So where does the processor 20% come from, the entire pool or just the portion not from the buy-back vessels? If they don't have to pay the buy-back assessment then another travesty will once again fall upon the harvesters.

2. Because the processing sector was allowed to consolidated to reduce expenses and competition at the same time to gain more control over the market, prices and the harvesting sector, for the last several years plants have had the fleet on plant limits and delivery schedules. Even though the processors were now only dealing with half the fleet, relatively small plant limits were established by the plants and very strict delivery schedules are enforced. Deliveries above the plant limits from non-plant owned vessels are discounted to nearly 50% of the current expected price. Fishermen are either forced to sell cheap fish creating animosity with fellow fishermen or they are encouraged to discard the resource in order to keep the market price firm and still have friends back at the dock. If weather or other circumstances prevent meeting the delivery date and time, then fishermen have to forgo the trip or if they were at sea, they may even have to discard their catch for the sake of quality. Vertical integrated processors don't enforce the plant limit or delivery dates/ time schedules on their own vessels. Processor owned vessels operate under the federal trip limit schedule and at questionable ex-vessel prices. There are also a number of boats that were built to fish mainly in Alaska waters, that are here as whiting catcher vessels and processors(both shoreside and at-sea). They land groundfish is huge volume between Alaskan pollock seasons without regard of price or quality so that they can quickly return to Alaska. Both the processor owned boats and these Alaskan boats help lower the ex-vessel price, and therefore, an encouraged practice by the processors is to create the situation that causes plant induced discards. Unfortunately, it is the fishermen that take all the negative PR and brutal relentless punishment from the environmental groups and the well meaning media.

3. The processors introduced split prices for species based on what the market could bare for weight and size, several years ago. This policy has caused ***high grading*** at sea, another category of plant induced discards. Unmeasurable amounts of fish are discarded at-sea in order to optimize the value of each landing. This policy combined with the discounted fish/delivery schedule policy mentioned above accounts for the majority of our discards. The processing sector has been isolated from the "burden of conservation" that the industry deals with everyday and conservation will continue to be of no interest to them unless it means less fish for them to process. When there are less fish, they are allowed to consolidate more, removing more competition because processors only deal with profit minded decisions while fishermen, with their big investments, are not allowed to stack permits to match their investment to the amount of fish allowed to be landed.

4. Essential fish habitat is another issue that has directly affected the trawl sector's behavior but not that of the processing sector. The trawlers not only froze our footprint, we also gave up valuable grounds to help the Council meet a court order. The processors may have worried that they might not receive their customary amount of product to process but the trawl fishermen had to change major behavior patterns and practices that reach far into the future. ***This is another conservation issue that is a burden only on the harvesters.***

5. The Rockfish Conservation Areas were established through a coordinated effort between management and harvesters. These heavy restrictions burdened only the harvesters and the magnitude of this conservation effort has added untold risk, increasing cost, worry and rethinking "normal practices" to the real American fishing fleet. ***The logistics and management of the RCAs has affected every fisherman's operation, bottom line, and behavior, a burden not***

shared by the processing sector.

6. VMS is paid and used on the entire trawl fleet. The initial feeling fishermen had, when we were forced to carry VMS, was that of a criminal with an ankle bracelet. "Big Brother" was now watching our every move and stealing what once was proprietary information. In order to make sure the RCA and EFH were truly being protected at only the fishermen's expense, we had no choice except to concede to these electronic devises. Again, the processing sector was not effected by VMS in cost or behavior changes that were needed to assure protection of rebuilding stocks. Nor do processors face any kind of liability for a vessel drifting over the boundary line or misinterpretation of the complex matrix of arbitrary areas and differential limits like the fishermen do. ***Again the burden of conservation is totally on the fishermen.***

7. Observers, another liability burden, are now on every trawl vessel at some time during the year. They are there to account for the total mortality of fishing. The TIQ program will require 100% observer coverage 100% of the time. Observers not only account for the total mortality but also verify the location of the vessel, gear used, direction of tows and other important information. It is the trawl fishermen that have to cope with this intruder on our vessels which increases our legal liability and costs and it isn't always easy or possible to make the observer part of the boat crew. Again, the processors do not share the burden of conservation the observer program has brought to the fleet. ***If the TIQ program is a conservation program, why does the Council believe that processors, who have nothing to do with at sea conservation, should receive a slice of the pie?***

The Council's own Groundfish Allocation Committee in May 2008, voted to recommend "no initial allocation of quota shares for processors" with all but one abstention, voting in favor. The rational they gave at that time was as follows:

1. "An initial allocation of quota shares to processors may erode the personal accountability for bycatch that quota shares are supposed to provide. A major goal of the program is to maintain mortality of overfished species within the limits specified in the rebuilding plans. To achieve this we need to clearly put responsibility on the fishermen and give them incentives for innovations that will allow them to increase their catch of target species while decreasing overfished species bycatch rates. Starting out with initial allocation of quota shares to fishermen clearly puts the responsibility on the fishermen.

2. While quota shares may be transferred to processors after the initial allocation, the two are quite different. The initial allocation is a decision made by the government while the subsequent distribution among sectors will be driven by each person's individual business decision to buy and sell. For an entity that is granted the quota share as part of the initial allocation, the incentives for optimal use, and hence for personal accountability, will be less than if they have to buy that allocation through the market place.

3. The bycatch rate reduction expected with an initial allocation to fishermen will result in increased landings of target species which will benefit the entire industry, including processors.

4. The language of the MSA indicates a strong intent to recognize harvesters.

5. Ultimately, both sides will benefit from the program and there is not a large disadvantage if processors are not given shares initially.

6. There is limited evidence on the need for an allocation to processors and the ramification of such an allocation is unclear. It does not appear that an allocation to processors will address concerns about the geographic distribution of harvest.
7. Consolidation is a concern and an initial allocation to processors may lead to greater consolidation.

8. The analysis indicates that currently there is not a level playing field between harvesters and processors and an initial allocation to processors may exacerbate that imbalance, especially given the degree of consolidation in the processing sector.

9. Long established relationships between processors and harvesters will continue to exist, there will not be widespread disintegration and relocation of these relationships.

10. The history of development of this program encompasses the identification of a continued harvester overcapacity problem and conception of the buyback program in 1996, the groundfish strategic plan, and the bycatch reduction amendment. The success of this long-term effort requires protection for those established in the fishery in order to increase the economic stability for all."

In the analysis document it states in Appendix A (A-2.1.1.a) page A-73 under "Competitiveness", processing sector's interaction with harvesters, "that processors are in a strong position to exert market power under status quo and may have cheaper access to capital than harvesters; an IFQ program under which processors do not receive an initial allocation would weaken that position; even if weakened, processors could regain some strength through the acquisition of quota shares, but only up to accumulation limits; that an initial allocation of quota shares would give them a stronger negotiating position than if they not receive an initial allocation."

"Specifically, an initial allocation of quota shares would:
1. Provide a capital infusion that may allow processors to employ one of a number of different strategies to grow and increase their efficiency (e.g., acquisition of additional shares, horizontal integration, etc)

2. Diminish the exit barrier (liquidation of quota shares would allow a firm to exit the industry with less debt or greater gains)

3. Initially provide processors with greater bargaining power (as compared to their initial situation under IFQs if they did not receive an initial allocation)

4. Create a greater barrier to new entry

5. Create an even greater barrier to entry if there is an accumulation limit grandfather clause

6. Decrease the cost of processor access to capital."

There is a disjunction happening with this TIQ program when initial allocation is given to processors. The original goal of preserving the fleet characteristic and therefore our coastal communities' characteristics can't be accomplished if the Council desires fewer processors on the west coast. Is it the Council's goal to only have factory trawlers and motherships working the harvest and running to Seattle with the money?

We believe the Council failed to look at processor shares from every view point. The conflicts that exist between the big domineering processors and the small processors, coupled with the lack of competition in the west coast processing sector, will put the smaller processor in jeopardy of staying in business. It seems that the Council prefers large processors over small processors and will eliminate the small processors with the required six (6) metric ton deliveries in three (3) of the six (6) years between 1998 and 2003. So these smaller processors will not receive any of the 20% allocation that the processors will get, putting the smaller processors in greater jeopardy. ***We believe the Council action on this issue will reduce competition which will exacerbate and erode any gains fishermen may realize through the rationalization program.***

According to the analysis on Effect on Smaller Processors (Page A-74), "If there is not an initial allocation to processors, smaller processors will be at a disadvantage relative to larger processors. At this time, most of the limited entry permits that are owned by processors are owned by larger processors. Therefore, smaller processors would have to acquire QS (quota shares) or negotiate with harvesters without that leverage. Either way, they would be at a competitive disadvantage within the sector. Anecdotal information has indicated that those processors in the IFQ system in British Columbia who did not own vessels or were not closely partnered with vessels had a financially difficult time competing while also having to make payments on their QS acquisitions. This is consistent with reports from New Zealand that indicated lower economic satisfaction for later entrants who have to buy QS to enter the fishery (as compared to those receiving initial allocation)." So instead of giving QS to small processors so they have something to work with, they will be forced to acquire QS which will put them at a greater disadvantage. This could only have dire consequences for any new entrants and could collapse vessel prices even more than they are right now which is shameful when you compare ex-vessel prices over time to inflation. The analysis shows that smaller processors would use QS more effectively than large processors, the Council is choosing to put the small processors out of business, removing more competition and paving the way to line the big processors pockets with more wealth and privileges. Because the Council seems to have a need to eliminate the small processors and fishermen's business by institutionalizing an unfair advantage to the most powerful, ***we ask that the tightest accumulation/control caps be established to prevent further vertical integration which could also eliminate the fishermen sector in the long run.***

If the Council's final decision includes giving harvesting shares to processors, it is important that the Council also consider permanent accumulation limits and no grandfather clause to try to preserve our coastal communities from massive takeovers and fleet migration that would occur if uncontrolled vertical integration is allowed.. The small amount of vertical integration that has

already occurred has affected the negotiating power of the fishermen. While operational costs have skyrocketed, vertical integration has virtually frozen the ex-vessel prices as explained in the number 2 section at the beginning of this letter.

Stability of supply will be improved under the TIFQ program. This will benefit both the harvesting sector and the processing sector with a better coordinated effort to have product available when it is most needed. Price competition may be influenced by many factors. As stated in the analysis Appendix A Excerpts on page A-75, "If the IFQ program results in west coast fish processing operations remaining smaller that might otherwise be optimal, higher costs could make their products somewhat less competitive in the wholesale market. This would likely mean the raw fish prices (exvessel) might have to be somewhat lower in order for the product to clear the market. An initial allocation to processors and accumulation limit grandfather clause would preserve the advantage of the large processors until the accumulation limit grandfather clause expires. After expiration of that clause, the likelihood that larger processing operations will continue to dominate the fishery will depend on the relative advantage that ownership of QS provides a processing operation. (QS ownership is not necessary for large operations but could improve their profits.)" With improved profits for the large processing operations, the likelihood of further consolidation, geographic shifts in catch and localized depletion of stocks is greater. Any effects on raw product prices, either higher or lower at the start of the program "are expected to be short-run effects because over time processors are eligible to buy QS and over the long run they are likely to accumulate QS to improve their bargaining power." So in other words competition in the wholesale market will not be effected if processors are not given initial allocation of QS.

It is stated in the Appendix A page A-80, "Relative to status quo, processors are not expected to lose returns on their investment to QS holders unless there is overcapacity in the processing sector and competition for raw fish deliveries from harvesters has been based at least partially on something other than price (e.g., competition based on ability to handle volume.)" We all know that the processing sector is not overcapitalized and ex-vessel prices attest to that fact.
"Allocation of QS to processors may:

- Strengthen their bargaining position vis a vis harvesters in the raw fish market (as compared to not receiving an allocation)
  - over the short run (via the initial grant of an asset and ability to hold QS in excess of accumulation limits)
  - over the long run, if they would not otherwise accumulate QS through purchase
- Possible strengthen large producers relative to small producers (if there is a grandfather clause)
- Strengthen small producers relative to large producers (if there is no grandfather clause and depending on relative efficiencies)
- *Not likely* affect wholesale prices or competitiveness of west coast product in the wholesale markets.
- Under certain circumstances compensate for partial losses of returns on investment (i.e. if the sector is overcapitalized, fully competitive (market power is not being exerted), and at least some of the competition for the raw product was on a basis other than price (e.g. the ability to handle a large volume of product in a timely manner)). It should be noted that in such circumstances the processors were likely already losing some of their return on

investment (to the degree that price was a factor in the competition for the raw product.) Also, the amount of profit that processors bid away in the price competition is unlikely to be the full amount that would otherwise go to return on investment.

- Reduce exit barriers by providing compensation for capital losses by those who might seek to leave the fishery."

"As the allocation to processors increases; The capital infusion to harvesters decreases; The exit barriers increase lengthening the IFQ program transition period; Harvester competition in the raw fish market will increase reducing their bargaining power; The cost of harvester access to capital would increase; The likelihood of harvester bankruptcies would increase."

"An IFQ program will likely cause at least some increase the potential for harvesters to exert market power or resist processor market power, independent of the amount of QS they are initially granted. Whoever receives an initial allocation is likely to be in a better position to exert market power and accumulate additional QS. As the amount of QS issued to processors increases, transaction costs will increase as QP issued to processors will be transferred to vessels each year in order to be used. As the amount of QS issued to processors increases, there is a greater mismatch between recent production by processors-permit associations and the QS distribution to those processor-permit association. Program administration costs increase with each additional group to which an allocation is made."

Finally, in order to give processors harvesting quota, laws have to be changed. The Department of Justice cautioned the IQ Committee that issuing harvesting quota to processors could violate anti-trust laws. The harvesters have believed for many years that the processing sector has been in violation of the Sherman Act. Processors have been suspected of price fixing and collusion. Product has been dumped on the market to drive non-cooperating processors out of business. The harvesters have been sacrificing for years and have been the sole source of the burden of conservation. Harvesters have had to reduce maintenance, crew size and operation time in order to stay in business, while at the same time, fishermen watched the processors consolidate to lower costs, build new plants and improve existing facilities, buy small plants to close those operations, increase their employee benefits and fly around the country in private jets.

We believe giving initial allocation of QS to processors is the wrong thing to do and oppose this IFQ program if it contains initial allocation of QS to processors.

Sincerely,

Steve Bodnar

WESTPORT CHARTERBOAT ASSOCIATION
P. O. BOX 654 • WESTPORT, WASHINGTON 98595

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OCT 14 2008
PFMC

October 11, 2008

Pacific Fishery Management Council
Don Hansen, Chairman
7700 NE Ambassador Place
Suite 101
Portland, OR 97220-1384

Re: Gear switching/conversion element of the Trawl IQ program

Dear Chairman Hansen,

The members of the Westport Charterboat Association are strongly concerned about the future prospect of gear switching or gear conversion. Our concern is related to the probable increase in by-catch impacts on certain over-fished stocks that could result from switching from trawl to longline or other hook and line methods. Our specific concern relates to Yelloweye Rockfish.

Although trawling played a major role in fishing Yelloweye down to their recent biomass level, current trawl methods and regulations have minimal impacts. Longlines and vertical lines can have significant impacts on Yelloweye.

Currently, recreational fisheries and longstanding hook and line commercial fisheries are sharing an extremely small allowable by-catch coast wide in order to harvest healthy target stocks. Regulations have been draconian in many cases. The 09-10 OY for Yelloweye is the smallest it's ever been. Ranges of OY from 10-20 mt could be the norm for decades to come. There is no room for the additional impacts that would be introduced by a growing hook and line fishery.

If gear switching is to be allowed in the future we ask that the rules would include provisions that in no way increase impacts on Yelloweye or any other overfished stock.

Respectfully yours,

Steve Westrick

Steve Westrick, President

September 24, 2008

Mr. Phil Anderson
Washington Dept. of Fish & Wildlife
600 Capitol Way North
Olympia, WA 98501

RE: Whiting co-op mothership/catcher vessel management

Dear Phil:

The suite of preferred alternatives that you presented to the PFMC on the whiting co-op proposal for the mothership/catcher vessel (MS/CV) sector overall captures industry intent and is well developed. Given further reflection, there is, however, one component of the program that has been, and continues to be, of concern and we believe deserving of an additional alternative.

You may recall that the original proposal developed by UCB and presented to PFMC by Steve Hughes and Brent Paine, reported industry agreement on the package with the stipulation that individuals could offer additional alternatives to PFMC for consideration. The following deals with the aligning of catcher boats with motherships in 2009 and the movement of CV's between motherships in general. The below-signed would like to add an alternative that would provide more flexibility to catcher boats and to avoid CV's going through open access to change MS markets. Specifically, the added alternative that we request be added would provide that in the first year of co-op formation, catcher boats are free to deliver to any processor or processors which they choose, and that this procedure would be followed each year, which eliminates the one year open access requirement for CV's to change MS markets between years.

We thank you for your consideration of this additional alternative and we understand that it would be appropriate to discuss its inclusion in the co-op proposal during the October 8 and 9, 2008 Allocation Committee Meeting.

Sincerely,

(F/V Pacific Challenger)
(F/V Aleutian Challenger)
M/V GOLDEN ALASKA
F/V Ocean Leader + A/V American Beauty
F/V Muir Milach
F/V Perseverance

October 13, 2008

Mr. Donald K. Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on the Shoreside Processor Allocation Preferred Alternative in the Groundfish Trawl Rationalization Decision Document

Dear Mr. Hansen:

The Fishermen's Marketing Association ("FMA") hereby submits comments on the Pacific Fishery Management Council's ("Council") *Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery: Decision Document for the November 2008 Pacific Fishery Council Meeting* ("Decision Document"). These comments are specific to the issue of initial allocation of harvest privileges to shoreside fish processors. We request that these comments be included in the briefing materials sent to Council members in advance of the upcoming meeting during the first week in November.

Executive Summary

The Decision Document raises substantial legal questions that the Council must address regarding the initial allocation of harvest privileges to shoreside processors, as follows:

- **The Council lacks statutory authority to issue harvest privileges to shoreside processors.** Shoreside processors do not "substantially participate in the fishery."
- **The Council's plan has the unlawful effect of allocating processing privileges.** Allocating harvest privileges to select processors has the same effect as establishing processing privileges and is beyond the Council's authority.
- **The Council's preferred alternatives raise substantial competitiveness issues for the fishery.** Allocating harvest privileges to processors will reduce competition and have anticompetitive impacts.
- **The proposed measures are inconsistent with National Standard 4.** The Decision Document concededly favors shoreside processors to the detriment of harvesters, and such measures are therefore not fair and equitable to fishermen.

These issues are discussed in more detail below.

Detailed Comments

I. The Magnuson-Stevens Act Does Not Provide For Initial Harvest Allocations Directly to Shoreside Processors.

One of the most controversial aspects of the Pacific Council's Decision Document is the preliminary preferred alternative that would allocate 20% of the available harvest privileges (or quota share ("QS")) to shoreside processors. While there has been substantial debate over the permissibility of such an initial allocation, no provision of the Magnuson-Stevens Fishery Conservation and Management Act ("MSA") affirmatively provides authority for the Council to allocate harvest privileges to shoreside processors. In fact, a close analysis of the MSA demonstrates that shoreside processors are not eligible to receive an initial allocation of harvest privileges.

a. Shoreside Processors do not "Substantially Participate in the Fishery"

Under 16 U.S.C. § 1853a(c)(5)(E), a Council "shall authorize" limited access privileges to be issued to "persons who substantially participate *in the fishery*, including in a specific sector of such fishery, as specified by the Council." (emphasis added). The term "fishery" is defined in the MSA, and does not include shoreside processing.

The term "fishery" is defined as "one or more stocks of fish which can be treated as a unit", or "any *fishing* for such stocks." [1] The term "fishing," in turn, is defined as the "catching, taking, or harvesting of fish," the "attempted catching, taking or harvesting of fish", "any other activity which can reasonably be expected to result in the catching, taking, or harvesting of fish," and "any operations *at sea* in support of, or in preparation for" the catching, taking or harvesting of fish.[2] Accordingly, the scope of the term "fishery" is limited by the definition of "fishing." While "fishing" can include non-harvesting support activities *at sea*, the MSA expressly excludes onshore support activities like processing from the definition of "fishing."

Legal analyses performed by the National Marine Fisheries Service ("NMFS") going back to 1978 have repeatedly concluded that "shorebased processing is not "fishing" as that term is defined in the statute."[3] Therefore, since the definition of the term "fishery" is controlled by what constitutes "fishing," and shorebased processing does not fall within the definition of "fishing," then the term "fishery" does not cover

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[1] 16 U.S.C. §§ 1802(13)(A), (B) (emphasis added).
[2] 16 U.S.C. § 1802(16) (emphasis added).
[3] Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (Oct. 30, 2007); *see also* Memorandum to the North Pacific Fishery Management Council from NOAA General Counsel Lisa L. Lindeman (Sept. 20, 1993) ("1993 Legal Memorandum") at p. 2 ("On-shore processing is not "fishing.""), p. 7 (quoting 1978 legal opinion of the NOAA General Counsel) ("An activity on land which merely provides an incentive to catch fish is insufficiently related to the catching of fish to constitute fishing under [the MSA]. This conclusion is consistent with the legislative history of the FCMA which at no point indicates that the term "fishing" was intended to include on-shore processing.").

shorebased processing.[4] Accordingly, shoreside processors are by definition excluded from participating in the "fishery" as that term is defined by the MSA for purposes of 16 U.S.C. § 1853a(c)(5)(E). Legislative history of the 2006 amendments to the MSA supports this reading of the statute. Rep. Nick Rahall, then Ranking Member and now Chair of the House Resources Committee, stated these fishing "privileges are to be held by *fishermen* who are actively engaged and *substantially participate in the fishery.*"[5]

To our knowledge, NMFS has not provided the Council with a detailed legal analysis specifically on the question of whether shoreside processors are eligible to receive an initial allocation of harvest privileges in light of the 2006 amendments to the MSA. The legal analyses NMFS has provided,[6] to the extent they even address *shoreside* processing, do not address the explicit definition of "fishery" set forth in the MSA in conjunction with the 2006 MSA amendments and NMFS's longstanding opinion that shoreside processing is not "fishing." In 2007 NMFS stated that nothing in the 2006 amendments to the MSA changed its prior legal analyses.[7] Yet the 2006 amendments specified for the first time which entities can be issued harvest privileges under the MSA (i.e., to those who "substantially participate *in the fishery*"). The Council needs prompt NMFS guidance on this issue.

The Council cannot simply ignore these statutory provisions and substitute its own definition for "fishery" in order to conclude that shoreside processors "substantially participate in the *fishery*." Courts will not defer to Council or NMFS action that rewrites the rules that Congress has affirmatively and specifically enacted. *See Schneider v. Chertoff*, 450 F.3d 944, 958 (9th Cir. 2006), *citing Lamie v. U.S. Trustee*, 540 U.S. 526, 538 (2004).

b. Caselaw provides legal support for issuance of harvest shares to fishermen, but not to shoreside processors.

Before the MSA was amended in 2006, National Standard 4, 16 U.S.C. § 1851(a)(4), was the only MSA provision that referred to allocation of fishing privileges. National Standard 4 contemplates that fishing privileges will be allocated among "United States fishermen," which is consistent with the definition of those who "substantially participate in the fishery." The term "fishermen" is not defined in the MSA. However, Merriam-Webster's dictionary defines "fisherman" as "one who engages in fishing"[8]. Since the definition of "fishing" in the MSA excludes shore-based processing, then

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[4] *See id.* at p. 5 n. 10 (noting the relationship between the definitions of "fishery" and "fishing" under the MSA).

[5] *See* Floor Speech of Rep. Rahall, 152 Cong. Rec. E2243-02 (Dec. 27, 2006, extending remarks of Dec. 8, 2006) (emphasis added).

[6] Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (Oct. 30, 2007); Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (June 10, 2005); Memorandum to the North Pacific Fishery Management Council from NOAA General Counsel Lisa L. Lindeman (Sept. 20, 1993).

[7] *See* Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (Oct. 30, 2007).

[8] http://www.merriam-webster.com/dictionary/fisherman

shore-based processors would not likely qualify as "fishermen," that could receive an allocation of harvest privileges.

The district court's order in *American Factory Trawler Association v. Baker*,[9] cited in NMFS's 1993 Legal Memorandum, does not provide legal support for the Pacific Council to issue harvest privileges to shoreside processors. In that case, an intervening party argued that NMFS violated National Standard 4 by allocating pollock and cod harvest quota to the "onshore component" of the fishery, which included shoreside processors. The court rejected that argument, but not because it found that National Standard 4 permits allocations to shoreside processors. Instead, the court was simply not convinced that the regulations resulted in an allocation to processors:

> the allocation in effect assigns fishing privileges among *fishermen*: those who process their catch at sea, and those who deliver their catch for processing on shore. The legitimate purpose of the allocation is to preserve a share of the resource for *fishermen who deliver their catch for processing on shore*. [Intervenor] AIF fails to persuade the court that the regulations are inconsistent with the requirements set forth in National Standard 4.[10]

The regulations at issue in *AFTA v. Baker* were much different than those the Council is proposing here. In that case, the regulations allocated harvest quota to fishermen who delivered to shoreside processors. Here, however, the Council is proposing a direct allocation to specific shoreside processors. Had the regulations at issue in *AFTA v. Baker* directly allocated harvest quota to specific shoreside processors, the outcome of that case would arguably have been much different. Moreover, Congress has since provided explicit guidance on who can be issued harvest quota that was not available when that case was decided. The court's statement, therefore, that Congress had not expressed "clear congressional intent" to prohibit an allocation to the shoreside component is arguably mooted by 16 U.S.C. § 1853a(c)(5)(E), which provides that the Council shall allocate harvest privileges to those who "substantially participate in the fishery."

c. Congress intended that shoreside processors could participate in a limited access privilege program only as part of a "fishing community" or a "regional fisheries association."

In amending the MSA in 2006, Congress provided two methods by which shoreside processors could participate in a limited access privilege program: either as part of a "fishing community" or through a "regional fisheries association." A fishing community consists of residents that conduct fish harvesting or processing or fishery-dependent support businesses within the council's management area and who must develop a community sustainability plan that addresses the social and economic needs of

[9] No. C92-870R, *Order Regarding Parties' Cross-Motions for Summary Judgment* (W. D. Wash. July 24, 1992).
[10] *Id.* at 18.

the community.[11] Regional fisheries associations ("RFAs") are voluntary associations comprised of individuals who hold harvest privileges designated for use in a specific region.[12] Of these two groups, only fishing communities are eligible to receive an initial allocation of harvest shares.[13]

The legislative history confirms that Congress chose to address the concerns raised by shoreside processors about fisheries rationalization by providing for processor participation in fishing communities and RFAs. As a Senate report explains:

> Section 106 of the bill would establish national guidelines for limited access privilege programs (LAPPs) for the harvesting of fish. These include individual fishing quotas (IFQs), but are expanded to allow allocation of harvesting privileges to fishing communities and creation of voluntary regional fishery associations (RFAs), in order to ensure inclusion of small vessel or entry-level participants, communities, and affected non-harvesters, such as processors, in any plan to rationalize a fishery . . . *The bill would address concerns raised by* harvesters, *processors*, crew, communities, and related businesses about impacts of harvester quota programs in a region or community, including quota consolidation or transfer out of the region, *by allowing them to participate in RFAs.*[14]

The legislative history does not suggest that Congress intended for processors to receive allocations of harvest privileges directly, but rather to participate in a limited access privilege program through fishing communities and RFAs.

II. The Council's Preferred Alternatives Would Have the Unlawful Effect of Allocating Shoreside Processing Privileges

Even if the Council had the authority to issue harvest privileges directly to shoreside processors, which it does not, the manner in which the Council has proposed

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[11] 16 U.S.C. § 1853a(c)(3). In order to participate in a limited access privilege program, the fishing community must "develop and submit a community sustainability plan to the Council" that demonstrates how the plan will "address the social and economic development needs of coastal communities, including those that have not historically had the resources to participate in the fishery . . ." The plan must be approved based on criteria developed by the Council and approved by the Secretary of Commerce after publication in the Federal Register. *Id.* at § 1853a(c)(3)(A)(i)(IV).

[12] 16 U.S.C. § 1853a(c)(4).

[13] *See* 16 U.S.C. § 1853a(c)(4)(A)(v) (RFAs shall "not be eligible to receive an initial allocation of a limited access privilege . . .").

[14] S. Rep. No. 109-229 (Apr. 4, 2006) at 8 (emphasis added). In addition, in rejecting calls to establish processing privileges (akin to harvest privileges but for processing rights), the Senate report again confirms that the concerns of processors are mitigated by providing for processor participation in fishing communities and RFAs: "The Committee chose to take a broader, community-based view and allow allocation of harvesting privileges to communities, and inclusion of processors and other shore-based businesses in RFAs with LAPP holders which would allow for the designation or linkage of LAPPs to a region or community." *Id* at 25.

doing that here would have the unlawful effect of allocating shoreside processing privileges.

NMFS legal analyses are abundantly clear that the Council may not establish shoreside processing privileges, or enact any regulations that "have the effect of establishing shoreside processing privileges."[15] This is because, as noted above, shoreside processing does not constitute "fishing" and the Council and NMFS thus lack the authority to regulate it. Indeed, Congress explicitly rejected allowing processing privileges in the 2006 amendments to the MSA.[16] During the development of alternatives for trawl rationalization, NMFS repeatedly informed the Council that certain measures under consideration were beyond its authority under the MSA because they regulated processing.[17]

The Council's preferred alternatives, however, would have the effect of allocating shoreside processing privileges. Under the preferred alternatives, processors would receive harvest privileges based upon their processing history.[18] That is, processors that have historically processed more fish would receive a greater share of the harvest privileges. On a going forward basis, processors that receive harvest privileges will be guaranteed access, indefinitely, to a certain portion of the available resource.

"It is an elementary rule of law, needing no citation of authorities, that what the law prohibits directly cannot be accomplished indirectly."[19] When NMFS informed the Council it was prohibited from allocating processing privileges, the Council then set up a system where processors would receive harvest privileges. Regardless of the name of the privilege, however, what processors would receive under the Council's plan is guaranteed access to the resource. Whether a privilege to harvest or to process, even the processors acknowledge that resource access is what they seek.[20] A system that guarantees a fixed percentage of the available harvest to certain, select processors, and not to others, is indistinguishable from a system of processing privileges. From the standpoint of the processor, the result is the same – the processor is guaranteed the option of receiving a fixed percentage of the total fish that will be caught. This is simply an indirect method of accomplishing shoreside processor privileges, and is similarly proscribed by the MSA.

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[15] *See* Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (Oct. 30, 2007); Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (June 10, 2005).

[16] *See* S. Rep. No. 109-229 (Apr. 4, 2006) at 8.

[17] *See* Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (Oct. 30, 2007); Letter to Council Chairman Donald K. Hansen from NMFS NW Regional Counsel Eileen M. Cooney (June 10, 2005).

[18] Decision Document at pp. 38, 49, 51.

[19] *Amalgamated Ass'n of Street, Elec. Ry. and Motor Coach Emp., Division 1225 v. Las Vegas-Tonopah-Reno Stage Line, Inc.*, 202 F. Supp. 726, 740 (D. Nev. 1962).

[20] *See* Letter to Council Chair Don Hansen from West Coast Seafood Processors Association (Nov. 1, 2007) ("Our concern has been our ability to preserve access to the resource once it is effectively placed into private hands. Access is fundamental to our ability to sustain a workforce, contribute to overhead that sustains other fisheries, and continue to supply markets we developed for groundfish and whiting.").

The Council is prohibited from establishing processor privileges because regulating shoreside processing is beyond its authority. The MSA certainly requires the Council to "consider," "evaluate," and "take into account" the impacts to shoreside processors and other interests when establishing *fishery* management measures.[21] Here, however, the Council has crossed the line from merely considering these impacts to regulating them directly. Under the Council's plan, as with any regulatory scheme, there will be winners and losers. Yet the Council lacks the authority to establish from the outset which specific processors will benefit from the regulatory scheme. The Council is effectively regulating the shoreside processing industry.

III. The Council's Preferred Alternatives May Produce Anticompetitive Results

Even if the Council had the authority to allocate harvest privileges to shoreside processors, which it does not, the Council's proposed measures could have substantial anticompetitive effects. We strongly urge the Council to immediately consult with the Antitrust Division of the U.S. Department of Justice to address these issues.

a. Allocating harvest privileges to processors will reduce competition.

When the North Pacific Fishery Management Council proposed rationalizing the crab fisheries in the Bering Sea and Aleutian Islands, the Department of Justice identified a number of antitrust issues relating to that Council's proposal to establish processing privileges. Many of the antitrust problems the Justice Department identified with the crab rationalization program apply equally to the Pacific Council's groundfish rationalization plan.

To begin with, the Justice Department found that simply allocating harvest privileges only to harvesters should eliminate the need for excess processing capacity and that prices would return to competitive levels once excess capacity was curtailed.[22] The Justice Department advocated against establishing processing privileges and suggested that the North Pacific Council address processors' concerns in other manners. According to the Justice Department, the major problem with processing privileges is that they would reduce competition. Less competition would, in turn, deter the development of new products, reduce incentives for processors to make efficient investment decisions and reduce welfare for consumers of processed products.[23]

Regarding Pacific groundfish rationalization, allocating harvest privileges to shoreside processors similarly would reduce competition in the processing market and bring about the same ills identified by the Justice Department with respect to crab rationalization. The Decision Document establishes that the processing industry is

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[21] *See, e.g.*, 16 U.S.C. §§ 1851(a)(8); 1853a(c)(5).

[22] *See* Statement of J. Bruce McDonald, Deputy Assistant Attorney General, Antitrust Division, Department of Justice, before the U.S. Senate Committee on Commerce, Science, and Transportation (Feb. 25, 2004) at p.3.

[23] Letter to NOAA General Counsel James R. Walpole from Assistant Attorney General R. Hewitt Pate (Aug. 27, 2003) at p. 2.

already concentrated. Three companies process 80% of the non-whiting catch and 85% of the whiting catch.[24] The Decision Document notes that there are a limited number of buyers, barriers to entry due to the high cost of processing equipment, and concentration of production into a small number of processors.[25] Allocating harvest privileges to shoreside processors would only further entrench the existing participants and raise barriers to entry, as the Decision Document recognizes.[26] Existing participants will be shielded from competition and potential competitors will be thwarted from entering the market.[27] This will reduce incentives to compete.[28] In addition, there is no conservation benefit to allocating harvest privileges to processors, and the resulting consolidation and shifts in fishing effort and processing capacity may thwart certain socio-economic goals of the management plan.

In addition to being shielded from competition, however, existing processors have less incentive to promote efficiencies because they are guaranteed a share of the harvest. As the Justice Department noted:

> If a processor were entitled to a fixed share of the harvest, then the processor would have less incentive to invest in new equipment or otherwise work to cut costs or improve quality, as those efforts would not be rewarded with greater market share.[29]

The Council can mitigate potential harms to shoreside processors without allocating harvest privileges to them and thereby "constructing an artificial marketplace in which competition is inhibited."[30] Allocating harvest privileges to shoreside processors will only reduce competition and harm consumers.

b. Processor linkages may result in anticompetitive harms.

The predominant shoreside processing trade association expressly stated that its members intend to use the harvest privileges allocated to them as a competitive tool:

> Our intent is to use quota directly allocated to our processors as an *enticement* to vessels to deliver to historical processors. In other words, we want to put our quota on boats that fish for our plants, *so long as we are the purchaser of all fish caught by that vessel.*[31]

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[24] Decision Document at pp. 285-286, 409.
[25] *Id.* at p. 286.
[26] *Id.* at 296.
[27] *See, e.g., Western Parcel Exp. v. United Parcel Service of America, Inc.*, 190 F.3d 974, 975 (9th Cir. 1999) (noting various types of entry barriers, such as "additional long-run costs that were not incurred by incumbent firms but must be incurred by new entrants"; "factors in the market that deter entry while permitting incumbent firms to earn monopoly returns"; "control of an essential [] resource").
[28] *See* Decision Document at p. 407.
[29] Statement of J. Bruce McDonald, Deputy Assistant Attorney General, Antitrust Division, Department of Justice, before the U.S. Senate Committee on Commerce, Science, and Transportation (Feb. 25, 2004) at p. 4.
[30] *Id.* at p. 3.
[31] Letter to Council Chair Don Hansen from West Coast Seafood Processors Association (Nov. 1, 2007).

It is unclear what this particular processor means by using quota as an "enticement" to harvesting vessels. Yet the Decision Document provides a clue:

> For example, a processor could use QS to induce a harvester that is short of quota pounds for a particular species to make deliveries under specified conditions and prices.[32]

The Decision Document thus seems to suggest that processors would use their control of harvest privileges to force harvesters to submit to lower prices or prevent harvesters from selling their catch to competing processors on competitive terms.

Such conduct could have antitrust implications. The shoreside processing industry is highly concentrated and there are high barriers to entry due to the capital costs required to enter the processing market.[33] Allocating harvest privileges to certain existing processors will raise barriers to entry, because potential entrants would need to acquire harvest privileges to be competitive. In addition, the processing market is likely to become even more concentrated under the Council's plan.[34] Geographic limitations on where harvesters can deliver their catch may result in the creation of regional markets in which even fewer processors participate. On top of those conditions, the Decision Document notes that harvesters already generate "no economic profit" from the non-whiting fishery.[35] Processors therefore have power to set ex-vessel prices at the level of the harvesters' costs of catching them. The Decision Document also notes that allocating harvest privileges to processors would increase their bargaining power, although only certain processors would receive them.[36] There is some danger that these processors would use their harvest privileges to drive prices below costs, using their market power in the shoreside processing markets to dictate ex-vessel prices paid for fish or to coerce harvesters into procuring harvest privileges on terms that are not competitive. Given these market characteristics and the potential for the Council's plan to exacerbate these conditions, antitrust review by the Justice Department is critical.

IV. The Council's Plan Is Not "Fair And Equitable To All Fishermen" As Required by National Standard 4

The Council's plan puts U.S. fishermen in a difficult situation. First, since 20% of the available harvest is taken off the top and allocated to processors, each harvester will have to recover 20% of its catch just to be made whole and catch the same amount of fish it caught previously. Harvesters will have to negotiate with processors to make up these lost privileges. Second, harvesters also need to negotiate with processors on the ex-vessel value of the fish that harvesters will be paid. The processors thus hold all the

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[32] Decision Document at p. 410.
[33] *Id.* at p. 285.
[34] *Id.* at p. 416.
[35] *Id.* at p. 293.
[36] *Id.*

cards, particularly given how concentrated the processing industry is and how much more so it will become after rationalization.

Despite these inequalities, however, the Decision Document places great emphasis on enhancing the bargaining power of *shoreside processors*.[37] The Council proposes measures to benefit the shoreside processing industry that would concededly disadvantage the harvesters for the benefit of the processors. For example, the Decision Document states that harvesters in the non-whiting sector "generate no economic profit from harvest activity" and implies that processors realize the benefits of any profits that might exist in that industry.[38] The Decision Document further states that "harvesters lack much bargaining power in negotiations over ex-vessel prices with processors."[39] Under the Council's preferred alternative, moreover, harvesters in the non-whiting sector would not increase their bargaining power because the existing system already facilitates the formation of bargaining groups (that have faced difficulties in achieving bargaining power).[40] Yet the Council acknowledges that allocating 20% of the harvest privileges to processors would substantially enhance their bargaining power.[41] The effect of the Council's regulations, therefore, would be to further reduce the harvesters' bargaining power in a sector of the industry where they realize "no economic profits" and the balance of the bargaining power already favors the processors.

The Council's preferred alternatives would thus admittedly take a bad situation for the harvesters and make it worse. The Council has chosen regulations to benefit processors at the expense of harvesters when it has no authority to regulate the processing industry in the first instance. Not only are these measures outside the scope of the Council's authority, they also are inconsistent with National Standard 4, which requires that allocations of fishing privileges "fair and equitable" to all "fishermen" – *not* to shoreside processors.[42]

Conclusion

The Council should reevaluate its preferred alternatives. The Council simply lacks the authority to allocate harvest privileges to shoreside processors. Even if the Council had such authority, which it does not, it is difficult to issue harvest allocations to shoreside processors in a manner that does not have the effect of allocating processing privileges or producing anticompetitive results. There are substantial anticompetitive concerns with the Council's plan, and it is inconsistent with National Standard 4.

FMA has long supported the Council's process to rationalize the trawl fishery. We strongly urge the Council to reject its current preferred alternative to allocate 20% of the harvest privileges to processors. We recommend the Council change its preferred

[37] *See, e.g.*, Decision Document at p. 285, 295, 407, 409-410.
[38] *Id.* at 293.
[39] *Id.*
[40] *Id.* at 295.
[41] *Id.* at 434.
[42] 16 U.S.C. § 1851(a)(4).

alternative for Initial Allocation (A-2.1.1) to Option 1, and thereby allocate 100% of the harvest privileges to harvesters.

Thank you for considering our concerns.

Sincerely,

Pete Leipzig
Executive Director

cc: Dr. James Balsiger, Acting Assistant Administrator of Fisheries NOAA Fisheries
Jane Luxton, NOAA General Counsel
Thomas O. Barnett, Assistant Attorney General, Antitrust Division, U.S. Department of Justice
The Honorable Ted Kulongoski
The Honorable Arnold Schwarzenegger
The Honorable Christine Gregoire
The Honorable Ron Wyden
The Honorable Gordon Smith
The Honorable Dianne Feinstein
The Honorable Barbara Boxer
The Honorable Patty Murray
The Honorable Maria Cantwell
The Honorable Peter DeFazio
The Honorable Earl Blumenauer
The Honorable Mike Thompson
The Honorable Brian Baird
The Honorable George Miller
The Honorable Lois Capps
The Honorable Sam Farr
The Honorable Rick Larsen
The Honorable Dave Reichert
The Honorable David Wu
The Honorable Darlene Hooley
The Honorable Greg Walden
The Honorable Jay Inslee
The Honorable Norman Dicks
The Honorable Jim McDermott

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Dear Council members,

The entire fishing industry, both cc
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F/V Ms. Julie
6860 W. FK. Millicoma Rd
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The Pacific Group Take over!
Mission Complete!

Dear Council members,

The entire fishing industry, both commercial and recreational, is shocked by the decision to give initial allocation of harvesting quotas to processors. The rationale the Council used for their decision was influenced by volume organized public testimony in favor of initial allocation to processors. The volume of testimony in favor of initial allocation to processors was produced by a clinical psychologist fish processor who told his workers that if he didn't get initial allocation of quota shares he would have to close his processing facilities. So much of that pivotal testimony came from the guts and hearts of people who believed their jobs were on the line over processor shares, jobs held, in some cases, for nearly thirty years were going to be terminated if processors didn't get their desired outcome as initial quota holders. How could the council members not realize that these workers were being duped and were being used as pawns to gain the desired outcome wanted by the processing sector. Mr. Anderson, in his prelude to the motion, indicated that the balance of power had been grossly in the processor's favor for decades and yet proceeded to take 20% of the pie from the fishermen who have undoubtably sacrificed the most for conservation and give it to those most responsible for deteriorating infrastructure up and down the entire coast.

A rationalization program that rewards processors for all the hard work fishermen do to conserve the resource is unconscionable and incredulous. There are several sound reasons for our position:

1. The fleet has been struggling for years to deal with the recovery of species that were considered fished down under management policy changing form F20 ro F40 on some key species of our catch. This triggered a groundfish strategic plan that called for removal of capacity of the harvesting sector to better line up with the decreased ABCs as fish populations changed under el Nino conditions. The buy-back program was initiated to reduce the fleet by nearly 50% and the fleet continues to pay back millions of dollars in federal loans without any help from the processing sector. ARE THE PROCESSORS GOING TO SHARE THE BUY-BACK VESSEL TIQ PORTION? IS THE PROCESSING SECTOR GOING TO BE LIABLE TO PAY BACK 5% OF THE BUY-BACK RECOVERY FEE THE REST OF THE FLEET PAYS FOR THEIR 20% ALLOCATION? So where does the processor 20% come from, the entire pool or just the portion not from the buy-back vessels? If they don't have to pay the buy-back assessment then another travesty will once again fall upon the harvesters.

2. Because the processing sector was allowed to consolidated to reduce expenses and competition at the same time to gain more control over the market, prices and the harvesting sector, for the last several years plants have had the fleet on plant limits and delivery schedules. Even though the processors were now only dealing with half the fleet, relatively small plant

116 Because 1 processor on the west Coast.

limits were established by the plants and very strict delivery schedules are enforced. Deliveries above the plant limits from non-plant owned vessels are discounted to nearly 50% of the current expected price. Fishermen are either forced to sell cheap fish creating animosity with fellow fishermen or they are encouraged to discard the resource in order to keep the market price firm and still have friends back at the dock. If weather or other circumstances prevent meeting the delivery date and time, then fishermen have to forgo the trip or if they were at sea, they may even have to discard their catch for the sake of quality. Vertical integrated processors don't enforce the plant limit or delivery dates/ time schedules on their own vessels. Processor owned vessels operate under the federal trip limit schedule and at questionable ex-vessel prices. There are also a number of boats that were built to fish mainly in Alaska waters, that are here as whiting catcher vessels and processors(both shoreside and at-sea). They land groundfish is huge volume between Alaskan pollock seasons without regard of price or quality so that they can quickly return to Alaska. Both the processor owned boats and these Alaskan boats help lower the ex-vessel price, and therefore, an encouraged practice by the processors is to create the situation that causes plant induced discards. Unfortunately, it is the fishermen that take all the negative PR and brutal relentless punishment from the environmental groups and the well meaning media.

3. The processors introduced split prices for species based on what the market could bare for weight and size, several years ago. This policy has caused ***high grading*** at sea, another category of plant induced discards. Unmeasurable amounts of fish are discarded at-sea in order to optimize the value of each landing. This policy combined with the discounted fish/delivery schedule policy mentioned above accounts for the majority of our discards. The processing sector has been isolated from the "burden of conservation" that the industry deals with everyday and conservation will continue to be of no interest to them unless it means less fish for them to process. When there are less fish, they are allowed to consolidate more, removing more competition because processors only deal with profit minded decisions while fishermen, with their big investments, are not allowed to stack permits to match their investment to the amount of fish allowed to be landed..

4. Essential fish habitat is another issue that has directly affected the trawl sector's behavior but not that of the processing sector. The trawlers not only froze our footprint, we also gave up valuable grounds to help the Council meet a court order. The processors may have worried that they might not receive their customary amount of product to process but the trawl fishermen had to change major behavior patterns and practices that reach far into the future. ***This is another conservation issue that is a burden only on the harvesters.***

5. The Rockfish Conservation Areas were established through a coordinated effort between management and harvesters. These heavy restrictions burdened only the harvesters and the magnitude of this conservation effort has added untold risk, increasing cost, worry and rethinking "normal practices" to the real American fishing fleet. ***The logistics and management of the RCAs has affected every fisherman's operation, bottom line, and behavior, a burden not shared by the processing sector.***

6. VMS is paid and used on the entire trawl fleet. The initial feeling fishermen had, when we were forced to carry VMS, was that of a criminal with an ankle bracelet. "Big Brother" was now watching our every move and stealing what once was proprietary information. In order to make

sure the RCA and EFH were truly being protected at only the fishermen's expense, we had no choice except to concede to these electronic devises. Again, the processing sector was not effected by VMS in cost or behavior changes that were needed to assure protection of rebuilding stocks. Nor do processors face any kind of liability for a vessel drifting over the boundary line or misinterpretation of the complex matrix of arbitrary areas and differential limits like the fishermen do. ***Again the burden of conservation is totally on the fishermen.***

7. Observers, another liability burden, are now on every trawl vessel at some time during the year. They are there to account for the total mortality of fishing. The TIQ program will require 100% observer coverage 100% of the time. Observers not only account for the total mortality but also verify the location of the vessel, gear used, direction of tows and other important information. It is the trawl fishermen that have to cope with this intruder on our vessels which increases our legal liability and costs and it isn't always easy or possible to make the observer part of the boat crew. Again, the processors do not share the burden of conservation the observer program has brought to the fleet. ***If the TIQ program is a conservation program, why does the Council believe that processors, who have nothing to do with at sea conservation, should receive a slice of the pie?***

The Council's own Groundfish Allocation Committee in May 2008, voted to recommend "no initial allocation of quota shares for processors" with all but one abstention, voting in favor. The rational they gave at that time was as follows:

1. "An initial allocation of quota shares to processors may erode the personal accountability for bycatch that quota shares are supposed to provide. A major goal of the program is to maintain mortality of overfished species within the limits specified in the rebuilding plans. To achieve this we need to clearly put responsibility on the fishermen and give them incentives for innovations that will allow them to increase their catch of target species while decreasing overfished species bycatch rates. Starting out with initial allocation of quota shares to fishermen clearly puts the responsibility on the fishermen.

2. While quota shares may be transferred to processors after the initial allocation, the two are quite different. The initial allocation is a decision made by the government while the subsequent distribution among sectors will be driven by each person's individual business decision to buy and sell. For an entity that is granted the quota share as part of the initial allocation, the incentives for optimal use, and hence for personal accountability, will be less than if they have to buy that allocation through the market place.

3. The bycatch rate reduction expected with an initial allocation to fishermen will result in increased landings of target species which will benefit the entire industry, including processors.

4. The language of the MSA indicates a strong intent to recognize harvesters.

5. Ultimately, both sides will benefit from the program and there is not a large disadvantage if processors are not given shares initially.

6. There is limited evidence on the need for an allocation to processors and the ramification of

such an allocation is unclear. It does not appear that an allocation to processors will address concerns about the geographic distribution of harvest.
7. Consolidation is a concern and an initial allocation to processors may lead to greater consolidation.

8. The analysis indicates that currently there is not a level playing field between harvesters and processors and an initial allocation to processors may exacerbate that imbalance, especially given the degree of consolidation in the processing sector.

9. Long established relationships between processors and harvesters will continue to exist, there will not be widespread disintegration and relocation of these relationships.

10. The history of development of this program encompasses the identification of a continued harvester overcapacity problem and conception of the buyback program in 1996, the groundfish strategic plan, and the bycatch reduction amendment. The success of this long-term effort requires protection for those established in the fishery in order to increase the economic stability for all."

In the analysis document it states in Appendix A (A-2.1.1.a) page A-73 under "Competitiveness", processing sector's interaction with harvesters, "that processors are in a strong position to exert market power under status quo and may have cheaper access to capital than harvesters; an IFQ program under which processors do not receive an initial allocation would weaken that position; even if weakened, processors could regain some strength through the acquisition of quota shares, but only up to accumulation limits; that an initial allocation of quota shares would give them a stronger negotiating position than if they not receive an initial allocation."

"Specifically, an initial allocation of quota shares would:
1. Provide a capital infusion that may allow processors to employ one of a number of different strategies to grow and increase their efficiency (e.g., acquisition of additional shares, horizontal integration, etc)

2. Diminish the exit barrier (liquidation of quota shares would allow a firm to exit the industry with less debt or greater gains)

3. Initially provide processors with greater bargaining power (as compared to their initial situation under IFQs if they did not receive an initial allocation)

4. Create a greater barrier to new entry

5. Create an even greater barrier to entry if there is an accumulation limit grandfather clause

6. Decrease the cost of processor access to capital."

There is a disjunction happening with this TIQ program when initial allocation is given to processors. The original goal of preserving the fleet characteristic and therefore our coastal communities' characteristics can't be accomplished if the Council desires fewer processors on

the west coast. Is it the Council's goal to only have factory trawlers and motherships working the harvest and running to Seattle with the money?

We believe the Council failed to look at processor shares from every view point. The conflicts that exist between the big domineering processors and the small processors, coupled with the lack of competition in the west coast processing sector, will put the smaller processor in jeopardy of staying in business. It seems that the Council prefers large processors over small processors and will eliminate the small processors with the required six (6) metric ton deliveries in three (3) of the six (6) years between 1998 and 2003. So these smaller processors will not receive any of the 20% allocation that the processors will get, putting the smaller processors in greater jeopardy. ***We believe the Council action on this issue will reduce competition which will exacerbate and erode any gains fishermen may realize through the rationalization program.***

According to the analysis on Effect on Smaller Processors (Page A-74), "If there is not an initial allocation to processors, smaller processors will be at a disadvantage relative to larger processors. At this time, most of the limited entry permits that are owned by processors are owned by larger processors. Therefore, smaller processors would have to acquire QS (quota shares) or negotiate with harvesters without that leverage. Either way, they would be at a competitive disadvantage within the sector. Anecdotal information has indicated that those processors in the IFQ system in British Columbia who did not own vessels or were not closely partnered with vessels had a financially difficult time competing while also having to make payments on their QS acquisitions. This is consistent with reports from New Zealand that indicated lower economic satisfaction for later entrants who have to buy QS to enter the fishery (as compared to those receiving initial allocation)." So instead of giving QS to small processors so they have something to work with, they will be forced to acquire QS which will put them at a greater disadvantage. This could only have dire consequences for any new entrants and could collapse vessel prices even more than they are right now which is shameful when you compare ex-vessel prices over time to inflation. The analysis shows that smaller processors would use QS more effectively than large processors, the Council is choosing to put the small processors out of business, removing more competition and paving the way to line the big processors pockets with more wealth and privileges. Because the Council seems to have a need to eliminate the small processors and fishermen's business by institutionalizing an unfair advantage to the most powerful, ***we ask that the tightest accumulation/control caps be established to prevent further vertical integration which could also eliminate the fishermen sector in the long run.***

If the Council's final decision includes giving harvesting shares to processors, it is important that the Council also consider permanent accumulation limits and no grandfather clause to try to preserve our coastal communities from massive takeovers and fleet migration that would occur if uncontrolled vertical integration is allowed.. The small amount of vertical integration that has already occurred has affected the negotiating power of the fishermen. While operational costs have skyrocketed, vertical integration has virtually frozen the ex-vessel prices as explained in the number 2 section at the beginning of this letter.

Stability of supply will be improved under the TIFQ program. This will benefit both the harvesting sector and the processing sector with a better coordinated effort to have product available when it is most needed. Price competition may be influenced by many factors. As stated in the analysis Appendix A Excerpts on page A-75, "If the IFQ program results in west

coast fish processing operations remaining smaller that might otherwise be optimal, higher costs could make their products somewhat less competitive in the wholesale market. This would likely mean the raw fish prices (exvessel) might have to be somewhat lower in order for the product to clear the market. An initial allocation to processors and accumulation limit grandfather clause would preserve the advantage of the large processors until the accumulation limit grandfather clause expires. After expiration of that clause, the likelihood that larger processing operations will continue to dominate the fishery will depend on the relative advantage that ownership of QS provides a processing operation. (QS ownership is not necessary for large operations but could improve their profits.)" With improved profits for the large processing operations, the likelihood of further consolidation, geographic shifts in catch and localized depletion of stocks is greater. Any effects on raw product prices, either higher or lower at the start of the program "are expected to be short-run effects because over time processors are eligible to buy QS and over the long run they are likely to accumulate QS to improve their bargaining power." So in other words competition in the wholesale market will not be effected if processors are not given initial allocation of QS.

It is stated in the Appendix A page A-80, "Relative to status quo, processors are not expected to lose returns on their investment to QS holders unless there is overcapacity in the processing sector and competition for raw fish deliveries from harvesters has been based at least partially on something other than price (e.g., competition based on ability to handle volume.)" We all know that the processing sector is not overcapitalized and ex-vessel prices attest to that fact.
"Allocation of QS to processors may:

- Strengthen their bargaining position vis a vis harvesters in the raw fish market (as compared to not receiving an allocation)
  - over the short run (via the initial grant of an asset and ability to hold QS in excess of accumulation limits)
  - over the long run, if they would not otherwise accumulate QS through purchase
- Possible strengthen large producers relative to small producers (if there is a grandfather clause)
- Strengthen small producers relative to large producers (if there is no grandfather clause and depending on relative efficiencies)
- *Not likely* affect wholesale prices or competitiveness of west coast product in the wholesale markets.
- Under certain circumstances compensate for partial losses of returns on investment (i.e. if the sector is overcapitalized, fully competitive (market power is not being exerted), and at least some of the competition for the raw product was on a basis other than price (e.g. the ability to handle a large volume of product in a timely manner)). It should be noted that in such circumstances the processors were likely already losing some of their return on investment (to the degree that price was a factor in the competition for the raw product.) Also, the amount of profit that processors bid away in the price competition is unlikely to be the full amount that would otherwise go to return on investment.
- Reduce exit barriers by providing compensation for capital losses by those who might seek to leave the fishery."

"As the allocation to processors increases; The capital infusion to harvesters decreases; The exit barriers increase lengthening the IFQ program transition period; Harvester competition in the raw fish market will increase reducing their bargaining power; The cost of harvester access to capital

would increase; The likelihood of harvester bankruptcies would increase."

"An IFQ program will likely cause at least some increase the potential for harvesters to exert market power or resist processor market power, independent of the amount of QS they are initially granted. Whoever receives an initial allocation is likely to be in a better position to exert market power and accumulate additional QS. As the amount of QS issued to processors increases, transaction costs will increase as QP issued to processors will be transferred to vessels each year in order to be used. As the amount of QS issued to processors increases, there is a greater mismatch between recent production by processors-permit associations and the QS distribution to those processor-permit association. Program administration costs increase with each additional group to which an allocation is made."

Finally, in order to give processors harvesting quota, laws have to be changed. The Department of Justice cautioned the IQ Committee that issuing harvesting quota to processors could violate anti-trust laws. The harvesters have believed for many years that the processing sector has been in violation of the Sherman Act. Processors have been suspected of price fixing and collusion. Product has been dumped on the market to drive non-cooperating processors out of business. The harvesters have been sacrificing for years and have been the sole source of the burden of conservation. Harvesters have had to reduce maintenance, crew size and operation time in order to stay in business, while at the same time, fishermen watched the processors consolidate to lower costs, build new plants and improve existing facilities, buy small plants to close those operations, increase their employee benefits and fly around the country in private jets.

We believe giving initial allocation of QS to processors is the wrong thing to do and oppose this IFQ program if it contains initial allocation of QS to processors.

Sincerely,

Ms Julie Inc.

this will Kill my Business
One Processor will own All the boats And
All the fish in the Pacific
THANX Again

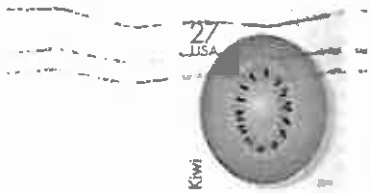
Don't let local fishermen disappear

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Vincent Cheek



Mr. Don Hansen, Chairman
Pacific Fishery
Management Council
7700 NE Ambassador Place,
Ste. 101
Portland, OR
97220-1384

191 POSTCARDS RECEIVED

ALEUTIAN SPRAY FISHERIES, INC.

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October 15, 2008

Donald Hansen, Chairman
Pacific Fishery Management Council
770 Northeast Ambassador Place, Suite 101
Portland, Oregon 97220-1384

RE: *West Coast Groundfish Rationalization Program*

Dear Chairman Hansen and Council Members:

On behalf of Starbound, LLC and Aleutian Spray Fisheries, Inc., I write to provide comments on the Pacific Fishery Management Council's proposed West Coast Groundfish rationalization Program.

Starbound, LLC and Aleutian Spray Fisheries, Inc, are participants in the Pacific whiting fishery. Our four Pacific Groundfish permits owned through West Coast Fishery Investments, LLC each harvested a significant amount of whiting during the 2008 Pacific whiting season. Alone, these four permits represent as much as 10% of the harvesting history in the mothership sector within the proposed rationalization qualifying period, in addition to significant shoreside landings. Unlike other participants, we do not have an interest in any of the motherships or shoreside processors. In general, we support the concept of a rationalization program and urge the Council to adopt a plan that ensures maximum flexibility to quota holders to utilize their quota in the most efficient manner available, including allowing harvesting and processing on board.

We are very concerned that certain components of the proposed alternatives do not meet the primary goals and underlying fairness that a rationalization program should reflect. Specifically, we oppose awarding harvesting shares to processors and requiring any type of linkage between harvesters and processors. We strongly believe that these components would severely limit competition and negatively impact already struggling fishermen.

The prospect of effectively "gifting" 20% of the HARVESTING shares to certain processors is unprecedented in any fishery management plan or amendment. It is unsupportable under current law and contrary to the National Standards identified in the Magnuson-Stevens Fishery Management Act. Awarding harvesting shares to processors that have no actual harvesting history will result in further consolidation in the fishery and increase the marketing power within the processing sector, all while failing to meet the goals of rationalization and protecting coastal communities.

In fact, those processors in the Pacific whiting fishery who would be the primary beneficiaries of any *processor* harvesting shares already dominate the shoreside sector by purchasing more than 75% of shoreside whiting, not to mention their ownership and direct control of a significant number of the shoreside harvesting vessels. As a result, those fishermen who are not directly affiliated with a processor will suffer twice – once by losing harvesting quota that they have worked their lives to develop, and again because the same large companies that they are forced to sell to will enjoy the proposed windfall by increasing their dominance of the Pacific whiting fishery.

Furthermore, the processors' unprecedented consolidation and control of the fishery will be expanded through proposed linkages and other penalty provisions, which would effectively limit a fisherman's ability to freely market their catch. Any proposal that seeks to penalize quota holders who wish to change markets or pursue opportunities that could allow more efficient or effective prosecution of the fishery is unacceptable. Accordingly, we strongly oppose linkages to processors and any mandatory open access penalties. Instead, we urge the Council to support free and uninhibited marketing and harvesting policies – quota holders should not be restricted or limited in their ability to move between eligible markets.

In conclusion, the draft components described above would be for the sole benefit of already dominant processors and will only have the effect of limiting a harvester's ability to support our crews and their families, who rely on these permits – as they will rely on the resulting rationalization – for their livelihood. For these reasons, we strenuously oppose awarding harvesting shares to processors, any required linkage between any vessel or permit an a specific processor, and any other similarly punitive or restrictive proposals.

Thank you for the opportunity to provide comments on the draft rationalization program.

Sincerely,

Craig Cross

Hans D. Radtke, Ph.D.

Natural Resource Economist
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October 15, 2008

Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384 via email: pfmc.comments@noaa.gov

Subject: Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery Preliminary DEIS

Summary: Available economic information and modeling results prepared to meet the 2006 MSRA requirements are not included in the preliminary DEIS. Decision making should be delayed until this economic information is available to the public and Council.

Dear Don:

I read the preliminary DEIS and supporting documentation. I was dismayed to find that an economic quantitative analysis of the alternatives was not included. There is a lot of discussion of potential effects, but no measurements at the national or community level that would show magnitudes and directions of efficiencies, impacts, and decision tradeoffs. I noticed it was also not included in the evaluation of alternatives for the Council's June meeting, and thought for sure it would be included in the analysis showing impacts for alternatives when there was an identified preferred alternative.

Coastal communities need to know economic effect measures for this new program, which according to UC Davis economist Jim Wilen, will generate a private sector windfall of $100 to $150 million in asset value. The trawl buyout program had severe economic distributional effects to our coastal communities and this program has the potential to accelerate the effects through industry concentration and consolidation.

The 2006 MSRA emphasized that economic analysis be provided under National Standard 5 and 8, e.g. management measures must "consider" economic efficiency and community impacts. The requirement does not mandate that the alternative with the lowest cost and least impacts be selected. Rather, it is meant to provide guidance that efficient utilization of resources is a way to achieve benefits for the nation, while limiting the costs to society. The Standards also say that decision making must take into account the adverse impacts to communities. In order that the

public and Council members are informed, it is expected there will be available estimates of the relative benefits and costs as well as estimates for positive and adverse community level impacts.

The preliminary DEIS begins with a premise that the trawl fishery is inefficient and an IFQ and/or cooperative approach will make it more efficient. I don't find any economic assessment other than case example references to other programs that have been modeled, anecdotal data about the West Coast cost and earnings, and unsubstantiated findings about net benefits that show a change in efficiency will occur. There are some quite interesting theoretical economic descriptions of efficiency in the appendices, but there is no modeling application to the fleet's current situation and how it is expected to change in the future from the alternatives.

The only regional economic impact analysis I find is a qualitative comparative advantage model based on questionable factors (Table 2-7). One factor is related to a determination of optimal vessel length thereby relating efficiency to vessel size. Then ports are at a disadvantage if moored vessels do not adhere to this size. There have been past studies by the PFMC about area fisheries that suggest that size of a vessel is not a major indication of total ex-vessel revenue within a fishery, meaning that efficiency may also not be a factor of size. The fisheries and management that determined fleet size we have today cannot be relied upon to determine the platform and financial performance under the program. There are confounding statements about vessel size on page 280 that undermine the model's efficient size determination. In some proportion, trawler sizes are remnants of foreign joint venture fisheries. Others are converted vessels originally used in the Gulf shrimp fisheries. Still others are participants in distant water fisheries where weather demands a larger vessel and participation in any one of the West Coast groundfish fisheries sectors is only one revenue generator. In regards to their home-port, there are many examples for a vessel's operations and landings being made at one port but are moored elsewhere because of owner residency or even lower moorage rates. Such behavior is unrelated to length. The above examples are only several of many perturbations that make a length predictor unreliable.

While there are some qualitative descriptions about community impacts (Table 4-61), it is almost impossible to even discern whether conclusions point to the direction of impacts. I found some assessment information about expected landings that could be interpreted for modeling inputs. However, the analysis did not carry through on showing economic effects to the nation nor affected communities. The public and the Council deserve to know the likely magnitude and direction of impacts in a particular community that now supports a trawl fleet, processors, and support businesses. I would have expected some quantitative results from a modeling effort.

It is my opinion that scientific data and models exist and have been sufficiently reviewed to be utilized in such an analyses. The Council has used the FEAM model in the past, and results in terms of expected changes in regional personal income by areas should be part of the information provided in the EIS. The FEAM modeling has been reviewed by the SSC in the past. While the FEAM is not a dynamic model, there can be assumptions applied about reactive behavior in order to develop NEV and REI estimates. Other modeling possibilities are to take advantage of

existing expertise and research completed by the NMFS Northwest Science Center. Dr. Edward Waters, former staff member and present consultant to the PFMC, is one of the U.S. leading experts in CGE (Computable General Equilibrium) modeling. This modeling can be combined with the information from the FEAM to provide regional and community impact information. One of the motivations for the NMFS Northwest Science Center to expand their economic research capabilities was because of the specific need for more information about a LAPP program. The trawl fleet's economic survey may not have been as thorough as originally hoped, but it did extend the information envelope about the fleet's costs, revenue opportunities, and risk position. As a fall back, the most recent FEAM update has similar credible information.

The LAPP process initially included an independent economic advisory group. The members were very respected economists, familiar with the PFMC fishery governance. The group was dismissed from the process, but was later asked by the PFMC Executive Director to continue working with PFMC staff on a individual basis. This group advised the PFMC that without the group's ability to review information and analyses, they could not provide guidance. They concluded that without group review, unrefereed economic information might be utilized in an unacceptable manner.

The decision on releasing the preliminary DEIS should be deferred until such time that a proper economic quantitative analysis is prepared.

Sincerely,

Hans D. Radtke, Ph.D.

HDR:kco

food&waterwatch
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October 15, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

RE: Introduction, Ben Bowman Food and Water Watch

Dear Pacific Fishery Management Council members,

My name is Ben Bowman. I have recently assumed the role of Policy Analyst with Food & Water Watch. I will be concentrating on IFQ issues for the current time and look forward to offering my perspectives.

Katherine Smith, my predecessor, has resigned from the organization. To fulfill professional commitments of her husband, an American serviceman, her family has relocated to Canada. She sends her regards, and will no doubt continue to follow the progress of IFQ issues.

By way of my personal background, prior to joining Food & Water Watch, I worked for the state government of Victoria, Australia, as the Principal Strategic Analyst, Fisheries.

I look forward to meeting the Council, and in the service of Food & Water Watch, assisting to promote sustainable fisheries in the Pacific.

Regards,

Ben Bowman
Policy Analyst
Food & Water Watch
bbowman@fwwatch.org

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October 15, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

RE: Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery

Dear Pacific Fishery Management Council members,

On behalf of Food & Water Watch (FWW), please accept these comments on Groundfish Fishery Management Plan, Amendment 20, titled Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery (the Program).

FWW is a national consumer organization that defends community access to and effective management of essential public resources including fish.

In accord with FWW's public interest mission and the values of our members, we strongly recommend that Pacific Fishery Management Council (Council) members, in respect to the Program, forsake the Preliminary Preferred Alternative and actively support status quo management at the upcoming November 2008 meeting.

Further, Council should then 'go back to the drawing board' and develop a fishery management program that strategically moves the groundfish fishery towards durable and sustainable positive social, economic, and environmental outcomes that benefit both the relevant fishing communities and the general public.

In addition to our support for status quo management and the subsequent development of a better management regime proposal, the following are specific comments regarding the content of the proposed Program:

Point 1: The goal of the Rationalization Program is to create quasi-monopolies on groundfish.

The proposed Program's stated goal is to:

'Create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts, and achieves individual accountability for catch and bycatch.'

In effect, the goal of the Program, when boiled down to basics, is simply to:

Create quasi-monopolies on groundfish.

All the hundreds of pages of dressing in the decision documentation, including the few environmental aspects, merely serve the purpose of supporting this once obfuscated, but now apparent policy goal.

Point 2: There is a clear disconnect between the policy problem and the policy goal

The decision document - 1.2.2 Need for Action (Problem Resolution) - characterizes the policy problem neatly:

In summary, management of the fishery is challenged with the competing goals of: minimizing bycatch, taking advantage of the available allowable harvest of more abundant stocks, increasing management efficiency, and responding to community interest. 'Taking advantage of the allowable harvests' includes conducting safe and efficient harvest activities in a manner that optimizes net benefits over both the short and long term.

How this policy problem leads to the development of the policy goal - to *'create quasi-monopolies on groundfish'* - is not clear. From a public policy, or common sense perspective, there is no logical connection.

A disconnect between the policy problem and the policy goal has somehow emerged during the policy development cycle (most likely through political maneuverings). This policy cycle disconnect is, and can only be, a grave problem for the proposed Program.

The extent to which this disconnection has been obscured and roughly patched over is now tangible in over one thousand pages of decision documentation. Decision documents that include: a) questionable economic theories and terminology, b) false representations of property laws and terminology, and c) errant claims about the environmental stewardship credentials of business interests.

Point 3: Rationalization is best understood as 'the provision of self-justifying explanations for irrational behavior'

Rationalization is unfortunately an apt title for the proposed Program. Whilst interpreted in the decision documentation as *'to increase economic efficiency within the fishery'*, in psychoanalytic theory, rationalization is considered: a defense mechanism whereby people attempt to hide their true motivations and emotions by providing reasonable or self-justifying explanations for irrational or unacceptable behavior.

The true motivations behind the patching over of the policy disconnect is clear - allowing exclusive use of public resources for private gain.

The very design of the Preliminary Preferred Alternative for Program implementation lends to its outcome - a take-over of public resources, in the end, by a few entities for private gains. The outline: propose gifting an economic windfall to everyone meeting constrained eligibility criteria. In turn, beneficiaries will most likely choose financial security over any other values, and support the plan. Many of those with conflicted values will not have the stomach to see the fishery 'rationalized', so they will sell out to the proponents of the Program. The proponents, (mostly corporations) know that as the fishery consolidates, they stand to benefit immensely. For example:

1. They fish for free - no compensation to the general public for exclusive use of resources
2. They extract quasi-monopoly profits by excluding participation and vertically integrating to the extent possible (lobbying for grandfathering of accumulation caps at the start, and the relaxation or circumvention of accumulation restrictions over time)
3. They are able to lease their quota or that of others for further private gain
4. Through cross-subsidization of management costs the taxpayer pays for the overwhelming bulk of asset security costs (enforcement, research, and monitoring) - with only the marginal cost of the Program management (likely not even that) coming back to quota shareholders
5. They can buy quota share, or sell their gift at any time and seek abnormal profits with the windfall elsewhere

Point 4: 'Rationalization' will harm marine wildlife and historic fishing communities

The Preliminary Preferred Alternative, through consolidation, seeks to privatize profit and socialize loss.

These losses will be experienced primarily by smaller fishers, captains and crews, fishing communities, treaty tribe harvesters, groundfish and related fish stocks, protected species including ESA-listed salmon, ecosystems, and the general public who are deprived of a fiscal return from their resource.

At a time when small communities are struggling and threatened by straining economics, and big business has proven continually fevered in pursuit of profit regardless of impacts on people or the environment – the choice is clear: stick with the status quo management regime. Then work to develop ecosystem and community-based fishery management models and value chains that deliver sustainable benefits.

In summary:

The Program, despite the reams of documentation and years of discussion is no closer to being upfront about its goal, that is: to shift from the status quo to create a quasi-monopoly of fishing businesses that can extract abnormal profits from a public resource, in a highly secure and difficult to reverse context. When an industry is allowed to set its own conditions for economic competition, serious long-term problems result.

If clarity around the true goal of the Program was placed front and center before the public, there would be no way they, or anyone truly representing the public interest, could support the Program, or the proposed implementation mechanism, the Preliminary Preferred Alternative. We urge you not to as well.

Further, Council should 'go back to the drawing board' and develop a fishery management program that strategically moves the groundfish fishery towards durable and sustainable positive social, economic, and environmental outcomes.

FWW appreciates the opportunity to provide comments on this matter.

Sincerely,

Ben Bowman
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Food & Water Watch
bbowman@fwwatch.org

Ocean Hunter Enterprises, LLC
Marion J. Larkin
19737 Trophy Lane
Mount Vernon WA 98274

October 13, 2008

Mr. Donald K. Hansen, Chair
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland OR 97220-1384

Re: Comment on Trawl Limited Access Privileges (LAPP)

Dear Mr. Hansen:

I have been a fisherman for over 35 years, participating in the salmon, crab and for the last 30 years, in the groundfish fishery. I now own and manage the fishing vessel Ocean Hunter which delivers groundfish to Bornstein Seafoods in Bellingham Washington and Ocean Gold in Westport, Washington.

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The Pacific Council is about to take action on a management plan which, if properly crafted, will be of great benefit to the conservation of the groundfish resource, improve the economic return for fishermen, processors and the public alike.

The road to this decision point has been a long and arduous one, with many pitfalls. The Council has listened to all stakeholders and attempted to address their concerns. Whether to allocate harvesting shares to processors of groundfish remains divisive and contentious. It is important we 'get it right'! Fishermen of all stripes believe this would be the wrong decision and have far-reaching consequences. I am in agreement with that position and adamantly oppose the granting of harvesting shares to processor.

This allocation is *unprecedented in the world*. Fisheries managers world-wide have seen no need for allocation of harvesting rights to processors. But to the contrary, they have spoken out against it. For the U.S to take such an action would be very dangerous and unprecedented.

The need to allocate shares to processors is unfounded. There has not been established a benefit to the environment, marine habitat, selectivity of harvest of stock, or the fostering of personal responsibility and accountability by fishermen, all of which are the justification for fisheries rationalization.

It is purely an economic allocation! To grant processors, who are the customers of the fishermen, harvesting rights will have grave adverse economic impacts Fishermen

operate in an environment of "take it or leave it" with respect to price negotiations. You may recall the fleet tie up two years ago. Processors continued to supply their markets with imported fish from Canada as well as fish delivered by vessels they own. We went back fishing with no gain after most processors on the coast refused to negotiate other than on a port by port basis. This experience demonstrated our present plight with little or no market power. To allocate to processors will further undermine the fisherman's very week position.

Processors will not go broke because of rationalization as was testified to in June of 2008. They will have another problem – how to market the increased amount of fish which will be make available to them to purchase, process and market. It is estimated up to 40% more groundfish can be landed under rationalization. Processors have not been able to market the fish of all species now available for harvest. Processors have constrained harvest through vessel trip bag limits due to their inability to market, on a timely basis, species such as dover sole, petrale, and English sole. This has resulted in large amounts of waste of discarded fish, not because they are too small, or poor quality but because there is not enough market capacity to warrant their landing and utilization. Status quo marketing has been a failure. New methods, product forms and markets must be developed if we are to utilize the increased volume of groundfish which may result from the efficiencies of rationalization. They should not be concerned about supply, it will be there; they should rather be concerned of how they will fulfill their role in processing, marketing and distribution of the nations bounty.

We have heard in public testimony processors would use harvesting shares owned by them *to attract vessels to fish for them.* While that may be the case in some instances, I believe a different scenario will play out.

Processors who own boats will receive quota because of that ownership. After initial allocation there is no distinction between shares derived either from harvesting or from being a processor. At that point they are merely shares, shares which came from other fishermen. Processor harvesting shares will be placed on processor owned vessels, as a first priority, to supplement shares derived from harvesting history. Any shares which do end up on vessels not owned by processors will extract a rent from the harvester, further increasing the benefit to the processor and increasing the overhead to the lessee.

This results in a large portion of the resource being controlled by vertically integrated companies. Their cost of fish is lowered: 1)fixed overhead is covered with more product produced by their vessels, 2)less product will be purchased from non-company fishermen and 3), and they will benefit from rent from shares leased out. This lowers the cost of harvest for the processor and thereby establishes a lower ex-vessel price paid to other fishermen. This flies in the face of free, open market forces, undermines the price paid to non-company boats and tips the balance of marketing power decidedly in the processors favor.

Under this brave, new world of rationalization where 100% accountability is necessary and required, fishermen on the vessels will have to change the way they catch fish to

survive. Those who don't will need job training. We can anticipate fishermen will be forced to fish where and when (seasonal) fish can be harvested with minimum by-catch. This requires planning and advanced marketing of fish products. Any quota allocated to processors will fill markets during seasons where demand is greatest ensuring maximum profit to the processors thereby ensuring fishermen will get less for their fish and be further marginalized.

Small processors who don't own boats and thereby do not receive harvesting allocation as a result will receive such a small allocation it will not protect them from predatory marketing by the larger processors. With approximately 80% of groundfish processed by 5 or fewer processors, allocation based on processing history will further concentrate marketing power with the large processors as they will receive the bulk of any processor harvesting allocation.

We have also heard small communities will benefit from allocation of harvesting shares to processors. I do not believe this benefit will be realized. First, the EIS anticipates further reduction in the number of vessels harvesting. Fewer boats do not facilitate a return to small operations in small communities. Fewer boats means more quota harvested on each boat. There is no requirement or mandate as to how shares given to processors will be used. We have seen consolidation of processing along the coast with most groundfish delivered into a few major ports. Unless we anticipate the current marketing system will be changed, there is no economic force which will return processing to ports which have lost it. Centralized processing close to markets and distribution centers lowers costs to processing and will continue to be the order of the day.

However, the *Adaptive Management program* could be used toward that end. I support this program with the following recommendations:

1. Ten percent (10%) should be considered a maximum allocation, not a set aside which would be fully subscribed to each year. Only after applicants, through an annual process, have shown need and justification for allocation should the allocation toward Adaptive Management be made. Any unsubscribed quota should be returned to all quota holders.
2. The program must be more clearly defined with goals, prioritized uses, and limitations outlined. Goals and objectives must limit use to entities affected by Trawl Rationalization which should include but not be limited to communities, processors, and fishermen
3. The program should be reviewed with the goal in mind to ultimately terminate it. This process adds to the management burden and complexity and should sunset as soon as possible. The annual specs can deal with most issues at some future time. This program must not result in a pool of fish with unspecified goals and uses but must be directed toward dealing with short term unanticipated outcomes due to rationalization.
4. The program should be sector specific.
5. Management must be aware there is a cost to this program. The benefit derived goes to those who participate, whether they are affected entities or fishermen who

are involved. Fishermen who do not participate in an Adaptive Management scheme pay the cost in reduced quota pounds each year.

6. The program should attempt to spread the benefit along the coast and perhaps state by state.

An important component of a good rationalization program is to ensure there are strict, enforceable controls on accumulation of harvesting shares. The Council took a step in that direction by selecting as a preferred option "No Grandfather" beyond the caps established for control and ownership. The limit must be restrictive enough to produce a fleet in the future of the size which will meet management goals of spreading the benefit coastwide, maintaining a free market, competitive environment in the sale and marketing of fish. Excessive control of harvesting and processing is a danger which is real and must be prevented. *No grandfather right* is the correct choice for the Council to make.

And finally, in closing, I advise the Council to be mindful of the cost of the program, selecting the alternative, when possible, which will lessen the burden of management, and minimize the cost of the program to the nation and all stakeholders. The simplest program will be the least burdensome to manage and enforce.

Sincerely;

Marion J. Larkin
19737 Trophy Lane
Mount Vernon WA 98274

October 14, 2008

BY EMAIL and U.S. MAIL

Mr. Donald Hansen and Members of the Pacific Fishery Management Council
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Proposed Amendment 20: Trawl Rationalization

Dear Mr. Hansen and Members of the Pacific Fishery Management Council:

On behalf of our 1.2 million members and activists, the Natural Resources Defense Council submits the following recommendations concerning the selection of a final Preferred Alternative for the Trawl Rationalization program.

A.1.1 Gear Switching: Support adoption of an option that allows gear switching under the same conditions as trawling (e.g. 100% observer coverage) but also provides incentives for permanent conversion to lower impact gears.

The preliminary preferred alternative allows limited entry (LE) trawl vessels to switch between trawl and nontrawl groundfish gears. It also allows a nontrawl vessel to acquire a trawl permit and catch a limited entry trawl allocation using nontrawl gear (Appendix A, p. A-14). *We support these provisions, but we urge the Council to include, in addition, incentives for permanent conversion from trawl vessels to lower impact gears.*

Rationale
Gear switching has wide appeal. Permanent gear conversion may appeal to some trawlers, particularly those who target sablefish, for reasons as varied as the need to avoid constraining stocks in traditional trawl grounds to consumer demand and higher prices paid for high quality fixed-gear-caught fish (see Trawl Rationalization DEIS, Appendix A, pp. A-25 to 26 for price differential for sablefish). However, those reasons alone may not be enough to overcome the perceived advantages of trawl gear, such as the ability to target flatfish and catch large quantities of fish.

Unlike indiscriminate switching, which is unlikely to produce long-term environmental benefits and do little to reduce the bottom impacts of trawling, permanent gear

conversion has the potential to help shift the gear make up of the groundfish fishery, making long-term reductions in the bycatch and habitat impacts of the trawl fleet as the intensity of trawling is reduced. It also provides greater predictability for adaptive management in case of adverse impacts, such as increased use of fixed gears in vulnerable habitats. A recent study found that the fixed gear sablefish fleet lands about the same amount of sablefish as the trawl fleet with far less bycatch and likely with less impact on bottom habitat.[1]

Encouraging permanent conversion to lower-bycatch gears as a means of reducing the intensity of trawl effort would help meet the objectives of the ITQ program, such as those related to minimizing ecological effects (objective 3) and adverse impacts on other fisheries (objective 5). It would also be consistent with the Magnuson-Stevens Act requirement that LAPPs promote fishery conservation and management.

Specific Recommendation
Allow gear switching for quota holders under the same conditions as trawling (100% observer coverage, etc.), per A-1.1, and provide incentives for permanent switching of quota share to lower impact gears. The specific incentives could be worked out over the next few months but could include, for example: (1) provide supplemental quota pounds (e.g. from the adaptive management provision) to those who convert for the first two years after making a permanent conversion; and (2) allow those who convert to use a combination of electronic monitoring and partial observer coverage if pilot projects and analysis demonstrate the adequacy of such practices.[2]

A-1.2 IFQ Management Units: Support option to subdivide quota geographically, including use of latitudinal management units.

Rationale
Subdividing quota geographically at the 40 10 line will help prevent depletion in one region due to shifting fishing patterns. We see this as a foundation for more fine-grained regional management for species with limited ranges in the future.

A.2.1.3 Allocation Formula: Support Option 2 for overfished species

Option 1 would reward those who contributed most heavily to the poor condition of the overfished species. Option 2 avoids this outcome by instead allocating overfished species quota on an industry-average basis.

A.2.2.1 Permit/IFQ holding requirement: Remove the option (#6) to allow a vessel to resume fishing after 2 years in deficit

[1] . Jenkins, Lekelia, 2008. Gear Conversion as a Means of Reducing Bycatch and Habitat Damage in the U.S. Westcoast Sablefish Fishery.
[2] It may be appropriate to restrict this option to traps. Observer data reveal that the sablefish trap fishery has no bycatch of overfished species. Jenkins, Lekelia, 2008. Gear Conversion as a Means of Reducing Bycatch and Habitat Damage in the U.S. Westcoast Sablefish Fishery.

Rationale
The level of quota overage that would result in two year's deficit is extremely high, likely to be the result of repeated tows of depleted stock. We believe that individual incentive to stay within quota limits is essential to a properly functioning IFQ system. Fishermen who engage in risky fishing behavior should not be excused from individual responsibility.

A.2.2.3.e Grandfather Clause: Support no grandfather clause

Allowing everyone to reach the same level of quota ownership, without permitting a favored few to exceed that, is a fairer system. It also helps prevent too much consolidation of quota ownership.

A.2.3.1 Tracking and Monitoring: Support Option 3 –100% observer coverage with cameras if effective and feasible. No small vessel exception

100% observer coverage is necessary to achieve the conservation objective of reducing bycatch as well as improving accountability. Excusing small vessels from this requirement would create a gap in these features of the IFQ program.

A-3 Adaptive Management Provision: Support having this option for the following potential uses:

- Achieving conservation results, such as rewarding clean fishing and encouraging permanent gear conversion
- Stabilizing vulnerable communities
- Compensating processors for demonstrated injury (e.g., economic evidence of stranded capital). This use should be limited to 3 years
- Managing unforeseen consequences

Having the flexibility to do adaptive management as the program unfolds could be a highly important tool for obtaining the objectives sought and mitigating against unforeseen impacts.

B.1.3.1 Non-coop fishery

While we have no reason to believe that coops are problematic, we are very concerned about the impact fishermen who may find themselves in the non-coop fishery could have. Such fishermen would be operating under a sector TAC and would have none of the conservation incentives an ITQ system is supposed to provide.

A-6 Fixed-Term Auctions: Support a combination of fixed-term quotas and auctions

We support a fixed-term allocation of quota share because the oceans and the life found in them are a public trust resource. The allocation method can best acknowledge that if it provides the quota for a fixed term, with eligibility for a future allocation based on good

conservation performance. We also want to see a good portion of the increased value of the fishery stay in the fishery, to be used for sound management of the resource. A fixed term can slow the rise in the value of the fishery, making it more accessible for new entrants.

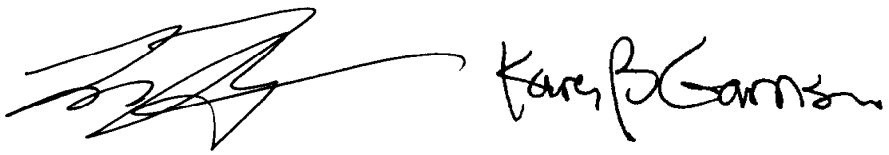
An auction system can help accomplish these objectives and has been used successfully for other public resources. The 15 or 16 years before rolling auctions for a portion of the total quota would be implemented provides not only free use of the resource for this time, but also gives ample time to devise an appropriate system for implementation of auctions.

Auctions are a method worthy of serious consideration for some portion of the allowable catch of overfished species. We believe some portion of the overfished species OY should be allocated through a "market basket" approach based on the average catch rate per target species. But it makes sense to hold back a portion of the total for auction, because an established auction helps create liquidity and transparency that is necessary for a trading system to reach its full potential. Without the auction, there is a significant likelihood that fishermen will hoard these high value fish in case they need them, or that buyers and sellers will have trouble finding each other. The amount one can buy per permit could be capped to help ensure broad and fair access.

An analysis by John Ledyard demonstrates that a fixed term makes no difference in the stewardship incentive as long as the fisherman has a means of reentering the fishery (e.g. via bidding) after the term has expired.[3] Furthermore, reentry can be made contingent on good conservation practices. Full observer coverage would help ensure that fishermen stay within quotas and bycatch limits. In addition, we note that the alternative to this option (outright grants of quota share) are subject to the same potential for loss of stewardship incentive behavior (if any) if that quota is leased out, a common occurrence in many fisheries.

Thank you very much for your consideration of these comments.

Sincerely,



Laura Pagano, Attorney
Karen Garrison, Oceans Program Co-Director
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111 Sutter St., 20th Floor
San Francisco, CA 94104
(415) 875-6100

[3] Ledyard, John O. Market Design for Fishery IFQ Programs, Oct 2008

cc: Frank Lockhart

IFQs in the West Coast Groundfish Fishery: Economic Confusion and Bogus Reasons[1]

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The advocacy of IFQs as a management tool rests on six erroneous views of economic theory and the law of property. Under normal circumstances these conceptual confusions ought to be sufficient to disqualify IFQs as a coherent policy option for fisheries.

Unfortunately, the confusions have been repeated so often that the truth about IFQs lies buried under an accumulation of deceits.

In light of this situation, if the Pacific Fishery Management Council nonetheless decides to proceed with the introduction of IFQs for the West Coast groundfish fishery it is essential that members of the Council understand the full extent to which they have been misled, indeed duped, by bogus claims made by advocates for IFQs.

Before proceeding it must be noted that the term "IFQ" is generally used to connote a particular set of attributes and so my comments that follow are focused on this common understanding. In particular, when we talk of an IFQ fishery we mean all of the following attributes:

1. Catch shares—portions of a fixed TAC—are given away to members of a fishery based on certified catch history;
2. This is a gift in perpetuity and the gift may be sold to others;
3. Holders of IFQs do not pay for the fish they land and so there is no capture of the resource rent in a fishery.

I will first spell out the six confusions about IFQs because it is these confusions that erroneously underwrite advocacy for an IFQ fishery. I will then offer a brief overview of a superior alternative to an IFQ fishery.

[1] Testimony submitted to the Pacific Fishery Management Council, Portland, Oregon, October 14, 2008.

I. The Six Confusions

1. Overfishing occurs because no one owns the fish until they are captured by a vessel;
2. Private property rights (also known as full ownership) conduce to the stewardship of assets—but especially of natural resources;
3. IFQs are private property rights;
4. IFQs conduce to stewardship of fishery resources;
5. Efficiency occurs when resource rents in a fishery are maximized;
6. IFQs must be of infinite duration and tradable to bring about efficiency.

Confusion #1: Overfishing occurs because no one owns the fish until they are captured by a vessel.

The fish in the EEZ are already owned by the citizens of the United States.

The National Marine Fisheries Service (NMFS) has been assigned the task of managing those fish stocks for the benefit of the citizens of the United States. If fish in the EEZ were NOT already owned—and managed by the United States government under its public-trust role on behalf of all of us—it would be legally and logically impossible for the NMFS to carry out its Congressional mandate.

Overfishing is caused by the inability of the regional fishery management councils, advising the Administrator of the NMFS, to set biologically credible landings limits and then to have the NMFS enforce those limits. Too often, politicians are able to make "end runs" around this process.

Rights to fish cannot solve overfishing since the "rights" in question are bogus. The Magnuson-Stevens Act is clear that those who fish do not have—and cannot have—a property interest in the fish or the habitat in which fish reside. The language is clear and IFQs cannot change that basic legal fact.

Confusion #2: Private property rights (also known as full ownership) conduce to the stewardship of assets—but especially of natural resources;

Private property rights create no such incentive.

The State of Washington, in 1945, passed the Forest Practice Act to require that private landowners re-plant trees on land from which they had harvested trees, or leave a certain number of trees per acre to enhance regeneration of the stock. If private property

were so salubrious for stewardship this law in the State of Washington would, quite obviously, be unnecessary. The Soil Conservation Service was created in the USDA following the Dust Bowl because farmers—obviously the owners of the land they farmed—were destroying their top soil by practices giving rise to soil loss in the neighborhood of 15 tons per acre per year. If private owners of land were always good stewards, the Soil Conservation Service would be redundant. Virtually every city in America has local ordinances requiring that private dwellings (and surrounding landscaping) be kept in some plausible state of repair. Owners who ignore such ordinances are subject to fines. If owning private property were a sure guarantee that an asset—a house and a yard—would be kept neat and tidy then such laws would be redundant.

If "privatization" does not assure good outcomes for forests, for top soil, and the appearance of urban neighborhoods, why has it become an article of faith that privatization will work for fugacious resources such as fish?

The economics literature is clear that if the "time preference" of an owner is such that income now trumps income in the future then private owners will be quite intent on liquidating a renewable natural resource in order to take the proceeds and spend it or invest it elsewhere. See: Clark, Colin W. 1973. "Profit Maximization and the Extinction of Animal Species," Journal of Political Economy, 81:950-61; Page, Talbott. 1977. Conservation and Economic Efficiency Baltimore: Johns Hopkins University Press; Smith, Vernon L. 1969. "On Models of Commercial Fishing," The Journal of Political Economy, 77(2):181-98.

Confusion #3: IFQs are private property rights.

As above (Confusion #2), American law is clear that an IFQ is a not a property right and it represents no rights or interests in anything.

The fact that IFQs can be sold does not make them a property right. The fact that they can be (and have been) contested in divorce proceedings does not make them a property right. The fact that bankers will loan money to purchase IFQs does not make IFQs a property right.

American bankers have shown themselves quite eager, over the recent past, to lend money on a wide variety of instruments of dubious credibility and provenance.

Confusion #4: IFQs conduce to stewardship of fishery resources.

IFQ proponents are now encouraged by a recent Science paper by Costello, et al. claiming that IFQs prevent overfishing. The Costello research shows nothing of the sort.

A careful reading reveals that Costello failed to make a distinction between the effects of a hard TAC as distinct from the effects of IFQs. This can be seen by the fact that Costello defined an IFQ as a **share of a TAC**. ALL of Costello's IFQ cases are, in fact TAC cases.

If one wishes to test the stewardship properties of IFQs, the careful researcher must analyze a large number of IFQ fisheries—some with a hard TAC and some without a hard TAC. Only in that way can the researcher be sure whether the claim of stewardship is correctly attributed to IFQs and not to the existence of a firm TAC.

Interestingly, it will be difficult to find IFQ fisheries without TAC limits. That ought to tell us something about the trust that fisheries managers place in the alleged stewardship properties of IFQs.

Indeed we see here the full magnitude of the deceit about IFQs. After all, if IFQs were such a powerful force for stewardship why is it necessary for a management authority to set any TAC at all? If the cheerleaders for IFQs are to be believed, it ought to be sufficient to achieve efficiency and stewardship by the simple act of handing out IFQs. But of course no one seriously believes such fictions, so why, we must ask, does the deceit persist?

Confusion #5: Resource rents must be maximized in a fishery.

Appendix F entitled: ECONOMIC AND POLICY ANALYSIS OF A FIXED TERM AUCTION-BASED INDIVIDUAL FISHING QUOTAS PROPOSAL FOR THE WEST COAST LIMITED ENTRY GROUNDFISH TRAWL FISHERY (authored by Gilbert Sylvia, Michael Harte, and Chris Cusack) seeks to establish the case for maximizing resource rents in a fishery. The report claims:

> ***"3.0 HOW IS RESOURCE RENT CREATED?***
>
> *To explain how sustainable and economically desirable resource rents arise it is useful to look at a simple fishery model (Figure 1) that includes: fishing effort; revenue and costs; and a biological optimum called maximum sustainable yield (MSY). MSY is a standard reference point for the biologically optimum level of catch. In Figure 1 MSY is reached at point E2 -- beyond this point revenue begins to fall as catches fall and costs continue to rise due to the increased effort needed to catch fewer fish. Resource rent is the vertical difference between the revenue curve R and cost line, C. The difference is largest at point E1. This point is referred to as the Maximum Economic Yield (MEY). At MEY the resource rent is greatest, the fishing effort is at its lowest, and the total catch at E1 is equal to that at E3, the point at which revenue equals cost, only normal profits are earned, and a depletion of fish stocks results. MEY is therefore a desirable ecological and economic goal for the management of a sustainable fishery. The resource rent*

accrued at MEY would generate the highest net revenue and result in the largest return to society.

Most fisheries do not operate at E1 and fail to maximize rents. They operate at E3. This is because the cost line C includes an allowance for normal profits. New entrants will continue to enter an unrestricted fishery until E3 is reached and a profit can no longer be made. At E3 all rent has been dissipated and the stock is being over-fished by the difference between E3 and E2. Even if regulations restrict fishing to MSY and some rents are generated this is still economically inefficient compared to E1. Over time rents can be increased through incentives and entrepreneurial behavior by improving output markets (increasing the height of the revenue curve) or improving technologies (decreasing the angle of the cost line)." [Attachment B, pages 2-3].

We see here the standard confusion—in fact we see two common confusions.

First, the "vertical distance" in Figure 1 is referred to as "resource rent" and the usual catechism—repeated here—claims that this magnitude must be maximized to produce the "largest return to society." It is from this confusion that magic enters the picture.

The "resource rent" so much in need of maximization is nothing but quasi-monopoly profits accruing to the lucky firms NOT excluded from the fishery in order to reduce effort from E3 or E2 back to the happy level of effort—E1. This particular model, so central to all of the incoherence in fishery policy, is dishonest about the nature of the "revenue" being maximized. Indeed the language above makes it seem as if all of us ("society") are suddenly made better off when effort is driven back to E1. After all, "resource rent is maximized" at E1.

However, notice that fishing firms pay nothing for the fish they catch. I elsewhere spell out in greater detail the long-standing confusion and deceit in the fisheries literature about this fundamental matter of resource rent [Bromley 2008].

The lucky firms NOT excluded continue to be able to fish for free (they do not pay the owners for the fish they catch and sell), and they are twice lucky because they get to keep the quasi-monopoly profits made possible by the absence of most of their erstwhile colleagues.

Now, consider the second confusion. We see in the second paragraph quoted above that: "New entrants will continue to enter an unrestricted fishery until E3 is reached and a profit can no longer be made." This is misleading nonsense.

What the authors of the report should have said is that at effort level E3 there are no extra-normal profits being made. It seems strange indeed to use—for public policy purposes—a model indicating that firms enter an industry where there is no profit to be

made. And it is on the basis of such bogus models that some fisheries analysts appear eager to excite sympathy for those who fish for a living. The reader is invited to think: "Gee, the poor souls are fishing and they are not making any profit. Surely they would be better off if they were evicted from the fishery so that they can become carpenters and begin to make a profit."

Apparently, in the eyes of those who deploy such models, those who wish to fish cannot be trusted with their own occupational choices.

But the authors of the above quote are confused. Effort level E3 is the competitive market equilibrium level of effort in the industry—and it is an effort level at which each entrant is at least covering all necessary costs, and also realizing enough of a net return ("profit") to make fishing the preferred occupational choice.

We see how confusion over profit, rent, and extra-normal profit can contaminate the coherence of fisheries policy models. If the "experts" are confused about profit, rent, and extra-normal profit we must pity the members of a fishery management council who are fed a steady diet of such confusion and deceit.

Notice that if there were no (normal) profits for vessels comprising aggregate effort E3 we might wish to ask the owners of such vessels why they continue to fish while actually losing money?

Since I have asked that question I might as well advance a plausible answer. They are fishing because they enjoy it and because they are covering their variable costs and making as much net income (profit) fishing as they would if they were to pursue another line of work.

Unfortunately there is a less noble reason why they might be fishing. Perhaps they are betting on the "come." That is, they are fishing (and racing) for history so that when regional fishery management councils finally become overwhelmed by the deceits about the salutary effects of IFQs, they (those who fished and raced) will be at the head of the line to receive a massive gift of free IFQs.

There can be no solace for the owners of fish (we the citizens) by the mere fact that once IFQs have been handed out for free, some firms will then purchase additional quota shares. There is no joy because none of that necessary financial outlay for additional quota will come to the owners of the resource. The revenue will go, instead, to others who were similarly gifted but who now wish to cash out and do something besides fish for a living. Notice that the owners (the citizenry) of those gifted fish receive nothing.

I have searched the sacred texts of my discipline in vain for any language that would allow the free gifting of millions (billions?) of dollars of public natural resources to the commercial sector to be regarded as consistent with "letting the market work." I

am not aware that oil resources are given away free to BP and ExxonMobil. I am not aware that timber on federal land is given away free to sawmills and paper companies.

If the commercial fishing industry can somehow manage to receive a free gift into perpetuity of valuable fish then that is a matter worth serious discussion among the public. But this fortuitous gift cannot possibly be considered sound economics—nor is it coherent public policy. It is only possible because of the deceits and confusions surrounding IFQs. If the lies and confusions are repeated often enough this marvelous gift might even come to acquire that wonderful term "rationalization." It is rationalization to be sure—with the deceits surrounding IFQs providing the necessary rationalization.

Confusion #6: IFQs must be of infinite duration and tradable to bring about efficiency.

Since IFQs are not a property right, and since they cannot induce stewardship, there is no basis for the claim that they must have an infinite life.

It will be claimed that an IFQ allows the lucky recipient to make money two ways—either by fishing or by selling the bundle of gifted IFQs. Since the IFQ is for a share of an unknown future TAC we see immediately that this is rather similar to the search for the underlying value of obscure derivatives (re-bundled mortgages, credit default swaps) recently offered up by the commercial banking and investment houses. What exactly IS the value in 10 years of a share of an unknown TAC if the buyer has no idea whether or not the fish stock will crash in year 8 because of increased ocean temperatures?

In theory it is clear that most assets have a plausible salvage value—but the underlying (fundamental) value of that asset must be knowable. Unlike regular productive assets, people are not buying IFQs for the long-run investment value of them. There is no known salvage value. This means that the argument about perpetuity is a herring of some bright color.

Moreover, there is not a banker in the world who is interested in a time horizon in excess of 10-15 years. If one is to be found it is reasonable to assume that a business loan of that duration would need to be collateralized. Can anyone produce evidence that IFQs have been used to collateralize a 30-year loan?

Does "tradability" matter for long-run efficiency? It cannot matter for the reasons above. The only situation in which trades among holders of IFQs might conduce to efficiency is within a single fishing season.

Summary

Coherence in West Coast groundfish policy starts with recognition that the resources in question (the fish) are already owned by the citizens of the United States. The fishery is a publicly owned natural asset. On this there can be no doubt.

Economic efficiency and equity cannot possibly be served by giving away (free gifting) billions of dollars of the public's assets.

Honesty requires that stewardship of the West Coast fishery be situated precisely where the law insists that it belongs—with the Pacific Fishery Management Council and the Administrator of the NMFS. Responsibility for stewardship cannot logically or legally be handed over to the industry whose short-term economic profitability depends on extracting biomass. All of the utopian claims about IFQs and stewardship are fanciful wishes, eagerly repeated by those innocent of economic theory in the hope that those confusions and deceits will come to be thought true.

Unfortunately, these deceits have had a corrosive effect on the members of various fishery management councils. The appeal is obvious. Managing a fishery is a most difficult undertaking. When a solution is on offer that claims to solve the stewardship problem by shifting responsibility to the users who are alleged to have resolute long-run stewardship commitments, some council members may see this as a magical gift. Like so much that is magical, this claim would be dangerous if actually acted upon.

Recent news out of Alaska suggests that the Bering Sea pollock fishery, often held up as the paragon of good IFQ-based "cooperative" management and stewardship, is experiencing extraordinary problems with declines in pollock regeneration—and bycatch problems are severe.

II. Getting Fisheries Policy Right

The following observations are advanced in full awareness that they were not asked for.

However, the problem that a commentator faces is that when we are asked to comment on a specific proposal we have only two options: (1) we speak in praise of the proposal; or (2) we object to it (or parts of it). If the second route is followed, we leave ourselves open to the charge that we were critical and failed to offer any positive suggestions for fixing what is wrong with the mooted proposal.

The published record will reveal that I have been a consistent critic of the bogus claims advanced on behalf of IFQs (as the bibliography below will show). But my

abundant writings also contain suggestions for how to get fisheries policy right. I have also, in collaboration with Professor Seth Macinko of the University of Rhode, prepared a report for the Commissioner of the Alaska Department of Fish and Game in which we offer a comprehensive review of the experience with IFQs in Alaska, and we set out a number of suggestions for creating a new and innovative fishery policy in Alaska [Bromley and Macinko 2007].

I have here criticized the report by Sylvia, et al. for its misleading conclusions about fisheries policy in general, and resource rent (and profit) in particular. The reader of that flawed report, possibly innocent of its confusions, might be left with the impression that the "preferred alternative" (an IFQ fishery) is better than any alternative. While the authors of the report appear open to the suitability of auctions for fixed-term permits, it is my experience that auctions represent a serious shift in deeply entrenched mental models of fishery management. And so comparing auctions with the "preferred alternative" of an IFQ fishery is really no comparison at all. The IFQ fishery will win that comparison because the industry will be opposed to auctions, and will make its opposition known.

But there is an option that has not been discussed. And so to protect myself against the charge that I have only criticized and have failed to offer constructive comments, I ask forbearance of the few paragraphs below.

Consider the following principles for a new West Coast groundfish fishery. That new policy must:

a. Recognize and honor history in the fishery;
b. Capture resource rent for the benefit of the owners of the resource;
c. Reduce the tendency for racing (derbies);
d. Simplify management and protect the fish stock;
e. Not create a quasi-monopoly (closed class of vessels) fishery;
f. Provide economic benefits for fishing communities;
g. Provide fresh product to benefit consumers and the tourism sector.

These principles can be realized as follows:

1. The first step must be to realize resource rent for the owners of the fish. I suggest that there must be an immediate introduction of a 3% royalty payable at the time of landing fish. This is an ad valorem fee—paid on the value of total groundfish landings. Why 3%? I offer it as a possibility—and it matches administrative fees levied in some fisheries.

2. The new policy must create a catch-share fishery in which permits are issued entitling the holder to catch and sell an assigned share of the annual TAC.

3. Fishing history would be honored by issuing three-year permits entitling the holder to land 75%, in each of the three years, of this history.

4. This three-year period is one of dynamic consolidation. The royalty will alter the economic calculation of harvesters. The existence of the royalty will induce some fishers with history to exit the fishery. In addition, the allocation of 75% of historic landings will further cause some to exit. This reduction of interest in continuing to fish represents the source of consolidation and it will reduce fishing pressure on stocks.

5. During the three-year consolidation period, the historic allocation received in step #3 above could be reassigned by a recipient to **any other** individual who had also received an allocation. This re-assignment could **not** be sold but only **transferred** to another. This process of willing re-assignment of history would be officially recorded and would form the data base that would be used to allocate compensation payments to those who decide to exit the fishery. This three-year period is one of willing re-assignments among all who received a history-based allocation at the beginning of the consolidation period. There could be no buying or selling for the simple reason that there is nothing to buy or sell. All that is being reassigned is fishing history.

6. During this three-year period all landings are subject to the royalty fee and so the fishery will begin to accumulate resource rent. The NMFS would create an escrow account to receive all landings royalties.

7. At the end of the three-year consolidation fishery there would be a group of vessels (harvesters) holding history-based permits—their own history plus the reassigned history. Recall that these holdings, in the aggregate, authorize total annual catch at 75% of their historic average. As an aside, the 75% number is simply a guess at the extent of the required reduction (25%) in landings required to rebuild stocks. The actual discount on history would need to be geared to the biological requirements to accomplish rebuilding of stocks and persistence of re-built stocks into the future. This fleet of newly re-authorized vessels would represent a reduced level of total fishing effort in the fishery. The presumption, following consolidation, is that those vessels (harvesters) wish to remain active in the fishery, while those who have relinquished and reassigned their history apparently wish to leave and receive compensation.

8. Each re-authorized vessel (harvester) would receive a ten-year permit to land the catch share embodied in the permit. All landings would be subject to a 3% royalty.

9. Once the new catch-share fishery is underway the NMFS would activate a loan to be used to buy-out those who had relinquished (and reassigned) their history to others. This loan would be amortized over 30 years by the revenue generated from the royalty. Indeed, during the three-year consolidation fishery, those who relinquished their history could be immediately eligible to receive some percentage of their historic landings revenue to ease their transition out of the fishery.

10. The presumption is that those re-authorized vessels would remain in the fishery for the duration of their permit (10 years). The plan would allow these original permit holders to renew (during year 8) their 10-year permit if they wished. Obviously their record of fishing—clean fishing, no violations—would figure in the approval of this

routine renewal. In reality some permit holders will wish to leave or to adjust the level of their permitted landings. These periodic adjustments provide the necessary means by which new entrants could come into the fishery as replacements but not as net additions to current fishing power. That is, all relinquished permits would revert to the government to be re-allocated as seen fit by the managers. These new allocations could be by a lottery or by a multi-unit single-price auction. Regardless of the allocation mechanism, the permit being acquired would expire when all other permits were set to retire.

Summary

There are obviously many refinements and elaborations that could be built into the catch-share fishery—two classes of permits (five-year, ten-year), staggered terms for permits so that a portion of them come up for renewal each year, etc. I have not spelled out these possible elaborations because they represent mere refinements of the basic structure of a catch-share fishery.

The essential point here is to demonstrate that the choices facing the PFMC are not restricted to picking between a full-blown IFQ fishery and an auction of fixed-term permits. History can be accorded prominence, those who wish to leave the fishery can be compensated, and the new sustainable fishery can begin to earn resource rent for the owners of the fish. A firm TAC will assure sustainability.

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October 14, 2008

BY EMAIL and U.S. MAIL

Mr. Donald Hansen and Members of the Pacific Fishery Management Council
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Trawl Rationalization: Fixed-Term and Auctions

Dear Mr. Chairman and Members of the Pacific Fishery Management Council:

On behalf of our 1.2 million members and activists, NRDC submits the attached analysis of fixed-term quota allocations combined with auctions.

This analysis makes several points we'd like to bring to your attention. As you know, in a cap-and-trade system like the Individual Tradable Quota program under consideration here, having a cap (or quota) alone does not guarantee positive outcomes. This paper underscores that how the trade happens also matters.

A mixture of fixed-term grants of quota and rolling auctions can create greater ecological and economic benefits than would occur in a system that makes permanent grants of the entire quota. There are two reasons for that finding. First, an auction helps raise money that can help address community impacts and fund incentives to make environmental improvements, in recognition of the fact that oceans belong to the public. Second, creation of an auction promotes price discovery and a more transparent and liquid market, which can lead to improved efficiency and profitability. A partial-grant, partial-auction system for overfished species quota pounds, for example, could help avoid hoarding problems and create more transparent and active trading.

The paper also shows that a fixed-term system does not lead to appreciable reductions in stewardship at the end of the term as long as fishermen can bid for quota share when theirs expires.

We appreciate your consideration of this paper.

Sincerely,

Karen Garrison

Market Design for Fishery IFQ Programs* DRAFT†

John O. Ledyard‡

October 14, 2008

Abstract

I examine the impact of two aspects of market design on the performance of a cap-and-trade program of Individual Fishing Quotas. I consider the term of the quota, limited term or permanent, and the method of initial allocation, granting or selling. I find that, in equilibrium, neither the term of the quota, the number of years for which it is valid, nor the method of initial allocation has any differential effect on either the profitability of the fishery or the quality of the environment. However, the term of the quota and the method of initialization can have a big impact on the price discovery process and whether equilibrium is attained. Because of this, both the fishery and the environment can be significantly better off with a mixture of grandfathering and auctions with some form of limited term quotas. I also discuss some additional benefits from an initialization process that generates some revenue for the public.

Section 5 contains a summary which can serve as an executive summary for those in a hurry.

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1 Introduction

A Cap-and-Trade program with Individual Fishing Tradable Quotas (IFQs) is an efficient and cost-effective method for managing a fishery. Once IFQs are created and allocated, the total catch is controlled through the cap. This control provides benefits both to fishermen, who care about the economic viability of the fishery, and to environmentalists, who care about the biological viability of the fishery. The benefits to the environment come in a more sustainable fish population. The benefits to the fishermen come in the increase in profits due to solving their commons problem. In many respects, the interests of the fishermen and those of the environmentalists are aligned.

There are many choices that must be made when a new IFQ program is initiated. Two of these fall under the purview of market design: the structure of the quota, the quota that is created to control the catch, and the method by which the initial allocation of quotas is made. Both of these choices potentially affect the economics of the fishery and the sustainability of the environment. In this paper, I look at limited term quotas as an alternative to permanent quotas. I also evaluate the differential effects on fishery and environment of an initial grant of quotas versus an initial sale.

The findings are straight-forward if sometimes counterintuitive. (1) In equilibrium, neither the term structure of the quotas nor the method of initial allocation affect the profitability of the fishery or the sustainability of the environment. All choices of the fishermen (effort, gear choice, entry or exit, etc.) are the same in all variations. (2) The structure of the quotas and the method of initial allocation can affect the extent to which market equilibrium is attained. Some limited term structure on the quotas and some auctioning will lead to more transparent and liquid trading which in turn will lead to higher profitability for the fishermen and a higher value for the environment. This does require some of the potential increase in wealth to be allocated to the operation of the program, but all will be better off if that is done. (3) Even if the IFQ program is run in a way that attains its highest level of performance for both the fishery and the environment, there remain opportunities for further improvement. If some of the wealth created by the IFQ program is put towards solving these problems, both the fishery and the environment can be made better off together.

The rest of this paper is organized as follows. In Section 2, I present a model of the fishery that includes both economic and environmental components. I analyze the equilibrium impact of two methods of initial allocation:

granting and selling. I also analyze the equilibrium impact of limited term quotas. The material in this section is somewhat technical. The reader who wants to avoid that can jump straight to Section 2.5 for a non-technical discussion of the model and results. In Section 3, I look at the price discovery process - how the market equilibrium of Section 2 might be attained. I look at the impact of grandfathering, auctioning, and limited terms in this context. In Section 4, I look at some of the remaining economic and environmental problems that are not solved by an IFQ program even if it functions at full efficiency. A summary with conclusions is provided Section 5.

2 Equilibrium Analysis

I begin with a fairly standard model of the fishery.[1] I try to capture both the economic and environmental aspects of the situation.

The fishery The stock of fish in year t is b_t. The annual rate of change of this stock is given by:

$$b_{t+1} = b_t + f(b_t, e_t) - Q_t \tag{1}$$

where e_t is the quality of the environment, including the carrying capacity, and Q_t is the total catch that period. $f(b_t, e_t)/b_t$ is the natural growth rate of the population. The exact form of f will be different for different species, but the market design results in this paper do not change if f changes.

The environment The environment can replenish itself if left alone but can also be damaged if fishermen use inappropriate technology or participate in extensive discarding.[2] There are I fishermen labeled $i = 1, ..., I$. Let τ^i be the level of technology used by fisherman i, how they fish, where higher values of τ^i are good for the environment but cost the fisherman more to

[1] Equations (1) and (3) can be found in early models of the fishery. More recent references include Neher (1990) and Perman, et. al. (2003). Equation (2) is one of many ways of getting the externality to the environment into the model. The results in this paper do not depend on this particular form.

[2] By environment I generally mean habitat quality, those things that provide the carrying capacity for the biomass in equation (1).

execute.[3] The annual rate of improvement (or decline) in the environment is given by

$$e_{t+1} = e_t + g(e_t, \tau_1, ..., \tau_I). \tag{2}$$

It should be noted that the form of (2) provides a commons problem that an IFQ program does not directly solve. That is, a fisherman's choice of the way they fish affects all of the fishermen in the fishery. Choosing a good method conveys benefits to all but, in choosing one's methods of fishing, one generally considers only the benefits to oneself. Thus fishermen will generally choose too little of the good method. We will return to this issue in Section 4.

The fishermen The final piece of the model is the profit, π^i, of a fisherman in any one year. I assume that[4]

$$\pi^i = pQ^i - c^i(Q^i, \tau^i, b_t). \tag{3}$$

Fishermen may differ in their type of equipment, boat size, capabilities, marginal value of leisure, outside opportunities, etc. In this model they are not homogeneous.[5]

2.1 An IFQ program

A tradable IFQ program is implemented by choosing a maximum limit on the total catch in each year, called the total available catch (TAC), and then allocating a percentage of the quota to each fisherman. Let α^i be the percent

[3]It is assumed here that the choice of technology can be made anew in each period with no switching costs. This is undoubtedly unrealistic, but it only strengthens our conclusions. If desired, transition costs and irreversible effects could be added at a cost of complexity.

[4]I write this in the standard way, assuming perfect competition in the output market with the competitive price of p. This is not necessary for the conclusions of the paper. The results would still obtain if p depended on Q, as it would in an non-competitive marketplace. The results would also still obtain if demand can shift over time. For sake of simplicity, I leave out all of these complexities.

[5]If all fishermen are homogeneous, then the problem is really trivial. Allocate the quota evenly among them. There will be no need for trading. The results to follow still hold and are significantly easier to obtain.

of the the TAC that fisherman i is allocated where $\sum_i \alpha^i = 1$. If the TAC in year t is A_t then he can catch a maximum of $\alpha^i A_t$ fish in that year.

Accompanying the allocation is a policy to choose the TAC for each year t, indicated by A_t. That policy is given by

$$A_t = A(b_t, e_t). \tag{4}$$

Here I am assuming that the TAC is set each year in a way that depends predictably on the biomass b_t and the environmental quality, e_t. This does not require that biomass or environmental quality be predictable. The equation subsumes a lot of processes whose specific forms are not necessary for this paper. For example, the stock assessment part of determining the TAC is included in equation (4). It is required that each fisherman's catch in year t, Q_t^i, be no greater than their quota for that year which is α^i times the TAC.

For this paper, I will assume that all fishermen always use all of their quota. That is,[6]

$$Q_t^i = \alpha^i A(b_t, e_t). \tag{5}$$

I assume there is a sufficiently accurate monitoring and strong penalty system in place to deter over-running one's quota.

Summary Given a fishery policy, determined by (4) and (5), and a quota allocation, α^i, a fisherman at time t will choose an amount of catch Q_t^i and a method of fishing τ_t^i. This in turn will determine the next period's stock of fish and environmental quality through equations (1) and (2). This process repeats itself into the future.

2.2 Permanent Quota

The purpose of this paper is to evaluate the effect of two market design alternatives on the choices of fishermen and, thus, on the biomass and environmental quality. I begin the comparative analysis by considering a base case on which I can build. I begin with the case in which fishermen have an allocation of permanent quota.

[6]The only time this will not be true is if the TAC is not binding on the fleet; that is, there was no need for a quota. Otherwise, if there is trading, any fisherman with excess quota will sell it to another.

The situation is made a bit more complex than the standard model because of the availabilty of trading at every point in time. At the beginning of each period t, a fisherman holds an amount of quota α_{t-1}. In period t, they can buy or sell quota which will determine how large their catch can be, they must choose their technology, how they fish, and they must do this taking into account the future. We model this as follows.

Suppose there are going to be a series of spot markets, one for each t, in which fishermen can buy and sell quota at that time. It is easiest to see what happens in such a setup by considering a Rational Expectations Equilibrium.[7] In the Rational Expectations Equilibrium model, there is a price q_t, for quota bought or sold in time t. The price q_t clears the market for quota in period t. Finally, at any time t^*, the price at t is correctly anticipated by all fishermen for all times $t \geq t^*$.

At time t, a fisherman owns an amount of quota, α_{t-1}, carried over from the previous period. She needs to choose, for each t, a level of desired quotas for t, α_t, and a level of technology for t, τ_t She faces a dynamic programming problem where the solution is found recursively by solving for all $t \geq 0$:[8]

$$\begin{aligned} v_t(\alpha_{t-1}, b_t, e_t) = &\max_{\alpha,\tau} \{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) \\ &+\delta v_{t+1}(\alpha, b_{t+1}, e_{t+1})\}. \end{aligned} \tag{6}$$

On the left hand side of the equality is the present discounted value to the fisherman of holding α_{t-1} when the biomass is b_t and the state of the environment is e_t. On the right hand side are her revenue in this period minus her costs in this period minus her financial costs of trading plus the discounted value of where she ends up at the end of t (which is the beginning of $t + 1$). The values of b_{t+1} and e_{t+1} come from equations (1) and (2). She has two choices to make in each t: how much to fish, α_t, and how to fish, τ_t.

We can greatly simplify the equations to make it easier to derive some results. Let

$$W_t(\alpha_{t-1}, b_t, e_t) = v_t(\alpha_{t-1}, b_t, e_t) - q_t\alpha_{t-1}. \tag{7}$$

[7] There are many ways to model a complete set of markets, including allowing a full set of futures markets at each time t for both leases and quota. One can also introduce uncertainty about prices, etc. But these generalizations mostly introduce unnecessary complexities into the analysis.

[8] I leave off the index i from expressions when it is clear what is going on to avoid excessive notation.

I can then re-write (6) as

$$W_t(\alpha_{t-1}, b_t, e_t) + q_t\alpha_{t-1} = \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) + \delta[W_{t+1}(\alpha, b_{t+1}, e_{t+1}) + q_{t+1}\alpha]\}$$

or in more compact form, subtracting $q_t\alpha_{t-1}$ from each side

$$W_t(\alpha_{t-1}, b_t, e_t) = \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t\alpha + \delta q_{t+1}\alpha + \delta W_{t+1}(\alpha, b_{t+1}, e_{t+1})\}. \quad (8)$$

It is straight-forward to verify that $\partial W_t/\partial\alpha_{t-1} = 0$ for all t, so we can write W_t as $W_t(b_t, e_t)$. We can come to a number of conclusions about the choices of the fishermen from this.

First, the choice of quota, α_t, solves

$$\max_{\alpha}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau_t, b_t, e_t) - (q_t - \delta q_{t+1})\alpha\}. \quad (9)$$

and is entirely independent of the value of α_{t-1}. That is, in a fully functioning marketplace, the optimal choice by a fisherman of quotas needed in any period does not depend on their previous period holdings. Further, in a fully functioning market, the fisherman's choice of α_t is entirely independent of the future value to the fisherman. The value $W_{t+1}(b_{t+1}, e_{t+1})$ does not show up in equation (9). The only future thing that is important in the choice of α is the price for quota in $t+1$, q_{t+1}. If markets are working correctly then $q_t - \delta q_{t+1}$ is just the leasing price for 1 year for 1 unit of quota - the price to buy 1 unit less the discounted price from selling it in the next period.[9]

Second, the choice of technology, τ_t, solves[10]

$$\max_{\tau}\{-c(\alpha_t A(b_t, e_t), \tau, b_t, e_t) + \delta W_{t+1}(b_t + f(b_t, e_t) - A(b_t, e_t), e_t + g(e_t, (\tau_1, ..., \tau_I/\tau))\} \quad (10)$$

[9] If the leasing price were higher than this, one would be better off buying and re-selling than leasing. The opposite would be true if the leasing price were smaller than this. This is the natural result in liquid and transparent markets where all buyers and sellers have access to frictionless capital markets. That is, they can easily borrow or lend money. This is undoubtedly not true in reality which creates market frictions. I will address these frictions later.

[10] I use the standard notation $(\tau_1, ..., \tau_I/\tau)$ to represent the vector $(\tau_1, ..., \tau_I)$ with the ith entry replaced by τ. I am assuming a Nash Equilibrium in τ.

This choice is also independent of α_{t-1}. It does depend on the future, through $W_{t+1}(b_{t+1}, e_{t+1})$. It does not depend directly on the price of quota although it does depend on the choice of α_t which does.

Equations (9) and (10) determine a demand function for α_t^i, independent of α_{t-1}, where

$$\alpha_t^i = \alpha_t^i(b_t, e_t, q_t - \delta q_{t+1}). \tag{11}$$

These demands determine an equilibrium set of prices $\hat{q}_1, \hat{q}_2, ..., \hat{q}_t, ...$ where

$$\sum_i \alpha_t^i(b_b, e_t, \hat{q}_t - \delta \hat{q}_{t+1}) = 1, \text{ for all } t. \tag{12}$$

If the fishery is in a steady state then $b_t = b, e_t = e, \tau_t^i = \tau^i$ and $q_t = q$ for all t. So, in particular, if $\delta = 1/(1+r)$ where r is the interest rate, then at time t the lease price of quota $(\hat{q}_t - \delta \hat{q}_{t+1}) = [r/(1+r)]q$.

I have not explicitly let the fisherman contemplate the possibility of exit from or entry into the fishery. To do so would not change any of the comparative results, but would only further complicate the notation. I do show in the Appendix how to include entry and exit in the model.

2.3 The Effect of the Process of Initial Allocation under Permanent Quota

In this section, I look at the effect of two initial allocation schemes: granting and selling. An example of a grant is grandfathering which involves a one-time allocation based on historical performance in the fishery. An example of a sale is auctioning, a one-time sale of quotas. I do this in the context of permanent quota with full trading in fully functioning markets.

2.3.1 Grant

Suppose the IFQ program is initiated with a one time grant of permanent quota to each fisherman. At time 0, each fisherman is given a gift of α_0^i of the quota where $\sum \alpha_0^i = 1$. For now, it is not particularly important how this allocation is determined, just that it is free.[11] From the preceding analysis, the value to i of α_0^i is found in equation (6), where $v_1^i(\alpha_0^i, b_1, e_1)$. This can also

[11] If it is known or anticipated that grandfathering is the way that the initial allocation of the quota is to be done, then a very bad unintended consequence occurs. Fishermen find

be written as in equation (7) and following: $W_1^i(b_1, e_1) + q_1\alpha_0$. In equilibrium the marginal value of α is simply, q_1, the price at which this quota could be sold in period 1. Alternatively, it is the value to the fisherman of not having to buy α in period 1. So if the fisherman is granted an amount α_0, at $t = 1$ that gift is worth $q_1\alpha_0$ to him. If, on the other hand, he buys α_0 at a price q_0, then at $t = 1$ it is worth $(q_1 - q_0)\alpha_0$ to him.

In a fully functioning market equilibrium, the present discounted value of the quota program is the value of the grant. It is entirely capitalized in the initial price, q_1.

2.3.2 Sale

Suppose the IFQ program is initiated with a one time sale of permanent quota to each fisherman. There are many ways to implement such a sale. Here, I assume it to be done with a uniform price clock auction.[12] Although the proceeds from the sale can be distributed in many ways through many processes, including ones which involve participation of the fishermen themselves, I will assume for now that the proceeds go to the public, to be distributed later.

Invoking the revelation principle from mechanism design, it is easy to show that, with liquid and transparent markets, the allocation and price outcome of the sale with a uniform price clock auction will be the same as that of a demand-supply market.[13] If q^A is the price per unit quota that must be paid at the auction at the beginning of period 1, then at that price, fisherman i will want to buy the amount of quota $\hat{\alpha}^i(q)$ that solves (from (9)):

$$\max_{\alpha}\{p\alpha A(b_1, e_1) - c(\alpha A(b_1, e_1), \tau_1, b_1, e_1) - (q^A - \delta q_2)\alpha\}. \qquad (13)$$

The solution to this problem is exactly the same for every q^A as the solution to (9). How much quota a fisherman starts with has no bearing on how

it now in their interest to to focus their investments and efforts on things that raise their catch levels so as to, hopefully, increase their share of quota at the time it is allocated. Over-fishing can be significantly increased in anticipation of the quota and can actually lead to a lower stock for a long period of time, even after the IFQ program begins. For the rest of this paper, I will ignore this effect.

[12]What is crucial here is that it is a one-price equilibrium. For the curious, I describe the uniform price clock auction in more detail in Appendix III

[13]See Szakaly and Ledyard(1994) for more on the theoretical and experimental background for this claim of equivalence.

much quota he wants to end up with.[14] It follows that the auction price will be exactly the same as the equilibrium price, $\hat{q}$, that solved (12). That is, $q^A = q_1$. The price paid in the auction is exactly the same as the price that would arise in period 1 if the quota were granted and then trade occured. Further, even if trading were to be opened after the auction, none would occur since the auction already has allocated the quota to those who value it the most.

The value to i of the sale is $W_1^i(b_1, e_1)$ since $\alpha_0 = 0$.

2.3.3 Comparing Grant and Sale

Because the optimal decisions for the fishermen in each period are independent of their quota holdings in previous periods, the comparison between grants and sales at $t = 0$ is straight-forward. All choices, those of (α_t, τ_t) for all t, are the same whether there is an sale or grant. This means that $W_1^i(b_1, e_1)$ is the same in both cases. The only difference is in the distribution of the present discounted value of the quota program capitalized in the price, q_1. Under the grant, the fishermen get q_1, the public gets 0. . Under the sale, the public gets q_1, the fishermen get 0.[15] The value at time 1 to our fisherman of the quota, α_0, is $v_1(\alpha_0, b_1, e_1) = W_1(b_1, e_1) + q_1\alpha_0$. He is better off with the gift by an amount $q_0\alpha_0$. We can summarize this in

Theorem 1 *With permanent quota and fully functioning markets, in equilibrium, the path over time of Q_t, b_t, and e_t will be exactly the same under a regime in which quota is granted as under a regime in which quota is sold. Quota prices will also be the same under either regime. Under the grant the fishermen capture the full value, q_1, of the quota program. Under the sale the public captures the full value, q_1 of the quota program.*

As before, efficiency and environmental impact are the same under grant and sale. Only the distribution of wealth differs.

[14] In a well-functioning market without frictions, the opportunity cost of using his holdings is exactly the same as his cost of buying quota in the market place.

[15] Actually, the fishermen also get something else under both grant and sale - $W_1(b_1, e_1)$. This will be higher than what they would have had without a quota program. So the fishermen receive some benefit from the program, under any initial allocation process.

2.4 Quota with Limited Terms

It is not necessary to make an all or nothing decision with respect to the initial allocation of the quota. One does not need to choose between granting all of the quota in period 1 or selling all of the quota in period 1. There are policies that avoid either the outright gift of all value to the incumbents, through a grant of permanent quota, or the outright grant of all value to the public, through the sale of permanent quota. One such approach is to grant quota with a limited term. Under this policy one allocates quota originally, as in a grant, but makes the original quota good only for T years. At the end of the Tth year, those quotas are no longer valid and new ones, which are now permanent, are then sold.

In this section, I look at the impact of a policy of limited term quota and how this compares with a grant or sale of permanent quota at time 0. I work backwards for three periods because the answer reveals itself at that point.

Grant of Permanent Quota Remember how the problem looks at time T-1, T, and T+1 to someone who received permanent quota in period 0. At the beginning of year T+1, a fisherman's value is (I use the superscript G to denote that this is the grant solution):

$$W^G_{T+1}(b_{T+1}, e_{T+1}) + q^G_{T+1}\alpha_T \tag{14}$$

Moving back to T, we know that

$$\begin{aligned} W^G_T(b_T, e_T) + q^G_T\alpha_{T-1} = \max_{\alpha,\tau}\{&p\alpha A(b_T, e_T) - c(\alpha A(b_T, e_T), \tau, b_T, e_T) \\ &-q^G_T(\alpha - \alpha_{T-1}) + \delta[W^G_{T+1}(b_{T+1}, e_{T+1}) + q^G_{T+1}\alpha]\}. \end{aligned} \tag{15}$$

Finally, for T-1, we know that

$$\begin{aligned} W^G_{T-1}(b_{T-1}, e_{T-1}) + q^G_{T-1}\alpha_{T-2} = \max_{\alpha,\tau}\{&p\alpha A(b_{T-1}, e_{T-1}) \\ -c(\alpha A(b_{T-1}, e_{T-1}), \tau, b_{T-1}, e_{T-1}) &- q^G_{T-1}(\alpha - \alpha_{T-2}) \\ &+\delta[W^G_T(b_T, e_T) + q^G_T\alpha]\}. \end{aligned} \tag{16}$$

Grant of Limited Term quota followed by Sale of Permanent Quota Now let's consider someone who receives the same amount of quota in period 0 but where that quota expires at the end of period T. To continue fishing

after T, they will have to buy newly available permanent quota from the sale between T and $T+1$.

At time $T+1$ the difference between the fisherman who receives a permanent quota at time 0 and the fisherman whose quota lasts only T years is minimal. For the fisherman with the limited term quota, their value at T is (using the superscript L to denote the limited term solution):

$$W^L_{T+1}(b_{T+1}, e_{T+1}) = W^G_{T+1}(b_{T+1}, e_{T+1}) \tag{17}$$

Compare this to (14) for the person with permanent quota. Looking forward, the value to both is the same. The only difference at $T+1$ is that the fixed term quota holder loses the value of α_T.

But this loss carries back to T. In period T, the value of the limited term quota holder is:

$$\begin{aligned} W^L_T(b_T, e_T) + q^L_T \alpha_{T-1} = &\max_{\alpha,\tau} \{p\alpha A(b_T, e_T) - c(\alpha A(b_T, e_T), \tau, b_T, e_T) \\ &- q^L_T(\alpha - \alpha_{T-1}) + \delta W^L_{T+1}(b_{T+1}, e_{T+1})\} \end{aligned} \tag{18}$$

Because the scenarios are different and, thus, the equilibrium prices could be different, we use q^L. Suppose $q^L_T = q^G_T - \delta q^G_{T+1}$. Then I can re-write (18) as

$$\begin{aligned} W^L_T(b_T, e_T) + q^G_T \alpha_{T-1} = &\max_{\alpha,\tau} \{p\alpha A(b_T, e_T) - c(\alpha, A(b_T, e_T), \tau, b_T, e_T) \\ &- q^G_T(\alpha - \alpha_{T-1}) + \delta[W^G_{T+1}(b_{T+1}, e_{T+1}) + q^G_{T+1}\alpha]\} \end{aligned} \tag{19}$$

Comparing this to (15) we can see that the optimal choices for α_T and τ_T are exactly the same in G and L. It follows that $W^L_T(b, e) = W^G_T(b, e)$.

To see that this is not all an accident, let us move back one more period to $T-1$ where the value for the limited term is:

$$\begin{aligned} W^L_{T-1}(b_{T-1}, e_{T-1}) + q^L_{T-1}\alpha_{T-2} = &\max_{\alpha,\tau} \{p\alpha A(b_{T-1}, e_{T-1}) \\ -c(\alpha, A(b_{T-1}, e_{T-1}), \tau, b_{T-1}, e_{T-1}) &- q^L_{T-1}(\alpha - \alpha_{T-2}) \\ &+\delta[W^L_T(b_T, e_T) + q^L_T\alpha]\} \end{aligned} \tag{20}$$

Because $W^L_T(b, e) = W^G_T(b, e)$, if I let $q^L_{T-1} = q^G_{T-1} - \delta^2 q^G_{T+1}$, then I can rewrite (20) as

$$\begin{aligned} W^L_{T-1}(b_{T-1}, e_{T-1}) + q^G_{T-1}\alpha_{T-2} = &\max_{\alpha_{T-1},\tau} \{p\alpha A(b_{T-1}, e_{T-1}) \\ -c(\alpha A(b_{T-1}, e_{T-1}), \tau, b_{T-1}, e_{T-1}) &- q^G_{T-1}(\alpha - \alpha_{T-2}) \\ &+\delta[W^G_T(b_T, e_T) + q^G_T\alpha]\} \end{aligned} \tag{21}$$

Again it is true that for these prices, that the optimal choices for α_{T-1} and τ_{T-1} are the same in both G and L and $W^L_{T-1}(b,e) = W^G_{T-1}(b,e)$.

I can continue this back to $t = 0$. In the end what we learn is

Theorem 2 *Let q^G_t be the equilibrium prices and α^G_t, τ^G_t be the equilibrium choices when permanent quotas are granted at $t = 0$. Define the prices $q^L_t = q^G_t$ for all $t > T$ and $q^L_t = q^G_t - \delta^{T+1-t} q^G_{T+1}$ for all $t \leq T$. Then the prices q^L_t are equilibrium prices for the limited term quota policy. Further, let $\alpha^L_t = \alpha^G_t$ and $\tau^L_t = \tau^G_t$. Then α^L_t and τ^L_t are equilibrium choices for the limited term quota policy.*

Behavior is exactly the same under a grant of permanent quota or a grant of limited term quota followed by an auction. It relatively easy to understand intuitively what is happening. All holders of the quotas at T suffer a loss of $q_{T+1}\alpha^i_T$ when their quota expires. In equilibrium, the price of the quota α_t is adjusted in each period t up to T for the present discounted value of this coming capital loss. The present discounted value at time t of this per-unit loss in period $T+1$ is $\delta^{T+1-t} q_{T+1}$. The loss is capitalized into the price of the quota.

The effect of the limited term policy is simply a lump-sum transfer out of the system at time T. But it also shares the benefits of the quota program. The fishermen get $q_1 - \delta^{T+1-t} q_{T+1}$. The public gets $\delta^{T+1-t} q_{T+1}$.

Sale of Permanent Quota at $T = 0$ To finish this section, let us compare the grant of limited term quota with the sale of permanent quota at T = 0. Remember that, from Section 2.3.3, the difference between the grant and the sale of permanent quota at $T = 0$, is that under the grant the fishermen get q_1 more and the public gets q_1 less than under the sale. Now consider the grant of quota with life T followed by the sale of permanent quota. From the previous section, the value at t = 0 to the fishermen of the difference between this and a grant of permanent quota is $\delta^{T+1} q_{T+1}$.

If T = 0, then, the value of the difference at $t = 1$ is δq_1, exactly the same as the sale of permanent quota at 0. The difference to the fishermen between a sale at 0 and a sale at T is $q_1 - \delta^{T+1} q_{T+1}$. If the fishery were in a steady-state situation, then $q_t = q^*$ for all t and the difference to the fishermen is $(1 - \delta^{T+1})$, the amount they gain by postponing the transfer of wealth from period 0 to period T.

A Mixed Bag One can accommodate into our analysis any number of term lengths and any variety of grant and sale. For example, suppose one wants to allocate 78% of the quota through grandfathering with 22% to be allocated by auctions over the next 10 years. The management could reserve 2% for an initial auction. the rest, 20%, would be allocated to the fishermen. Each fisherman would be given a portfolio of quotas that consists of 10% of 1 year quotas, 10% of 2 year quotas, and so on up to 10 year quotas. This would mean that the management would have 2% of the original quota to sell at auction for each of the next 10 years. When sold at auction, the quotas would be permanent. As before, nothing changes in the equilibrium choices of the amount of fishing, α_t or the style of fishing, τ_t. The market prices of quota will be different to reflect the flow out of the system of the proceeds from each of the 10 auctions.[16] If the prices of quota would be q_t^E under a grant of permanent quota, then we can determine the price of quota at t with a remaining life of L as $q_t^E - \delta^{L+1} q_{t+L+1}^E$. The present discounted value of the auction proceeds will be $S = (.02)[q_1 + \delta q_2 + ... + \delta^{10} q_{11}]$. So the public gets S and the fishermen get $q_1 - S$.

Adaptive Management A proposal exists in the West Coast Fisheries to hold back 10% of the quota to be used to solve various social and environmental side effects of the fishery. One idea is that each year, 10% of the quota for that year, would be sold to generate a flow of income for the program. In a fully functioning marketplace, the sale of 10% of quota in year t is equivalent to leasing the quota for 1 year. The leasing price is $q_t - \delta q_{t+1}$. Thus, the sale will yield $I_t = .1(q_t - \delta q_{t+1})$. The present discounted value of this is $.1(\delta^{t-1} I_t) = .1(\delta^{t-1} q_t - \delta^t q_{t+1})$. Adding these up over time gives us the present discounted value of the leases which is $\sum_{t=0}^{\infty} I_t = .1q_1.$, the discounted value of the 10% of the grant of quota for adaptive management. The fishermen get $.9q_1$ and the public gets $.1q_1$.

2.5 Summary

In this section, I have provided a fairly standard equilibrium model of the fishery that includes its effect on the environment. In the model, fishermen are heterogeneous with possibly different costs of fishing, labor-leisure pref-

[16] There will also be more markets since the price of quota with 2 years left will be different from the price of quota with 3 years left.

erences, size of boat, etc. They choose the level at which they fish: the size of the catch. They also choose how they fish, the technology they use: gear choice, location, high-grading, etc. A simple cap-and-trade IFQ program is included in the model. If there are well-functioning, transparent and liquid markets for the quota quotas, then a Rational Expectations Equilibrium will occur. So I look at what happens in this equilibrium.[17] In the context of this model, I analyze two fundamental features of the market design for an IFQ program: the initialization process and the term of the quotas. I evaluate three policies of initialization and term: the grant of permanent quota, the sale of permanent quota, and the grant of limited term quota followed by a sale of permanent quota. The results are very easy to state. In equilibrium, the behavior of the fishermen, with respect to both the level of fishing and the method of fishing is no different under any of the three policies. Therefore, the effect of the policies on the fishery and the environment is identical. Only the distribution of wealth is different.

These conclusions are also true for any combination of limited term quota, sales, or grants. That means that it is possible to fix the amount and timing of any split between the fishermen and the auctioneer by choosing the appropriate initialization policy. I give one example above under "a mixed bag".

3 Getting to Equilibrium

An IFQ program that hands out quotas and does nothing further leaves a lot of important problems unsolved. One of these is incomplete trading. If a cap-and-trade IFQ program is to attain its full potential for profitability and environmental health, the cap is not enough. There must be trade. All the possible gains from trade must be found and captured.[18] Indeed, market equilibrium will not be found without this; in equilibrium, there are no more gains from trade. But equilibrium does not happen magically. Getting there requires a well-functioning, transparent, and liquid market place.

[17] In the next section, I take up what happens if markets have significant frictions and are neither transparent nor liquid.

[18] There are gains from trade if at least two people can gain from reallocating quota between them. That is, if A can make more profit with the quota than B, then the quota can be transferred to A and A can compensate B in a way that makes them both better off. Such a trade is voluntary and improves the welfare of both.

In this section, I explore the impact of the quota structure and the initialization policies on the process of getting to equilibrium, a process often referred to as price discovery. We will see that in disequilibrium, as opposed to equilibrium, market design does matter.[19]

Grants and laissez faire Consider an initialization policy in which a permanent quota is granted based on historical performance with trade presumed to follow. For now, let us assume that nothing else is done as part of the IFQ program. In particular, there are no organized markets or brokers. I refer to this situation as "laissez faire" since traders are on their own to find counter parties willing to trade with them. Will the level of trade necessary for efficient utilization of the fishery, higher profits, and better environmental health naturally occur? Unfortunately the answer seems to be that it is not likely. Let us examine why.

With the traders on their own, this is a market place that is fraught with frictions. The only way a trade can occur is if two fishermen put in the effort to search, find each other, and negotiate a trade. Search costs interfere with the finding process and asymmetric information interferes with the negotiation process. Together, these frictions will prevent fishermen from taking advantage of much of the potential gains from trade.[20] Each individual knows only about their own little piece of the marketplace. They know nothing of other negotiations and other trades. There is little transparency. Consequently there will be only sporadic trades. There is little liquidity.

Forget for a moment the process of finding one another. Consider the negotiation process where there is bilateral asymmetric information. Neither fisherman knows for sure the price at which the other is willing to buy or sell and each would like to make the best possible deal. It has been well understood since 1983.[21] that the incentives created by asymmetric information lead bidders to shade their bids when involved in bilateral negotiations. Even if there are gains to be had, there is a significant probability that trade will not occur. So, even if all possible pairs of fishermen meet and negotiate, an

[19]Because the state of economic modeling of price discovery is significantly poorer than of equilibrium, I will rely on intuitive arguments in this section. Much of what I will say can be supported with economic theory and experiments. We are working on those now.

[20]These frictions are sometimes called transactions costs and are well recognized for inhibiting trade in other cap-and-trade programs, such as those for air pollution control. See Tietenberg (2006).

[21]See Myerson-Satterthwaite (1983) for a full explication of this theoretical result.

unlikely occurrence, many of those gains from trade will still be foregone. But that fact, in turn, reduces the intensity with which they will search. Since the expected gains from search are reduced by the negotiation frictions, the return to searching is reduced. Lower returns means fewer will search.

An initialization policy of granting with a laissez faire approach to trading is not enough. Asymmetric information and search costs impose significant frictions and prevent traders from finding and sharing the gains from trade. The market place lacks transparency and liquidity. Incomplete trading is the result. The potential profits achievable with complete trading will not materialize.

3.1 Can brokers help?

The naturally occurring response to search and negotiation frictions is brokers. Indeed, some argue that brokers are the complete solution to the inefficiency of bilateral trading. The argument is that the broker is a central clearing house for information about all possible trades: who the buyers and sellers are and the prices at which they are willing to transact. With that information, the broker can facilitate all trades and ensure complete processing of all gains from trade.

But there are at least two problems with this argument. First, brokers cannot by themselves mitigate the asymmetric information problems. Just as a seller knows that she can gain by not revealing the true price at which she is willing to sell to a buyer, she can gain by not revealing the true price at which she is willing to sell to a broker. The reason is not complicated and is a variation of the revelation principle. Basically, it is in the interest of the broker to complete trades. If the seller were to tell the broker her true willingness to sell and a buyer were to, instead, tell the broker a lower willingness to buy than is truly the case, then even if the broker treated them fairly and priced the transaction halfway between the two offers, the seller would lose out since the price would be closer to her true willingness to accept than to the buyer's true willingness to pay. The seller avoids this by increasing her report to the broker. Second, brokers are not altruists: they do this for the income and they get income by charging commissions on trades. Those commissions further lead to incomplete trading for the same reason any transactions costs do. Brokers may reduce search costs but they impose costs of their own.

Although brokers won't solve the asymmetric information problems, they

could provide information about who is proposing a trade and at what prices trades are occurring. But, a single broker would not reveal this information, unless required to by the individuals managing the IFQ system. If there are multiple brokers, or easy entry into the broker business, competitive pressures will force the information out. But most cap-and-trade programs do not have the volume of trading required to support many brokers. For example, in the RECLAIM program market of Los Angeles for pollution control, there is a single broker handling most trades. Price information is secret, as are the size and composition of most trades. Thus transparency is not realized. It is not in the nature of naturally occurring brokers to create transparency.

Relying on naturally occurring brokers is not enough. Although search costs are reduced, asymmetric information and broker's fees continue to impose significant frictions and prevent traders from finding and sharing the gains from trade. The market place still lacks transparency and liquidity. Incomplete trading is the result. The potential profits achievable with complete trading will not materialize.

3.2 Improving transparency

It is possible to improve transparency for traders of IFQs. But it does require proactive work on the part of the management of the IFQ program. A simple improvement over laissez faire would be to require publication in an easily accessible place of the prices and fees involved in all trades. But that is not enough. That only provides information about past trades. Traders also need information about possible future trades. An alternative that provides such information is a central market site, such as a web-based marketplace. With modern information technology, it is really easy and fairly inexpensive to set up and manage such a market. It is also possible to do this in a way that is simple for people to understand and use. At such a website, fishermen could easily see current bids and offers as well as historical information on prices and quantities of previous trades. They could also easily make bids or offers and complete profitable trades.[22]

Creating transparency is desirable, easy, and inexpensive. But is it enough? If there is sufficient liquidity, then the answer is yes. Liquidity mitigates the asymmetric information problem through competition. Holding out for a

[22] A by-product of such a market is that, through the clearance and settlement process, a very current and precise database of ownership of all quota can be easily maintained. More on this later.

better trade is less likely to work if others can jump in and replace you. Therefore, a trader's bid will be closer to his true willingness to trade.[23]

Unfortunately in most cap-and-trade programs, liquidity is very low. In cap-and-trade markets there are relatively few external events which can cause a significant shift in the value to the quota, the tradable quota. Thus, as opposed to equity markets, a trader, who constantly monitors the quota marketplace in search of capital gains from price movements can anticipate only low returns. Since the costs of paying constant attention are very high, traders will only occasionally and intermittently check the market for information on market history and for possible trades. This aggravates the liquidity problem. In such a situation, individuals who do want to buy or sell will only post their bids or offers for a short time.[24] Bids and offers will not be posted often, and when they are posted they will not be viewed often. It will require a lot of luck for a buyer who is only posting a bid for a short time to meet a seller who is only occasionally monitoring the market. And, even if they happen to meet online, it is highly likely they will be the only buyer and seller at that time which means that the bilateral asymmetric information problem is back again.

Creating transparency by providing a web based marketplace is not enough. Asymmetric information and costs of attention will lead to low liquidity. Without both transparency and liquidity, trading will be incomplete. The promise of the cap-and-trade IFQ program will not be achieved.

3.3 Improving liquidity

It is possible to improve liquidity for traders of IFQs. But it does require proactive work on the part of the management of the IFQ program. The key to getting sufficient liquidity is to recognize that the market need not be completely liquid all the time. In a cap-and-trade marketplace, where events that cause significant value changes rarely happen, to accomplish the price discovery necessary for the attainment of equilibrium and to capture all of

[23]The theoretical basis for this can be found in Gresik and Satterthwaite (1989). There is also ample experimental evidence that it doesn't take many participants to eliminate the adverse selection problem. Sometimes just two or three on each side is enough.

[24]If I do not constantly monitor my offer, I risk the possibility that I may lose potential capital gains. Something might cause the quota value to increase by a lot and, if someone else knows that before I do, they might accept my offer before I had a chance to raise it. They will resell and achieve the capital gains that I missed through my inattention.

the gains from trade, it is sufficient to ensure that liquidity is high for only a small number of brief times each year. But, during those times, traders must be serious and something must happen. If not, then in the future these liquidity moments will just disappear.

The best way to guarantee active liquidity moments is with auctions that require the attention of all incumbents in the IFQ program. Well-designed auctions provide very efficient price discovery. And they are very transparent. An excellent example of an auction that would improve liquidity in a cap-and-trade program is the uniform price, clock auction.[25] Such auctions can be two-sided with both buyers and sellers bidding. If everyone actively participates in such an auction, good things happen. At the end of the auction, those buyers who value the IFQs the most will have received them. Those sellers with the lowest value for the IFQs will have sold them. And since this is a uniform price auction, every transaction is at the same price. This means there is no need for further trading after the auction stops. The auction exhausts all gains from trade and the efficient allocation is found. The price discovery process has found the equilibrium price and allocation.

One of the assumptions above was that everyone actively participates. How can we guarantee participation by all incumbents? It is not enough to just announce an auction. Participation occurs only if one feels that they have something at stake. There may be those who, correctly or not, assume they have little to gain from participation and so they don't even pay attention. For example, if buyers think few sellers will participate then the buyers may not bother. This has the force of a self-fulfilling prophecy. If buyers don't show then seller won't. How do we avoid this? If the auctioneer has quota that will be put up for sale at any price then buyers will show. That in turn will lead sellers to show.

How does the auctioneer get the quota to sell? Through the initialization policy. As I summarized in section 2.5, it is possible to implement any combination of grant and auction without affecting, in equilibrium, either the profitability of the fishery or the health of the environment. So it is certainly possible to design an initialization policy that provides some quota at points in time when liquidity events are desired.

An initialization policy which combines granting some portion of the quota directly to the fishermen and selling the rest in strategically timed auctions is enough. Grants provide some guarantee that incumbent fish-

[25] I describe the design of this auction in some detail in Appendix III.

ermen will not be seriously hurt with the introduction of a cap-and-trade IFQ program. Auctions will provide the means to create the liquidity and transparency so vital to the full realization of the potential of the program. There may be resistance to this since, according to the analysis in Section 2, it involves a transfer of wealth from the fishermen to the public. But the increase in profit that will occur because of the increase in transparency and liquidity should more than pay for the initial loss of quota. The net effect is that all fishermen will be better off.

A regular series of uniform price clock auctions with the required participation of all owners of quotas will improve the liquidity. This leads to complete trading with all gains from trade realized. The quota to be auctioned can be planned with a complete initialization policy. Since the gains from these trades are sufficient to fund the auctions and still leave incumbents protected, all can be better off with this policy. The promise of the cap-and-trade IFQ program can be achieved.

3.4 Summary

To fully attain the promise of an IFQ cap-and-trade program, trading must occur in a way that exhausts all potential gains from trade. This requires a transparent and liquid marketplace. Under a policy in which a grant of permanent quota is made and nothing further is done, there will be significant search and negotiation frictions. The naturally occurring market place will be neither naturally transparent nor liquid.

The management of the IFQ program must be more proactive. Policies which require public posting of all trading information can increase transparency somewhat but only with lags so that the information is not as relevant as it should be. The operation of a simple web based market can significantly improve the transparency and relevance of information in the marketplace. But that market will still be illiquid.

With a web based market place and regularly scheduled uniform price clock auctions with full articulation, an IFQ cap-and-trade program can achieve a high level of fishery profits and environmental health.

3.5 An Application: Overfished Species

One place where the issue of getting to equilibrium is particularly crucial is in new IFQ programs in species that are seriously overfished. Here the

initial TAC is going to be very small. It is highly unlikely that allocating on the basis of historical catch will leave anyone with sufficient quota to make fishing profitable.[26] A lot of buying and selling will be necessary to have the quota used in the most efficient manner. If there are only brokers without the transparency or liquidity of markets, gross misallocations will result.

This is a situation that calls for a program of mixed grants and auctions. Some grants based on historical catch can provide some support for the incumbent fishermen, even if they sell their quota and exit. Auctions can provide a clear and transparent signal as to the clearing price for quota. Initial auctions can also be designed so that those fishermen with granted quota who want to sell can participate and be sure that they will receive a fair price. Fishermen who want to buy quota will also be able to do so in a way that does not take advantage of them. The auction provides a level playing field and a transparent and liquid method for getting the limited quota into the hands of those that can best use it. All others profit somewhat by that sales.

4 Other Opportunities

If the IFQ program decides, as it should, to implement an initialization program that provides for regularly scheduled auctions, then there is a question as to what to do with the revenue from such auctions. It could be given to the incumbents but that would ignore a number of opportunities where its use could either further increase the efficiency of the fishery or the fairness of the final benefits created by the IFQ program. In this section, I provide some examples of those opportunities.

4.1 Other Commons Problems

An IFQ program solves the commons problem of over-fishing of target populations. The reduction in the number of fish caught leads to increases in biomass overtime which leads to a reduction in the costs of fishing. The total net present discounted value of profits in this fishery go up. This increase is shared by all fishermen in this fishery. But the benefit to any one fisherman is less than the costs to that fisherman if he were to unilaterally cut back. Thus, it is only through the collective action implementation of an IFQ

[26] It will also be very contentious since there is so little to go around.

program that the net gains can be realized. But over-fishing is not the only commons problem of the fishery. There are other dimensions where collective action can improve both the profitability of the fishery and the health of the environment. In this section I look briefly at a few of these.

Management and Operation To achieve a significant increase in profitability for a fishery by the implementation of an IFQ system requires two things: good management and good markets. Without either of these, the potential gains will be seriously dissipated. Neither is naturally provided. The reason is obvious - there is a free rider problem. I would rather have others pay for this than me, since I will get the benefit anyway. The implementation of an IFQ program is a recognition that sometimes group agreement on a quota can make everyone better off. Funding and supporting good management and markets is another examples where this can happen

We have seen that to get good markets one needs an active web based marketplace and regularly scheduled auctions of existing quota. This requires funds. It is also important to have good management. Some organization must be in place to monitor and measure each fisherman's catch. Then that catch must be compared to the IFQs owned by that fisherman to assess compliance. To do that, ownership of the IFQs must be tracked and recorded, much as is done with title to real property.

Good management also requires cash to pay for the needed personnel and processes. With good management and markets, profits will be high. Without good management, all of the profits and biological gains of an IFQ program will eventually be eroded away by the same forces that required the creation of the program in the first place. It is not unreasonable to take some of the gains to create the gain. The higher profitability from good management and good markets can be self-supporting and leave fishermen and the environment better off than under a grant of permanent quota and a laissez faire marketplace.

By-catch There are also problems that affect fishermen outside a particular fishery, particularly by-catch. Some reduction in unintended by-catch may occur with the reduction in effort that occurs with IFQs. In many current U.S. fisheries, a target fishery can be shut down when the by-catch becomes excessive, the by-catch of one fisherman now affects all. This is another commons problem that can be addressed by the use of market meth-

ods. The standard command and control approach is to allocate portions of a total allowable bycatch amount and/or put in place more monitoring and enforcement penalties. Some of the revenue from the auctions could certainly justifiably be used to support monitoring or enforcement. But there is a better way.

A more incentive compatible approach would expand the IFQ program to multiple species. Those who trawl species beyond their permitted types or levels would then have to buy IFQs of the type they caught. The market approaches using the cap and trade auctions and fixed term methods as described in this paper can be applied directly and similarly to the management of by-catch. This provides both a natural form of compensation to the fishermen of the by-catch species as well as an incentive to find and adopt avoidance methods against further by-catch. In this process a separate or integrated market is created as well as spot trading with similar characteristics of transparency and liquidity as described.

4.2 Transitional Fairness

With the introduction of an IFQ program, the increase in economic efficiency from reducing the commons incentives means that, in the aggregate, the system is better off. Total profits will be higher. But, there will be winners and losers. The increase in efficiency means that winners should be able to compensate the losers. After the compensation everyone is better off than without the IFQ program. One justification for an initialization program which grants a significant amount of the quota on an historical basis is the protection of the incumbents who lose in the reorganization that follow the beginning of the IFQ program. The argument is simple. The grandfathering of quota in proportion to past fishing history means that each fisherman's allocation is roughly about what their quota would be under a command-and-control system with no IFQs and no trading. Therefore, all incumbents can continue fishing at that level and be no worse off than they would be under command-and-control. But they can do much better by trading and, since trading is voluntary, anyone who trades will be better off including those that leave the industry. They were potential losers under the IFQ program but they are compensated with their grant of initial quota.

But usually the mechanism for providing the compensation to anyone who is not an incumbent fisherman is not included as part of an IFQ program. Those who are uncompensated losers often includes the communities and

businesses that have supported the inefficiently high level of fishing activity in the past. With the IFQ program their income will drop. It is not unreasonable to allocate some of the funds from the regularly scheduled auctions to help compensate those hurt by the increase in efficiency.

There can also be those who, while they are ultimately winners, face temporary transitional difficulties as the fishery and others who rely on it shift to different, and usually lower, levels of economic activity. Some use of auction revenues could help make the distribution of final winners more fair.

5 Summary

I have considered several aspects of market design for fishery IFQ programs. In particular I have looked at the implications for fishery profitability and environmental health of alternative initialization policies and of the term of the quotas.

In Section 2, I focus on market equilibrium. I have provided a fairly standard equilibrium model of the fishery that includes its effect on the environment. In the model, fishermen are heterogeneous with possibly different costs of fishing, labor-leisure preferences, size of boat, etc. They choose the level at which they fish: the size of the catch. They also choose the technology they use: gear choice, location, high-grading, etc. A simple cap-and-trade IFQ program is included in the model. If there are well-functioning, transparent and liquid markets for the quota quotas, then a rational expectations equilibrium will occur. So I look at what happens in this equilibrium. I evaluate three policies of initialization and term: the grant of permanent quota, the sale of permanent quota, and the grant of limited term quota followed by a sale of permanent quota. The results are very easy to state. In equilibrium, the behavior of the fishermen, with respect to both the level of fishing and the method of fishing is no different under any of the three policies. Therefore, the effect of the policies on the fishery and the environment is identical. Only the distribution is different.

These conclusions are also true for any combination of limited term quota, sales, or grants. That means that it is possible to fix the amount and timing of any split between the fishermen and the auctioneer by choosing the appropriate initialization policy.

In section 3, I look at price discovery, the process of finding equilibrium. To fully attain the promise of an IFQ cap-and-trade program, trading must

occur in a way that exhausts all potential gains from trade. This requires a transparent and liquid marketplace. Under a policy in which a grant of permanent quota is made and nothing further is done, there will be significant search and negotiation frictions. The naturally occurring market place will be neither naturally transparent nor liquid. The management of the IFQ program must be more proactive. Policies which require public posting of all trading information can increase transparency somewhat but only with lags so that the information is not as relevant as it should be. The operation of a simple web based market can significantly improve the transparency and relevance of information in the marketplace. But that market will still be illiquid.

Regularly scheduled uniform price clock auctions with the required participation of all owners of quotas will improve the liquidity. They lead to complete trading with all gains from trade realized. The quota to be auctioned can be planned with a complete initialization policy without affecting the equilibrium fishing or environmental choices. Since the gains from these trades are sufficient to fund the auctions and still leave incumbents protected, all can be better off with this policy. The promise of the cap-and-trade IFQ program can be achieved.

The revenue generated by regularly scheduled auctions provides an opportunity to solve other commons and fairness problems in the fishery. In Section 4, I discuss these very briefly. The commons problems are management, gear switching, high-grading, and by-catch. The fairness problems are compensation for losers outside of the fishery incumbents and for those bearing unusual transition costs.

6 Recommendation

Full realization of all the potential benefits from an IFQ program require both the cap and the trade. The cap comes with the IFQ program. The trade depends on market design. My recommendations are to develop an initialization policy which is a mixture of grandfathering and auctions. The revenue from the auctions can be used for a number of programs that would be of benefit to all in the fishery: good management with strong enforcement, accurate record keeping, well run auctions, good markets with a web based marketplace, subsidies for gear switching, and minimizing high-grading, and a strong by-catch program.

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Appendix I: Other Initialization Policies

It is not necessary to choose between granting all quota with permanent terms, selling all quota with permanent terms, or granting all quota for a limited term and then selling it at the expiration of the term. It is possible to mix granting and selling in any proportion desired. It is also possible to mix terms. Examples of alternatives to either fully grandfathering or fully auctioning are easy to find.

Overlapping term quotas Issue quotas of 10 years in length with differing start dates. In year 1 there would be 10 tranches of quotas. One tranche would have a life of 1 year, one would have a life of 2 years, etc. Each incumbent would get their grandfathered share of each of these tranches. When each tranche expired it would revert to the Management who would then auction it off. This would generate a cash flow of approximately 10% of the total available in each of the first 10 years.

Annual auctions Grant all of the quotas initially. Each year, 5% percent of each person's holdings as of December 31 would revert to the management to be auctioned off in, say, January.[27] One has to be careful with this type of scheme since it would be easy for enough to be transferred from fishermen to management so that the value to the fishermen of the quota at time 0 could be negative. If x% is taken each year then the value in year 0 of the amount taken in year t is $x\delta^{t+1}q_{t+1}$. So the present discounted value of taking x% each year is $x\sum_{t=1}^{\infty}\delta^t q_t$. In steady state, this is $xq/(1-\delta)$. So if $x > (1-\delta)$ then the value of the quota at time 0 to the fishermen will be negative.[28] If this were the case, they would certainly be loathe to participate.

There are many variations of these schemes. Which is preferred depends on the desired timing and amounts of the cash flow between the initial holders of the quotas and the Management.

[27] One could also do 2.5% on each of June 30 and December 31.

[28] Usually the relationship between the discount rate δ and the interest rate r is $\delta = 1/(1+r)$, so $(1-\delta = r/(1+r)$. If the interest rate is 5% then x would have to be less than about 4.75% in order for this program to leave the fishermen with a positive valuation of quota at time 0.

Appendix II: Entry and Exit

Adding in the possibility for a fisherman to enter or exit does not change any of the conclusions on differential impact in this paper. To see that remember equation (6).

$$v_t(\alpha_{t-1}, b_t, e_t) = \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) + \delta v_{t+1}(\alpha, b_{t+1}, e_{t+1})\}.$$

Suppose that the fisherman can choose once to exit, sell his boat and equipment, and sell any quota he may have. When would he do that and how would that affect the decisions? We rewrite (6) to

$$v_t(\alpha_{t-1}, b_t, e_t) = \max\{K_t + q_t\alpha_{t-1}, \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) + \delta v_{t+1}(\alpha, b_{t+1}, e_{t+1})\}\} \quad (22)$$

where K is the market value of his boat and equipment at this time. This leads to the equivalent of equation (8)

$$W_t(b_t, e_t) = \max\{K, \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t\alpha + \delta q_{t+1}\alpha + \delta W_{t+1}(\alpha, b_{t+1}, e_{t+1})\}\}. \quad (23)$$

The fisherman exits if $K > \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t\alpha + \delta q_{t+1}\alpha + \delta W_{t+1}(\alpha, b_{t+1}, e_{t+1})\}$. This exit decision is independent of the holdings α^i_{t-1}. As before, the decisions as to quota and technology are also independent of the holdings of quota from the previous period.

Suppose that the fisherman can decide each period whether to exit or enter. Then we need to consider two situations - when she is in and when she is out. When she is in the value calculation looks just like the above except for the continuation value. It is

$$v_t(in, \alpha_{t-1}, b_t, e_t) = \max\{K_t + q_t\alpha_{t-1} + \delta v_{t+q}(out, \alpha_t, b_{t+1}, e_{t+q}), \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) + \delta v_{t+1}(in, \alpha, b_{t+1}, e_{t+1})\}\}. \quad (24)$$

When she is out it is

$$v_t(out, \alpha_{t-1}, b_t, e_t) = \max\{q_t\alpha_{t-1} + \delta v_{t+q}(out, \alpha_t, b_{t+1}, e_{t+q}), \max_{\alpha,\tau}\{p\alpha A(b_t, e_t) - c(\alpha A(b_t, e_t), \tau, b_t, e_t) - q_t(\alpha - \alpha_{t-1}) + \delta v_{t+1}(in, \alpha, b_{t+1}, e_{t+1})\} - K_t\}. \quad (25)$$

It is true that $v_t(out, \alpha_{t-1}, b_t, e_t) = v_t(in, \alpha_{t-1}, b_t, e_t) - K_t$. It is also true, as before, that the entry and exit decisions as well as the fishing and technology decisions at time t are all independent of the quota holdings, α^i_{t-1} at time $t-1$.

The entry and exit decisions do not change any of the differential results in the main body of this paper.

Appendix III Uniform Price Clock Auction

The uniform price, clock auction is one of the easiest auctions to run and to participate in. It is an iterative auction that proceeds in rounds. I will describe how it would work for an IFQ quota marketplace.[29]

In the beginning the auctioneer lets everyone know the quantity of quota available and an opening price. Then all bidders are given a period of time to submit a bid.[30] Their bid is simply a quantity: how much they would like to buy at this price.[31] Bidders do this without seeing each other's bids. At the end of the bidding period the auctioneer adds up the bids. If the aggregate bid is larger than the quantity available, the price is raised by one increment.[32] This is the origin of the name "clock auction". The price ticks up one increment per bidding period, in clock-work precision, until the auction ends. The new price is posted and a new bidding period is opened.[33] Bidders are asked to submit new bids.[34] After re-submission, the auctioneer again adds up the quantities. If the aggregate quantity is larger than the amount available, the auction continues. If not, the auction stops.

At this point there is a final design choice. One could just accept the result of the auction. That is, one could give each buyer who bid in the last round the quantity they bid at the price for that round. However, it

[29]The auction I describe here is a particularly simple version of that proposed by Smith et. al. (2003). Ours is simpler since we are only auctioning off a single homogeneous commodity, the quota.

[30]The bid submission time period is a design choice. It is usually somewhere between 10 minutes and an hour. Short periods move the auction along at a fast rate. Slow periods give bidders more time to contemplate and compute their bidding strategy.

[31]It is possible to allow sellers, other than the auctioneer, enter bids also. That would simply be a negative quantity: how much they were willing to sell at the current price. This is often referred to as a two-sided auction and is similar to a call market.

[32]The size of the increment is a design choice. High increments move the auction along at a fast rate. Slow increments allow more gains to be captured.

[33]There is a design choice that can be made here as to whether the bidders should be informed about what each of them bid. The answer is no for the individual bids if one is worried about collusion. The answer is no for the aggregate if one wants to encourage active participation by all in every round.

[34]There is still another design choice at this point. Should bidders be allowed to withdraw their previous bid? If they did so they could then either forego bidding or bid something totally different. Some argue that buyers should only be able to lower their quantity demanded. This is called an activity rule. Some say it does not matter. Activity rules move the auction along at a fast rate. But activity rules limit the options of bidders and can cause inefficient outcomes.

is possible that this does not fully exhaust the amount of quotas that are available. The drop in the aggregate bids can be more than the excess in the previous round. If these auctions are held often enough, this is not a problem. The excess supply can simply be inventoried and made available at the next auction. But if the auctions are infrequent and inventorying quota can cause difficulties in the IFQ process, then the auction needs to continue into another "phase." In this second phase, past bids are "re-submitted" into the auction along with the bids from the last round and the collection that maximizes the gains from trade are provisionally accepted.[35] If that collection displaces one of the bidders in the last period then the price is increased by one increment and the auction continues as in the first phase. If no one is displaced in the second phase, the auction stops.

The first phase is really easy for both auctioneer and bidder. The auctioneer has a very simple calculation. Does the quantity bid exceed the amount supplied? The incumbents have a simple calculation. They only need decide at any price whether (a) they want more quota because they expect their costs to be lower than that price or (b) they want to sell quota because they expect their costs to be higher than that price. Potential entrants are on a level playing field since they can see the price and decide whether they are willing to pay that much in order to enter the fishery.

The second phase may seem complicated but bidders need not even know that it happened. Bidders need only know that the price has increased and bidding has resumed. Also, there is ample evidence from both laboratory trials with this auction as well as commercial applications, that it is relatively easy to learn how to bid.

With straight-forward bidding, the auction will exhaust all gains from trade. That is, the buyers with the highest value for the items will win them. The sellers with the lowest value for the items will sell them. The final price will be the equilibrium price. This is a completely transparent process which encourages liquidity.

[35]This is a simple optimization program which I will not present here.

PACIFIC MARINE CONSERVATION COUNCIL

October 15, 2008

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Re: West Coast Groundfish Trawl Rationalization

Dear Chairman Hansen:

Pacific Marine Conservation Council (PMCC) offers these preliminary comments on the West Coast Groundfish Trawl Rationalization. PMCC is supportive of fishery management measures and systems that enhance conservation while providing equitable fishing opportunities. We believe that carefully crafted limited access privilege programs (LAPPs) can offer market-based incentives for effective conservation. A well-designed LAPP can also protect coastal communities and preserve a diverse and adaptable fishing fleet.

We congratulate the authors and analysts who have prepared the preliminary environmental impact statement (EIS) released this month. Based on this document, we will make observations and raise a few questions. Our intent is to highlight ways to create a responsible and responsive LAPP where we see a superior choice, and to ask for explanation or guidance where we see problems without a mitigated balance.

You will continue to receive comments and hear extensive testimony regarding issuing harvest quota shares to processors. To be perfectly clear, PMCC opposes this feature.

Our other primary areas of interest in this LAPP are:

1. Ensuring conservation benefits for the public resource.
2. Ensuring that coastal fishing communities are not harmed.
3. Ensuring that adjacent fisheries are not harmed.
4. Ensuring that the LAPP is designed with appropriate scales of spatial management.

Ensuring conservation benefits for the public resource.

Improved accountability (100% observer coverage) and closer to real time tracking are features that could be expected to yield conservation benefits, as long as these are linked to strong incentives to avoid overfished species. Individual accountability for effective conservation that leads to fuller utilization of healthy fish populations is fundamental to this program's intent.

It is essential to anticipate and plan to accommodate future rationalizations, including arrangements within the fixed gear fleet, community-held quota and Regional Fishery Associations. Ultimately, comprehensive program design, potentially integrating the entire fishery, should provide positive incentives for superior conservation performance, including avoiding bycatch and protecting habitat.

All involved should understand that this LAPP could be modified or eliminated if it does not achieve positive biological and social benefits. As we continue to move toward ecosystem-based management, the LAPP needs to be adaptive, to facilitate rather than hinder emerging ecosystem based approaches.

Ensuring that coastal fishing communities are not harmed.

This is a basic issue that has demanded attention from the inception of this process. It is essential to design this rationalization so as not to harm coastal communities in Washington, Oregon and California. There are potential adverse impacts on communities without trawl landings as well as on the major trawl ports. These adverse impacts must be clearly mitigated with appropriate design elements.

Section 4.14 of the EIS lists a number of expected and potential impacts:

• *Fleet and processor consolidation could result in the concentration of vessels and commercial infrastructure in fewer ports, disadvantaging communities that lose vessels and infrastructure.*
• *Limits on the amount of QS an entity can control will reduce ownership consolidation and increase the number and types of businesses involved in the fishery, contributing to diversity and stability.*
• *Isolated communities, where there are few alternative employment opportunities, could be adversely affected by the loss of fishing-related jobs.*
• *Processors are expected to consolidate and possibly move, affecting processor labor and municipal revenue.*
• *Fishing, in all its diversity, is culturally important to coastal communities. As a consequence, communities seeing a decline in fishing activity due to trawl rationalization will be adversely affected.*
• *Family fishing businesses will have to deal with the implications of the asset value associated with IFQs (or co-op shares). This can complicate fishery entry and exit, and lead to intra-family strife.*
• *Tourism could be adversely affected in communities that loose a "working waterfront," to the degree it is important to the tourist identity of the community.*
• *Non-trawl communities could be affected by rationalization through increased competition, gear conflicts, impacts on the support sector, infrastructure impacts, and competition in the marketplace.*

Ensuring that adjacent fisheries are not harmed.

Section 4.8 of the EIS discusses expected spillover into the pink shrimp. Dungeness crab and other fisheries. There is also discussion of increased competition for grounds. We appreciate this analysis and PMCC has raised these issues for several years. How will these impacts be mitigated?

It's unclear what design features will avoid harm to non-trawl commercial fisheries. The Council has a duty to act in a fair and equitable manner, and this challenge must be addressed.

Ensuring that the LAPP is designed with appropriate scales of spatial management.

PMCC will be providing more detail on this subject in the supplemental briefing materials. We have a strong interest in management that employs spatial scales appropriate for fish populations and the natural ecosystem. We are also interested in management at scales that make sense for fishing communities, such as using area management to reduce the risk of coastwide fishery closures due to overfishing in a discrete geographic range.

The EIS generally does a good job discussing possible spatial management scenarios. We just need more time to look at this analysis relative to the most current science dealing with the subject. We then plan to offer constructive and realistic recommendations.

Thank you for considering our comments.

Respectfully submitted,

Peter Huhtala
Director of Governmental Affairs

October 15, 2008

Chairman Donald Hansen
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Subject: Agenda Item F.3., Amendment 20 – Trawl Rationalization

Chairman Hansen:

Please accept these comments on behalf of the Pacific Whiting Conservation Cooperative (PWCC), the harvest cooperative formed by the participants of the catcher-processor (CP) sector of the Pacific whiting fishery. Primarily, our comments focus on Alternative B-1.2., Annual Whiting Rollovers. We also briefly comment on our support for the alternative to end length endorsement requirements for vessels using limited entry (LE) trawl gear (that is, Alternative A-1.6., Groundfish Permit Length Endorsements).

Annual Whiting Rollovers (B-1.2.)

The Pacific Fishery Management Council (Council) identified Option 1 (no rollovers) as the Preliminary Preferred Alternative (PPA) under B-1.2. The analysis of this issue in Appendix B provides a comprehensive and accurate description of the rollover process. However, it provides no information about the merits of Option 1 or support for its selection as the final preferred alternative. In fact, the clearest analytical finding suggests Option 1 may harm the fishery; that is, "Not allowing a rollover may mean that the available harvest is not realized in some years, potentially reducing economic activity." We recommend the Council adopt Option 2 (status quo) as the final preferred alternative, for the following reasons:

- There are no problems identified in the analysis or in current practice with the status quo process for rollovers of unharvested whiting from one sector to another. The rollover process has been in regulations for over 10 years and used several times. To the best of our knowledge, there has never been a complaint registered to the Council or National Marine Fisheries Service (NMFS) about the rollover of unharvested whiting.

  The current procedure states: "That portion of a sector's allocation that the Regional Administrator determines will not be used by the end of the fishing year shall be made available for harvest by the other sectors, if needed, in proportion to their initial allocations, on September 15 or as soon as practicable thereafter. NMFS may release whiting again at a later date to ensure full utilization of the resource." (660.323(c))

Under status quo, no one is forced to give up unharvested whiting. In practical terms, if a participant in any sector tells NMFS that they are interested in harvesting remaining amounts of that sector's whiting allocation, and they have the capacity to do so, then no one is forced to forfeit any unharvested whiting. The only stated reason we recall provided to the Council in support of Option 1 (no rollover) relies on hypothetical scenarios that fishery participants will game the system. This has not occurred under the status quo and is even less likely under a rationalized fishery where transparency and accountability at the individual and fishery cooperative levels will be paramount.

- One of the arguments posed for why a rollover provision is not necessary is that with rationalization of the whiting fishery there would never again be any unharvested whiting by any sector. It is unclear if this is a realistic expectation. The Bering Sea pollock fishery, for example, was rationalized between 1999 and 2000. Co-operative-based management has been in effect for over eight years; providing sufficient time for each sector to fine tune their harvesting operations, refine fishing schedules, and coordinate harvesting activities. However, in 2004, 11,609 mt of pollock went unharvested; in 2005, two sectors left a combined 11,001 mt unharvested; in 2006, 14,712 mt of pollock was not harvested; and in 2007, 38,229 mt of pollock was left unharvested by one sector. This experience lends credence to our belief that unharvested whiting will remain a distinct possibility after rationalization.

- National Standard 1 states (emphasis added) "Conservation and management measures shall prevent overfishing **while achieving, on a continuing basis, the optimum yield from each fishery** for the United States fishing industry." Option 1 could potentially impede achievement of National Standard 1. Appendix B clearly states (emphasis added): "A roll-over mechanism is intended to facilitate the attainment of the Pacific whiting OY if one or more sector does not intend to harvest the full allocation of Pacific whiting. **If a rollover mechanism is not established, harvestable amounts of the whiting OY are likely to be foregone**, resulting in less revenue than would otherwise be the case." It seems imprudent to remove a discretionary provision designed to ensure compliance with National Standard 1, especially when no documented evidence is provided that indicates the action is warranted.

In summary, we find no objective reason for the Council to support Option 1, but we do find demonstrated and compelling reasons in support of the status quo rollover provisions. Therefore, we recommend the Council adopt Option 2 as your preferred Annual Whiting Rollover alternative.

Limited Entry Permit Length Endorsement (A-1.6.)

The PWCC fully supports the PPA that specifies the "LE permit length endorsement will not apply to vessels using LE trawl." Our expectation is that the Council intends for this change to apply to all LE trawl permits, including those that receive a CP endorsement under Amendment 20. This intent is implied on page B-106 of Appendix B (October 2008, GAC meeting version), which states (emphasis added): "**If the permit length endorsement is retained**, a catcher-processor would need to acquire an additional permit in order to increase vessel size." We take

this qualifying statement (i.e., the bolded text) to indicate that the Council intends for A-1.6. to apply to CP-endorsed LE trawl permits. Our primary concern is that retaining the permit length endorsement requirements will impede flexible use of the CP-endorsed LE trawl permits. Without A-1.6., if a CP-endorsed LE trawl permit were transferred to a smaller CP vessel then the LE trawl permit would be re-classified with a smaller length endorsement. Transferring that CP permit back to the original vessel would require acquiring another LE trawl permit. This could prevent companies with multiple CP vessels from maximizing the utility of their CP-endorsed LE trawl permits.

In summary, we believe the Council's intends that A-1.6. should apply to all LE trawl permits. Our recommendation is simply that the Council clarify their intent.

Thank you for your attention to these matters.

Sincerely,

Daniel A. Waldeck
Executive Director

Community Fishing Association Proposal for the Pacific Fishery Management Council offered by The Nature Conservancy

October 15, 2008

Background and Need:

The Council's development of a Rationalization proposal for the Pacific Coast Groundfish Limited Entry Trawl Fishery has been guided by a range of policy and legal requirements, including those designed to mitigate unanticipated impacts of rationalization by promoting fairness and equity, assisting communities, and minimizing disruption of current fishing practices, see, e.g., Chapter 6 of the Decision Document (Document). As a result, in its analyses the Council has identified and acknowledged several expected impacts on fishing communities (Chapter 4; Section 4.14). The Document also points to a number of provisions that could theoretically address community needs, including: (1) broad eligibility for quota share (QS), (2) a moratorium on QS transfer, (3) control limits for QS to potentially spread QS among more communities, (4) adaptive management set-aside, and (5) regional and area management proposals. See, Appendix A, p. A-48.

However, the Document does not yet clearly articulate to potentially affected communities how these different provisions could be used separately or in aggregate to mitigate such impacts, nor does it identify changes to the rationalization proposal that would be necessary to achieve such a result.

This proposal for a Community Fishing Association describes an approach that would build on the current alternatives before the Council to address community needs, while achieving management, conservation and socioeconomic goals needed for long-term stability in the fishery.

Community Fishing Association Proposal:

We request the Council's approval of provisions (listed in the next section) that would permit the formation and operation of voluntary Community Fishing Associations, as a means to help preserve a community's fishing heritage and access to the resource, as well as contribute to the conservation and management of the fishery. Such Associations would be responsible for complying with the applicable requirements of the Magnuson- Stevens Fishery Conservation and Management Act and the West Coast Groundfish Fishery Management Plan. This proposal is intended to offer an option for a community or a group of permit or QS holders within a community to take proactive steps to help mitigate potential dislocation effects by anchoring access to the fishery in its area or sharing risks and costs. It would not require the Council to set aside a portion of QS for the participants, though such Associations could potentially interact with any adaptive management set-aside proposal the Council may adopt.

A Community Fishing Association (Association) would be a corporation[1] created for community benefit, with participating members that could hold Quota Share (QS). Such an Association would not be eligible for initial issuance of QS, but could acquire QS through direct acquisition from willing sellers. Each year, the Association would make QP available, through a private agreement, to its members for their assistance in achieving the Association's objectives, e.g., maintaining landings in a given community or achieving conservation goals. An example describing various potential roles and relationships in an association is included at the end of this proposal.

[1] An Association could be either a for-profit or a non-profit corporation.

Any fisherman may elect each year whether to be a member of the Association and enter into a private agreement with the Association. Any member would be eligible to access Association-owned QP up to the vessel cap – for fishermen who hold a groundfish trawl permit and QS; this will be the aggregate of individually held QP plus any Association-owned QP. Any member who does not hold a trawl permit or QS could apply to the Association to lease a groundfish trawl permit (if one is available) and QP. In either case, members of the Association would have access to services from the Association (e.g., observers) and would have to abide by the rules of the Association (e.g., to land all or some of the fish in a particular community, to abide by area or gear limitations, to cooperate with bycatch reduction efforts, etc.).

While each Association would have its own specific objectives and propose its own rules, Association membership agreements will include a mandatory clause that participants comply with the rules of the Association. Because failure to comply with federal fishing regulations could be grounds for revoking approval for the Association, a Community Fishing Association would require all members' full compliance. The Association could assist in enforcement by taking action to sanction a member who fails to comply –revoking Association privileges, imposing Association fines, expelling an individual from the Association, or turning over a case to state or federal law enforcement officials.

Participants will help shape the Association's objectives. There are a number of options for determining which Associations will be formed. Associations could be formed as a community-level initiative – led by a harbor commission, commercial fishermen's organization, local processor, or a non-governmental organization. The parties could present a proposal to NMFS and, if satisfactory, proceed to incorporate, raise capital, recruit a board of directors, invite participants, and purchase QS and/or permits. Participants could include, but are not limited to, fishermen, local government officials, a harbor director, commercial fishermen's organization, local processors, and/or non-governmental organizations. An alternative approach would be to for each state agency to identify as eligible those communities that will benefit, and select an organization tasked to form the Association.

A fisherman or other participating entity may join different community Associations from year to year, or may belong to multiple Associations provided that vessel caps are not exceeded and his or her total control over the fishery is fully disclosed and certified.

Basis for Proposal: Changes to Facilitate Formation of Associations:
As noted in the Decision Documents, the current Rationalization proposal includes provisions that support, and could be adjusted to link with this Association approach to address community concerns, including: initial QS allocation and QS transfer rules (A-2), the Adaptive Management option (A-3), and area management or regional landing zones (A-1 and A-8).

To create such an Association for the benefit of multiple participants or a community, the Rationalization proposal would first need to establish an exemption or a different, higher accumulation limit for Community Fishing Associations to those proposed for individuals in A-2.2.3(e). The options before the Council were based on individual ownership of QS, and thus would set control limits designed to guard against excessive control of quota by one person. Paradoxically, the limits would undermine the formation of private co-management arrangements like cooperatives or Associations, which would acquire QS for the benefit of multiple participants in a community. Such Associations could be established in and benefit vulnerable communities in multiple ways;

including ensuring access to the resource or sharing costs and risks associated with the conservation and management requirements contemplated under the Rationalization.

Avoiding Excessive Control through an Association: Under this proposal each Association would be required to verify to NMFS subject to perjury that no single individual participant is able to use his or her affiliation with the Association to exercise excessive control over the fishery.

There are several alternative means to verify that the Association is not controlled by any individual. NMFS could require an affidavit certifying that all persons serving on the board of, employed by, or members of the Association will not have a controlling interest in the Association that takes them above any control caps established under the IFQ program. A second option would be to require that a plan for the Association – including measures to address excessive control – be submitted to NMFS prior to the Association acquiring QS. Reported violations of these limits would be investigated as appropriate.

The preliminary preferred alternative for rationalization would cap the proportion of groundfish a person could accumulate or control, directly or indirectly, individually or via ownership of catcher vessel permit(s). Thus, while the Association may own an amount of QS in excess of individual accumulation limits, the established individual ownership and vessel limits would apply to individual Association participants, i.e., no individual may exercise so much control over the Association that they would exceed their individual control cap and the Association may not transfer control of quota pounds (QP) to be used on a vessel so as to exceed established vessel caps. The Association will report its membership and transfers of QP to vessels to NMFS annually.

Pacific Coast Trawl Fishery Rationalization - Requested Provisions for Community Fishing Associations:

The Nature Conservancy is proposing to establish an Association as described above in the Central Coast of California using QS issued to permits owned by The Nature Conservancy. The Nature Conservancy would work with these communities to establish such an Association and would transfer its QS to the Association.

The Nature Conservancy believes it would be fair and equitable[2] for the Council to issue to each permit holder the full amount of QS for which they qualify based on their catch history. In order to address MSA and Council concerns with excessive consolidation, The Nature Conservancy proposes that the Council require that holders of QS in excess of the accumulation caps divest of such excess within three years of initial issuance. Therefore, such holders of excess QS can be fairly and equitably compensated for their excess QS without compromising the Council's policy goal of avoiding excessive consolidation. Failure to require divestiture, for example by "grandfathering" permanently such excess QS, could permanently undermine the Council's objectives

Consistent with the Council's objective of minimizing adverse effects of the IFQ program on fishing communities, the Association proposal will benefit vulnerable or potentially vulnerable Central Coast communities and may serve as a model for other areas identified by Council members or included in the Decision Documents (e.g., Regional Landing Zone proposal, A-7). The approvals requested are well within the range of alternatives already contemplated and analyzed by the Council. While

[2] As set forth in Chapter 6, the M-SA requires fair and equitable treatment in allocation decisions , e.g. National Standard 4(a); Section 303A(c)(5).

establishment of private arrangements among harvesters and other participants through an Association does not require specific federal authorization, certain terms such as different accumulation limits for Associations, require provisions in the Trawl Rationalization proposal.

Provisions to Allow Formation and Operation of Community-Based Fishing Associations

The Community Based Fishing Association approach requires changes to A-2-2-.3(e) in the final alternative for the trawl sector IFQ program - as specified in provisions (a) and (b). These changes are needed to remove barriers to formation of multi-member associations, and to provide an opportunity for a holder of QS in excess of individual accumulation limits to divest of that QS to entities in the location where the catch history was earned, rather than having it automatically re-distributed coast-wide, as in the existing proposal.

In addition, the final plan should include direction and guidance to NMFS on the requirements for approval, operation, and compliance of such Associations, as specified in (c) – (e).

(a) Amend A-2-2.3(e) to Establish Association Control Cap QS/QP Accumulation Provisions: Notwithstanding any limitations on QS or QP under the West Coast groundfish trawl rationalization program, following review by NMFS of the Association as an entity formed for the benefit of the local communities and the purposes specified in the MSA (see b), an Association may own or control QS/QP in excess of the accumulation limits for individuals.

(b) Amend A-2-2.3(e) to allow for Divestiture of QS in Excess of Control Cap: Any party owning or controlling QS in excess of the accumulation provisions shall divest of such excess QS within three (3) years of the date on which these regulations take effect. The party may transfer such excess to any other party, including an Association, in accordance with the rules that govern such transfer.

(c) Qualification of Community Fishing Associations to Obtain Alternative Accumulation/Control Limits: The Alternatives should provide a framework for NMFS approval and review. The Council may want to consider later action to better define the details of this framework that could work as follows:
   (1) Upon receipt by NMFS of an acceptable proposal to form an Association for the purposes of addressing the needs of potentially vulnerable communities and conservation and fishery management objectives, NMFS may decide to authorize such Association. An Association can operate similar to a "harvesting cooperative." In addition, an Association will have the power to own QS.
   (2) The Association will not be approved if the NMFS determines that the sole purpose or primary effect is to allow an entity to control quota shares in excess of the control caps which apply to entities that are not part of the Association; or the Association will allow, in any manner, the Association or its members to exert anticompetitive market power with respect to exvessel price negotiations between processors and harvesters.
   (3) NMFS may revoke approval of the Association at any time based on a NMFS determination that the Association has failed to comply with the terms and conditions for its approval or is otherwise being used to circumvent or undermine the goals of the trawl rationalization program.

(d) Rules for Use of Association QP/QS: An Association may lease, sell or transfer QP to commercial fishermen who are Association members in compliance with appropriate vessel or

control cap, *provided, however*, that such Association-owned QP must be relinquished to the Association if such member leaves or is asked to leave the Association. The sale or lease of Association-owned QS or QP shall be governed by the same rules that apply to all QS and QP holders.

(e) Mechanism for Attribution of Quota Share for Purposes of Accumulation Caps: The Council should approve a mechanism for determining attribution of quota share that requires disclosure and certification of quota ownership and the amount of control over the organization that individual wields to ensure that by either measure the individual cannot use their role in an organization to exceed the control caps or vessel caps.

Requested Approvals of Related or Supporting Options:
In addition to the required approvals requested above, the proponents of this proposal request the Council and NMFS adopt each of the following options:

(a) The Adaptive Management Program Option: Following approval of an Association, if the Council and NMFS adopt the Adaptive Management Program Alternative, the Association could be an applicant to the Adaptive Management Program or could assist its participants in developing proposals. The Association or its participants would utilize the QP in accordance with the guidelines for such use established by the Council and NMFS.

(b) Geographic Management Units: For species with a coastwide OY, the management units for QS will be subdivided geographically at the 40° 10' N latitude line. Additional geographic management unit subdivisions should be considered in the future.

For more information, please contact Erika Feller (efeller@tnc.org or 415-281-0453) or George Yandell (gyandell@tnc.org or 415-281-0478) with The Nature Conservancy.

An Example of a Community Fishing Association

Associations can be established to achieve multiple objectives, including addressing community concerns, while achieving management, conservation and socioeconomic goals needed for long-term stability in the fishery. Therefore, it follows that Association-owned QS would be leased to fishermen under terms representing a balance of these objectives.

A **Community Fishing Association** is formed that holds 4 trawl permits and has acquired QS for various species. The Association serves two fishing communities and requires that 75% of all landings made by members take place in one of those two communities. The Association charges a modest lease rate for use of Association QS and has established a number of conservation guidelines to avoid bycatch.
A **Board of Directors** is formed. The Board includes one of the harbor directors, the president of the local commercial fishermen's association, the director of a local conservation non-profit, a fisheries science professor from the local university, and the owner of a local restaurant who is also a fisherman. A **management team** that runs the day to day operations of the Association reports to the Board. The management team would be responsible for ensuring compliance with regulatory requirements, developing legal agreements, contracting with observers for use by Association members, developing bycatch risk sharing agreements, etc.
Fisherman A has a vessel with a permit and received quota share. However, he would like to target more on a particular species and joins the Association to gain access to some additional QP each year. As a condition of access to the Association QP, he lands 75% of all of his catches in one of the two ports.
Fisherman B runs a highly successful fishing operation but is now interested in retiring and selling his quota. He has fished out of one of the ports for 30 years and would like to see someone take over his operation locally – his deckhand was very interested - but no individual has financing to buy him out. The Association purchases his QS and permit and leases it back to the community.
Fisherman C was a deckhand for fisherman B and is interested in starting his own business – he would like to have bought Fisherman B's quota but didn't have the money. He joins the Association and leases a permit as well as QP to use on a vessel he recently purchased. Eventually he hopes to make enough money to purchase his own QS.
The owner of **a local processing company/fish buyer** has purchased QS and enters into an agreement with the Association in which his QS will be fished according to Association community and conservation guidelines. In exchange, he will be guaranteed the right to purchase fish caught under this quota share plus a bonus amount.
The local community recognizes that the **Community Fishing Association** does not own enough QS to meet the community's objectives. With the support of local elected officials and community leaders, industry participants and the Association apply for loans and grants to enable the Association to purchase additional QS.

October 14th, 2008

Pacific Fishery Management Council
Don Hansen, Chair
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Re: Trawl Rationalization Amendment 20 – Agenda Item F-3

Dear Chairman Hansen,

I am the manager and captain of the FV Muir Milach. We have fished whiting in both the mothership and shoreside sectors want to offer some comments on the trawl IFQ program.

Catch History Years

My primary concern about the catch history years is that whatever they are, when the Council makes its final choice they should be the same for mothership and shoreside whiting (and for groundfish.) It is the same fleet of boats that deliver shoreside and to motherships and would be unfair to use different years for catch history. Using different years is "cherry picking" and will unfairly impact some boats

Whatever choice the Council makes for catch history years, it should be "apples and apples" between all catcher vessel sectors.

Processor Allocations of Harvest Shares

I do not support the portion of the preferred alternative that would allocate 20% of the harvest shares to processors. I agree with the points made in the letter to the Ccouncil from the FMA dated Oct. 13th.

Combining "adaptive management" with processor allocations takes too much away from fishermen.

If allocations are made to processors, no processor should be allocated quota above the ownership cap, and strict "control" rules should be in place to enforce the ownership/use caps.

Coops

We are opposed to the designation of "coops" as the preferred alternative for the shoreside sector. The Council should focus on designing a program that doesn't require going back to Congress for additional legislation.

Coops can be a useful tool within an IFQ system, but coops shouldn't be a mechanism to create processor linkages..

The new MSA requires the Council to "fully analyze alternative program designs, including the allocation of limited access privileges to harvest fish to fishermen and processors working together in regional fishery associations or some other cooperative manner."

The definition of "Regional Fisheries Associations" in the new MSA makes it clear that RFA's must "be a voluntary association among willing parties."

Coops work best when they are voluntary "affinity" based associations, rather than arbitrary groupings based on processor linkages. A straight-forward IFQ system doesn't stop IFQ holders from voluntarily forming cooperatives to deal with bycatch issues or to work cooperatively together with a processor.

Processor Linkages

NOAA GC's memo makes that clear that linkages are not legal in the shoreside sector. If the Council is going to include a "coop" option for the mothership sector, it should be one that meets the legal criteria that would apply to shoreside "coops" as a matter of policy.

There are two key features of the mothership "coop" proposal, without which it might as well be an IFQ program:
1- processor with linkages, and
2- the punitive "non-coop" part of the fishery for vessels that want to change processor linkages.

The un-rationalized "non-coop" pool is nothing more than a means to force involuntary linkages between harvesters and a closed class of processors as the price of rationalization.

The analysis compares the mothership "coop" proposal to AFA coops, but misses key differences.
In the AFA pollock mothership sector there is a closed class of processors, but there are no linkages. If linkages aren't necessary in the AFA mothership sector, why are they necessary for whiting?

In the AFA shoreside pollock sector, processor linkages do exist, but coop formation is contingent on approval by 80% of the vessels, which gives some protection to independent boats. Even with linkages, coops can sell a 10% of their allocation to the processor of their choice. This also provides an alternative way to move between coops without going through an "open access" year.

The mothership processors will have the benefit of a closed class. It is also clear from the analysis that there is substantial vertical integration in the mothership sector.

Even if linkages are necessary, it should not apply to 100% of the harvest. There must be a way for harvesters to change markets without going through open acess.

Single CV Sector

I support a single CV sector for the trawl IFQ program. Creating artificial firewalls between the shoreside whiting and groundfish sectors doesn't make sense.

Boats that fish whiting may receive a portion of the buyback history, or they may have groundfish quota from their groundfish history. In a single sector, this could offset the need for setting aside a portion of the groundfish OY to support the incidental catch needs of the whiting fishery.

Adaptive Management

I support the inclusion of an "adaptive management" part of the program, along the lines of the 10% holdback in the B.C. trawl IFQ program. The B.C. program seems to have been successful in addressing community and processor concerns about potential negative impacts from IFQs.

It is unfortunate that the analysis is not more specific about how this portion of the allocation could be used.

New Entrants

I have a relief skipper who has been with our vessel for many years and operated the vessel in the whiting fishery. There are no provisions for skippers under any of the alternatives. The adaptive management provision could be used to help skippers become stakeholders in a quota share program.

With coops there is no way a skipper can acquire a small amount of quota. To become a quota owner under the coop alternative he would have to purchase the entire history of a vessel. Under an IFQ system a new entrant can buy in gradually.

Thank you for considering my comments.

Captain David Willmore
FV Muir Milach
7858 SE 28th Street A-208
Mercer Island WA 98040

COVERSHEET FOR SUPPLEMENTAL PUBLIC COMMENT

The public comment letters in this package were received between October 16 and midnight, October 28, 2008 and consist of the following:

1) 3 letters opposed to trawl rationalization
2) 5 letters generally in support of trawl rationalization with other specific comments
3) 16 letters primarily expressing approval of trawl rationalization with strong disapproval for an allocation to processors
4) 310 identical email letters from various persons in support of the preferred alternative with a 20% allocation to processors (one example letter is included in the package)
5) 21 letters primarily in support of the preferred alternative with a 20% allocation to processors
6) 50 identical letters from various persons in the Eureka area supporting the preferred alternative with a 20% allocation to processors (one example letter is included in the package)
7) 10 identical postcards expressing support for sustainable ways to catch rock cod and protect small boat fishermen, allow gear switching, stop the processor quota, and set aside quota for communities and adaptive management

PFMC
10/29/08

PACIFIC COUNTY

Economic Development Council (PCEDC)

"Facilitators of Economic Development"

October 20, 2008

Donald O. McIsaac, Executive Director
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

RE: Trawl Rationalization Plan

Dear Mr. McIsaac:

The Pacific County Economic Development Council is in opposition of the Trawl Rationalization Plan being proposed by the PFMC. Pacific County's natural resource based economy provides the highest gross income to Pacific County and supports over 2,500 direct and in-direct jobs.

There are several reasons we oppose this plan:

- It will limit what type and volume of fish that will be available to our fishermen and processors here at the Port of Ilwaco and Chinook.
- It will have negative impacts on our local merchants and reduce revenues to our ports.
- It will grant ownership of a public resource to a select group of individuals, while keeping new participants out of the fishery.
- Greater restrictions exacerbate already tough economic times for the industry.
- The cost of implementation and administration will be enormous and is not currently funded.
- This plan is not a resource management tool, but rather an economic management plan.

We ask for your support in opposition of this proposed plan.

Sincerely,

Cathy Russ

Cathy Russ
Executive Director

530 Commercial St. Raymond, Washington 98586 ~ (360) 875-9330 ~ (360) 642-9330 ~ FAX (360) 875-9305 www.pacificedc.org

Subject: [Fwd: VOTE NO ON AMENDMENT 20 to the Groundfish Fishery Management Plan]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Mon, 27 Oct 2008 08:32:44 -0700
To: Jim Seger <Jim.Seger@noaa.gov>
CC: Merrick Burden <Merrick.Burden@noaa.gov>

Subject: VOTE NO ON AMENDMENT 20 to the Groundfish Fishery Management Plan
From: Glenis Batley <glenis@glenis.com>
Date: Fri, 24 Oct 2008 20:51:24 -0700
To: pfmc.comments@noaa.gov

Dear Sirs,

I urge the Pacific Fisheries Management Council to VOTE NO in November on Amendment 20 to the Groundfish Fishery Management Plan, Limited Access Privilege Program. If supported, this would create corporate quasi-monopoly control of Pacific groundfish - whilst delivering a host of socioeconomic and environmental impacts.

The Amendment 20 has been perverted by vested interests. By bluring the distinction between two core fishery managment tasks namely - 1) securing the fish and 2) sharing the fish - the strategy of the corporate scammers is to make people think that giving all the fish to corporations is neccessary to protect them from harm.

This is clearly not true. Council, as the managers, should secure the ecosystem assets and related groundfish fishery through robust science, regulation, and sensible enforcement. Within this ecologically secure framework they can then allocate fish responsibly to achieve social and economic benefits for the American people. There is simply no justification for the creation of a corporate cartel. This move amounts to the privatization of profit, and the socialization of loss. Which is wrong.

VOTE NO!

Thank you,

Glenis Batley
Design, Marketing & Public Relations
305 East Valencia Avenue
Unit E
Burbank, CA 91502 USA
Landline 818-845-0337
cell 818-653-0868
www.glenis.com

VOTE NO ON AMENDMENT 20 to the Groundfish Fishery Management Plan.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

Subject: Ground Fish Management - Prop 20
From: Omnirodman@aol.com
Date: Tue, 28 Oct 2008 09:18:16 -0400 (EDT)
To: pfmc.comments@noaa.gov

Dear Pacific Management Council,

Please re-think this bad proposal and get input from concerned scientists and citizens before the corporations with selfish interests take over the management of ground fishes.

Sincerely.

Copley H. Smoak, Naturalist
Bonnerdale, Arkansas

FISHING VESSEL OWNERS' ASSOCIATION
INCORPORATED

ROOM 232, WEST WALL BUILDING • 4005 20TH AVE. W.
SEATTLE, WASHINGTON 98199-1290
PHONE (206) 284-4720 • FAX (206) 283-3341

SINCE 1914

October 17, 2008

Mr. Don Hansen, Chairman
Pacific Fishery Management Council
7700 N.E. ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Trawl ITQs – Supplemental Comments for non-whiting & shoreside whiting QS

Dear Chairman Hansen:

The following comments are supplemental to the ones we submitted on August 19, 2008. There are several provisions of the preferred Council action on TITQs that we would like amended. We have a recommendation with regards to excessive shares, and we are concerned that there are few safeguards in the proposed action to help shape the control and usage of non-whiting and whiting quota shares. We remain opposed to the 20% allocation to the shorebased processors and have added a few comments regarding this issue. The following are our requested changes to the TITQ program.

1. Excessive shares – Once the Council determines the level of excessive shares, if a recipient of TITQs is in excess of the limit, we request the Council provide three years for that entity/person to liquidate the excessive amount. There have been suggestions that if an entity/person is in excess of the limit set by the Council, that NMFS would only be authorized to allocate an amount less than the excess share limit. We would point out that the Council has never established an excessive share of owning or controlling existing trawl permits. Therefore, people have made investments based on existing Council decisions. We believe the Council's TITQ program would be more legally defensible with our suggested three-year sell-off provision and fairer to current L.E. permit holders.

2. **Shorebased quota shares non-whiting and whiting** – The Council has not deemed it necessary to put ownership and control mechanisms that would recognize the current social and cultural relationships within the coastal communities between harvesters and processors. There are no restrictions proposed once TITQ quota shares are issued that would prevent processors, or any other investors from buying up to a maximum limit. In quota share proposals developed in New Zealand, where

there were no restrictions on ownership and control between processors and harvesters, the fishery quickly evolved into vertically owned operations with the second generation harvester being forced out. We request the Council add a restriction that keeps QS in the hands of harvesters. In other words, the quota allotted to harvesters would become harvester quota and not eligible to be purchased by processing interests. Such a restriction will help keep harvesters harvesting and processors, processing and protect the fishing communities from "company store" vertical integration. Without an owner restriction of this sort, the independent shorebased harvester will be eliminated from the West Coast.

3. We oppose the Council's preliminary preferred action to allocate 20% of the non-whiting and shorebased whiting to the shorebased processors. Some Council members have indicated they have not heard well reasoned arguments against allocation of harvesting shares to processors. The following are rationale against the allocation to shorebased processors in addition to the comments previously provided to you by the Association.

   (a) The choice of someone's investment strategy provides insight into the expected return on investment. A processor can invest as a catcher processor, a mother ship, or a shorebased processor. Each investment has different risks and expectations. A catcher processor's investment allows you to be vertically invested with no raw product cost, such as, paying an ex-vessel cost to a harvester. It allows you to go from raw product to the retail market. It can provide a high quality product, as fish are processed quicker than shoreside. The investment does come with the risks of knowing how to hunt and catch fish, gear investments, and hiring of harvester personnel. A mothership allows an investor to be on the grounds for high quality processing, from at-sea harvesting vessels.

   The mothership can offer faster trips for a harvesting vessel because their running time to a shorebased processor is eliminated. It provides efficiency to the catcher vessel and high quality to the floater. However, the mothership does not invest in the risks of catching the fish. The shorebased investor could have invested as a CP or mothership, but chose a different investment.

   The shorebased investor knows that a competitive price and distance to the fishing grounds are his economic advantages or disadvantages. The shorebased processor has chosen not to be a harvester and specifically avoided the high cost and legal ramifications of operating as a catcher vessel, mothership, or CP. The liability aspects are significant once you're invested in a boat. You avoid those risks with shorebased investment. The catcher boat's investment is based on the ability to hunt and harvest fish and deal with closed areas for habitat or RCAs and bycatch of over fished species.

   Catcher processor, mothership, shoreside processor, or "harvesting-only vessel" investments, each have certain unique investment motives providing

unique benefits to each investment choice. Taking the "harvester only" fish and giving it to the shoreside processors cannot be justified based on the investment risks of a shoreside processor. Each investor knows what they were getting into. Each has a unique rationale and expectations for their initial investment choice. If you are a shorebased investor, you know you are going to be restricted to your ability to be competitive in a port with other processors. If you are not competitive, a harvester can move to other processors or ports based on the Port Preference Act of the Constitution. It states:

"No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another."

There is no investment risk made by the shorebased processors that justifies the catcher vessels catch going to the shorebased processor.

(b) Choosing a QS program based on certain years of participation and production is much like our national policies in the past for granting rights to homesteaders who work the soil for five years, growing wheat, or corn. Does it make sense that the granary would get a portion of the homesteading production or land? We believe the answers to be no for either a farm or a fisherman.

(c) The Council invested in the advice from a panel of economic specialists that told the Council the following:

"The presumption is that such an allocation is intended either to compensate established processors for potential losses associated with "stranded assets" or to prevent the location of landings from shifting radically from the current communities. To meet the second objective of preventing the location of landings from shifting radically from the current communities, an analysis would have to demonstrate why the processing sector would be any less likely to shift locations than fishing vessels, once issued IFQs." This has not been done.

"With control of IFQs, processors could exploit economies of scale in processing by consolidating into fewer plants and requiring that the fishing vessels who lease their IFQs land at those sites. Thus, there are potential community instabilities exacerbated under the processor quota options."

"Issuing IFQs to processors introduces some additional possible complications that are not discussed in the presentation of alternatives. Suppose that one or a few processors have a dominate position in the processing industry and that they also deliver a large enough fraction of the fresh groundfish in local markets to affect price. Does the Processor Quota alternative then give them additional market power (monopoly power to

restrict supply to achieve a higher market price for groundfish in product markets, or monopsony power to restrict purchases of fish from the fishing fleet to reduce price of landed fish, or .....

According to the Stock Assessment and Fisheries Evaluation documents for the groundfish fishery, three shoreside companies account for 75% of all landings. In fact, as it turns out, the concerns of the economic specialists are real ones.

(d) In our previous paper to you, we showed you how the processors have been profitable. The gross sales are as follows:

#2 Trident Seafoods	$1,000 Million
#3 Pacific Seafoods	$875 Million
#6 Unisea	$750 Million
#7 American Seafoods	$550 Million
#12 Ocean Beauty	$420 Million
#11 Aqua Star	$430 Million
#14 Icicle Seafoods	$350 Million
#22 Peter Pan Seafoods	$240 Million
#22 Golden Alaska Seafoods	$240 Million

The Council-sponsored study on the economic effect of IFQ management in the Pacific groundfish fishery found that groundfish fishermen currently have a profit margin of "zero".

In summary, we have provided the Council with some suggested final actions on dealing with excessive ownership caps, separate ownership and control between harvesters and processors for harvester QS, and added some arguments in opposition to an allocation to shorebased processors. Thank you for your consideration.

Sincerely,

Robert D. Alverson
Manager

RDA:cmb

Subject: Fwd: reso 61-08
From: Rick Algert <RALGERT@morro-bay.ca.us>
Date: Tue, 21 Oct 2008 14:31:11 -0700
To: Comments PFMC <pfmc.comments@noaa.gov>
CC: Janice Peters <flamingos@charter.net>, Rick Grantham <rgrantham1@charter.net>, Betty Winholtz <winholtz@sbcglobal.net>, William Peirce <wpeirce@thegrid.net>, Melody DeMeritt <demeritt04@yahoo.com>

RE: TRAWL RATIONALIZATION

Please accept the attached resolution of the City of Morro Bay for inclusion in the PFMC supplemental materials packet for their November 2008 meeting.

reso 61-08.pdf	**Content-Type:** application/pdf **Content-Encoding:** base64

RESOLUTION NO. 61-08

ADOPTION OF A POSITION STATEMENT FOR THE WEST COAST GROUND FISH INDIVIDUAL TRANSFERABLE QUOTA (ITQ) PROGRAM IN FEDERAL FISHERIES

THE CITY COUNCIL
City of Morro Bay, California

WHEREAS, the Pacific Fishery Management Council (PFMC) is considering adoption of an Individual Transferable Quota (ITQ) program for trawl ground fish management; and,

WHEREAS, many smaller ports and harbors and family owned fishing businesses have historically been dependent on ground fish landings to provide the flexibility necessary to have an economically viable business and support the harbor infrastructure such as ice and fuel services, marine repair and refrigeration businesses and fish processing/unloading facilities; and,

WHEREAS, in the Central Coast of California a partnership of local agencies, community leaders, fishermen and conservation organizations is working to transition local fisheries to greater economic and environmental stability and the effort depends on access to abundant local ground fish stocks; and,

WHEREAS, the fishermen and communities in the Central Coast of California desire to preserve our historical family owned fishing businesses and marine dependent infrastructure in Central Coast Harbors; and,

WHEREAS, there are many potential negative impacts to family owned fishing businesses and smaller ports and harbors if the ITQ program is not well designed such as:

- Consolidation of fishing effort into larger vessels and fewer ports dictated solely by market conditions.
- Economic or regulatory impediments to gear switching can nullify the potential benefits in by-catch reduction and habitat impacts in transitioning to non-trawl gear for some of our small boat fisheries.
- Collapse of public investment in harbor infrastructure/services in small harbors such as Morro Bay/Port San Luis, Bodega Bay and Crescent City.
- Reduced flexibility for small boat fishermen and obstacles to new entrants/non quota holders if the entire quota is assigned to existing trawl permit holders and processors.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay that this community has made significant investment in harbor infrastructure and waterfront facilities to support the Commercial Fishing industry and we urge the PFMC to adopt an ITQ Program for trawl ground fish that includes the following considerations:

1. **Support For Community Fishing Associations as Related to Quota Share Control Caps:** These Community Fishing Associations, such as the one we are attempting to form in the Central Coast of California, can anchor fishing access in traditional fishing communities in order to provide community cultural and economic benefits and fresh local seafood for consumers. In an ITQ fishery, fishermen operating in small traditional ports will likely need to collaborate with each other and with outside partners to attain a viable scale of operation. Associations can help small ports stay viable by pooling depleted species quota, assisting in covering monitoring costs, and acquiring locally held quota before it migrates outside of the community as a result of consolidation. In an ITQ fishery, quota sold out of a small fishing port will likely represent a permanent loss of that community's access to the resource and severe impact to the viability of the local industry. The PFMC should promote associations as a tool communities can use to proactively adapt to the ITQ. To do this, the PFMC will need to allow associations of fishermen and communities to exceed to a reasonable degree the quota accumulation caps set for individuals.
2. **Adaptive Management Program (AMP):** The AMP can be the tool to allocate quota to individuals, processors or community associations that are in need of harvest privileges to ensure communities retain some access to ground fish stocks and build a foundation for community based management. The AMP, coordinated with the tool of associations, can also be used to provide access to quota for the next generation of professional fishermen, a key to sustaining our fishing communities
3. **No Initial Allocation To Processors**: The idea of a processor share of initial quota allocation stems from the interest in reducing the impact that the transition to ITQ management may have on fishing communities. While it is evident that these potential community impacts can be significant, it is not clear that a special quota allocation to processors will be a solution to community impacts. An AMP and the establishment of associations can better preserve traditional west coast fishing communities and can provide a safety net for future management decisions to help small coastal communities retain access to ground fish landing to support their economies and marine dependent uses.
4. **Monitoring:** Develop a collaborative and cost effective framework for meeting ITQ monitoring/full accountability requirements, or small boat fisheries most likely will be forced out through economies of scale. Electronic monitoring should be supported and implemented for small boat fisheries

5. **Funding for Assistance with Abandoned Vessels:** When the Federal Government implemented trawl capacity reduction through the permit buy back program, no consideration was given to the abandonment of the vessels in Harbors, creating substantial new costs to small communities/harbors and a significant threat to the environment. Projections are that only 40-60 trawlers will remain in this sector after the ITQ program is implemented and the PFMC should allocate funds or develop a program, possibly in the AMP, to assist ports and harbors in dealing with the threat of abandoned vessels and the threat to pollute from abandoned vessels during the ITQ transition period.
6. **Facilitate Gear Switching:** Communities such as Morro Bay have always relied on ground fish landings to support infrastructure in the Harbor. Our fishing businesses and harvest methods have changed over time and today we again face the need to re-align our harvest techniques to current market conditions and regulatory changes. This will happen if the ITQ program is designed to allow local fishermen to access quota and the flexibility to gear switch.

PASSED AND ADOPTED by the City Council of the City of Morro Bay at a regular meeting held thereof on the 13th day of October 2008, by the following vote:

AYES: DeMeritt, Grantham, Peirce, Winholtz, Peters

NOES: None

ABSENT: None

JANICE PETERS, MAYOR

ATTEST:

BRIDGETT BAUER, CITY CLERK

Subject: [Fwd: Managed catch fishery]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Mon, 27 Oct 2008 08:32:22 -0700
To: Jim Seger <Jim.Seger@noaa.gov>
CC: Merrick Burden <Merrick.Burden@noaa.gov>

Subject: Managed catch fishery
From: Jon Oesting <jon_oesting@yahoo.com>
Date: Sun, 26 Oct 2008 11:09:36 -0700 (PDT)
To: pfmc.comments@noaa.gov

Any move toward a managed catch instead of the scramble type is one good way to help sustain the harvest.

Jon Oesting, BS, BA, CPA, MBA

"On the Sixth day, God saw that He could not do it all, so He created Engineers"

Managed catch fishery.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

Subject: [Fwd: Comment]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Mon, 27 Oct 2008 08:33:15 -0700
To: Jim Seger <Jim.Seger@noaa.gov>
CC: Merrick Burden <Merrick.Burden@noaa.gov>

Subject: Comment
From: Craig Zora <czora@comcast.net>
Date: Fri, 24 Oct 2008 19:39:25 -0700
To: pfmc.comments@noaa.gov

NOAA,
I support the **IFQ program** and a **holdout "bank":**

1. Smaller trawl footprint
2. Choice of gear types that have lower impacts on bottom habitat
3. Full individual accountability for all fish landed
4. Total harvest caps
5. Reductions in bycatch and
6. Improved scientific data collection

There is no excuse now
to delay the implementation of this program and improve the sustainability of our fisheries.

Craig Zora

P *Please consider the environment before printing e-mail.*

Comment.eml	**Content-Type:**	message/rfc822
	Content-Encoding:	7bit

RESOLUTION NO. 2240

Introduced by: All Commissioners

Supporting the Pacific Fisheries Management Council's Development of an individual Fishing Quota System for the West Coast Trawl Groundfish Fishery and Opposing Allocation of Harvesting Shares to Fish Processing Companies

WHEREAS, the West Coast Trawl Fishery is an important component of the Oregon Coastal Economy; and

WHEREAS, the West Coast Trawl Fishery is an important component to the city of Warrenton, providing jobs and vital economic impacts to the community; and

WHEREAS, the West Coast Groundfish Fishery is the largest component of the West Coast Trawl Fishery, and;

WHEREAS, the Columbia River is the home port of the largest number of trawl vessels of any area in Oregon, and;

WHEREAS, the Pacific Fishery Management Council is developing an Individual Quota program to strengthen the West Coast Groundfish Trawl Fishery and increase the economic benefit to coastal economies by increasing the incentives to conserve the fishery resource and by increasing the amount of harvest of species of fish from healthy stocks while avoiding the capture of species of fish from unhealthy stocks; and

WHEREAS, the number of fish processing companies along the West Coast has decreased to a level where a very few companies process the groundfish landed by the West Coast Groundfish Trawl Fishery; and

WHEREAS, the only rational to issue fish harvesting shares to processors that has been presented to the Pacific Fishery Management Council is to use these shares in an anti-competitive manner to prevent new processing companies from processing groundfish; and,

WHEREAS, a strong health and stable fishing fleet is necessary to support healthy processing industries and realize the economic potential of the groundfish fishery; and

WHEREAS, allocating groundfish harvesting shares to processors weakens the fishing fleet and jeopardizes the ability of the West Coast Trawl Fishery to realize the maximum economic benefit possible; and

WHEREAS, the motivation to conserve the fishery resources is weakened by allocating harvesting shares to processors and jeopardizes the conservation of the groundfish resource.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF WARRENTON that the City of Warrenton supports the efforts of the Pacific Fishery Management Council to develop and implement an Individual Fishermen's Quota program for the West Coast Groundfish Trawl Fishery and opposes issuing harvesting shares to fish processing companies.

Adopted by the City Commission of the City of Warrenton this 23rd day of September, 2008.

APPROVED

Gilbert Gramson, Mayor

ATTEST

Linda Engbretson, City Recorder

RECEIVED
OCT 16 2008
PFMC

Testimony before the Pacific Fisheries Management Council concerning San Mateo County Harbor District opposition to allocation of harvesting shares to fish processing companies

November 6, 2008
At San Diego

Thank you for the opportunity to testify before the Council. My name is Peter Grenell. I am the General Manager of the San Mateo County Harbor District. We operate Pillar Point Harbor on Half Moon Bay. The San Mateo County coastside, the entire County, and the wider San Francisco Bay Area enjoy direct and indirect economic benefits of Pillar Point Harbor and depend on the fishing industry, which offers a variety of fish harvests, charters, bait, tackle, fresh seafood restaurants, fresh fish retail sales off the boats, and marine services to residents and visitors from around the world.

Our District is already on record supporting fishermen, most recently support for the Alliance of Communities for Sustainable Fisheries. I am before you today to deliver the resolution unanimously passed by our District on Oct. 15 of this year concerning how the IFQ program could affect the fishing community of Pillar Point Harbor, and therefore could affect the many economic, social and environmental benefits derived from our port

The District believes that trawl fishing vessels in the Pacific Groundfish fishery, along with seine, hook and trap vessels in that fishery, contribute significantly to the economic health of fishing communities along the Pacific Coast and directly in our region. Therefore, we want our voice to be heard as the PFMC decides on changes in the way the Pacific Groundfish fishery is managed, specifically in the implementation of IFQs.

The District believes this change may lead to greater economic efficiency in the trawl sector, but reduce the number of vessels and people employed in the fishery – and there are many unanticipated impacts on communities that follow. The question on the minds of our District leaders is the following: how best to address these unanticipated consequences, while still allowing for the efficiency improvements that IFQ's can provide?

As a body representing the economic well-being of Pillar Point Harbor and its coastside community, the District wants to ensure that the IFQ program take into account how best to stabilize communities that might be affected by shifts in quota ownership.

Therefore, we **oppose** the allocation of IFQs to seafood processors. There are potential anti-trust implications of allocating catch shares to fish processors. Additionally, allocation of quotas to fish processors will not guarantee a fishing community continuous access to trawl-caught groundfish or the jobs derived by that community from the harvest of groundfish. Furthermore, the District believes that the allocation of quota shares to fish processors threatens the economic viability of individual fishing vessel operators. This includes reducing the price paid to fishermen for their toil, and eliminating conservation incentives that might otherwise be created through limiting fishing access privileges.

On Oct. 4, the first fishing boat that used Pillar Point Harbor back in the 1920s, the newly restored Monterey type vessel the F/V Irene, was launched at Pillar Point. Members of the fourth generation of the fishing family that first used the Irene presided at the ceremony, with participation of District personnel and several hundred people of the Harbor community. It is this community base upon which the continued welfare of California's coastal fisheries depends.

We want to **support** actions the PFMC may be considering to enable the creation of regional fishing associations, consistent with the re-authorized Magnuson-Stevens Act, to assure the ongoing protection of a fishing community's access to harvestable fish resources off their shores. We also support the Adaptive Management Program as the right tool to target quota to communities that may be vulnerable to losing vessels or landings, and understand that this program will allow fishermen continued access to quota to meet community-stability needs.

The District also urges development of a collaborative and cost-effective framework for monitoring quota requirements, and quota program design to facilitate gear switching to local trap and hook and line gear to tap this growing market and help sustain and enhance these fisheries

The San Mateo County Harbor District reaffirms its support of its local fishing fleet, based in Pillar Point Harbor, by opposing processor quotas and at the same time, pledging to work with its local fish processors and others dependent on the catch of Pacific Groundfish to assure a constant supply of locally caught groundfish offloaded at Pillar Point for sale, processing and distribution.

Thank you again for this opportunity to present our views to you.

Resolution Number 21-08
of the San Mateo County Harbor District
Opposing allocation of harvesting shares to fish processing companies by the Pacific Fisheries Management Council

WHEREAS, The San Mateo County coastside, the entire County, and the wider San Francisco Bay Area enjoys direct and indirect economic benefits of Pillar Point Harbor and is dependent on the fishing industry, which offers a variety of fish harvests, charters, bait, tackle, fresh seafood restaurants, fresh fish off the boats and marine services to residents and visitors from around the world; and

WHEREAS, The San Mateo County Harbor District is already on record supporting fishermen most recently the Alliance of Communities for Sustainable Fisheries; and

WHEREAS, Trawl fishing vessels in the Pacific Groundfish fishery, along with seine, hook and trap vessels in that fishery, contribute significantly to the economic health of fishing communities along the Pacific Coast, helping to maintain vital fishery infrastructure, contributing to the diversity of fish and shellfish offloaded and often processed in coastal fishing ports, including Pillar Point Harbor, and the groundfish fishery supports over 1,000 jobs and currently contributes approximately $30 million annually to California's economy; and

WHEREAS, The Pacific Fishery Management Council is considering changes in the way the Pacific Groundfish fishery is managed, including the allocation of the catch to trawl vessels through a system of individual transferable quotas, which may lead to greater economic efficiency in the trawl sector of the groundfish fleet, but reduce the number of vessels and people employed in the fishery; and

WHEREAS, The Pacific Fishery Management Council is considering, as part of the change, an individual quota system that may include catch quotas that could be purchased by non-fishermen, including processors, as well as issue quotas directly to fish processors which, in either the case of harvest quotas being held by non-fishermen or processor quotas, will likely lead to fishermen losing control of their fishing, including their right to choose who to sell their catch and the price they ask for the fish effectively rendering them "seafaring sharecroppers:" and

WHEREAS, In addition to the potential anti-trust implications of allocating catch shares to fish processors and others not involved directly in the harvest of fish at sea, the allocation of quota to fish processors will not guarantee a fishing community continuous access to trawl-caught groundfish or the jobs derived by that community from the harvest of groundfish; and

WHEREAS, The reauthorization of the federal Magnuson-Stevens Fishery Conservation and Management Act now allows for the creation of regional fishing associations to assure the ongoing protection of a fishing communities' access to harvestable fish resources off their shores thereby eliminating any need for fish processors to own or control quota shares of any kind in a fishery; and

WHEREAS, The allocation of quota shares to fish processors threatens the economic viability of individual fishing vessel operators including reducing the price paid to fishermen for their toil, eliminates conservation incentives that might otherwise be created through limited fishing access privileges, and may make fishing even more dangerous;

NOW THEREFORE BE IT RESOLVED, The San Mateo County Harbor District reaffirms its support of its local fishing fleet, based in Pillar Point Harbor, by opposing processor quotas or processor ownership of fish harvest quotas and, at the same time, pledging to work with its local fish processors and others dependent on the catch of Pacific Groundfish to assure a constant supply of locally caught groundfish offloaded at Pillar Point for sale, processing and distribution;

AND BE IT FURTHER RESOLVED, The San Mateo County Harbor District transmit to the Pacific Fisheries Management Council and the National Marine Fisheries Service, within the Department of Commerce, the request that processor quota or processor ownership of harvest quotas be prohibited and, instead, the Council and the Fisheries Service permit the creation of regional fishing associations and utilize an Adaptive Management Program to protect local fishermen, local fish processors and others in the community dependent on the fish stocks harvested off our shores.

AND BE IT FURTHER RESOLVED, San Mateo County Harbor District urges (a) development of a collaborative and cost-effective framework for monitoring quota requirements, and (b) quota program design to enable and facilitate gear switching to local trap and hook and line gear to tap this growing market and further help sustain and enhance these fisheries.

Adopted this fifteenth day of October, 2008 at the regular meeting of the Board of Harbor Commissioners by a vote as follows:

For: Tucker, Parravano, Padreddii, Lundie

Against:

Abstaining:

Absent: Campbell

Attested

Theresa DellaSanta
Deputy Secretary

BOARD OF HARBOR COMMISSIONERS

Ken Lundie
President

MOSS LANDING HARBOR DISTRICT

BOARD OF COMMISSIONERS
Russell Jeffries
Margaret Shirral, Ph.D.
John Gideon
Vincent Ferrante
Frank Gomez, Jr.

7881 SANDHOLDT ROAD
MOSS LANDING, CA 95039

TELEPHONE – 831.633.5417
FACSIMILE – 831.633.4537

GENERAL MANAGER
HARBORMASTER
Linda G. McIntyre, Esq.

TO:	Donald Hansen, Chair	DATE:	October 27, 2008
OF:	Pacific Fishery Management Council	FAX:	503.820.2299
PHONE:	503.820.2280	# OF PGS:	3 (incl. cover)
FROM:	Linda G. McIntyre General Manager	PHONE:	831.633.5417

Attached please find the Moss Landing Harbor District resolution opposing the issuance of harvesting shares to fish processing companies which was approved by the Board of Harbor Commissioners at the October 22, 2008 regular meeting.

It is our understanding that the issue will be on the PFMC's next meeting. We ask that you include the Moss Landing Harbor District Resolution in the discussion.

RESOLUTION NO. 08-14

OPPOSING ALLOCATION OF HARVESTING SHARES TO FISH PROCESSING COMPANIES BY THE PACIFIC FISHERIES MANAGEMENT COUNCIL

WHEREAS, the Pacific Fishery Management Council (PFMC) is considering adoption of an Individual Transferable Quota (ITQ) program for trawl ground fish management; and,

WHEREAS, many smaller ports and harbors and family owned fishing businesses have historically been dependent on ground fish landings to provide the flexibility necessary to have an economically viable business and support the harbor infrastructure such as ice and fuel services, marine repair and refrigeration businesses and fish processing unloading facilities; and,

WHEREAS, in the Central Coast of California a partnership of community leaders, fishermen and conservation organizations is working to transition local fisheries to greater economic and environmental stability and this effort depends on access to abundant local ground fish stocks; and,

WHEREAS, the fishermen and communities in the Central Coast of California desire to preserve our historical family owned fishing businesses and marine dependent infrastructure in Central Coast Harbors; and,

WHEREAS, the Moss Landing Harbor District is already on record supporting fishermen, most recently supporting the Alliance of Communities for Sustainable Fisheries, and;

WHEREAS, trawl fishing vessels are based all along the West Coast including Moss Landing Harbor and contribute significantly to coastal economies, including approximately 1,000 jobs, and generating $30 million to California's coastal economy, and;

WHEREAS, the number of fish processing companies along the West Coast has decreased to a level where a very few companies process the groundfish landed by the West Coast Groundfish Trawl Fishery, and;

WHEREAS, in the absence of any other reasonable rationale, there is concern that the issuance of fish harvesting shares to processors will result in the use of these shares in an anti-competitive manner to prevent new processing companies from processing groundfish, which will undermine the potential for fishermen to receive the full economic value of their harvest, and;

WHEREAS, no conservation benefit to the resource has been demonstrated by the allocation of harvesting shares to fish processing companies, and;

WHEREAS, a strong, healthy and stable fishing fleet is necessary to support healthy processing industries and realize the economic potential of the groundfish fishery, and;

WHEREAS, the motivation to conserve the fishery resources is weakened by allocating harvesting shares to processors and jeopardizes the conservation of the groundfish resource.

NOW, THEREFORE, BE IT RESOLVED that the Board of Harbor Commissioners of the Moss Landing Harbor District urges the PFMC to oppose issuance of harvesting shares to fish processing companies.

* * * * *

CERTIFICATION

Resolution 08-14 was duly adopted by the Board of Harbor Commissioners of the Moss Landing Harbor District at a regular meeting of the Board held on the 22nd day of October, 2008, a quorum present and acting throughout, by the following vote, to wit:

AYES: Commissioners Jeffries, Shirrel, Gideon, Ferrante, Gomes
NOES:
ABSENT:
ABSTAIN:

Russ Jeffries, President
Board of Harbor Commissioners

ATTEST:

Linda G. McIntyre, Deputy Secretary
Board of Harbor Commissioners

OMAR ALLINSON
F/V MISS LEONA
624 Van Wyck Road
Bellingham, WA 98226
Tel. 360-733-7682

October 27, 2008

By Facsimile to: 503-820-2299

Mr. Donald K. Hansen, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Agenda Item F-3, FMPA Amendment 20 - Trawl Rationalization

Dear Chairman Hansen:

I am writing to urge the Council (1) to reject any proposal to allocate any percentage of harvesting shares to processors, and (2) to adopt the option to create Regional Landing Zones.

My family has engaged in commercial fisheries in Washington and off of the Washington Coast for over 70 years. I have been a fisherman for more than 40 years, and have engaged in the groundfish fisheries from Destruction Island to the Canadian border for over 30 years. During those 30 years, I have averaged more than seven months per year at sea. I have one of the greatest levels of experience in the commercial groundfish fisheries from Destruction Island to the Canadian border.

I very much appreciate the Council's efforts to improve the management of the fishery through the creation of an IFQ program. This will help the fishing families which have been dependent on the West Coast fisheries, and will create a safer fishery.

However, I believe that giving an initial allocation of harvesting shares to shoreside processors (whether the proposed 20% or any other share) will harm

fishermen and communities. This is because such an allocation would immediately reduce the amount of fish available to long-time dependent fishermen by 20%, and would increase consolidation and power in the shoreside processors.

Nor would a processor share protect the coastal communities. It would create enormous financial hardship for the local fishermen. Fishermen will have 20% less money to put into the community. And some crewmembers will immediately lose their jobs. A crewshare is considerably less than the 20% which would be lost to fishermen, and one impact of a quota share allocation to processors is be that vessels would probably have to cut at least one crewmember. That lost job would negatively impact the community, and the loss of a crewman would also create dangerous vessel operations. This is both because (1) there would not be a big enough crew for safe deck operations, and (2) the crew would be tired out from watches, or else the vessel would not have enough crew to keep adequate watch. Therefore, creating processor shares would not be consistent with National Standard 10, under which conservation measures must, to the extent practicable, promote the safety of human life at sea.

The Council-sponsored study on economic effects of an IFQ program shows that groundfish fishermen in the aggregate already have a profit margin of zero. Taking away 20% of the available catch from fishermen, and giving it to our customers (the processors), will simply drive the fleet into a negative earnings situation and numerous bankruptcies. The fishermen are dependent on maintaining their historical percentage of the catch. But the processors' historical dependence is simply on having the fishermen deliver to them as buyers of the catch. And processor shares could be transferred, with the impact of removing 20% of the harvest share from the community entirely.

It is important that in the day-to-day operation of the fisheries, processors owning harvest share through their ownership of fishing vessels are largely able to control market prices to the other vessels. Deliveries on Mondays usually control the market price for the week, and processors are able to use this tool to manipulate market prices.

Moreover, awarding any harvest share to processors is inconsistent with the intent of the 2003 Limited Entry Trawl Buyback Program on the West Coast. Fishermen such as myself, who elected to stay in the fishery and not to make a bid for a buyback did so on the understanding that our trade-off would be that we

would have access to the remaining allowable catch. We made our decisions in reliance on that understanding. To take away 20% of that harvestable amount from the remaining fishermen would constitute a breach of the trust which we put in that program just five years ago.

The option for Regional Landing Zones would help to protect the local communities much better than would a processor allocation. Regional Landing Zones would insure that significant deliveries would be made to the local communities associated with that resource, whereas a processor allocation would likely result in transfer of the resource away. Additionally, Regional Landing Zones are needed to protect the resource from localized depletion and to protect the existing infrastructure. They would result in a return of the resource to the extent possible to the local public. If Regional Landing Zones are not adopted, the resource will largely be given to investors, to the detriment of historically dependent fishermen and the local communities.

In closing, I respectfully ask that the Council (1) reject any allocation of harvesting shares to processors, and (2) adopt the option to create Regional Landing Zones. Thank you very much for your consideration of my comments on this issue which is vital to the West Coast fishing community.

Sincerely,

Omar Allinson

Omar Allinson
F/V MISS LEONA

America's Wild Rivers Coast
101 MILES OF NATURES BEST

PORT OF BROOKINGS HARBOR

RECEIVED
OCT 27 2008
PFMC

October 23, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 101
Portland, OR 97220

Dear Sir or Madam,

Please find enclosed a copy of Resolution # 402 signed by the Port of Brookings Harbor Board of Commissioners at the regular Board of Commissioner's meeting on October 21st, 2008.

Sincerely,
Judy Mellus
Office Manager

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PORT OF BROOKINGS HARBOR
CURRY COUNTY, OREGON

RESOLUTION NO. 402

A RESOLUTION SUPPORTING FISHERIES MANAGEMENT COUNCILS DEVELOPMENT OF AN INDIVIDUAL FISHING QUOTA SYSTEM FOR THE WEST COAST TRAWL GROUNDFISH FISHERY AND OPPOSING ALLOCATION OF HARVESTING SHARES TO FISH PROCESSING COMPANIES.

WHEREAS: The West Coast Trawl Fishery is an important component of the Oregon coastal economy, producing over 4,000 jobs, and creating $120,000,000 In economic impacts and;

WHEREAS: The West Coast Trawl Fishery is an important component of the economy of Coos and Curry Counties producing over 650 jobs and creating over $20,000,000 in economic impacts, and:

WHEREAS: The West Coast Groundfish Fishery is the largest component of the West Coast Trawl Fishery and;

WHEREAS: The Pacific Fishery Management Council is developing an Individual Quota Program to strengthen the West Coast Groundfish Trawl Fishery and increase the economic benefit to coastal economies by increasing the incentives to conserve the fishery resource and by increasing the amount of harvest of species of fish from healthy stocks while avoiding the capture of species of fish from unhealthy stocks and;

WHEREAS: The number of fish processing companies along the West Coast has decreased to a level where a very few companies process the groundfish landed by the West Coast Groundfish Trawl Fishery, and

WHEREAS: The only rational to issue fish harvesting shares to processors that has been presented to the Pacific Fishery Management Council is to use these shares in an anti-competitive manner to prevent new processing companies from processing groundfish, and;

WHEREAS: No conservation benefit to the resource has been demonstrated by the allocation of harvesting shares to fish processing companies, and;

WHEREAS: A strong, healthy and stable fishing fleet is necessary to support healthy processing industries and realize the economic potential of the groundfish fishery, and;

WHEREAS: Allocating groundfish harvesting shares to processors weakens the fishing fleet and jeopardizes the ability of the West Coast Trawl Fishery to realize the maximum economic benefit possible, and;

WHEREAS: The motivation to conserve the fishery resources is weakened by allocating harvesting shares to processors and jeopardizes the conservation of the groundfish resource.

IT IS HEREBY RESOLVED: The Port of Brookings Harbor supports the efforts of the Pacific Fishery Management Council to develop and implement an Individual Fisherman's Quota program for the West Coast Groundfish Trawl Fishery and opposes issuing harvesting shares to fish processing companies.

ADOPTED by the Port of Brookings Harbor Board of Commissioners this 21st day of October, 2008.

Roy C. Davis, Chair

ATTEST:

Jim Relaford, Secretary/Treasurer

October 10, 2008

Coalition of Coastal Fisheries
P O Box 1448
Westport, WA. 98595

Don Hansen, Chair
PFMC
7700 NE Ambassador Pl.
Portland, OR 97220

Dear Mr. Hansen:

The Coalition of Ocean Fishermen represents commercial and recreational fishing organizations along the West Coast and is based in Washington State.

We strongly oppose proposals that would allocate quota shares to fish processors regardless of whether they are called "processor shares" or "co-op shares". This would take fish away from all fishermen and provide it to only the largest fish processing companies along the coast. Because of reduced quotas and poor markets, fishermen have been struggling in the groundfish fishery for many years. If quota shares are taken away from fishermen, this will only exacerbate the terrible economic situation that fishermen face.

Quota shares allocated to the very large fish processing companies will make it extremely difficult for any new businesses to enter the fish processing business and therefore such allocations are very anti-competitive and restrain trade.

Struggling fishermen wishing to become "whole" will need to make arrangements with one of the fish processing companies that receive shares to catch and deliver some of the fish for which the processor holds shares. Making fishermen dependent upon the fish processors in this manner will greatly reduce the already low market power that fishermen have and will lead to depressed exvessel prices.

Fishermen are businessmen, and like all businessmen, they wish to have more than one buyer to which to sell there limited supply of fish. Allocating shares to fish processors or buyers will force the fishermen to sell to a buyer that has a monopoly on those shares..

Allocating shares to the fish processors is purely protectionism and would reduce competition in the market place, and that is why the fish companies want to be allocated quota share. They wish to reduce competition.

Processors have stated that they need to be allocated shares to maintain stability in the coastal communities and protect the employment opportunities that they provide in their processing plants. They imply without these shares all of their processing facilities are at risk and likely will need to close their doors. They have never identified where all the fish that has been caught and would be caught in the future would go to be processed, but never-the-less this is the thrust of their argument.

The fish processors are simply looking for anti-competitive protection and they have been engaged in "fear mongering" to sway policy people to support their resource grab.

Thank you,

Bill Walsh

Bill Walsh
President

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Verona
Roger Salisbury
337 Grove St.
Half Moon Bay, Ca.
94019

RECEIVED
OCT 16 2008
PFMC

Dear Council members,

The entire fishing industry, both commercial and recreational, is shocked by the decision to give initial allocation of harvesting quotas to processors. The rationale the Council used for their decision was influenced by volume organized public testimony in favor of initial allocation to processors. The volume of testimony in favor of initial allocation to processors was produced by a clinical psychologist fish processor who told his workers that if he didn't get initial allocation of quota shares he would have to close his processing facilities. So much of that pivotal testimony came from the guts and hearts of people who believed their jobs were on the line over processor shares, jobs held, in some cases, for nearly thirty years were going to be terminated if processors didn't get their desired outcome as initial quota holders. How could the council members not realize that these workers were being duped and were being used as pawns to gain the desired outcome wanted by the processing sector. Mr. Anderson, in his prelude to the motion, indicated that the balance of power had been grossly in the processor's favor for decades and yet proceeded to take 20% of the pie from the fishermen who have undoubtably sacrificed the most for conservation and give it to those most responsible for deteriorating infrastructure up and down the entire coast.

A rationalization program that rewards processors for all the hard work fishermen do to conserve the resource is unconscionable and incredulous. There are several sound reasons for our position:

1. The fleet has been struggling for years to deal with the recovery of species that were considered fished down under management policy changing form F20 ro F40 on some key species of our catch. This triggered a groundfish strategic plan that called for removal of capacity of the harvesting sector to better line up with the decreased ABCs as fish populations changed under el Nino conditions. The buy-back program was initiated to reduce the fleet by nearly 50% and the fleet continues to pay back millions of dollars in federal loans without any help from the processing sector. ARE THE PROCESSORS GOING TO SHARE THE BUY-BACK VESSEL TIQ PORTION? IS THE PROCESSING SECTOR GOING TO BE LIABLE TO PAY BACK 5% OF THE BUY-BACK RECOVERY FEE THE REST OF THE FLEET PAYS FOR THEIR 20% ALLOCATION? So where does the processor 20% come from, the entire pool or just the portion not from the buy-back vessels? If they don't have to pay the buy-back assessment then another travesty will once again fall upon the harvesters.

2. Because the processing sector was allowed to consolidated to reduce expenses and competition at the same time to gain more control over the market, prices and the harvesting sector, for the last several years plants have had the fleet on plant limits and delivery schedules. Even though the processors were now only dealing with half the fleet, relatively small plant

limits were established by the plants and very strict delivery schedules are enforced. Deliveries above the plant limits from non-plant owned vessels are discounted to nearly 50% of the current expected price. Fishermen are either forced to sell cheap fish creating animosity with fellow fishermen or they are encouraged to discard the resource in order to keep the market price firm and still have friends back at the dock. If weather or other circumstances prevent meeting the delivery date and time, then fishermen have to forgo the trip or if they were at sea, they may even have to discard their catch for the sake of quality. Vertical integrated processors don't enforce the plant limit or delivery dates/ time schedules on their own vessels. Processor owned vessels operate under the federal trip limit schedule and at questionable ex-vessel prices. There are also a number of boats that were built to fish mainly in Alaska waters, that are here as whiting catcher vessels and processors(both shoreside and at-sea). They land groundfish is huge volume between Alaskan pollock seasons without regard of price or quality so that they can quickly return to Alaska. Both the processor owned boats and these Alaskan boats help lower the ex-vessel price, and therefore, an encouraged practice by the processors is to create the situation that causes plant induced discards. Unfortunately, it is the fishermen that take all the negative PR and brutal relentless punishment from the environmental groups and the well meaning media.

3. The processors introduced split prices for species based on what the market could bare for weight and size, several years ago. This policy has caused ***high grading*** at sea, another category of plant induced discards. Unmeasurable amounts of fish are discarded at-sea in order to optimize the value of each landing. This policy combined with the discounted fish/delivery schedule policy mentioned above accounts for the majority of our discards. The processing sector has been isolated from the "burden of conservation" that the industry deals with everyday and conservation will continue to be of no interest to them unless it means less fish for them to process. When there are less fish, they are allowed to consolidate more, removing more competition because processors only deal with profit minded decisions while fishermen, with their big investments, are not allowed to stack permits to match their investment to the amount of fish allowed to be landed..

4. Essential fish habitat is another issue that has directly affected the trawl sector's behavior but not that of the processing sector. The trawlers not only froze our footprint, we also gave up valuable grounds to help the Council meet a court order. The processors may have worried that they might not receive their customary amount of product to process but the trawl fishermen had to change major behavior patterns and practices that reach far into the future. ***This is another conservation issue that is a burden only on the harvesters.***

5. The Rockfish Conservation Areas were established through a coordinated effort between management and harvesters. These heavy restrictions burdened only the harvesters and the magnitude of this conservation effort has added untold risk, increasing cost, worry and rethinking "normal practices" to the real American fishing fleet. ***The logistics and management of the RCAs has affected every fisherman's operation, bottom line, and behavior, a burden not shared by the processing sector.***

6. VMS is paid and used on the entire trawl fleet. The initial feeling fishermen had, when we were forced to carry VMS, was that of a criminal with an ankle bracelet. "Big Brother" was now watching our every move and stealing what once was proprietary information. In order to make

sure the RCA and EFH were truly being protected at only the fishermen's expense, we had no choice except to concede to these electronic devises. Again, the processing sector was not effected by VMS in cost or behavior changes that were needed to assure protection of rebuilding stocks. Nor do processors face any kind of liability for a vessel drifting over the boundary line or misinterpretation of the complex matrix of arbitrary areas and differential limits like the fishermen do. ***Again the burden of conservation is totally on the fishermen.***

7. Observers, another liability burden, are now on every trawl vessel at some time during the year. They are there to account for the total mortality of fishing. The TIQ program will require 100% observer coverage 100% of the time. Observers not only account for the total mortality but also verify the location of the vessel, gear used, direction of tows and other important information. It is the trawl fishermen that have to cope with this intruder on our vessels which increases our legal liability and costs and it isn't always easy or possible to make the observer part of the boat crew. Again, the processors do not share the burden of conservation the observer program has brought to the fleet. ***If the TIQ program is a conservation program, why does the Council believe that processors, who have nothing to do with at sea conservation, should receive a slice of the pie?***

The Council's own Groundfish Allocation Committee in May 2008, voted to recommend "no initial allocation of quota shares for processors" with all but one abstention, voting in favor. The rational they gave at that time was as follows:

1. "An initial allocation of quota shares to processors may erode the personal accountability for bycatch that quota shares are supposed to provide. A major goal of the program is to maintain mortality of overfished species within the limits specified in the rebuilding plans. To achieve this we need to clearly put responsibility on the fishermen and give them incentives for innovations that will allow them to increase their catch of target species while decreasing overfished species bycatch rates. Starting out with initial allocation of quota shares to fishermen clearly puts the responsibility on the fishermen.

2. While quota shares may be transferred to processors after the initial allocation, the two are quite different. The initial allocation is a decision made by the government while the subsequent distribution among sectors will be driven by each person's individual business decision to buy and sell. For an entity that is granted the quota share as part of the initial allocation, the incentives for optimal use, and hence for personal accountability, will be less than if they have to buy that allocation through the market place.

3. The bycatch rate reduction expected with an initial allocation to fishermen will result in increased landings of target species which will benefit the entire industry, including processors.

4. The language of the MSA indicates a strong intent to recognize harvesters.

5. Ultimately, both sides will benefit from the program and there is not a large disadvantage if processors are not given shares initially.

6. There is limited evidence on the need for an allocation to processors and the ramification of

such an allocation is unclear. It does not appear that an allocation to processors will address concerns about the geographic distribution of harvest.
7. Consolidation is a concern and an initial allocation to processors may lead to greater consolidation.

8. The analysis indicates that currently there is not a level playing field between harvesters and processors and an initial allocation to processors may exacerbate that imbalance, especially given the degree of consolidation in the processing sector.

9. Long established relationships between processors and harvesters will continue to exist, there will not be widespread disintegration and relocation of these relationships.

10. The history of development of this program encompasses the identification of a continued harvester overcapacity problem and conception of the buyback program in 1996, the groundfish strategic plan, and the bycatch reduction amendment. The success of this long-term effort requires protection for those established in the fishery in order to increase the economic stability for all."

In the analysis document it states in Appendix A (A-2.1.1.a) page A-73 under "Competitiveness", processing sector's interaction with harvesters, "that processors are in a strong position to exert market power under status quo and may have cheaper access to capital than harvesters; an IFQ program under which processors do not receive an initial allocation would weaken that position; even if weakened, processors could regain some strength through the acquisition of quota shares, but only up to accumulation limits; that an initial allocation of quota shares would give them a stronger negotiating position than if they not receive an initial allocation."

"Specifically, an initial allocation of quota shares would:
1. Provide a capital infusion that may allow processors to employ one of a number of different strategies to grow and increase their efficiency (e.g., acquisition of additional shares, horizontal integration, etc)

2. Diminish the exit barrier (liquidation of quota shares would allow a firm to exit the industry with less debt or greater gains)

3. Initially provide processors with greater bargaining power (as compared to their initial situation under IFQs if they did not receive an initial allocation)

4. Create a greater barrier to new entry

5. Create an even greater barrier to entry if there is an accumulation limit grandfather clause

6. Decrease the cost of processor access to capital."

There is a disjunction happening with this TIQ program when initial allocation is given to processors. The original goal of preserving the fleet characteristic and therefore our coastal communities' characteristics can't be accomplished if the Council desires fewer processors on

the west coast. Is it the Council's goal to only have factory trawlers and motherships working the harvest and running to Seattle with the money?

We believe the Council failed to look at processor shares from every view point. The conflicts that exist between the big domineering processors and the small processors, coupled with the lack of competition in the west coast processing sector, will put the smaller processor in jeopardy of staying in business. It seems that the Council prefers large processors over small processors and will eliminate the small processors with the required six (6) metric ton deliveries in three (3) of the six (6) years between 1998 and 2003. So these smaller processors will not receive any of the 20% allocation that the processors will get, putting the smaller processors in greater jeopardy. ***We believe the Council action on this issue will reduce competition which will exacerbate and erode any gains fishermen may realize through the rationalization program.***

According to the analysis on Effect on Smaller Processors (Page A-74), "If there is not an initial allocation to processors, smaller processors will be at a disadvantage relative to larger processors. At this time, most of the limited entry permits that are owned by processors are owned by larger processors. Therefore, smaller processors would have to acquire QS (quota shares) or negotiate with harvesters without that leverage. Either way, they would be at a competitive disadvantage within the sector. Anecdotal information has indicated that those processors in the IFQ system in British Columbia who did not own vessels or were not closely partnered with vessels had a financially difficult time competing while also having to make payments on their QS acquisitions. This is consistent with reports from New Zealand that indicated lower economic satisfaction for later entrants who have to buy QS to enter the fishery (as compared to those receiving initial allocation)." So instead of giving QS to small processors so they have something to work with, they will be forced to acquire QS which will put them at a greater disadvantage. This could only have dire consequences for any new entrants and could collapse vessel prices even more than they are right now which is shameful when you compare ex-vessel prices over time to inflation. The analysis shows that smaller processors would use QS more effectively than large processors, the Council is choosing to put the small processors out of business, removing more competition and paving the way to line the big processors pockets with more wealth and privileges. Because the Council seems to have a need to eliminate the small processors and fishermen's business by institutionalizing an unfair advantage to the most powerful, ***we ask that the tightest accumulation/control caps be established to prevent further vertical integration which could also eliminate the fishermen sector in the long run.***

If the Council's final decision includes giving harvesting shares to processors, it is important that the Council also consider permanent accumulation limits and no grandfather clause to try to preserve our coastal communities from massive takeovers and fleet migration that would occur if uncontrolled vertical integration is allowed.. The small amount of vertical integration that has already occurred has affected the negotiating power of the fishermen. While operational costs have skyrocketed, vertical integration has virtually frozen the ex-vessel prices as explained in the number 2 section at the beginning of this letter.

Stability of supply will be improved under the TIFQ program. This will benefit both the harvesting sector and the processing sector with a better coordinated effort to have product available when it is most needed. Price competition may be influenced by many factors. As stated in the analysis Appendix A Excerpts on page A-75, "If the IFQ program results in west

coast fish processing operations remaining smaller that might otherwise be optimal, higher costs could make their products somewhat less competitive in the wholesale market. This would likely mean the raw fish prices (exvessel) might have to be somewhat lower in order for the product to clear the market. An initial allocation to processors and accumulation limit grandfather clause would preserve the advantage of the large processors until the accumulation limit grandfather clause expires. After expiration of that clause, the likelihood that larger processing operations will continue to dominate the fishery will depend on the relative advantage that ownership of QS provides a processing operation. (QS ownership is not necessary for large operations but could improve their profits.)" With improved profits for the large processing operations, the likelihood of further consolidation, geographic shifts in catch and localized depletion of stocks is greater. Any effects on raw product prices, either higher or lower at the start of the program "are expected to be short-run effects because over time processors are eligible to buy QS and over the long run they are likely to accumulate QS to improve their bargaining power." So in other words competition in the wholesale market will not be effected if processors are not given initial allocation of QS.

It is stated in the Appendix A page A-80, "Relative to status quo, processors are not expected to lose returns on their investment to QS holders unless there is overcapacity in the processing sector and competition for raw fish deliveries from harvesters has been based at least partially on something other than price (e.g., competition based on ability to handle volume.)" We all know that the processing sector is not overcapitalized and ex-vessel prices attest to that fact.
"Allocation of QS to processors may:

- Strengthen their bargaining position vis a vis harvesters in the raw fish market (as compared to not receiving an allocation)
  - over the short run (via the initial grant of an asset and ability to hold QS in excess of accumulation limits)
  - over the long run, if they would not otherwise accumulate QS through purchase
- Possible strengthen large producers relative to small producers (if there is a grandfather clause)
- Strengthen small producers relative to large producers (if there is no grandfather clause and depending on relative efficiencies)
- *Not likely* affect wholesale prices or competitiveness of west coast product in the wholesale markets.
- Under certain circumstances compensate for partial losses of returns on investment (i.e. if the sector is overcapitalized, fully competitive (market power is not being exerted), and at least some of the competition for the raw product was on a basis other than price (e.g. the ability to handle a large volume of product in a timely manner)). It should be noted that in such circumstances the processors were likely already losing some of their return on investment (to the degree that price was a factor in the competition for the raw product.) Also, the amount of profit that processors bid away in the price competition is unlikely to be the full amount that would otherwise go to return on investment.
- Reduce exit barriers by providing compensation for capital losses by those who might seek to leave the fishery."

"As the allocation to processors increases; The capital infusion to harvesters decreases; The exit barriers increase lengthening the IFQ program transition period; Harvester competition in the raw fish market will increase reducing their bargaining power; The cost of harvester access to capital

would increase; The likelihood of harvester bankruptcies would increase."

"An IFQ program will likely cause at least some increase the potential for harvesters to exert market power or resist processor market power, independent of the amount of QS they are initially granted. Whoever receives an initial allocation is likely to be in a better position to exert market power and accumulate additional QS. As the amount of QS issued to processors increases, transaction costs will increase as QP issued to processors will be transferred to vessels each year in order to be used. As the amount of QS issued to processors increases, there is a greater mismatch between recent production by processors-permit associations and the QS distribution to those processor-permit association. Program administration costs increase with each additional group to which an allocation is made."

Finally, in order to give processors harvesting quota, laws have to be changed. The Department of Justice cautioned the IQ Committee that issuing harvesting quota to processors could violate anti-trust laws. The harvesters have believed for many years that the processing sector has been in violation of the Sherman Act. Processors have been suspected of price fixing and collusion. Product has been dumped on the market to drive non-cooperating processors out of business. The harvesters have been sacrificing for years and have been the sole source of the burden of conservation. Harvesters have had to reduce maintenance, crew size and operation time in order to stay in business, while at the same time, fishermen watched the processors consolidate to lower costs, build new plants and improve existing facilities, buy small plants to close those operations, increase their employee benefits and fly around the country in private jets.

We believe giving initial allocation of QS to processors is the wrong thing to do and oppose this IFQ program if it contains initial allocation of QS to processors.

Sincerely,

Roger Salisbury

Other persons sending this same letter are listed on the next 2 pages.

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Bernadette
F/V Stormie "C"
F/V Cape Foulweather

10-7-08

Dear Council members,

Sincerely,

Dennis Cutting
Pres/ Owner

PFMC

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Jamie K
Tom Leach
Donna Leach

RECEIVED

Veto Plants 20%

follow regulations Fish Plants don't have catch records & lic. This is a joke an a slap in the face to the true remaining fish vessels.

Sincerely, F/V Jamie K
Tom Leach

...ked by the decision to give

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

RECEIVED

OCT 22 2008

PFMC

F/V Madeline
Crescent City, Ca.

and Joy Ann
Eureka, Ca.

Both boats owned by F/V Rose Marie Inc

Dear Council members,

Sincerely,

Robert Burchell

Robert Burchell
President of Rose Marie Inc

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Pioneer
Joseppe Pennisi
20042 Audrey Lane
Ptunedale CA 93907

Cell 831 594-4231
OFFICE 831 372 2111

RECEIVED
OCT 27 2008

Dear Council members,

Sincerely, Dale R Kent

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Lady Cecelia
PO Box 740
GAribaldi, OR 97118
FAX 503 3779603
Email dkentladycecs.com

OCT 27 2008
PFMC

Dear Council members,

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Cleone
Wade A Fendall
Eureka, Ca,
95501

RECEIVED
OCT 27 2008
PFMC

Dear Council members,

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

Sincerely,

Kevin N Dror

F/V Corsair
P.O. Box 2065
Newport, OR 97365

10-24-08

Dear Council members

Subject: [Fwd: Opposition Letter for Processor Sharing]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Fri, 17 Oct 2008 08:55:43 -0700
To: Jim Seger <Jim.Seger@noaa.gov>
CC: Merrick Burden <Merrick.Burden@noaa.gov>

Subject: Opposition Letter for Processor Sharing
From: Kelley <kelleyretherford@charter.net>
Date: Fri, 17 Oct 2008 08:43:49 -0700
To: pfmc.comments@noaa.gov

Mike Retherford
mikeretherford@charter.n et

Pacific Fishery Management Council 10-15-08
7700 NE Ambassador Place Suite 200
Portland, Oregon 97220-1384

F/V Excalibur
880 NE Sturdevant Rd
Toledo, OR 97391

Dear Chairman & Council members,
My name is Michael Retherford, owner and operator of the F/V Excalibur. I live and fish out of Newport, Oregon. My letter to you today is to state my opposition for Processor sharing.

I oppose processor sharing 1st
and foremost because of the 20% reduction in the profit margin being proposed. That 20% margin that the processors are asking for will make a significant cut in the profit earned by our business and others like us. A vessel's profit margin at the end of the year is in the range of 15-20 %. That percentage is the actual profit that maintains growth.

Below is a example of our profit margin: Fishing expenses

Crew Share	35-40%
Fuel	15-20%
Insurance	8%
Gear & Maint	10-15%
Storage & Moorage	6%
OTC,ODCC,Buyback	6-7%
Ice, Unloaders,Bait	3%
Groceries, Wireless services & Equipment,etc	3%

As you can see from above, the 15-20% profit margin is very important to the industry and community. With this being stated a processor already receives a 100% of the harvest. There profit is not affected. The end result would be 120% processors, verses 80% for the fishing business and community. The fishermen have received cuts after cuts and fees on top of fees. Bottom line is the better we do, the more we put back to the community, it's a win- win all the way around. Further more I'd also point out that we need processors just as

much as they need us, but I don't think that there going away just because they don't get quota shares, but I do see vessel owners and crew members taking a devastating reduction in gross income.

I would like to add that I am in support of a adaptive management plan. I believe that if its structured correctly it will protect both processors and communities.

Thank you,
Michael S Retherford

Opposition Letter for Processor Sharing.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

Subject: [Fwd: Dear Pacific Fisheries Management Council]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Fri, 17 Oct 2008 08:41:13 -0700
To: Jim Seger <Jim.Seger@noaa.gov>

As of October 28, 2008; 11:59 PM, the Council received 310 copies of this comment letter.

Subject: Dear Pacific Fisheries Management Council
From: Kent Craford<>
Date: Thu, 16 Oct 2008 21:51:36 -0700
To: pfmc.comments@noaa.gov

October 2008

Please support the West Coast seafood Industry

I am writing today to express my support for a healthy and growing West Coast seafood industry. This is important not only for our regional economy, but to the many industries that support it and for those who depend on it for quality consumer products.

In June, the Council voted on a preferred alternative for an Individual Quota Management system, granting 20 percent of initial quota allocation to processors; and 80 percent to permit owners. While not the optimum outcome for either of the primary stakeholders, this preliminary vote reflects a reasonable compromise.

As you look ahead to the November vote and consider new rules to manage and govern West Coast fisheries, please remember the entire seafood industry – from the fishermen, to the dock support, processor, sales and distribution networks and grocery and restaurant consumers. I urge you to support a shared approach to the “Preferred Alternative” - one that is fair, recognizes the importance of processing infrastructure and protects jobs in coastal communities. A fair quota allocation will mean a stronger seafood industry for everyone; an unfair allocation will threaten industry stability and growth.

Thank you for your thoughtful consideration of my point of view and your commitment to policies that will protect and grow the seafood industry.

Sincerely,
Kent Craford

Email: kent@seaportair.com

Phone: 503-970-4978

Portland, Oregon

Dear Pacific Fisheries Management Council.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 8BIT

FRED A. YECK, President
(541) 867-3911

F/V Seadawn Fisheries, Inc.

P.O. Box 352 • Newport, Oregon 97365
Fax (541) 867-3913

F/V Seadawn

October 17, 2008

Don Hansen, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Public Comment - Groundfish Trawl Rationalization

Dear Chairman Hansen and Council Members:

As a vessel owner I have been involved continuously in the Whiting fishery since approximately 1983. Since that time, I have been the part owner in a vessel with continuous mothership and inshore catch history and managing owner of a separate vessel that has long term mothership catch history. The Whiting fishery is in dire need of rationalization to provide stability for processors and harvesters. In addition, rationalization is necessary to conserve the bycatch of prohibited species and to conserve the whiting resource itself.

Therefore, I strongly support the Council's Preferred Alternative as it relates to the Inshore IQ program including provision for up to 20% to processors. I would also support as an alternative that a set percentage of the IQ be delivered to the port where the history was earned.

I also strongly support the Preferred Alternative as it relates to the Mothership Co-op alternative including reasonable linkage with the mothership processors.

Both harvesters and processors need stability which the IQ program will provide to the Inshore sector and the Co-op alternative will provide to the Mothership sector. Both alternatives have significant support, notwithstanding continued debate regarding important issues. I believe the Council's Preferred Alternative for each of these sectors contain reasonable compromises and it is now time to finalize this Rationalization program.

The Council and its committees have spent countless hours and years developing this program. I urge the Council to stay the course on this program and make a final decision consistent with its Preferred Alternatives at the November meeting. The Alaska Pollock quota was cut in 2008 and it looks like it may be facing further cuts in 2009. There are plenty of boats looking for alternatives and if the Council does not act it can be expected that more capacity will arrive in this already overcapitalized fishery.

Sincerely,

Fred A. Yeck

Thank you Mr. Chairman:

My name is Mike Okoniewski; Representing Pacific Seafood: I am responsible for the operations in our Woodland Washington division. We employ 100 people on a year around basis and up to 325 in peak production. Between Columbia Colstor and Pacific the plant represents an $8.5 million dollar investment. Our primary focus is whiting, bottom fish, and sardines.

Processors and harvesters have been co-dependent since the inception of the fishing industry. Each supplied capital, valuable assets and the hard work which allowed the fishing industry to evolve.

Harvesters invested in vessels and explored the fishing grounds to discover what fish was there. Later they developed better gear and techniques; both to harvest that fish and conserve stocks.

Processors had to discover and create markets for the fish. They also had to develop the product forms that met the consumer's needs. Their investments went into their plants and people.

Neither the fishermen nor the processor could have done this without high risk and obsessive dedication. Though there has not always been a peaceful co-existence, there was a balancing of forces.

Now there is much desire to create a new management system: Trawl Individual Quota: Objectives, even though analyzed over five years and in thousands of pages of documents remain ill defined.

In my mind there should only be three primary objectives: First: The best conservation practices to maintain healthy stocks. Second: Obtain the maximum value to the Public for the resource-This is not measured only by ex-vessel price and the lease price for quota pounds: and Third: Stabilize and Promote a healthy Industry which enhances market confidence and development.

The road here has been contentious. In effect it has been a Civil War over fish resource. It stopped being a cooperative effort from the time Harvesters believed they should have all quota.

Quota allocation only to Harvesters essentially creates a third class of participants in the industry: Presently we have two: Harvesters and Processors. What we would create would be a Quota holder class. Whereas now there is presently equilibrium between the two in a "Harvester only system" the Quota holders will be only power player in the New World. There will be only one economic driver: Extract Maximum Rent value for the lease of that quota. Harvesters that own quota can fish or lease as they see fit. Harvesters that do not own quota will either "sharecrop" or

go out of business. Processors with no quota will lose control of their ability to run their businesses. The communities and markets will be the ones that suffer the collateral damage.

Whiting will play out differently from bottom fish. Many fishermen say it will not change where they deliver. The opposite was true in Canada. It will come down to Maximum rent for quota lease not past loyalties. If our prediction does prove true we cannot help but wonder if an absence of Processors may lead to a re-allocation of more whiting offshore?

Bottom-fish would be different. Market popular species such as black cod may return higher ex-vessel value initially. What is not being analyzed is what will happen with fresh market species such as Dover and English sole. These markets have been penetrated and nearly lost to foreign items such as Tilapia and Farmed salmon. Tilapia is now the number one fillet in the world.

Our real competition is Aquaculture. We are in a dog fight for shelf space. To that end, Aquaculture has made singular capital investment magnitudes above our own. They have a laser focus: We continue to fight each other. The market is not the fish plant—it is the consumer.

Allocate Processor quota shares? Or Harvester shares only; whichever way you decide will have huge impact on whether we gain or lose shelf space in that market.

The Preferred June council Alternative which gives Processors a 20% allocation of quota is our one hope that we can stabilize and promote this industry. Phil Anderson's proposal is the only compromise we have yet seen that may allow us to place this contention behind us, and move forward to bring better value to these resources.

My preference is and has always been a Cooperative approach. Allocating limited access privilege to resource automatically triggers adversarial relationships. This is the opposite of what we need if the industry is going to thrive, and not atrophy. To do this takes the cooperation of both the Harvester and the Processor.

Perhaps Cooperatives could emerge if the processors were allocated 20% of the shares? The logic for cooperation is still there: If the goal is to promote the entire Industry and not just a few.

Adaptive management: While it has appeal to some we are not in that camp: Several questions must be answered: How would it be regulated? How would the quota mainline back into the logistical supply chain and the markets? What is the cost? Would each state allocate differently and would that open up the door to litigation? How do we develop this into a business plan?

Again we believe the only rational and equitable solution we have before us is to allocate a minimum of 20% to the Processors. Please support the June Council Preferred Alternative. If no quota is allocated to Processors the last 5 years of contention will look tame in comparison to the war we will have. We cannot afford that to happen: The bleed over will go far beyond the ground-fish and whiting fisheries. The fall out will impact every fishery and fishing community on the West Coast. If that scenario plays out there will be no winners in the end.
Thank you

Mike Okoniewski
General Manager
Pacific Seafood
Woodland Division
1635 Downriver Dr
Woodland WA 988674
360-225-9351
mokoniewsk@pacseafood.com

Thank you Mr. Chairman,

My name is Josh Mansker. I am the operations Manager for Express Materials:

We would like to submit the following comments for your review regarding the pending decision for Trawl Individual Quota allocation.

Express Materials, LLC, is a Washington based company with offices in Westport and Kelso. We employ 22 people and maintain a fleet of 12 tractors, 24 trailers, and chassis's to transfer export containers to Port for shipment to overseas markets.

Specifically we transport fresh and frozen seafood to and from processing facilities, cold storages, ports, and markets. Our customer base is almost exclusively the Seafood Processor.

We will be directly impacted by the Council's decision. We have made considerable personal investment in specialized equipment and in trained personnel in order to service this industry. Literally we have backed our entire investment with personalized collateral.

Moving to an IQ system will change the playing field forever. Without an allocation of quota, the processor, our customer, has relatively no indicator or control as to how much product, if any, they will receive. This leaves not only their operation in the dark, but ours as well.

This is simply an unsound model for future investment. At the least it may mean a redeploying of assets. Given the present state of this economy we believe the more probable outcome will be an outright liquidation of those assets. We have talked to processors and operators in Canada. Frankly a Fishermen only quota scares the hell out of us.

We do not understand Adaptive Management. At a glance it appears incredibly complex and unwieldy. A question we have: How you would establish a business plan around it?

We support the June Council preferred alternative that Phil Anderson brought forward which grants a 20% allocation to Processors. This proposal is fair, and provides both fishers and processors with a certain level of control in the success of their operations. Allocating all resource to only the harvesters places the processing sector in an impossible position. Our business and many others that offer infrastructure support to the seafood industry may not long survive if this happens.

We respectfully request consideration of these comments during the November Council decision making process.

Thank you

October 27, 2008 Agenda Item F.3

Mr. Don Hanson
Chairman
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Re: Amendment 20, Trawl Rationalization

Mr. Chairman, Members of the Council

My name is Rick Harris, General Manager of Pacific Choice Seafoods. We process and market west coast groundfish, whiting, Dungeness crab, Shrimp, salmon, albacore tuna, squid, and smelt.

I want to open as I usually do in stating that I disagree that any public resource should be owned. For the life of me I can't understand where any Country, Council or Individual, for that matter, gets off in thinking that they can determine who owns the fish in the sea. If commercial species can be "owned" then why not make sport species the same. I'm a sport fly fisherman. I have a long history of catching and releasing steelhead. Shouldn't I own those fish? If that is the case and you want to take your kids or grandkids fishing, come see me, maybe I'll lease you a few. And in two years, I may even sell you some of my shares.

With that said, clearly I am in favor of a status quo fishery. But since that doesn't seem to be an option any longer, I must encourage the Council to stick with it's decision in June and continue to support the balanced approach of the preferred alternative for the groundfish and whiting fisheries.

I'm from Eureka. Born and raised. If you don't know much about Eureka, it is listed on page 424 of the Pacific Groundfish LE Trawl Rationalization Decision Document where my small town has been selected to be at risk of losing landings under 100% quota share allocation to fishermen. I represent over 200 full and part-time employees. We are one of the largest employers in Humboldt County. My company has been in existence for 22 years and once again, we are nervous of our future.

People say Pacific Seafoods will be alright because we own boats. Well, we don't own enough boats to keep all of our facilities afloat. Pacific Seafood is made up of small companies in small communities and our groundfish trawl fleet is made up of 83% un-owned vessels. My plant and my people are not safe just because we are Pacific Seafoods. My company in Eureka suffered greatly from the effects of the buyback program of 2003. Before the Buy-Back, there was a formation of a fisherman's Co-op in Crescent City. Prior to the Co-Op, there was Eureka Fisheries, Sea Products, Consolidated Factors, California Shellfish, Caito Fisheries, Pacific Choice Seafoods, S&S Seafoods, and Castle Rock Seafoods all operating out of Crescent City. Almost all of the boats instantly left their markets to join the Co-Op. After several months, the Co-Op ceased operations and the boats needed homes. Cal Shell was gone, Castle Rock was gone, S&S Seafoods was gone, and Sea Products was no longer buying groundfish. The

infrastructure was breaking down. Pacific and Caito ultimately brought those boats back into their line up. Luckily, we were still there to do so.

The Buy Back came in 2003 and cleaned out over 71% of the fleet in Eureka. It cleaned out 90% of the fleet in Crescent City. Can you understand why I might be a little nervous about our future? The buyback left Pacific no Choice but to buy boats in order to keep the Eureka plant alive. Pacific could have easily closed the doors and walked away but our commitment to our people and our communities that we live in outweigh the easy way out. Crescent City to this day has no full scale groundfish processing facility. Pacific bought the Ice Plant though it has never sold enough ice to be profitable, but someone had to maintain infrastructure for the remaining fleet and companies. Big ol' mean Pacific. It has taken 5 hard working years to rebuild our fleet and get to where we have enough work to provide living wage jobs and I am sick to be sitting before you today thinking that it could once again be over for my operation.

I mentioned in my last testimony in June how we use to enjoy a 50 – 60 day early California whiting season. We provided over 100 additional jobs in our community. Now, the Federal Government regulates that fishery and California has no protection for the 5% of the quota that it was allowed for several years. An allocation intended to create jobs and shoreside opportunity to small coastal communities, vessels and processors. Last year with new regulation, we enjoyed a whopping14 production days as the majority of the whiting fishery traveled on trucks to Oregon and Washington instead of creating jobs in California. I expect this year will be 6 – 10 days. I am no longer investing in this fishery and I can no longer provide these jobs. 100% quota shares to fishermen will take 100% of the whiting away from California altogether. Another nail in our coffin and more effort shift.

In a letter to NOAA from 13 Members of the Congress that included Peter Defazio, Ron Wyden, Mike Thompson, Barbara Boxer, and Diane Feinstein to name a few, their biggest concern about processor shares was that processors would consolidate and move doing harm to local communities. We've been through situations similar to TIQ and the only movement was vessels. We didn't move when we lost 100% of our boats to the Co-Op, we didn't quit and go away when we lost 71% of our Eureka vessels and 90% of our Crescent City vessels in the buy back. We fought hard and rebuilt and we stayed strong to our commitment to our people. We are small community people. We stayed in Crescent City, we stayed in Brookings, and we stayed in Eureka. The boats left. I agree with their concern for the communities but not due to processor consolidation, but to vessel consolidation which will hurt the processors which will hurt the communities. Another concern from the Congressional members was that over 75% of the groundfish processed goes to 3 main processors. Well the majority of groundfish is caught Fort Bragg north and there are only 4 processors that choose to process any volume of groundfish. So it is also true that 75% of the groundfish goes to 75% of the processors, wouldn't you say?

Since June, here is what is going on in my town. Our local pulp industry shut it's doors putting 215 people out of work. They may re-open, they may not. Eureka Ice and Cold Storage had to close their doors. Our harbor now has no ice for boats, businesses, local customers, or sport fishermen. Our County now has no cold storage for seafood, fishermen bait, and other local customer needs. Our infrastructure is in bad shape. Our vessels are looking to us to supply ice. I'm looking into an ice plant but there isn't

enough business to justify the cost. Yet, the port needs ice. The boats need ice. The companies need ice. Our sports fisheries need ice. If I am looking at being at risk of losing landings under 100% quota shares to fishermen I will definitely be unable to make this investment. I guess it will be up to the quota holders to rebuild the dying infrastructure. Bad situation isn't it? Infrastructure dies and boats have to leave or sell off their shares. Under TIQ, the communities are in trouble in my opinion.

Groundfish is the backbone of any processing facility that chooses to provide opportunity for a year-round workforce. My operation has to buy groundfish from 3 – 4 different ports to provide enough groundfish for that full-time employment. Any disruption to any one of those ports will truly put my operation in jeopardy of a viable groundfish operation. Here's the count; Eureka has 10 legitimate trawlers, Crescent City has 3, and Brookings has 7. Pre Buyback the numbers were 24, 10, and 9 respectively. At the beginning of my testimony I mentioned, besides groundfish, we process shrimp, Dungeness crab, whiting, salmon, albacore tuna, squid and smelt. These people also depend on us. When you make your decision about groundfish and whiting IQ's, do it with these other people in mind. Groundfish and whiting are a large part of our industry but they are not all of it. We need to maintain our infrastructures in our coastal communities so if you tear the backbone out of us, we may not have the strength to hang on for our other important fishermen. Your decision reaches way further than you may be aware of.

I want to leave you with these last words;

What we are:
Industry...Organized economic activity connected with the production, manufacture or construction of a product or range of products.

What we will be:
Individualism...the pursuit of personal happiness and independence rather than the collective goals or interests of others.

Sounds to me like we are headed to Wall Street with our fisheries.

Please stick with your first instinct and continue to support the preferred alternative that you all decided upon in June. It is the most balanced approach besides Status Quo.

Sincerely,

Rick Harris
General Manager
Pacific Choice Seafoods
Eureka, CA 95501

October 9, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is William Wischmann, I am a buyer for Pacific Seafood of Washington. We are located in and, have businesses in the State of Washington. Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

The Council action on individual quota plans in June of this year clearly reflects a compromise position that emerged over four years of debate, analysis, meetings, public comment and review. While the preferred alternative is not the optimum outcome for either of the primary stakeholders, it is a reasonable compromise. The preferred alternative provisions protect the interests of the industry, not just a segment of the industry. The split of the initial allocation will be a stabilizing factor in a major regulatory change. I appreciate the majority of the Council's hard work and the difficulty in reaching this decision.

Because IQ shares grant a right to catch fish, processors will use shares issued to them as an incentive to attract fishermen to deliver to their docks. While fishermen are free to deliver wherever they wish, the incentive of being able to catch more fish by using shares provided by processors will likely be a strong one, thus helping preserve the diversity of opportunities along the entire coast.

Sincerely,
Wil Wischmann

October 24, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is Kevin Hert, I am the Purchasing Manager for Pacific Seafood of Washington. We are located in Mukilteo, WA. Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

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Sincerely,

Kevin Hert
Pacific Seafood of Washington

October 9, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is Bill Hill; I am the Executive Banquet Chef for The Coeur d'Alene Golf and Spa Resort. We are located in Coeur d'Alene Idaho. Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

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Sincerely,
Bill Hill
Executive Banquet Chef

October 24, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is Lee Hirst, I am the Executive Chef for Red Lion Hotel - Wenatchee. We are located in Wenatchee in the State of Washington. Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

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Sincerely,
Lee Hirst

October 24, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is Paul Westburg, I am a buyer for Pacific Seafood-Washington. We are located and have business in the State of Washington. Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

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Sincerely,

Paul V Westburg
8867 48th Pl W
Mukilteo, WA

425-512-9201

October 28, 2008

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 N.E. Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Chairman Hansen:

I am writing on behalf of Ocean Beauty Seafoods, LLC (Ocean Beauty) to provide comments concerning the Pacific Fishery Management Council's (the Council) selection of a final preferred alternative for the rationalization of the Pacific Coast groundfish trawl fishery.[1] Recognizing that the development of the proposed alternatives has been a multi-year effort, Ocean Beauty appreciates the Council's dedication and perseverance regarding the process of rationalizing the groundfish trawl fishery.

As part of this process, at its June 2008 meeting, the Council selected a preliminary preferred alternative that would manage the shoreside sector of the fishery under an individual fishing quota (IFQ) program and include a 20 percent initial allocation of quota share to shoreside processors. Ocean Beauty supports this proposal and asks that the Council stay the course by maintaining the initial quota allocation to processors as part of the final action for rationalization of the groundfish trawl fishery. An initial processor allocation is necessary to preserve existing business relationships, maintain a more appropriate balance of market power, protect processors' investments in the fishery, and minimize impacts to dependent fishing communities. Absent an initial quota allocation, there is a significant risk that the adoption of an IFQ program will have long-term detrimental impacts on both our Newport processing plant and the dependent Newport fishing community.[2]

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[1] Pacific Fishery Management Council and National Marine Fisheries Service, *Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery; Preliminary Draft Environmental Impact Statement Including Regulatory Impact Review and Initial Regulatory Flexibility Analysis* (October 2008) (Preliminary DEIS).

[2] As part of its preliminary preferred alternative for the allocation of quota, the Council has chosen not to include a grandfather clause. *Id.* at 40. A grandfather clause would allow those initially qualifying for quota share in excess of limits to receive and maintain it. Ocean Beauty supports the Council's preliminary decision and recommends that the Council adopt a final action that does not include the grandfather clause. The lack of a grandfather clause will address concerns about processors receiving quota shares in excess of accumulation limits and maintain the balance

Ocean Beauty, headquartered in Seattle, Washington, is a privately owned, vertically integrated seafood company. Ocean Beauty is partially owned by an Alaskan Community Development Quota group, the Bristol Bay Economic Development Corporation. The company has enjoyed a long history of operating in the Pacific Northwest and has developed significant relationships with local fishermen and businesses. Ocean Beauty, originally known as Washington Fish & Oyster, was founded in Seattle, Washington, in 1910. Soon after, Ocean Beauty merged with the Portland Fish Company, which began operations on the Portland wharf in 1906. While Ocean Beauty buys fish from all over the world, the company specializes in seafood products originating in the waters of Alaska, Canada and the Pacific Northwest. Ocean Beauty then processes and distributes the seafood in facilities located in Alaska and the lower 48 states.

Ocean Beauty's processing plant in Newport, Oregon has been in operation since the early 1990's. The plant currently handles only two species of seafood, with whiting making up close to 90 percent of the plant's total volume in a normal year. Ocean Beauty employs approximately four full time and 90 seasonal workers. Further, the plant patronizes about 35 vendors in the Pacific Northwest for its maintenance, packaging, trucking and other supply needs. Many of these businesses are also located in Newport.

I. Based on our participation in the Alaska halibut and sablefish IFQ program, Ocean Beauty has experienced the adverse impacts associated with a harvester-only quota allocation

Ocean Beauty has first-hand experience with the impacts associated with the implementation of IFQ programs. Beginning in 1995, Ocean Beauty, along with other Alaskan processors, suffered substantial financial hardship due to the implementation of the halibut and sablefish IFQ program. At the time, Ocean Beauty was involved in three Alaska shoreside processing facilities that participated in the halibut and sablefish fisheries. Following the implementation of the IFQ program, the processing revenues derived from these two fisheries declined significantly. For example, the pre-IFQ halibut processing sector lost 56 percent of its 1992-93 average annual quasi rents following the introduction of IFQs.[3] In the sablefish fishery, the pre-IFQ processing sector suffered a 78 percent decline of their total annual quasi rents.[4] Conversely, total revenues earned by the halibut harvesting sector increased 2.4-fold, and harvesters captured more than 90 percent of the increase in statewide gross wholesale revenues.[5]

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of bargaining power between harvesters and processors. *See Id.* at 421. Ocean Beauty agrees that any quota share not allocated due to the lack of a grandfather clause should be distributed to the other eligible recipients based on the Council's allocation formula.

[3] Scott C. Matulich & Michael L. Clark, *North Pacific Halibut and Sablefish IFQ Policy Design: Quantifying the Impacts on Processors*, 18 Marine Resource Economics 149, 158 (2003). Of the 104 firms processing halibut prior to IFQs, only 31 of the firms processed halibut after the implementation of IFQs. *Id.* at 160.

[4] *Id.* at 162.

[5] *Id.* at 161.

As a result, over the next ten years, some of the Alaska coastal processing plants were forced to close or stopped participating in the fisheries.

If the Council implements an IFQ program for the shoreside sector without an initial allocation to processors, Ocean Beauty expects that the impacts observed in the halibut and sablefish fisheries will be repeated. Based on our experience in the halibut and sablefish IFQ program, Ocean Beauty has observed first-hand that a harvester-only quota allocation will have disproportionate and inequitable effects on processors. Based on this experience, and for the reasons discussed below, Ocean Beauty believes that an initial allocation of quota to processors is necessary to both protect and ensure the future vitality of the shoreside processing sector of the Pacific Coast groundfish fishery.

II. An IFQ program with a harvester-only quota allocation does not protect the significant investments made by shoreside processors like Ocean Beauty who have historically participated in the whiting fishery

As an initial matter, the Preliminary Draft Environmental Impact Statement (Preliminary DEIS) adequately presents the various alternatives and includes general discussions of anticipated effects, but does not contain sufficient data detailing the specific social and economic impacts of a harvester-only quota allocation. While Ocean Beauty appreciates the efforts by the Council staff and the magnitude of the undertaking, the lack of detailed information makes it difficult to examine the full impact of a harvester-only quota allocation. Notwithstanding this shortcoming, Ocean Beauty is concerned that a harvester-only quota allocation would have the following effects.

a. Disruption of Harvester-Processor Relationships

If a harvester-only initial IFQ allocation is adopted, the Council will significantly alter the existing relationships between harvesters and processors.[6] Under such an IFQ program, vessels will be rewarded based upon their historic participation in the whiting fishery without protecting the processor's historic dependence on the fishery. Fishermen will no longer be required to catch their quota in order to realize economic benefits.[7] Instead, for a variety of economic and personal reasons, quota holders may sell their shares to others, regardless of geographic location or historic processor relationship.

Ocean Beauty has cultivated dependable and mutually beneficial business relationships with harvesters. Maintaining these relationships is strategically important, as Ocean Beauty depends upon harvesters for its sole supply of whiting. The implementation of a harvester-only IFQ program would redefine these relationships by authorizing the transfer of quota share among all the vessels in the fleet. Without adequate protection, Ocean Beauty's investment in the whiting fishery could be severely damaged, as it will be more difficult to secure a dependable supply of whiting to sustain processing operations.

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[6] Preliminary DEIS at 409-10.

[7] *Id.* at 410.

b. Protection of Fishery Investments by Maintaining Bargaining Power

An initial allocation of whiting IFQ to the processing sector is also necessary to protect the investments processors have made in the fishery. If the harvesters receive 100 percent of the initial quota allocation, the Council will significantly shift the balance of market power within the fishery. In practice, as the Preliminary DEIS recognized, the harvesters will be able to "hold out" while processors bid amongst themselves for the available whiting catch.[8] The harvesters can bid up the ex-vessel prices received from processors to the point where the processors can no longer afford higher prices, essentially allowing the harvesters to capture all profits associated with the harvesting and processing activities.[9] Conversely, a quota allocation to processors allows the sector to realize some of the profits associated with rationalization.[10]

As seen in the halibut and sablefish fisheries, the implementation of an IFQ program without a quota allocation to processors will have significant economic impacts. Harvesters will generally enjoy an increase in revenue at the expense of the processing sector. As a result, the increased economic cost associated with either purchasing quota share or reduced profit margins may force the closure of processing plants and the loss of processors' investments in the fishery. Processing plants represent a significant investment in the whiting fishery. Without the economic protection afforded by an allocation of quota share to processors, processors will be unable to negotiate equitable prices for its supply of whiting. The revenues lost as a result of the implementation of the IFQ program will result in the closure of processing plants and corresponding impacts to processor-dependant communities, including loss of jobs.

c. Increased Competition for Whiting Supply

The implementation of an IFQ program without an initial quota allocation to processors will increase the geographic scope of competition for whiting. Currently, the scope of the supply market is somewhat limited geographically based on vessel ties to their home ports. However, a harvester-only IFQ alternative will minimize the significance of these ties by creating a coast-wide market for quota, creating detrimental impacts to shoreside processors and associated communities. As the Council recognized, one of the ways to minimize these effects is to include processors in the initial allocation of quota share.[11]

Currently, Ocean Beauty competes with two other processors in the Newport area for the whiting resource. However, as described above, an IFQ program will allow the transfer of quota share between whiting fishermen along the entire West Coast. As harvesters will seek to

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[8] *Id.* at 285.

[9] *Id.*

[10] *Id.*

[11] *Id.* at 410 ("If processors retain a relatively large degree of bargaining power (by holding [quota share]), they could have influence over the location of landings by enticing or directing harvests to existing plants even if the harvesters prefer to fish in other areas.").

maximize their economic benefits, Ocean Beauty expects that quota shares would be transferred to the fishing areas associated with the processor offering the highest prices for whiting. As a result, Ocean Beauty will be forced to compete directly with processors located in California and Washington. This will have direct economic impacts on both Ocean Beauty and the Newport community.[12]

d. Impacts to Ocean Beauty of IFQ Implementation

Ocean Beauty's Newport plant depends on whiting for 90 percent of its volume. As we stated above, the adoption of an IFQ program with a harvester-only allocation could disrupt our historic supply of whiting. If this occurs, our Newport plant will no longer be economically viable. As a result, Ocean Beauty could be forced to close the facility, directly impacting the Newport fishing community. For example, the Newport plant's four full-time and 90 seasonal employees would be unemployed. In addition, a closure would also impact the 35 vendors that Ocean Beauty uses in conjunction with the operation of the Newport plant.

e. Harvester-Only Quota Allocation Places Inequitable Burden on Processors

Ironically, as a result of the initial IFQ allocation to harvesters, many processors will likely be forced to acquire quota share to ensure dependable supply of product. This outcome: (1) undermines the justification for a harvester-only allocation; (2) does not protect historic processors (who will have to compete with new entrants for quota share); and (3) places a disproportionate and inequitable share of the economic burden upon the processors in the fishery. While Ocean Beauty acknowledges the benefits of individual accountability and flexibility provided by an IFQ system, these benefits should not occur at the expense of the processing sector.

III. The adaptive management program is not a sufficient substitute for an initial allocation of quota to processors

The Council should not consider the ten percent quota share in the adaptive management program as a substitute for providing processors with an initial allocation of quota share. As currently drafted, the adaptive management program would potentially address a variety of programmatic goals, such as providing incentives for developing gear efficiencies, community development, or compensation for unforeseen outcomes due to implementation of the IFQ program.[13] Because the adaptive management program would operate retroactively, it would not prevent the impacts that are likely to affect processors should they not receive an initial quota allocation. As a result, the shoreside processors will be forced to endure the economic impacts discussed above and then, assuming they remain in business, justify the need for compensation to the Council. Because the Council has not developed any criteria or guidelines regarding the use

[12] In the Preliminary DEIS, the Council acknowledged that "Newport could benefit from initial allocation of [quota share] to processors . . . if doing so increases the likelihood that fishing activity will remain there." *Id.* at 516.

[13] *Id.* at 42. The Council stated that the program could be used to mitigate harm to adversely impacted processors should they not receive an initial allocation of quota share. *Id.* at A-342.

of the adaptive management program, it is unclear if any relief will be available. Ocean Beauty believes that this measure is not a substitute for an initial allocation to processors and will not compensate processors for the impacts associated with a harvester-only initial quota allocation.

Thank you for your consideration of our comments in support of an initial allocation of quota share to processors. Please do not hesitate to contact me should you have any questions.

Sincerely,

for Jon Black

October 28, 2008

Pacific Fisheries Management Council

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Members of the Council

I am at a loss to understand supporting a program that takes 100% of one of this countries natural resources, give it to a few, knowing all the while that many of these individuals will in short order lease their quota, and eventually sell out when they are allowed to do so.

This feels like buyback II, where we did in fact see and feel the effects on the processing side where one sector gave no consideration to the processing infrastructure, and the local infrastructure within the communitites. Some ports were left with a very small percentage of fleet to support what had been built to support them over many years. Many of these individuals that sold out, were back into the fishery, using the proceeds that they received to continue doing the same business.

To think that processing infrastructure will "follow" this resource as it shifts up and down the coast is a very dangerous position to put this fishery into. I do not see it likely to occur. The current infrasture that exists has taken many years of development from processing companies that are not in this only for the short term. Processors are in this for the long haul, and need the stabilty of having access to the very resource that they have built their world around.

In the Pacific Groundfish LE Trawl Fishery Rationalization Decision Document, it appears that the Council clearly understands the potential for a monumental shift in where this natural resource may land and be processed. Page 412 states quite simply that "Because of the shifts in the geographic distribution of landing activity, some processing facilties may no longer be necessary while others may need to expand. How is this supportive of all of the coastal communities that have relied on this influx of new money into their communtites? Again, I do not see processing infrastructure working without a reliable source of raw materials to work with.

I urge you to consider taking a balanced approach to this issue, and move forward with the proposal from June of 2008's meetings, and include processors shares as was proposed.

I work with a processing company that provides 130 full time jobs. Those jobs all revolve around the groundfish fishery, as it is the only 12 month fishery that we have. THAT adds stability. Under an ITQ program with 100% allocation going to the harvesters, I believe that the year round fishery will be replaced with harvesting when it is best only for the harvester. Once that occurs, processing infrastructure will begin to diminish. Once it has diminished to a point, it would be very difficult to rebuild. Groundfish workers are by far the most skilled workers that we have in any of our processing plants. Without those skilled workers having the ability to have year round employment, they will be forced to look elsewhere for a more reliable means to support their families.

Please carefully consider the processing facilities, their dedicated workers, and our local communities when making your decisions.

Thank you for your time.

Sincerely;

Michael L. Brown

Columbia Colstor, Inc.
® 1625 DOWN RIVER DRIVE / P.O. BOX 220 / WOODLAND, WA 98674 / TELEPHONE (360) 225-2100 / FAX (360) 225-6311

October 24, 2008

To the Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Mr. Chairman and Council Members,

This is in regards to the upcoming meeting for the Trawl Individual Quota preliminary preferred alternative proposed for final consideration by the Council at the November 2008 meeting. Columbia Colstor, a Washington based company with 7 cold storages employing 500 people strongly supports the June preferred alternative which allocates 20% to processors.

In the past 30 years, I have worked in several cold storages facilities in the Pacific Northwest. Through out that time I have seen many vegetable and berry processors go out of business in Oregon and Washington. Many of these closings have devastated the local communities. What is even more distressing is that these once vibrant commodities are now being shipped back to the US from foreign countries. This in effect causes a double hit to the work force, and commerce. I do not want to see this happen in our area with sustainable fish resources. Especially on top of the catastrophic blow delivered to our financial system which has already eliminated many jobs.

This fish allocation which Mr. Anderson proposed in June seems like a fair and equitable distribution of quota access to all members that built this industry. We fear that allocating all quota to only one sector may have devastating impact on the processors.

We cannot afford to lose more jobs here in the Northwest. I believe that giving the processors an invested interest in the resource will keep their plants running stably. This, in return will keep our local communities thriving.

Sincerely yours,

Patrick Ballweber
General Manager

Subject: [Fwd: Vote for Shared Market Quota]
From: PFMC Comments <pfmc.comments@noaa.gov>
Date: Fri, 17 Oct 2008 09:11:32 -0700
To: Jim Seger <Jim.Seger@noaa.gov>
CC: Merrick Burden <Merrick.Burden@noaa.gov>

Subject: Vote for Shared Market Quota
From: Nick_Wewerka@ultimatesoftware.com
Date: Fri, 17 Oct 2008 08:57:06 -0700
To: pfmc.comments@noaa.gov

To PFMC

I am not a member of the fishing or fish processing industry but have become aware of the legislation through newspapers and friends in the industry. I want to let you know that I favor the Shared Market Quota option for Pacific fisheries as I believe it is better and more fair for all.

(Embedded image moved to file: pic20719.jpg)

Nick Wewerka
BDM
4604 241st Ave SE | Issaquah, WA 98029
Office: 425.837.8641 | Fax: 425.837.8645 | Mobile: 206.390.5954
nick_wewerka@ultimatesoftware.com | www.ultimatesoftware.com
Ultimate Software ULTIPRO

Vote for Shared Market Quota.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

---

pic20719.jpg	**Content-Type:** image/jpeg

TED FERRIOLI
District 30

Senate Republican Leader

OREGON STATE SENATE
SALEM, OR
97301

October 9, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

The Council action on individual quota plans in June of this year clearly reflects a compromise position that emerged over four years of debate, analysis, meetings, public comment and review. While the preferred alternative is not the optimum outcome for either of the primary stakeholders, it is a reasonable compromise. The preferred alternative provisions protect the interests of the industry, not just a segment of the industry. The split of the initial allocation will be a stabilizing factor in a major regulatory change. I appreciate the majority of the Council's hard work and the difficulty in reaching this decision.

Because IQ shares grant a right to catch fish, processors will use shares issued to them as an incentive to attract fishermen to deliver to their docks. While fishermen are free to deliver wherever they wish, the incentive of being able to catch more fish by using shares provided by processors will likely be a strong one, thus helping preserve the diversity of opportunities along the entire coast.

I understand that there are many more details to be worked out before and during your November meeting. However, the framework set by your vote in June is sound and should be carried through in the final recommendation to the Secretary of Commerce.

Thank you and I appreciate your hard work and deliberation on this important regulatory change.

Sincerely,

Senator Ted Ferrioli
Senate Republican Leader
District 30

RECEIVED

OCT 2 2 2008

PFMC

Port of Woodland

Business is better here.

October 21, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Dear Mr. Chairman and Council Members:

It is the understanding of the Port of Woodland that at your upcoming November meeting the Council will be discussing and possibly taking action on the Trawl Individual Quota, Amendment 20.

The Port of Woodland has no direct correlation with the fishing industry, being a non-berth/shipping port, however the City of Woodland and surrounding region is impacted by the activities of fish processing. The city has two fish processors in the community as well as a cold storage facility that is directly affiliated with fish processors. One of these processors is a client of the Port of Woodland.

The Port of Woodland believes that if a limited access privilege is distributed in an Individual Quota program it should recognize the contributions made by all participants that have built the fishing industry and not be limited to one sector of the industry.

It is our understanding that, Special Director, Mr. Phillip Anderson from the Washington Department of Fish & Wildlife made a proposal at the June Commission meeting that was adopted as a preliminary preferred alternative. It is the Port's opinion that this alternative appears to be fair and equitable to all parties involved. The proposed alternative additionally provides the best ability to enhance community stability and related infrastructure.

The Port of Woodland support's the proposal presented by Mr. Anderson, and encourages the Commission to adopt the preferred alternative recommended at the Commission's June meeting.

Sincerely,

Erica L. Rainford
Executive Director

P.O. Box 87 • Woodland, Washington 98674 • Phone: 360-225-6555 • Fax: 360-225-6556
Email: portwood@worldaccessnet.com • Web site: www.portofwoodland.com

CALIFORNIA
FISHERIES & SEAFOOD INSTITUTE

1521 "I" STREET
SACRAMENTO
CALIFORNIA
95814
916-441-5560
FAX 916-446-1063

October 22, 2008

Mr. Donald Hansen
Chair, Pacific Fishery Management Council
7700 NE Ambassador Place Suite 101
Portland, OR 97220
VIA FAX: 503-820-2299

RECEIVED
OCT 22 2008
PFMC

ATTN: Comments on Trawl Rationalization

Dear Mr. Hansen:

The California Fisheries and Seafood Institute represents a broad spectrum of seafood interests in the state of California, including fishermen, processors, distributors, and importers. Because our members are involved in a sustainable industry based on renewable resources, we have a strong interest in conservation and management decisions affecting those resources.

We are aware that the Council has spent nearly five years working to develop a rationalization program for the Pacific groundfish fishery based on an individual quota system. Rationalization can have many positive effects on the health of groundfish stocks. Rationalization can also have negative effects on the economic health of the seafood industry and coastal communities if it is not properly designed to recognize the importance of all segments of the industry including fishermen and processors both of whom have made significant economic investments and provide employment and tax revenue to their local communities. Because of this economic impact, the Council must carefully consider how to initially allocate individual quota shares among affected parties.

At its June meeting, the Council approved a preliminary preferred alternative that allocated the majority of quota shares to fishermen and a minority to processors with historical investments in the fishery. While neither fishermen nor processors were completely satisfied with this decision, we believe it represents a fair compromise that balances everyone's need for access to fish. We urge the Council to move forward with its rationalization plan in November and maintain the compromise on initial allocations that was approved in June.

Sincerely,

Kevin Joyce

Kevin Joyce
President

Behrman Transport, Inc.
PO Box 630 Woodland, Washington 98674 360-225-9094 360-225-4722

10-24-08

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Mr. Chairman & Council Members:

We would like to offer the following comments for your consideration regarding your decision on the Trawl Individual Quota (Amendment20).

Behrman Transport, Inc. is a Washington based trucking company, which provides services to the seafood industry. As some of our largest customers' business will be affected by your decision, so as well will our operations. We rely on our customers business forecast to build our own business strategy. Poor forecasts lead to catastrophic economic consequences both on a micro and macro scale.

Moving to a limited access privilege quota system will change a huge number of business profiles. Our question is will it be for the better? We believe that the outcome relies entirely on your decision to either include or exclude the processing sector for a direct quota allocation.

We are in support of the Council preferred alternative that Phil Anderson (Deputy Director with Washington Department of Fish & Wildlife) presented at the June meeting which grants 20% of the quota shares to Processors. His proposal is equitable, and provides both fishers and processors with shares with which to move forward into a new area of cooperation.

This is a Public Resource. In our mind the two over-riding objectives should always to be to: Practice best conservation methodology and to return back the greatest economic reward to the Public for the extraction of a resource which they own. This is measured in total economic return: Not just the price received by the fishermen.

Respectfully we request you consider our comments before you make a decision which will have such a huge impact on all of us tied into this business.

Sincerely,

Michael Behrman
Behrman Transport, Inc.

NORTHWEST
STAFFING
RESOURCES

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

My name is Antonia Virgen. I am an Employment Coordinator for Northwest Staffing Resources. My role is to interview and hire hundreds of job applicants every year for the local fish processing jobs in Eureka. My job and our company is all about people, employment, and jobs. Without them, we have no business.

Being directly involved with the fisheries I am somewhat savvy on most current events. Most recently I understand that the fishing industry is going through a major change in that the groundfish and whiting fisheries will now be "split up" between fishermen and processors. At least that was the way I understand it from the information coming out of the June Council meeting. I have also learned that if that decision is changed and 100% of the fish go to fishermen, the port of Eureka could suffer and processing jobs could be lost. My business can't afford that to happen and the processing workers can not afford that to happen.

I want to encourage the Council to stand behind their decision in June and provide a balanced approach giving both processors and fisherman shares to our fisheries.

Thank You,

Antonia Virgen

DG FAIRHAVEN POWER LLC

97 Bay Street, Samoa, CA 95564 | **tel** 707-445-5434 | **fax** 707-445-2551 | **web** www.dgfairhaven.com

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

My name is Bob Marino. I am a local employer in Eureka, California.

As a local employer and active member of the business community, I support many of our local industry and business associates.

It has come to my attention that the fishing industry is about to go through a major change. Like my business, the local fishing companies provide hundreds of jobs to the area. When I learned that many jobs could ultimately be on the line, I felt the need to provide support.

I am told that back in June a decision was made to provide groundfish and whiting shares to processors and fishermen. I am also told that a meeting in November is the deciding time of whether or not that will happen. My concern and need for involvement came when I learned that the decision in November could be changed and that 100% of the fishery would be granted to the fishermen. In a study revealed to me it showed Eureka to be a port that would be very likely to be impacted by this decision and the processors could see much less product coming to their docks. Less product means less jobs and an impact to our economy that we just don't want to see happen.

I ask the Council to continue to provide shares to both processors and fishermen for a balanced approach. We only have so many industries in our area and we must preserve them all with access for our fishermen and stability for processing companies.

Thank You,

Bob Marino
General Manager
DG Fairhaven Power LLC

Mendes
SUPPLY COMPANY
1030 W. Del Norte St • Eureka, CA 95501
Phone (707) 443-0849 Fax (707) 443-1055

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

My Name is Tom Cookman and I own and operate Mendes Supply, a packaging and materials handling company in Eureka, CA.

I have been conducting business with local seafood processors for over twenty years and the company I now own had been doing that same business several years before. Small communities like Eureka depend on each others business for survival.

I understand that a preferred alternative presented in the June Management Council Meeting that was voted on and approved, provided a balanced approach to the fishery thereby giving 80% trawl IQ to fishermen and 20% to processors. I also understand that a study produced by Council staff lists Eureka as a port that is likely to be worse off and receive fewer landings if the Council allows 100% of the fisheries to go to the fishermen. If that is the case, my business will also be affected as a supplier to local processors.

I encourage the Council to continue to support the balanced approach of the preferred alternative recommended in June. It only seems fair as it supports both our fishermen and our processors.

Thank you,

Tom Cookman

WSIS
WESTERN SELF-INSURANCE SERVICE

P.O. Box 1016~Eureka, CA 95502
Telephone: (707)445-5496
Fax: (707)445-5498

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

My name is Jeff Pauli and I own an Insurance Agency in Eureka, CA.

I provide insurance coverage to many businesses in Humboldt County. With the recent economical challenges before us, my business has suffered some pretty big setbacks. Some of our major employers have been forced to cut back or have actually ceased operations and many jobs have been lost. The seafood industry is one of our largest employers and I understand they could be looking at major impacts in the near future.

I'm not going to tell you I understand a lot about the fishing industry and the whole Council process. What I do understand is that we seem to have a fairly calm and successful fishing industry locally and any disruption to that is yet another setback for our community.

I support our fishermen; I am friends with many people from the processing companies in Eureka. I support the entire industry. We need it in our town. I am aware that at a June Council meeting it was recommended that the ground fish fishery be turned into a fishery that will ultimately be "owned" by both fishermen and processors or by fishermen alone. Again, I don't know your process but I don't understand how anyone can own fish unless you buy one at a pet store. But I do know through conversation that the preferred recommendation gives quota shares to both fishermen and processors. If the fish must be owned this seems like a logical approach as both parties have vested interests in the industry.

Again, I support our local fishing industry, both fishermen and processors. And I encourage the Council to support our industry as well by continuing to support a balance and provide quota shares to both fishermen and processors. We need to keep this industry whole.

Thank You,

Jeff Pauli

October 22, 2008

Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220

Re: Trawl Individual Quota, Amendment 20

Dear Mr. Chairman and Council Members,

We understand that the Pacific Fisheries Management Council is to meet in November to discuss and decide on initial allocation of ground fish and whiting quotas. We also understand that the preferred alternative adopted in June this year included a 20% allocation of these fisheries to processors and 80% to fishermen. A decision that was made based on 4 years of discussion and analysis. Local discussions, supported by a report from the PFMC indicate that an unbalanced plan, giving 100% of the quota to fishermen would have adverse impacts to local communities and jobs. The report indicates that Eureka is one of the ports on the list of those that would be most highly impacted under a 100% quota share to fishermen.

Our community can take no more job hits. We recently lost 215 jobs in our pulp industry. We don't know if and when those jobs might come back. Our only Ice and Cold Storage facility was forced to shut it's door and those jobs are gone, our ice supply is gone and we have no cold storage. And like many other communities, the current economic situation is putting several other businesses at risk. Our infrastructure is crumbling in our small coastal community and we need to preserve everything we have. If our fishing fleets leave the area we will lose an additional 300 processing jobs and potentially hundreds of fishing jobs. The trickle down effect will be devastating to our local economy.

We support our community and we support both our fishermen and our processing companies. Together, they make the industry. These are the folks that support our schools and sponsor our children's education and sporting programs. They support our sport and charter fishing friends. The pay millions of dollars per year in payroll and they buy our goods and services. We need our fishing industry to remain intact.

We encourage the Council to continue to support the balanced approach of the preferred alternative recommended at the June Council Meeting.

Sincerely,

Signed Patrick Gillmore Business North Coast Mercantile Co.

An additional 49 ~~50~~ identical letters from Separate residents of the Eureka area were received.

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

3018 Roosevelt Ave.
Richmond, CA 94804

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Barbara & Barbour

1156 Walnut St. Berkeley CA

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Matthew Duckworth

Matthew Duckworth
3018 Roosevelt Ave.
Richmond, CA 94804

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Diana Malin

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Nancy K. Pryer
Kensington CA

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

506 Fremont, Mt. Shasta CA 96067

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Nate Grader
853A MacArthur Ave.
San Francisco, CA 94129

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

Winthrop T. Jackman
Kensington CA

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

William Pomeroy
ASHLAND, OR

Dear Mr. Hansen,

Traps and hook and line gear are sustainable ways to catch rock cod. Don't let the trawl quota program push small boats out of business. Please allow trawl boats to switch to cleaner gears, stop processor quota, and set some quota aside for communities and adaptive management. Our fishing communities provide local fish for local consumers -- give fixed gear boats the chance to fish.

Sincerely,

SUZANNE STEELE
1909 CEDAR ST.
BERKLEY, CA. 94709

Greetings Council,

RE: Groundfish Fishery Management Plan Amendment 20

Please find attached below public comments from 68 members of the public urging the Pacific Fishery Management Council to: a) support the status quo management alternative b) 'go back to the drawing board' and develop a strategically informed alternative proposal focused on delivering public interest outcomes; and c) hold a referendum if the present plan goes ahead.

I trust you will take note of these comments and act responsibly.

Thanks and regards,

Ben Bowman

Begin forwarded message:

From: John & Margaret King <kingjmjc@roadrunner.com>
Date: October 24, 2008 7:06:27 PM PDT
To: bbowman@fwwatch.org
Subject: Rationalization of the Pacific Coast Groundfish Trawl Fishery
Reply-To: kingjmjc@roadrunner.com

Ben Bowman,
Food and Water Watch
25 Stillman Street
Suite 200
San Francisco,CA 94107
US

Dear Pacific Fishery Management Council members, ,

In respect to Amendment 20 to the groundfish fishery management plan, I urge you act in accord with your public interest role, and actively support the status quo management alternative at the upcoming November 2008 meeting.

Further, Council should then 'go back to the drawing board' and develop a fishery management program that strategically moves the groundfish fishery towards outcomes that benefit the fish, the fish habitats, the relevant fishing communities, and the general public - not just a small corporate cartel. If Council does push through this bad plan then a referendum of the affected fishers should be held to decide the fate of Amendment 20.

The Preferred Alternative (the big groundfish giveaway), despite reams of documentation and years of discussion, is no closer to being upfront about its goal, that is: to shift from the status quo to create a quasi-monopoly of corporate controlling interests that can extract abnormal profits from a public resource, in a highly secure and difficult to reverse context. When an industry is allowed to set its own conditions for economic competition, serious long-term problems result.

If clarity around the true goal of Amendment 20 was placed front and center before the public, there would be no way they, or anyone truly representing the public interest, could support it in good conscience. I urge you not to as well.

I appreciate the opportunity to comment on this matter and trust you will act responsibly.

Sincerely,

John & Margaret King
102 Simeon Court
Elizabeth City, NC 27909

From: Michelle Matthews <michmatthews@yahoo.com>
Michelle Matthews

201 West 104th Street #5W
New York , NY 10025

From: crystal m <talkitina@hotmail.com>

crystal m
p o box 207
trevor, WI 53179

From: Margaret Silver <cattleya@comcast.net>

Margaret Silver
1829 Sea Oats Drive
Atlantic Beach, FL 32233

From: Ron Silver <rhinopias@comcast.net>

Ron Silver
1829 Sea Oats Drive
Atlantic Beach, FL 32233

904-249-9712

From: Eric Pihl <scubadive1@prodigy.net>

Eric Pihl
129 N. Wilke Rd.
Arlington Heights, IL 60005

From: isobel lowther <isobel.lowther@gmail.com>

isobel lowther
203 west 107th street
new york , NY 10025

From: Brian Reynolds <elijahenochkmi@yahoo.com>

Brian Reynolds
P.O. Box 1123
Pomona, NJ 08240

From: Greg Mantey <gman0013@msn.com>

Greg Mantey
12293 W. Mississippi Ave.
Lakewood, CO 80228

From: Shirley Crenshaw <srcrenshaw@charter.net>

Shirley Crenshaw
1411 Willowbrook Cove #10
St. Louis, MO 63146-4972

From: Lisa Beach <lmbeach@hotmail.com>

Lisa Beach
423 Quadrant Road
North Palm Beach, FL 33408

From: Mary Etta Moose <maryetta@edmoose.com>

Mary Etta Moose
1962 powell St
San Francisco, CA 94133

From: Nancy Gathing <gathingn@yahoo.com>

Nancy Gathing
3701 Tulane Ave.
Madison, WI 53714

From: Helen Hanna <helenhanna@sbcglobal.net>

Helen Hanna
183 Gifford Way
Sacramento, CA 95864 6907

From: Joseph Bridwell <zhosh@pobox.com>

Joseph Bridwell
8517 Wallingford Ave N
Seattle, WA 98103-4101

From: Joanne Billings <joanne.billings@gmail.com>

Joanne Billings
Via Massaciuccoli, 51
Rome, ot 00199

From: Bobby Pendry <noodle_jesus@hotmail.com>

Bobby Pendry
4014 South Seminole Place
Sierra Vista, AZ 85650

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Peggy rabhi

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Ben Bowman
Policy Analyst, Fish Program
Food and Water Watch
25 Stillman Street, Suite 200
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bbowman@fwwatch.org
415-271-1577 (Cell)
415-904-8395 (Landline)

Subject: Fwd: Rationalization of the Pacific Coast Groundfish Trawl Fishery
From: bbowman@fwwatch.org
Date: Wed, 29 Oct 2008 22:12:04 -0600
To: pfmc.comments@noaa.gov

----- Forwarded message from barbara@barbaragates.com -----
Date: Wed, 29 Oct 2008 22:53:42 -0400 (EDT)
From: Barbara Gates <barbara@barbaragates.com>
Reply-To: barbara@barbaragates.com
Subject: Rationalization of the Pacific Coast Groundfish Trawl Fishery
To: bbowman@fwwatch.org

Ben Bowman,
Food and Water Watch
25 Stillman Street
Suite 200
San Francisco,CA 94107
US

Dear Pacific Fishery Management Council members, ,

In respect to Amendment 20 to the groundfish fishery management plan, I urge you act in accord with your public interest role, and actively support the status quo management alternative at the upcoming November 2008 meeting.

Further, Council should then 'go back to the drawing board' and develop a fishery management program that strategically moves the groundfish fishery towards outcomes that benefit the fish, the fish habitats, the relevant fishing communities, and the general public - not just a small corporate cartel. If Council does push through this bad plan then a referendum of the affected fishers should be held to decide the fate of Amendment 20.

The Preferred Alternative (the big groundfish giveaway), despite reams of documentation and years of discussion, is no closer to being upfront about its goal, that is: to shift from the status quo to create a quasi-monopoly of corporate controlling interests that can extract abnormal profits from a public resource, in a highly secure and difficult to reverse context. When an industry is allowed to set its own conditions for economic competition, serious long-term problems result.

If clarity around the true goal of Amendment 20 was placed front and center before the public, there would be no way they, or anyone truly representing the public interest, could support it in good conscience. I urge you not to as well.

I appreciate the opportunity to comment on this matter and trust you will act responsibly.

Sincerely,

Barbara Gates
1015 Hearst Avenue
Berkeley, CA 94710

----- End forwarded message -----

Subject: Fwd: Rationalization of the Pacific Coast Groundfish Trawl Fishery
From: bbowman@fwwatch.org
Date: Wed, 29 Oct 2008 22:12:43 -0600
To: pfmc.comments@noaa.gov

----- Forwarded message from zen@theriver.com -----
Date: Wed, 29 Oct 2008 22:52:47 -0400 (EDT)
From: Sylvia Tennen <zen@theriver.com>
Reply-To: zen@theriver.com
Subject: Rationalization of the Pacific Coast Groundfish Trawl Fishery
To: bbowman@fwwatch.org

Ben Bowman,
Food and Water Watch
25 Stillman Street
Suite 200
San Francisco,CA 94107
US

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Sincerely,

Sylvia Tennen
41 Patton Blvd
New Hyde Park, NY 11040

----- End forwarded message -----

Subject: Fwd: Rationalization of the Pacific Coast Groundfish Trawl Fishery
From: bbowman@fwwatch.org
Date: Wed, 29 Oct 2008 22:13:06 -0600
To: pfmc.comments@noaa.gov

----- Forwarded message from ten@theriver.com -----
Date: Wed, 29 Oct 2008 22:51:32 -0400 (EDT)
From: Laura Tennen <ten@theriver.com>
Reply-To: ten@theriver.com
Subject: Rationalization of the Pacific Coast Groundfish Trawl Fishery
To: bbowman@fwwatch.org

Ben Bowman,
Food and Water Watch
25 Stillman Street
Suite 200
San Francisco,CA 94107
US

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Sincerely,

Laura Tennen
PO Box 64250
Tucson, AZ 85728

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October 29, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Groundfish Fishery Management Plan Amendment 20: Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery

Dear Pacific Fishery Management Council,

Food & Water Watch (FWW) is a national consumer advocacy organization that works to resists corporate consolidation and market control of our food and water. For the consideration of Council prior to taking final action on the above matter, please find below, FWW's general and specific recommendations, and conclusion.

General recommendations:

- The Council should support the status quo management alternative.

  The preferred preliminary alternative still does not contain adequate considerations for fair and equitable fisheries management. Failing a complete overhaul, Amendment 20, will not, in our view, optimize community benefits from, or good stewardship of, Pacific groundfish. The proposed Program, if implemented, will result in a myriad of irreversible or significantly difficult to ameliorate environmental and socio-economic impacts. From a balanced public policy perspective, these expected impacts far outweigh any perceived or hoped for benefits of the preliminary preferred alternative. A significant net social loss can be expected.

  Moreover, FWW recommends that the Council, prior to taking action; reflect critically on the ten National Standards of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) for drafting conservation and management measures. The proposed Program must conform to the National Standards - including Nation Standard 8 that requires for the sustained participation of communities.

> (8) Conservation and management measures shall, consistent with the conservation measures of this Act (including the prevention of overfishing and rebuilding of stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

- The Council should 'go back to the drawing board'.

  FWW urges the Council, further to supporting the status quo, to 'go back to drawing board', and develop a long-term strategic assessment of the challenges and opportunities likely to affect the ecological and social systems of the Pacific Coast. This analysis should inform the development of alternative management programs for the groundfish fishery, including community-based fishery management models. We believe that robust analysis will reveal the superior merits of community-based models and related value chains. The Council has a real opportunity to provide strategic leadership in relation to the balancing of social and ecological systems possible through well-crafted community-based models.

  Significantly, we understand that analysis of community models has not been conducted. Community models should be discussed as a reasonable alternative to the current preferred option.

> P.L. 109-479, sec. 302(f) [uncodified]
> PACIFIC FISHERY MANAGEMENT COUNCIL. —
>
> (2) REQUIRED ANALYSIS. —In developing the proposal to rationalize the fishery, the Pacific Council shall fully analyze alternative program designs, including the allocation of limited access privileges to harvest fish to fishermen and processors working together in regional fishery associations or some other cooperative manner to harvest and process the fish, as well as the effects of these program designs and allocations on competition and conservation. The analysis shall include an assessment of the impact of the proposal on conservation and the economics of communities, fishermen, and processors participating in the trawl groundfish fisheries, including the shore-based sector of the Pacific whiting fishery. (MSA 2007 p.170)

  FWW is further concerned that a robust social factor analysis, including interviews with affected stakeholders, and a related social impact assessment has not been conducted as suggested by the NMFS Operational Guidelines – Fishery Management Process Appendix 2(g).

- The Council should conduct a referendum.

  If the Council takes final action on the current proposal, FWW requests that a subsequent referendum of eligible permit holders be held. The National Oceanic and Atmospheric Administration has developed a proposed rule for the conduct of a referendum for application by the Gulf of Mexico Fishery Management Council. This proposed rule should prove easily transferable to the Pacific plan. This gives fishermen that will be regulated under the Plan a real voice in whether such new management should or should not move forward.

Specific recommendations on key issues:
(If the Council chooses to further refine Amendment 20)

A2: IFQ system details

- No initial allocation to processors.
- The buy-back pool of quota share is allocated initially to achieve management outcomes related to regime transition impacts; it is then the first quota share to be auctioned.

A2.2: Permit/IFQ holding requirements for acquisition

- No carry over is permitted.
- Owner operator requirements.
- Accumulation caps should be small enough to protect small fishers.
- Regional Fishing Association holding requirements given further thought.
- Develop a process to assist new entrants.

A2.2: Program administration

- Full cost recovery.
- Equitable sharing of costs including observer costs.
- Adaptive management tool used for the one time resolution of proven stranded capital issues only.

A3: Adaptive management

- At least 10% of quota pounds set aside for use in an ongoing adaptive management program with conservation and community impact outcomes prioritized.

A5: Alternative scope for IFQ management

- Separate bycatch caps for each sector.

A6: Fixed term duration of the IFQ program

- A fixed term duration of the IFQ program of no more than 10 years as dictated clearly by the MSA in Section 303A 7(f).
- Public capture of the fiscal amount made available for redistribution by the proposed IFQ. Capture should occur both at the time of allocation and thereafter through the capture of resource rent by rolling auctions of quota shares. Council should consider how best to deliver fiscal benefits to the public. Select auction partitions could be devised with certain scales or types of operation in mind, for instance small low impact operators and communities. Moreover, an auction system offers management flexibility for an uncertain future.

A7: Gear conversion

- Gear conversions provisions should focus on the minimization of ecological harm and

increased fisher safety.

A8: Regional landing zones

- Implement regional landing zones and consider the division of optimal yield by spatial area.

Conclusion:

The rationalization plan is clearly the product of a political marketplace dominated by powerful interests, who, through consolidation, seek to privatize profit and socialize loss. FWW believes that the proposed preliminary alternative will most likely prove significantly more problematic and costly to manage than the status quo - in both the short and long-term. Rather than an inclusive, community-based new plan, the Council is about to approve a program that will give-away public resources to just a handful of people. This is not a fair or good outcome and there are other options.

Community-based management models offer significant promise as a superior management regime to the preliminary preferred alternative, but unfortunately, to our knowledge, these models have been seriously under-explored. Strategic analysis would reveal the value of these models and the related value chains that produce low volume high value product to eager consumers of safe and high quality local food.

In summary, to rescue its role as a manager of public resources for the benefit of all rather than a few, the Council should support the status quo management alternative at the November meeting and then 'go back to the drawing board' to develop a strategically informed management regime based on the ideal of optimizing community benefits from, and stewardship of, this valuable public property resource. This alternate course of action is your chance to display national leadership, and imprint a positive legacy.

If Council does push through this bad plan, then a referendum of the affected fishermen should be held so they have an opportunity to decide whether Amendment 20 does or does not go forward. Some of the other existing IFQ plans for U.S. fish have been handled this way.

Sincerely,

Ben Bowman
Policy Analyst
Food and Water Watch

October 14th, 2008

Pacific Fishery Management Council
Don Hansen, Chair
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Re: Trawl Rationalization Amendment 20 – Agenda Item F-3

Dear Chairman Hansen,

There are a couple areas in the analysis that could be stronger, and the issues they deal with may be best addressed by "adaptive management."

Captains and Crew – Section 4.7.2

Consolidation in the harvest sector is a desired and expected outcome of the rationalization program. Consolidation is predicted in both the shoreside and mothership harvest sectors.

The analysis predicts 50-75% of the captain and crew positions will be lost due to consolidation. While the remaining jobs will produce higher incomes, this is little consolation to the captains and crew who lose their jobs. Consolidation among vessel owners will occur on a willing buyer, willing seller basis, providing appropriate compensation.

Like most of the Alaskan rationalization programs, the national standard of equitable treatment of all fishermen is being ignored once again. Some vessel owners are fishermen, but not all fishermen are vessel owners, and consideration for those fishermen is lacking in this program. The only thing that mitigates this issue, for captains at least, is the larger component of owner/operators or family operations in the west coast trawl fleet as compared to the Alaskan crab fleet.

The analytical model predicts that after consolidation vessel grosses will increase, but that the share of the gross to captains and crew will decrease 2.5-5%. Given the degree of consolidation predict, the model underestimates the extent to which the lease fees charged by quota owners will be passed on to the captains and crews.

It is unfortunate that there are no options in the analysis to deal with the human impacts of this desired consolidation, with the exception of adaptive management.

MS Linkages – Section B-2.4

The proposed linkages in the MS whiting coop proposal are more restrictive than either MS or inshore AFA coop movement rules.

In section B-2.4 on Whiting MS Processor Ties on page 83 it states:

Council members expressed that by selecting a 90 percent linkage option as part of their preferred alternative it was their intent to provide a means for vessels to move between motherships without entering into the non-co-op fishery. In order to achieve this intent, additional modifications will be required. Specifically, in the last paragraph…would need to be changed to read:
"Thereafter, each year, CV(MS) permit owners choosing to participate in a co-op will deliver their obligated catch to the mothership to which they delivered the majority of their catch in the previous year."

I fully support the intent of providing an alternative way, other than an open access derby, for movement between markets. However, this program is a permit based program, in contrast to the AFA which is vessel based. The proposed language doesn't achieve the goal, and the reason is that permits don't deliver catch, vessels do

The way the 90/10 provision works in AFA inshore coops (AFA MS coops have no linkages), a coop pools each vessel's 10% to allow one vessel to deliver the majority of its catch to a different processor. Under the AFA it is the activity of the vessel that determines what processors it will be affiliated with in the next year. Even with the language proposed on page 83, each permit has an annual obligate of 90%, so even if the vessel owner makes the majority of its deliveries to another market, it can only do so using the 10% bits from other permit holders, but that vessel permit will still have the majority of it quota delivered to the original MS, and so won't qualify for a new market.

It would be helpful if the analysis showed the amount of harvest quota in the MS sector going to permit owners with cross ownership with the processors. The historic instability in the MS sector that has resulted in under-harvest of the MS allocation in some years was not harvester driven, it was driven by the variability in participation by the MS's themselves.

I support the new option proposed at the GAC, of no linkages. Adaptive management could be developed to address processor concerns in the MS sector if needed.

Processor Impacts Section 4.9

This section deals with the impacts of the program, including allocation of harvest shares to processors, on trawl groundfish, but the analysis lacks discussion of the impact of such an allocation to processors of non-groundfish species.

As someone marginally involved with a small processing company in Alaska that didn't receive pollock "linkages" and 0.13% of the crab processing quota, I've seen first hand the impact these rationalization programs have had on a processor who depends on other species.

Even Section 4.14.2.5 Impacts on Fishery Processors, Infrastructure, and Suppliers ignores the impact on processors of Dungeness crab, shrimp, tuna, and salmon, as well as buyers of non-trawl groundfish, of allocating harvest shares to trawl groundfish and whiting processors.

Harvest quota shares given to processors serve two purposes:
1- leverage to get a harvester to deliver
2- asset value

Leverage – There are two ways processor owned harvest quota can be used as leverage. First, is to get a harvester to deliver at a price lower than he would otherwise accept, Second, is to exert a greater degree of control of what that harvester does in other fisheries in which the may participate.

It clearly puts a non-groundfish processor at a disadvantage in competing for landings of non-groundfish species if a harvester that participates in both fisheries has ties as a result of the leveraging of groundfish processor owned harvest shares.

Asset – Though groundfish processors advocate that they be allocated harvest shares as compensation for "stranded capital" the small number of processors that will receive the lion's share of such an allocation will still be in business and so the harvest shares will go on their books not as a write-down of "stranded capital, but as a new asset.

The majority of processors who will receive minimal amounts, if any, of harvest quota will lack new assets. This will have the effect of skewing the playing field in favour of the big harvest quota holding processors. Independent processors of crab, tuna, shrimp, and salmon won't have the new asset to collateralize a line of credit to finance their pack.

When quota shares were given out to Alaskan pollock and crab harvesters, they came with sideboards to limit expansion into other fisheries by quota recipients. The biggest quota holders under this program will be a couple processing companies. This program has no sideboards to prevent these processors from using their new assets to the disadvantage of processors of other species.

Once given out in one fishery, processor linkages and quotas are a cancer that can't be contained. They become their own rationale. If whiting processors get linkages or quotas, then shrimp processors will need them to balance the playing field…and so it goes from there down the line.

Again, the Council should look to adaptive management as an option to be developed to address processors concerns.

Thank you.

dave fraser
PO Box 771
Port Townsend WA 98368

Subject: NRDC recommendations for trawl rationalization
From: "Garrison, Karen" <kgarrison@nrdc.org>
Date: Wed, 29 Oct 2008 18:40:41 -0700
To: pfmc.comments@noaa.gov

Please accept this summary of NRDC's recommendations for the trawl rationalization program

Karen Garrison
Natural Resources Defense Council
111 Sutter Street, 20th Floor
San Francisco, CA 94104
Tel: 415.875.6100
Fax: 415.875.6161

ITQ NRDC Recommend two pager fin(2).doc	**Content-Description:**	ITQ NRDC Recommend two pager fin(2).doc
	Content-Type:	application/msword
	Content-Encoding:	base64

NRDC Recommendations for Trawl Rationalization October 28, 2008

NRDC acknowledges the tremendous amount of work that has been done, but finds the analysis incomplete for some elements of the program. For example, we could find no clear description or analysis of alternatives for how overfished species would be allocated, and no mention in the discussion of which species would be covered with quota of triggers for assigning quota should conditions change. We recommend additional targeted analysis in the DEIS and a transparent process to address issues not fully analyzed or not resolved at the November Council meeting.

1. Adaptive Management Provision (AMP). We support an AMP of at least 10% to be used for environmental and socio-economic purposes, such as addressing unforeseen impacts; promoting economic development, stable employment and processing capability in vulnerable communities; and promoting bycatch reduction/sustainable practices. The AMP should begin at the start of the program.

Rationale: A multi-purpose AMP could promote lower-impact fishing practices, helping mitigate the ITQ program's inherent lack of incentive to reduce bycatch and habitat impacts related to non-quota species. Setting aside quota for unintended consequences makes sense given our inability to predict the future. The AMP could address adverse impacts on smaller volume fishermen and processors, balancing the economic efficiency focus of an ITQ program with social and conservation values. It has the potential to provide a more targeted means of stemming the loss of small processors and stabilizing vulnerable communities than processor quota, which would likely benefit larger operations disproportionately and could be transferred out of a community by a processor with multiple operations. We would support an increase in the AMP to 15% or more if a significant portion remains available for conservation purposes.

2. Gear Switching with Incentives for Permanent Conversion. We recommend two gear-related options because of their potential conservation benefits: (1) combine the unrestricted gear-switching provision with endorsement of the concept of *incentives for permanent conversion to lower impact gears; and (2)* adopt, provisionally, an *option that qualifies fixed-gear limited-entry permit holders to buy trawl QS* (to use with presumption of 100% observer coverage), and analyze this option in the DEIS. A committee with trawl, fixed gear, and conservation representation could develop the details of these provisions.

Rationale: With flexible switching, trawlers are likely to supplement trawling with fixed gear to increase their catch of target species without reducing trawl effort. No conservation benefit will result. In contrast, allowing fixed gear permit holders to purchase trawl quota share clearly shifts effort from trawl to gears with less bycatch and reduced habitat impacts, creating conservation benefits on a purely voluntary basis. Likewise, permanent conversion from trawl to pots could reduce the intensity and possibly the extent of trawling, benefiting bottom habitat and likely reducing the catch of overfished species. *This proposal would achieve benefits purely through incentives, not requirements*.

Conversion will appeal to only a limited portion of the fleet, such as sablefish trawlers in areas of high bycatch risk (WA) or in places with high consumer demand for non-trawl-caught fish (central CA).[1] A recent study found that pots consistently have the least overfished species bycatch and are the preferred choice of trawlers interested in conversion.[2] An incentive program could make gear conversion a viable alternative to selling out; it thus diversifies the fleet and may help stem the loss of fishing activity from vulnerable communities. Incentives could include supplemental quota from the AMP for the first couple of years after permanent conversion or funds to buy new gear, among other options. Without the measures discussed above, the groundfish fleet may miss opportunities for a more optimal voluntary partition of quota between trawl and other sectors that could benefit fishermen, habitat and fish.

3. Accumulation Limits, No Grandfather Clause, No Processor Quota. We recommend an accumulation cap of 3%, no grandfather clause, and the use of the AMP to address community impacts.

Rationale: The combination of these measures should help limit monopolistic control by big players and help meet social objectives of the program. A provision requiring that the owner of quota share operate the permitted vessel would be even more effective and more difficult to circumvent.

4. Acknowledge Oceans as a Public Trust. We recommend including a fixed term option and a revenue generating option from among several options that recognize public ownership of the oceans: (1) a fixed-term allocation of QS (e.g. the 15- to 16-year period considered in the PEIS), followed by auction of a portion of the QS on a rolling basis to create revenues for public purposes like conservation and research; (2) a fixed term followed by reallocation to the former holder if performance standards are met; (3) auctions of QS of rebuilt species; and (4) dedication of a portion of the AMP, once its initial transition purposes are met, to be auctioned to support public purposes. Any of these features could be designed to meet the objectives of the trawl ITQ program.

Rationale: The Council is contemplating an enormous permanent gift of groundfish to the trawl fleet. This grant is likely to create a great deal of wealth, yet there is no mechanism to transfer a portion of that wealth over time to the owner of the resource—the public. The preferred alternative lacks measures to ensure that bycatch of non-quota species will be reduced or habitat better conserved. The issuance of quota and 100% observer coverage will help keep quota holders within OYs, but will not automatically reduce bycatch of non-quota species or reduce habitat impacts. Funds from auctions can help achieve conservation and other public purposes not addressed by the ITQ program. A fixed term can provide management flexibility, an opportunity to phase in an auction system or apply performance standards, and an incentive to meet those standards. We urge the Council and NMFS to endorse design features that recognize the public trust, per the recommendations of the U.S. Commission on Ocean Policy.

5. Broadest List of Species to Be Covered with Quota. Based on the incomplete analysis now available, we suggest assigning quota for all sectors for a broader range of species than recommended by the GAC at its most recent meetings (possibly to include such species as black rockfish, spiny dogfish and nearshore rockfish). Additional analysis is needed on this subject, as well as a mechanism and appropriate triggers to bring initially excluded species into the quota system if conditions change. We concur that overfished species should be allocated as quota pounds, not QS, until they are rebuilt.

Rationale: Unless all overfished species are assigned quota, the most valuable commodity will not be subject to the market incentives for more selective fishing, and much of the potential benefit of the trawl rationalization program will be lost. Quota for other groundfish species creates individual accountability for unwanted impacts and incentives to reduce bycatch of those species. The analysis in Appendix A examines historic catch by *trawlers* of species under consideration for exclusion from quota, but not past catch by *fixed gear*, which is relevant given gear switching. Species excluded from quota should have triggers for assigning quota, based on factors like change in status or catch rates by quota holders.

6. 100% Observer Coverage. We recommend 100% observer coverage as a top priority.
Rationale: 100% coverage is critical to understanding the impacts of the ITQ system and achieving (1) ITQ program objectives to reduce bycatch, discard mortality and ecological impacts; (2) FMP objectives to reduce non-groundfish mortality; and (3) MSA objectives to promote conservation and rebuilding.

7. Community Fishing Associations. We support the concept offered by The Nature Conservancy as a way to provide communities with options for collectively benefitting from an ITQ program, proactively mitigating potential adverse impacts, and helping anchor fishing and quota in a community.

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[1] Appendix A, Analysis of Components, Elements and Options for IFQ Alternative, Oct 2008, PFMC, NMFS A-25
[2] Jenkins, Lekelia, 2008. Gear Conversion as a Means of Reducing Bycatch and Habitat Damage in the U.S. Westcoast Sablefish Fishery, p. ii.

Subject: Public Comment Amendment 20 Groundfish
From: Nathaniel Grader <ngrader@ifrfish.org>
Date: Wed, 29 Oct 2008 22:49:06 -0700
To: pfmc.comments@noaa.gov

Please accept these public comments from the Pacific Coast Federation of Fishermen's Associations on Amendment 20 to the Groundfish FMP.

Thank you,

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PCFFA Trawl EIS Public Comment.doc	**Content-Type:** application/msword **Content-Encoding:** base64

PACIFIC COAST FEDERATION of FISHERMEN'S ASSOCIATIONS

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29 October 2008

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Briefing Book Agenda Item F.3 Fishery Management Plan Amendment 20: Trawl Rationalization

Dear Dr. McIsaac and members of the Pacific Fishery Management Council,

The Pacific Coast Federation of Fishermen's Associations (PCFFA) represents working fishing men and women in the West Coast commercial fishing fleet. PCFFA is the largest commercial fishermen's organization on the West Coast.

PCFFA respectfully submits these comments on the environmental impact statement (EIS) to Amendment 20: Trawl Rationalization to the Pacific Coast Groundfish Fishery Management Plan. The preferred alternative contained in the EIS, if adopted by the Pacific Fishery Management Council (Council) and approved by the National Marine Fisheries Service (NMFS), would establish an Individual Fishing Quota (IFQ) program for the trawl sector of the groundfish fishery. The EIS predicts the implementation of the IFQ program will have far reaching consequences for the entire fishing community on the West Coast. The implementation of an IFQ program will directly affect our members who participate in the groundfish fishery and will indirectly affect our members who participate in other fisheries but depend on the trawl fleet to help support shoreside businesses and infrastructure in ports coast wide. As such PCFFA has a substantial stake in the trawl "rationalization" process.

PCFFA is concerned that the IFQ program, which the Council is considering primarily as a way to reduce bycatch in the trawl fishery of overfished species and to increase the economic stability and efficiency of the trawl fishery, will achieve neither of these goals more effectively

than status quo management or other alternative management approaches not considered in the EIS. PCFFA is concerned that the IFQ program will, however, cause substantial socio-economic disruption to fishing communities and lead to excessive geographic and economic consolidation of the fishery for both the harvesting and processing sectors.

PCFFA does not support the preferred alternative that the Council has selected in the EIS and urges the Council to keep status quo management until an alternative can be developed that better matches the ecological and socio-economic requirements of the fishery. There are alternative management approaches, such as community based management, that have shown promise in promoting sustainable fisheries, particularly for groundfish, while also protecting fishing communities. It would be premature at this juncture to move forward with an IFQ program before considering how this fishery could be managed using regional fishery associations, community based fisheries, or some other similar type of management structure, which the Council was required to do under the most recently reauthorized Magnuson-Stevens Act.

In short the IFQ program described in the preferred alternative is not ready for prime time. There are too many questions that remain unanswered regarding the implementation of the IFQ program. Before a final decision can be made to implement such a radical change in the management of this fishery, a more thorough analysis is needed. The following letter will briefly list our recommendations on features that must be considered for this and any future program to "rationalize" the trawl groundfish fishery. We look forward to working with the Council to help find a management solution that benefits the entire fishing community and promotes conservation.

The Council should not allocate any initial quota share to processors

The allocation of 20% of the initial quota share to processors may be a violation of anti-trust laws. Three processors currently handle 80% of non-whiting trawl landings and the EIS predicts that if processors are awarded quota there will be further consolidation. Additionally, processors already own around 14-17% of the active non-whiting trawl permits and will be awarded quota through their permits. A 20% allocation on top of those permits would not be fair and equitable as fishermen who hold permits will only receive quota based on their permits.

The Council should consider ways to protect processors and compensate processors for "stranded capital" (it should be incumbent on processors to prove capital losses due to a change in management), however, awarding processors quota share is not the right tool. One possibility would be to allow fishermen and processors to participate together in regional fishery associations or other community programs using fish set aside in a program similar to the program described in A-3 Adaptive Management.

Using processor quota to protect jobs in fishing communities is truly like using a hatchet where a scalpel is needed. Once processor quota is awarded there are no provisions that prevent a processor from leaving a fishing community and relocating to a larger port. In fact, the economic analysis in the EIS predicts this pattern. Jobs in the processing sector will be consolidated not saved if processor quota is awarded. If the Council truly wants to protect jobs in the fishing industry and coastal communities there have to be many fine scale provisions (programs for new entrants, eligibility requirements, regional fishery associations, etc.), not just one blunt instrument that will do precisely the opposite of what it is intended to do.

The Council should adopt eligibility requirements for quota holders

There is currently no provision to require that quota share be held by a person who actually participates in the fishery as captain or crew. This is an essential feature to any IFQ system that intends to keep the value of the fishery within fishing communities. The so-called "armchair fishermen" that can result is a real danger to the integrity of fishing communities if no provisions are in place to require that a quota holder participate in the fishery. It limits new entrants into the fishery and can turn those who do continue to participate in the fishery into little more than "sharecroppers" while allowing the wealth of the fishery to leave communities. The lack of holding requirements can undermine other aspects of an IFQ program including the conservation and safety benefits that are supposed to accrue from IFQs.

Processors that currently hold limited entry permits for groundfish will be awarded quota share in the preferred alternative or any future quota program. There should be requirements that processors only sell their quota share to captains or crew who participate in the fishery.

The Council should adopt low accumulation caps

Accumulation caps under the preferred alternative are too high. They should be small enough to protect fishermen from excessive consolidation. The Council should consider a 1% control cap and a 1.5% vessel cap.

The Council should consider pooling the costs of observers

Rather than having individual fishermen pay the cost of an observer it would be better to spread this cost among the fleet. The cost of observers unfairly burdens fishermen on smaller vessels. This will help prevent excessive consolidation.

Use buyback fish in an Adaptive Management program

The Adaptive Management option that calls for up to 10% to respond to unforeseen consequences of the transition is too conservative. The Council should hold back fish from the buyback program and allocate 50% to conservation and 50% to adaptive management. The fish initially allocated to conservation can be reallocated back to the fleet once new stock assessments have been completed and a Total Allowable Catch is set accordingly. The adaptive management fish should be used for community based associations, incentive programs for fishermen wishing to switch to cleaner gears, and for helping new entrants into the fishery. Fixed gear open access fishermen, who have been pushed out of the fishery by management decisions, should have access to the rockfish through community programs and trawlers should have access to the flatfish.

Develop a process to help new entrants acquire quota

The preferred alternative does not consider any measures to assist fishermen enter the fishery. The Council should consider developing a "limited access privilege assisted purchase program" to assist new entrants purchase first time limited access privileges[1]. A regional fishery association and adaptive management are other ways to help new entrants into the fishery. It is essential to implement a program like these to entice new entrants into the fishery and promote the owner/operator model as the basis of the fleet.

[1] As specified under Magnuson Stevens Fishery Conservation and Management Act, §303A(g)

Allow Regional Fishery Associations to hold quota

The Council should allow Regional Fishery Associations to hold groundfish quota in excess of individual caps. The Council should develop criteria for Regional Fishery Associations to participate in the groundfish fishery. Quota pounds should be allocated to regional fishery associations from adaptive management to give fishermen and processors incentive to work together to land fish locally.

Allow and encourage gear switching where appropriate

The Council should adopt the gear conversion option. It is likely that this is the most important provision included in the preferred alternative that will contribute to the rebuilding of stocks and increase the value of the fishery. Furthermore, the Council should use quota from adaptive management as an incentive to fishermen who decide to switch to cleaner gears where appropriate.

Consider policies to promote participation of small owner-operated vessels and fishing communities

The options for regional landing zones and area management are inadequate protections for small owner-operated vessels and fishing communities. Processor quota is certainly not a protection and would aid in the collapse of small fishing communities. The Council's own analysis in the EIS shows that the IFQ program will cause considerable consolidation in the harvesting and processing sectors with only 40 to 60 trawl vessels remaining in the fleet for the entire coast and smaller processing facilities likely to go out of business.

The Council needs to consider a suite of protections under an IFQ or community based program that protects small fishing communities, small owner-operator vessels, and new entrants into the fishery. Regional fishery associations, low accumulation caps (1%), allocation of holdback fish to fishing communities, gear switching, holding requirements, and programs to help new entrants are all ways to help small owner operated vessels and fishing communities continue to participate in the fishery. A proper EIS will consider all of these measures to protect vulnerable fishing communities.

Referendum

The Council needs to consider holding a referendum on the implementation of the IFQ program among permit holders and processors. A process will have to be developed for how this referendum will work, but it is essential that the Council bring more democratic features into the decision making process. The public comment that was submitted to the Council in the June 2008 Briefing Book shows considerable dissention to the idea of an IFQ program and processor quota from limited entry permit holders, smaller processors, and environmental and community groups. The fishermen whose lives will be affected by these management decisions deserve to be consulted.

We strongly urge the Council not to go forward with the preferred alternative at this time. The Council needs to go back to the drawing board and find a solution that truly benefits fishing communities and promotes conservation.

Sincerely,

W.F. "Zeke" Grader, Jr.
Executive Director

PACIFIC MARINE CONSERVATION COUNCIL

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October 29, 2008

Mr. Donald Hansen
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Proposed Amendment 20: Trawl Rationalization

Dear Chairman Hansen and Members of the Pacific Fishery Management Council:

Pacific Marine Conservation Council (PMCC) is pleased to have the opportunity to provide these comments on the proposed west coast groundfish trawl rationalization. We will make some specific recommendations regarding features to be selected as the Pacific Fishery Management Council (Council) builds a preferred alternative. We also have some procedural concerns and observations regarding current deficiencies in the decision-making document.

A-1.2 IFQ Management Units: *We support option to subdivide quota geographically, including use of latitudinal management units.*

PMCC very much appreciates the serious consideration that the Council has given to issuing area-specific quota. The preliminary consideration to issue quota based on current geographic management lines, with a split at Cape Mendocino for those species without a current north-south split makes sense. To the extent practical an additional split at Point Conception should be utilized.

It is also important to be clear at the onset that quota may be sub-divided at finer scales in the future to adapt to new information regarding fish populations or to serve other biological or social goals.

We attaching the draft executive summary of *Matching Spatial Scales of Ecology, Economy, and Management for Groundfish of the U.S. West Coast Marine Ecosystem: A State of the Science Review*, prepared by R.C. Francis, J.E. Little, and J. Bloeser. This document supports the Council's decision to use area-specific quota to achieve ecological and social benefits. We believe that this document has significant utility to inform fisheries management beyond this rationalization process, and we look forward to helping facilitate a presentation for the Council in spring 2009. If you would like a copy of the complete report, currently in peer review, please make a request to Jennifer Bloeser (jennifer@pmcc.org).

A.2.1.3 Allocation Formula: *We support Option 2 for overfished species.*

It would really make little sense to reward those who contributed most to the overfished status of these fish populations. Option 2 is the most equitable choice, providing all participants in the rationalization with a fair starting point.

A.2.2.1 Permit/IFQ holding **requirement**: *Remove the option (#6) to allow a vessel to resume fishing after 2 years in deficit.*

This option would be contrary to the concepts of individual accountability and market-based incentives that are central to the expected advantages of this program.

A.2.3.1 Tracking and Monitoring: *We support Option 3 –100% observer coverage with cameras if effective and feasible. No small vessel exception.*

The commitment to 100% observer coverage is the primary accountability tool that likely will produce a conservation benefit for the owners of the resource – the public. We expect that the Council agrees. For the record, PMCC will oppose the rationalization if full coverage is not a feature of the plan.

A-3 Adaptive Management Provision: *We support having this option for the following potential uses:*

- *Achieving conservation results, such as rewarding selective fishing and reduction of habitat impacts*
- *Stabilizing vulnerable communities*
- *Managing unforeseen consequences*

This may also be a tool to address demonstrable processor concerns, but we oppose any issuance of harvest quota to processors, through this or any other provision.

We also point out that the administration of this provision will be challenging and, although we support its inclusion the process for deciding use and distribution should be as explicit as possible.

This provision should not be used to in any way avoid a complete analysis and mitigation of identifiable adverse impacts. This is to be a way of adjusting unforeseen circumstance.

Auctions and other possible design elements

As this program is implemented, or even as more intensive analyses proceed, additional tools such as a partial auction system may prove valuable in driving the desirable outcomes. We encourage the Council to carefully consider the work of John Ledyard, *Market Design for Fishery IFQ Programs (Oct 2008),* as submitted by Natural Resources Defense Council for your briefing book. The skills of such market design professionals have been underutilized.

The decision-making document and the National Environmental Policy Act (NEPA)

It is somewhat confusing to review a document that appears to be organized similar to a NEPA environmental impact statement (EIS), yet it isn't. We understand that the intent is to use this document and the public record to help the Council choose a preferred alternative. Thereafter, this document

would be slightly modified to become a draft EIS. As a reviewer I'm not sure whether the document before me is a NEPA instrument or not, and if for example the agency response requirements apply. On the Council's website the document is referred to at one point as the EIS.

Beyond this confusion, if the assumption is made that this will essentially be the EIS that supports Amendment 20, then the deficiencies that we note below can be constructively applied as the document is revised to become a true NEPA vehicle.

Economic analysis is not quantified

Although the decision document describes varied and significant impacts both positive and negative, these impacts are not quantified. It is understandably difficult to predict behavior, but a range of more likely scenarios, with dollars attached, would be useful. Communities should be able to consider what they could gain or lose. Fishermen involved with the trawl industry, processors, and those participating in other fisheries should at least have ballpark numbers to evaluate to determine if they can support an alternative.

This is vital information that the Council and the public need for making informed decisions. These impacts should be quantified and included as this document morphs into the draft EIS.

Social impacts are not directly evaluated

The sociological analyses in the document are basically thoughtful inference based upon qualitative economic projections. This rationalization is a major change in the way fisheries are managed. Dramatic adjustments will be required as market forces take hold. The public has the right to expect direct and robust sociological evaluations that project foreseeable impacts. At minimum the EIS should fully comply with NOAA's guidelines for social impact analysis as well as all other relevant mandates, including Executive Order 12898 Environmental Justice.

Cumulative impacts and the relationship with the inter-sector allocation

Amendment 21 Inter-Sector Allocation is proceeding roughly in parallel with Amendment 20. To make sense of the cumulative impacts of these related processes is challenging. A range of possible allocations could be projected, but there is then a danger that presumption might taint the inter-sector allocation. For example, if the trawl fleet needs very high allocations to justify going forward with the rationalization, then the fixed gear fleet may be at disadvantage when negotiating for access to higher percentages of the allowable catch of some species. This could harm the fixed gear fishermen and be detrimental for conservation, possibly triggering Magnuson-Stevens Act violations.

Bringing Amendments 20 and 21 into as close a synch as possible would be prudent.

Thank you for considering our comments.

Respectfully submitted,

Peter Huhtala
Director of Governmental Affairs

Matching Spatial Scales of Ecology, Economy, and Management for Groundfish of the U.S. West Coast Marine Ecosystem: A State of the Science Review

A report to the Lenfest Ocean Program at The Pew Charitable Trust

Prepared by

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EXECUTIVE SUMMARY

This white paper is divided into the following three sections: 1) synthesis of the state of knowledge of scales of organization in the various U.S. west coast groundfish fisheries, 2) identification and prioritization of spatial matches and mismatches between various components of the west coast groundfish fishery, and 3) recommendations for spatial management of west coast groundfish within the context of ecosystem-based fishery management (Field and Francis 2006, Francis et al. 2007, Levin and Lubchenco 2008). In this regard, the paper suggests that spatial management should:

- Consider spatial aspects of interactions between humans and nature (McEvoy 1986, 1996),
- Incorporate the capacity for resilience thinking (Walker and Salt 2006),
- Be "second stream" in its approach to both science (interdisciplinary, holistic, focus on understanding rather than prediction) and management (facilitate existing processes and variability, proactive rather than reactive; Francis et al. 2007, Holling 1993, Holling and Meffe 1996),
- Employ rules which are as simple as possible in achieving the desired results (Berkes and Berkes in review).

SECTION 1 – SCALES OF ORGANIZATION – BIOPHYSICS, SOCIO-ECONOMICS, MANAGEMENT

In this first section, we examine spatial scales of organization for west coast groundfish biophysics, socio-economics, and management.

Spatial structure clearly exists throughout the entire area of the California Current Ecosystem (CCE), where a diverse fishing community pursues an equally dynamic and diverse resource, from northern Washington to southern California, from Cape to Cape, from port to port. It can only, briefly, be viewed through snapshots we take in time. These snapshots all reveal clear spatial structure. Unfortunately the clarity is blurred as we pass from one snapshot to another. Space is an elusive moving target. The ocean is constantly in motion, pushed and pulled by winds and tides, agitating away within a basin with a complex bottom structure, creating spatial patterns that morph from year to year, season to season, month to month, and day to day. That is what both fish and fishers face. As a result, diversity ripples through the fishery – different upwelling zones, some separated by deep canyons; different prevalent groundfish assemblages (north and south, inshore and offshore); different fleet structures by state, county and port; different local, state, federal, non-governmental management jurisdictions – some overlapping and some not, the fishery is a mosaic of diverse activity.

Our analysis reveals how diverse the groundfish fishing communities are as you visit ports dotted from San Diego north to Neah Bay. Fleets have changed over the past several decades, the rise of the offshore domestic Pacific whiting (hake) fleet in the north and of the nearshore live-fish fleet in southern Oregon and California, the declines in overall revenues and the shift in the distribution of revenue between fleets and ports – shifts affected both by changes in the resource and changes in management. So, the picture is blurry but occasionally and briefly clear when taken at certain time scales. What we have reported in this section is based on, at best, annual observations. The following are our major spatial findings:

Biophysics

- Depth defines the major axis of west coast groundfish variation (advection and larval transport, metapopulation structure, species assemblages) (Gunderson and Vetter 2006, Gabriel 1982).
- Nearshore demersal habitats tend to be drastically different from deeper offshore areas of the continental shelf and slope. Nearshore regions are typified by "sticky water" with very low alongshore movement (Largier 2003). Offshore regions are generally colder, richer oxygen, and stable ocean environments with much stronger alongshore advective processes coming into play in the pelagic region.
- Metapopulation structures of west coast rocky reef fishes tend to change with depth (Gunderson and Vetter 2006). Broad dispersal and coastwide populations tend to occur offshore (outer shelf and slope). Mesoscale dispersal and populations structured by the capes tend to occur in mid to inner shelf regions. Nearshore populations exhibit very limited dispersal.
- Latitude is the second most important factor influencing population and assemblage boundaries (Gabriel 1982). Dynamic atmosphere-ocean processes such as wind stress and current patterns are likely the most important factors controlling these north-south structures. There are two major latitudinal breaks in groundfish biophysics: 1) the turbulent wedge between Capes Blanco and Mendocino – a transition region between north and south which has the strongest upwelling winds and most turbulent coastal flows of the entire CCS (GLOBEC 1994, Peterson et al. 2006, Botsford and Lawrence 2002), and 2) Point Conception - the area south of Conception is very different from the area to the north – much smaller local wind stress, warmer subtropical water, different timing in the upwelling season (Hickey 1998).
- Heavy fishing of rocky reef habitats can cause significant changes in ecosystem structure. Large piscivorous (rockfish) species have been fished out and replaced by smaller faster growing species. This has been demonstrated at the individual reef scale (Yoklavich et al. 2000) and at

the coastwide scale (Levin et al. 2006). These spatially explicit ecosystem effects of fishing have not been evenly distributed along the coast and have caused allocation of energy and reproductive potential to shift dramatically and vary from region to region. This has been shown in regional nearshore (O'Farrell and Botsford 2006) and shelf (Harvey et al. 2006) ecosystems.

Socio-Economics

In this section we attempted to describe the spatial scales of organization within the groundfish fishery by using statistics on landings, revenue and number of vessels by sector. In this summary we categorize by trawl (limited entry, whiting), non-trawl (limited entry, directed open access, recreational and tribal. The focus is on how spatial statistics have changed between 1995 and 2006.

- The analysis of Groundfish Fleet Reduction (GFFR - Scholz 2003) maps of spatial distribution of 2000 limited-entry (LE) landings revealed that overlap in harvest areas is low between distant ports, and high between adjacent ports. Highest percent overlap occurred between port groups north of Cape Mendocino, but high percent overlap also exists between San Francisco and its adjacent ports. The only high percent overlap across Cape Blanco, Cape Mendocino, or Point Conception was between Coos Bay and Brookings port groups.
- The whiting trawl fishery is the largest volume fishery on the west coast and primarily lands to ports north of Cape Blanco. Although it is a low value species (price-per-pound), it is landed in such high volume that whiting landings generate high revenues (PSMFC 2007).
- Landings by the LE non-whiting trawl fishery previously spanned the coast to Point Conception, but currently are concentrated north of Cape Blanco. Due primarily to severe overfishing of shelf rockfish, landings and revenues have declined across the fishery. Flatfish now comprise the majority of landings (PSMFC 2007).
- The non-trawl fishery (LE fixed gear and open access fleets) has maintained its distribution along the entire coastline. Landings have declined but revenues have not changed due to several spatial factors. High-value sablefish dominate landings and revenue north of Cape Mendocino. South of Cape Mendocino, landings have shifted away from shelf rockfish since 1995. From Cape Mendocino to Point Conception, the shift has been inshore to nearshore rockfish supplying the high value live fish market. South of Point Conception, the shift has been offshore to thornyheads (PSMFC 2007).

- The open access fleet has the most participants of any groundfish sector. Over 50% of the open access fleet landings and revenues are in California. Washington and Oregon directed open access fleets are rapidly expanding; their primary target is sablefish (California Department of Fish and Game (CDFG) 2007).
- The recreational sector is largest in California, north of Point Conception, and appears to be increasing coastwide, aside from southern California. Rockfish are the mainstay of the recreational sector, particularly black and other nearshore rockfish (PFMC and NMFS 2006, PFMC 2007).
- Rapid expansion in the tribal fishery conducted in Washington State waters has potential to continue until harvest reaches the maximum allowable harvest allowable under treaty rights (1/2 of harvestable surplus of groundfish available in the usual and accustomed tribal fishing grounds)(PFMC and NMFS 2006).

Management

This section of the paper describes the existing suite of spatial management tools currently being applied to the West Coast groundfish fishery by state and federal management agencies.

- Federal - The spatial management tools applied to the West Coast groundfish fishery are intended to accomplish a wide range of management objectives. These tools vary greatly in their size, temporal nature and goals. They range from coastwide Rockfish Conservation Areas to species-specific closures in the Southern California Bight (cowcod) and off northern Washington (yelloweye rockfish). They also include ecologically important habitat closed areas – 5 off Washington, 9 off Oregon and 20 off California – and bottom trawl footprint closures designed to prevent the seaward expansion of bottom trawling.
- California - The commercial and recreational fisheries for nearshore rockfish stocks in California are currently managed by Pacific Fishery Management Council (PFMC) in conjunction with the state using three adjacent management areas with the boundaries at Cape Mendocino and Point Conception. California Department of Fish and Game (CDFG) is developing a fishery management plan for nearshore fish (NFMP) species. At this time the NFMP Project identifies four management areas, yet to be fully implemented, with separate harvest guidelines. California is also attempting to apply the concepts of spatial management to state waters through implementation of the Marine Life Protection Act (MLPA) – a series of marine protected areas designed to protect and conserve marine life.

- Oregon - The Marine Resources Program of the Oregon Department of Fish and Wildlife is authorized by the State Legislature to administer the regulation, harvest and management of commercial and recreational fisheries in Oregon. The agency uses a variety of tools to manage these fisheries include trip and bag limits, area closures and species- specific management zones. Oregon is undergoing an additional spatially oriented management process through the Oregon Department of Fish and Wildlife and the Governor's Ocean Policy Advisory Council (OPAC) to develop a network of marine reserves along the Oregon coast to protect the natural diversity and abundance of species that live in each type of habitat in Oregon's Territorial Sea.
- Washington - Washington Department of Fish and Wildlife has jurisdiction over fishery resources within state waters (3 miles) as well as the inland fisheries of Puget Sound. WDFW employs a variety of management tools for nearshore groundfish. These tools have evolved over time and include area-based management such as the development and implementation of yelloweye rockfish conservation areas in federal waters through the Council process. In 2003, Washington banned all directed commercial harvest of groundfish in state waters.

SECTION 2 – MATCHES AND MISMATCHES BETWEEN ECOLOGY, ECONOMY AND MANAGEMENT

Almost two decades ago, and based on the history of California fisheries (McEvoy 1986), the environmental historian Arthur McEvoy presented an innovative, broad and comprehensive context for marine fishery science and management, with a strong emphasis on direct interactions and relationships, of which those occurring with the ecosystem are just a part. Ten years later he built on this experience to define a fishery as an interaction between three variables: an ecosystem, a group of people working (economy), and the system of social control within which work takes place (management) (McEvoy 1996). His key assertion is that management must equally weigh the many social and economic relationships within the fishery and how, in turn, they both influence and are influenced by marine ecosystem processes and dynamics. In fact it is human interrelationships that are of particular concern to decision makers. What McEvoy (1996) says is that a fishery is a classic example of a social-ecological system (Berkes et al. 2003, Berkes 2004): an integrated concept of humans in nature. And the essence of a sustainable fishery is the health of the interactions between the ecosystem, economy and management (Field and Francis 2006).

What we are trying to do in this section is to operationalize McEvoy's concept. Suppose, as proponents of a broader ecosystem-based approach to fishery management seem to agree, preserving biological structure (e.g., age or size structure of a stock, foodweb pathways of an assemblage or community, diversity of an ecosystem) is equally important to management as preserving

harvestable biomass. Clearly we manage human activity and not biological entities. And these human activities—fishing—are what create the interactions between a group of people working and an ecosystem. How might management facilitate sustaining these interactions through, in this case, the use of spatial structure? One way is for management to create incentives in the economy to preserve biological structure in the ecosystem, by tying an individual fisher's opportunity to fish with the achievement of broader conservation objectives. Spatial management seems to provide the vehicle for doing this. In the words of O'Farrell and Botsford (2006), "the effects of fishing are not evenly distributed over space." Whatever spatial structure is chosen, resource allocations would be weighted towards those regions with better track records of achieving identified conservation objectives. Management would thus create tight positive feedback between economic incentives (e.g., an individual's opportunity to fish) and conservation objectives. As it stands now and, as the recent rockfish closures show, coastwide management provides no incentives for sustainable interactions between the economy and the ecosystem. Space seems essential to creating a sustainable groundfish fishery.

This section attempts to identify spatially explicit matches and mismatches between regional ecosystems, fleets, and management. Specifically, we ask the question: what are the McEvoy interactions and how are they spatially structured? Section 1 will serve as the basis for this analysis. Perhaps the most important question we could ask is: Can the West coast groundfish fishery be spatially compartmentalized into modules where feedback is tight (economy and ecosystem highly connected) within modules and feedback is loose between modules? Our results are summarized as follows:

- The west coast shapes may provide an initial modular framework described by Wall and Salt (2007). For example, one might partition the coast into 3 modules with divisions occurring somewhere in the transition zone between Capes Blanco and Mendocino, and at Point Conception. Evidence for this modular structure is supported by the biophysical and socio-economic summaries.

While the cape serves as a pivot point for our match-mismatch analysis, there are a number of more general matches and mismatches that seem useful in evaluating spatial structure as a groundfish management tool. They can be summarized as follows:

- There is a clear mismatch between the coastwide management of overfished groundfish species and the impact of coastwide closures on coastal fishing communities.

- As coastal communities, such as Morro Bay (CA) and Port Orford (OR), become more engaged in managing adjacent nearshore fisheries, they become more involved in scientific assessment and monitoring of their

local resources. Without careful coordination between local and Pacific Fishery Management Council (PFMC) scientific activities, local scientific efforts risk the likelihood of being ignored at the coastwide level, thus creating significant mismatches.

- There are significant mismatches between units on which stock assessment and management are based and those inferred from genetic data (Waples et al. in review). Reasons for the mismatches are that a) assessments are almost always single species whereas most stocks are influenced by multi-species (and ecosystem) effects, b) management is based on political boundaries which do not necessarily reflect biology or actual use patterns, c) management is of multiple species as one putative species and d) local management is implemented on too fine a scale thereby subjecting a single biological population to independent and perhaps conflicting management regimes in different areas of its range."

- The resilience of coastal fishing communities, particularly those with a predominance of small vessels, tends to be dependent on diversity of fishing opportunities – the potential for fleets to shift among target species. There is concern that fleet-specific rationalization (e.g., proposed trawl Individual Fishing Quota program) could reduce the diversity of the portfolio available to some of these small boat fleets and to individual fishermen, thus fracturing the way some coastal communities currently fish.

- Because of their compressed and extensive depth ranges, many of the continental shelf banks create significant mismatches with the general metapopulation model proposed by Gunderson and Vetter (2006) and used to support the Cape to Cape area stratification discussed above.

- There is a distinct mismatch in terms of management informing decisions based on scientific assessments at the biological community and ecosystem scale. In addition, there is a mismatch between the use of biological and socio-economic assessments in informing the decision making process.

SECTION 3 – MANAGEMENT ALTERNATIVES AND RECOMMENDATIONS

If one looks at the fishery from the "McEvoy" perspective, ecosystem-based fishery management should strive to focus on maintaining or creating healthy interactions between the economy and the ecosystem. As mentioned earlier, sustainability of coastal communities would be enhanced where coastal ecosystems were healthy and the individual opportunities to fish were as high as possible. We feel that since the effects of fishing are not evenly distributed

over space, spatial management could help provide incentives for achieving conservation objectives.

This final section starts with the spatially explicit matches and mismatches between regional ecosystems, fleets, and management identified in the previous section (Scales of Organization). We then attempt to answer two critical questions: How to structure management to 1) enhance the matches and 2) reduce the mismatches?

- We think that the three modules, mentioned above, may actually work quite well for all three inshore-offshore components of the coastwide groundfish fishery. The states already manage their nearshore zones separately, and all three seem to be working towards fine scale management. The three modules seem to be ideally suited for the shelf fisheries and their associated social-ecological interactions. And the slope fisheries (Pacific whiting, Dover sole, sablefish – NCC; thornyheads - SCC) tend to partition out along the three module scale.

We now look at how spatial management might enhance the more general matches and reduce the more general mismatches discussed in the previous (match-mismatch) section.

- We think that the three-area management proposed above could be a strong first step in linking individual access to the resource with the achievement of conservation objectives. The simplest way to start would be to manage the bycatch of all overfished species on this spatial grid. This would greatly reduce the likelihood of coastwide closure of the entire groundfish fishery.

- In order for coastal communities to become fully engaged in the scientific assessment and management of their adjacent nearshore fisheries, there need to be clear performance standards for the data used, assessment methodologies and criteria for community harvest allocations.

- Waples et al. (in review) outline a number of measures that could help to reduce the spatial mismatches between genetic assessments, stock assessments and management. One of the most prevalent uncertainties relates to how many populations exist and what their statuses are. These uncertainties can be reduced through use of a Management Strategy Evaluation (MSE) process to help assess the consequences of ignoring population structure.

- Every effort should be made to evaluate the impact of proposed management measures on coastal community resilience.

- Physical areas of high concentration of nearshore, slope and shelf species (e.g., banks, islands, canyons, headlands) need finer scale management than our three proposed management areas can provide.

- The groundfish management community needs to become more balanced and comprehensive in terms of the nature of its scientific assessments. If we are to move into the realm of ecosystem-based management, then assessments must be conducted at the ecosystem scale. The same can be said for socio-economic assessments. We encourage any EIS analyses of proposed management measures (e.g., trawl Individual Fishing Quotas) to include meaningful socio-economic assessments of potential impacts on coastal fishing communities.

In conclusion, it is clear that space can be a powerful tool in moving towards a more comprehensive and balanced west coast groundfish management. However simply applying the status quo to newly delineated management areas will, in our view, do little to move west coast groundfish policy into the 21st century. Spatial management must be accompanied by clear objectives for what is to be achieved. We think that space can be used as a powerful tool to enhance positive feedbacks between the west coast groundfish economy and ecosystem. The potential is there for management to use space to provide incentives for individual fishers to achieve ecosystem-based conservation objectives. However those objectives must be made explicit and their achievements monitored comprehensively and carefully.

As we state in the introduction to the white paper, "an ecosystem approach to management is management that is adaptive, specified geographically, takes into account ecosystem knowledge and uncertainties, considers multiple external influences, and strives to balance diverse social objectives" (Francis et al. 2007). This is a management approach that is proactive and seeks to preserve existing ecological and social processes and variabilities. It is also an approach that requires resilience thinking, and its unifying concept of adaptive capacity through heterogeneity, modularity and tight feedback. If adaptive capacity is at the heart of ecosystem-based fishery management, then it seems spatial management is a powerful and essential component of ecosystem based fishery management.

The bottom line for sustainability is that any proposal for sustainable development that does not explicitly acknowledge a system's resilience is simply not going to keep delivering the goods (or services). The key to sustainability lies in enhancing the resilience of social-ecological systems, not in optimizing isolated components of the system.(Walker and Salt 2006)

Subject: Support of Preferred Alternative
From: Jeffrey March <jeffrey@tradexfoods.com>
Date: Wed, 29 Oct 2008 13:18:28 -0700
To: pfmc.comments@noaa.gov

Please see attached letter supporting the Preferred Alternative passed by the Pacific Fisheries Management Council in June of 2008.

Thank you.

Sincerely,

Jeffrey March

Jeffrey March

Account Manager

Tradex Foods Inc.

Tel: 250.479.1355 (ext. 121)

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October 28, 2008

Mr. Donald K. Hanson
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Preferred Alternative passed by Pacific Fisheries Management Council in June, 2008

Dear Chairman Hansen and Council Members:

My name is Robert Reierson, I am the president and CEO of Tradex Foods Inc. We are located in BC, but the State of Washington's Seafood is an important part of our business. We rely on the health of the seafood industry and our seafood suppliers. We directly and indirectly do business with many of the West Coast Seafood Processors. We support their position. It is for that reason that I am writing you today regarding your upcoming regulatory decision affecting the industry.

The Council action on individual quota plans in June of this year clearly reflects a compromise position that emerged over four years of debate, analysis, meetings, public comment and review. While the preferred alternative is not the optimum outcome for either of the primary stakeholders, it is a reasonable compromise. The preferred alternative provisions protect the interests of the industry, not just a segment of the industry. The split of the initial allocation will be a stabilizing factor in a major regulatory change. I appreciate the majority of the Council's hard work and the difficulty in reaching this decision.

Because IQ shares grant a right to catch fish, processors will use shares issued to them as an incentive to attract fishermen to deliver to their docks. While fishermen are free to deliver wherever they wish, the incentive of being able to catch more fish by using shares provided by processors will likely be a strong one, thus helping preserve the diversity of opportunities along the entire coast.

Sincerely,

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The Nature Conservancy
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nature.org/california

October 29, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Decision Document for the November 2008 Pacific Fisheries Management Council Meeting Concerning the Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery

Dear Council Members:

Thank you for the opportunity to comment on the Decision Document for the November 2008 Pacific Fisheries Management Council meeting relating to the Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery ("Decision Document"). We recognize the tremendous effort and time that the Council has put into this document and appreciate the Council's efforts to reach out to all those in the fishing community and listen to concerns, including those raised by The Nature Conservancy.

Please consider the following comments which support The Nature Conservancy's proposal for a Community Fishing Association, which was separately submitted for inclusion in the Briefing Book on October 15, 2008.

I. Executive Summary

Community Fishing Associations. The Nature Conservancy proposes that the Council make certain changes to the preliminary preferred alternative to remove impediments to the formation of Community Fishing Associations. Importantly, the Nature Conservancy's proposal is supportive of, but distinct from, the Adaptive Management proposals and is not a Regional Fishery Association. The key required changes are:

- Different accumulation limits for qualifying Associations;
- Rules to ensure that Association members cannot gain access to or control more quota share (QS) than they would be able to control otherwise; and
- A three year divestiture period for larger entities to sell off excess QS.

The MSA Permits Different Control Limits for Associations. In order to be effective and achieve the goals for which they would be formed, Associations must be subject to different accumulation and control limits than individuals. With different limits than afforded individuals, Associations will help communities to pool their resources and achieve greater efficiencies when complying with fishery regulations. Associations will have sufficient quota to lease to entry level fishermen. In these and other ways described below, enabling formation of these Associations would benefit

fishing communities, minimize disruption, and perhaps prevent excessive consolidation of the industry. These are key goals under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), 16 U.S.C. § 1801–1891d, as amended in 2006. Further, the MSA provides the Council with flexibility to adopt creative approaches such as distinct rules for Associations.

Association Members Will be Subject to Regular Accumulation Caps. Individual Association members will be subject to the same individual accumulation and control caps as others, so excessive share requirements under the MSA will be met.

Transparency and Control Rules Can Prevent Excessive Share Issues. Associations may be subject to transparency requirements to ensure that members do not control quota in excess of accumulation and control caps through their Association membership or that others affiliated with an Association are able to exert excessive control over the fishery. Transparency requirements may also assist the National Marine Fisheries Service (NMFS) with anti-trust investigations.

The Council Should Adopt a Three Year Divestiture Rule. In order to address the fairness and equity concerns relating to larger entities being forced to forfeit a portion of their quota, as would occur under the preliminary preferred alternative's redistribution model, entities with excess quota should be given a reasonable period of time (3 years) to sell their excess quota. Under the preliminary preferred alternative, excess quota would redistribute quota coast-wide, to the detriment of fishing communities with entities holding excess QS. Under a divestiture model, excess QS could be kept in the community, which is what The Nature Conservancy would do by transferring its quota to a newly formed Association.

Associations May Assist Fishing Communities and Promote Conservation and Management Goals. Associations may help fishing communities to obtain grants or special financing to purchase or lease QS. Such a role will minimize disruption of the IFQ and help with the viability of small vessel owner-operators and new entrants to the fishery. Further, it is expected that Associations will promote conservation and management goals of the groundfish FMP, as would be the case for the Association The Nature Conservancy plans to form.

The Nature Conservancy is a Substantial Participant in the Fishery and is Entitled to Receive Quota Share. Through The Nature Conservancy's considerable past efforts in the West Coast groundfish fishery, particularly its work in partnership with communities on the Central Coast, it has become a substantial participant in the fishery. As a result, under the MSA, The Nature Conservancy is eligible to receive an initial allocation of QS according to the allocation formulas based on its permits' catch histories.

II. Introduction and Overview

A. Background on The Nature Conservancy's Participation in the Fishery

The Nature Conservancy has been working closely with fishermen and communities in the Central Coast of California over the last several years to develop approaches designed to lead to more sustainable approaches to harvesting groundfish in the limited entry trawl fishery, as well as to preserve local access to the groundfish resource in fishing communities. Starting in 2005, The Nature Conservancy partnered with regulatory agencies and trawl fishermen in Central Coast communities to develop a collaborative proposal that would implement recommendations of the National Academy of Sciences aimed at reducing the impact of bottom trawling. Jointly, we identified and successfully petitioned the Pacific Fishery Management Council for 3.8 million acres of important marine habitats that would be off limits to bottom trawl gear. Simultaneously, to reduce bottom trawl fishing effort and to mitigate the economic impact of bottom trawl closures, TNC purchased federal permits and vessels from local fishermen interested in leaving the trawl groundfish industry.

As a result of this effort, The Nature Conservancy owns a number of trawl permits with fishing history in the Central Coast area that we have redeployed, or plan to redeploy, in the area under demonstration projects with our community fishing partners. In 2007, the Conservancy leased one of its permits to a Morro Bay fisherman. The lease is a voluntary, private agreement designed to test methods for making trawl fishing more sustainable and economically viable, focusing on techniques to reduce bycatch and conserve habitat. In addition to this effort, the Conservancy and our fishing community and state partners are using six of the Conservancy's permits in an Exempted Fishing Permit (EFP) approved by the Council for 2008 and 2009, to test community-based approaches that could be used in the upcoming transition to an individual fishable quota (IFQ) system. This EFP, operating out of Morro Bay and Port San Luis, is evaluating how the establishment of a community based fishing association comprised of commercial fishers using fixed gear and shared species harvest caps will provide community and economic benefits.

Through these efforts we have become a substantial participant in the groundfish fishery with a strong interest in promoting a long-term sustainable fishing future for communities in the Central Coast of California. Our permit ownership, partnerships, and investment in these projects gives us a unique perspective and interest in ensuring that the transition to an IFQ system is done in a way that protects vulnerable fishing communities, preserves traditional access to groundfish in these areas, promotes marine conservation, and allocates QS fairly and equitably. In June 2008, The Nature Conservancy provided a statement of our goals and intentions with respect to use of these permits, stating that we would work with our fishing and community partners and experts on a Central Coast fishing entity that could hold and manage fishing permits or quota for three purposes: (1) local industry access to and benefits of conservation and improved resource productivity; (2) more sustainable harvesting methods and approaches; and (3) preserving and

promoting community fishing heritage and stewardship. *Conserving a Working Seascape in California's Central Coast: Statement of Intent for Disposition of Federal Trawl Permits Owned by The Nature Conservancy*, The Nature Conservancy ("Statement of Intent").

B. The Nature Conservancy Proposes Community Fishing Associations as Part of the Rationalization Plan

Given our interests and activities in the Central Coast, particularly through our work in the EFP, the Conservancy has been following closely the Council's development of a Rationalization proposal for the Pacific Coast Groundfish Limited Entry Trawl Fishery. The Council's deliberations have been guided by a range of policy and legal requirements, including those designed to mitigate unanticipated impacts of rationalization by promoting fairness and equity, assisting communities, and minimizing disruption of current fishing practices. *See, e.g.*, Decision Document, at Ch. 6. As a result, in its analyses, the Council has identified and acknowledged several expected impacts on fishing communities, including those in the Central Coast. *See* Decision Document, Section 4.14, pgs. 521-523. Morro Bay is specifically identified as a vulnerable community and likely to receive less during initial allocation of QS than the average for all ports.[1] Chapter 4 also identifies Moss Landing as vulnerable to consolidation and predicts that Half Moon Bay is likely to experience loss of vessels and QS due to consolidation and migration of QS northward. Both communities could be constrained by managing depleted species under QS because they are located near high bycatch areas. The port of Monterey should similarly be considered at risk, although the Decision Document does not evaluate this historic Central Coast fishing port. In general, the projected migration of QS northward and resulting loss of infrastructure upon which other community fisheries depend will likely magnify impacts in this region.

In order to address these concerns and requirements, as well as achieve the goals set forth with our fishing and community partners, The Nature Conservancy proposes that the Council make some discrete changes to the Decision Document to promote community stability and improved management through establishment of voluntary "Community Fishing Associations" under which individual members (permit/quota holders and other fishermen) would work together in community-based harvesting operations to pool risks and costs, meet new conservation and management requirements, and retain local access to fishery resources. Specifically, we recommend that the Council endorse formation of such Associations and remove impediments in accumulation and

[1] The Conservancy notes, as it has noted in oral testimony before the Council at its June 2008 meeting, that the Document contains substantial errors in describing the current status of fishing in Morro Bay and the extent to which trawl permits owned by the Conservancy are being deployed there to fish. *See* Decision Document, at pg. 523. The correct information is that the Conservancy is leasing one of its trawl permits and vessels under a private conservation agreement; six other trawl permits are being fished by participants in the Exempted Fishing Permit. Landings are in Morro Bay as well as Port San Luis. Three fishermen participated in 2008 and up to six are expected in 2008. Landings are expected to increase as the EFP caps change to reflect permit landings history. Thus, any loss of QS represented by these permits would further harm Morro Bay and Port San Luis.

control limits under A.2.2.3(c) to formation of such Associations. (The Nature Conservancy's proposal is referred to herein as the "Association Proposal")

The Nature Conservancy outlined the changes needed, including with respect to accumulation limits for such Associations, in its presentation to the Groundfish Allocation Committee (GAC) during its October 8-9, 2008 meeting. While the GAC did not make any recommendations to resolve impediments in the plan to formation of such associations (*i.e.*, in the accumulation limit rules), it did recognize by consensus that community fishing associations may have a key role to play in the overall program, particularly in protecting and stabilizing vulnerable fishing communities. Groundfish Allocation Committee Report on Amendment 20 Trawl Rationalization Alternatives, at pg. 2 ("The GAC recommends that . . . [i]n implementing adaptive management, recognize formal regional (or community) fishing associations (consensus).").

The states of California and Washington in their subsequent comments have already suggested formation of community fishing associations as one component of a proactive plan to stabilize fishing communities and prevent disruptive shifts in geographic patterns of landings and fishing activity, including pointing to potential the need for exemptions from accumulation limits to foster their creation. *See*, November 2008 Council Meeting Agenda, items F.3.f. A number of California ports and communities have also identified their interest in pursuing this community fishing association approach; these materials have been submitted under Agenda item F.3.h. *See, e.g.*, Resolution No. 61-08, City Council of Morro Bay, October 13, 2008; Resolution No. 21-08, San Mateo County Harbor District, October 15, 2008; Letter from Chuck Della Sala, Mayor of Monterey, to Mr. Donald K. Hansen, October 24, 2008; Resolution No. 08-15, Port San Luis Harbor District, October 28, 2008.

The Nature Conservancy urges the Council to include the changes necessary to allow permit holders to come together to form Community Fishing Associations in the final preferred alternative that it will submit to the Secretary of Commerce for review pursuant to MSA Section 302(h)(1).

III. The Nature Conservancy's Proposal for Community Fishing Associations

A. Overview of Proposal

The Nature Conservancy previously submitted its formal proposal to enable formation of Community Fishing Associations on October 15, 2008 and can be found in the Public Comment portion of the Briefing Book. For your convenience, we attach a copy of our October 15 submittal. Changes to the current plan are needed because multiple permit holders with QS working together in a Community Fishing Association that leases quota pounds (QP) to members would trigger the accumulation/control rules, which, paradoxically, were established for the same reasons as these Associations: to try to prevent consolidation and spread quota among communities. In addition, the current preferred alternative would not allow quota to remain in its home port if the holder is

over the accumulation limits – *i.e.*, amounts over the limit would be redistributed coast-wide, rather than in the community that held the catch history.

While the details of the Community Fishing Association proposal can be found in the submittal, we highlight here the key components:

- A Community Fishing Association (Association) would be a corporation created for community benefit, with participating members that could hold QS.

- Such an Association would not be eligible for initial issuance of QS, but could acquire QS through direct acquisition from willing sellers.

- Each year, the Association would make QP available, through a private agreement, to its members for their assistance in achieving the Association's objectives, *e.g.*, maintaining landings in a given community or achieving conservation goals.

- Any fisherman may elect each year whether to be a member of the Association and enter into a private agreement with the Association.

- Any member would be eligible to access Association-owned QP up to the vessel cap. For fishermen who hold a groundfish trawl permit and QS, this will be the aggregate of individually held QP plus any Association-owned QP controlled by the individual.

- Any member who does not hold a trawl permit or QS could apply to the Association to lease a groundfish trawl permit (if one is available) and QP.

- Members of the Association would have access to services from the Association (e.g., observers) and would have to abide by the rules of the Association (e.g., to land all or some of the fish in a particular community, to abide by area or gear limitations, to cooperate with bycatch reduction efforts, etc.).

- The Rationalization Plan would establish unique accumulation limits and transparency requirements for Associations, allowing them to hold QS above the accumulation limits for individuals, as long as the Association demonstrates that no individual member holds or controls any more QS or QP than permitted under the accumulation limits for individuals, or that any individual through participation in the Association is otherwise able exert excessive control over the fishery.

- The Rationalization Plan would enable retention of quota in its home region by allowing allocation of the full amount of QS to permit holders based on their permit history, but require that amounts over the accumulation limits be divested over a reasonable period (e.g., 3 years), thus allowing an orderly transition of QS and minimizing disruption to communities.

The Nature Conservancy recognizes that the Council must perform a careful balancing of various competing goals when setting up the IFQ program, chief among which is balancing increased efficiency of the fleet as whole with impacts to fishing communities. The Decision Document quotes from a Government Accountability Office study which sums up this issue: "because the goals of community protection and new entry run counter to the economic efficiency goals, fishery councils face a delicate balancing act to achieve all goals." Decision Document, at 482-83. The purpose of The Nature Conservancy's Community Fishing Association proposal is to help the Council with this "delicate balance." As described more fully below, Associations will help to protect fishing communities, small vessel owner-operators, and new entrants to the fishery, yet will create a vehicle to allow small players to operate with greater efficiency, improved management, and increased financial viability.

In order for the Association Proposal to achieve these goals, it is essential that Associations be subject to different accumulation and control limits and rules than will apply to individual permit and QS holders within the Association. Under the alternatives before the Council, an Association would have to meet the same accumulation and control limits as an individual QS holder, even though each individual member within the Association is bound to the same limit. Council analyses have identified unintended impacts of the control limits on communities and associations as an issue to be addressed. Decision Document, Appendix A, A-2.2.3(e), pgs. A-230-235. Given projected economic pressures on vulnerable communities in the transition, it would be prudent to affirmatively establish specific rules in the plan designed to facilitate the formation of Community Associations that could hold QS historically harvested by members of such communities, provide benefits such as sharing costs and management burdens, and provide access to new entrants. *See, e.g.*, Decision Document, § 4.6.3.1, pgs. 325-326 ("individual accountability for total catch associated with IFQs and coops increases the financial risks" suggesting the benefits of risk pools under voluntary associations); § 4.6.4.2 (describing cumulative impacts placing economic pressure on harvesters, e.g., fuel costs).

Accordingly, the Decision Document should include different accumulation and control limits and related guidance that would allow such Community Fishing Associations and arrangements to form. To address stated concerns that such arrangements could be used to circumvent or undermine the Council's goal of avoiding excessive share consolidation (*e.g.*, concerns regarding market power) Appendix A, pg. A-230, the Conservancy's proposal specifies approaches to limit excessive control, including qualifying criteria and review by the National Marine Fisheries Service. This review could also require member information and disclosures to increase transparency, including information that could be used under MSA Section 303A(c) to identify anti-competitive, anti-trust, price collusion, or price fixing activities among QS holders within the Association or by persons otherwise affiliated with the Association. 16 U.S.C. § 1853a(c)(1)(J).

Such a community-based approach would actually work to prevent potential adverse community impacts related to excessive QS accumulation, and align with the

Council's attempts to reconcile economically-driven vessel consolidation with maintaining individual fishing participation. For example, the Decision Document sets vessel control limits higher than individual control limits, allowing more than one person's QS to be used on a vessel, thus providing one means of maintaining individual fishing participation even as the fleet shrinks. Decision Document, at 483-84. In a similar way, an Association would provide a community-based platform for maintaining fishing participation in a particular location, even in the face of economic pressures and consolidation.

In addition, the Decision Document contemplates that the additional QS/QP needed to reach the higher vessel cap could be owned by other entities, including "communities, conservation organizations, or other parties." *Id.* at 484. It is this type of role of holding QS and providing additional resources that an Association would play. In so doing, an Association would assist fishing communities, small vessel owner-operators and new entrants into the fishery, while also promoting the broader efficiency goals by being subject to a different cap and allowing Association members to pool resources.

B. The Association Proposal is Complimentary to, But Distinct From, the Adaptive Management Option

In order to avoid any confusion, we would like to clarify that the Association Proposal is separate and distinct from the proposal for an Adaptive Management Program (AMP) option. While the two programs may be complimentary and promote the same goals, the AMP takes a different approach and the Association Proposal is in no way dependent on the AMP. To effectuate the Association Proposal, the Council would only need to remove impediments in accumulation and control provisions of section A-2.2.3(e) to formation of such voluntary Associations; however, the AMP option could be modified to specify how such Associations would work with, and support, the AMP approach.

Under the AMP, up to 10% of the QP would be set aside which could be used as needed to, in part, "compensate for unforeseen outcomes from implementing the IFQ program." Decision Document, at 42. Thus, the AMP takes a retrospective approach, in that it compensates for problems after they arise. In contrast, the Association Proposal is prospective in nature, in that it is designed to enable the participants to prevent or minimize the expected disruption to fishing communities. While an Association could work in conjunction with the AMP, such as by receiving or distributing QP, the Association Proposal is not dependent on the AMP option.

The Association Proposal's approach could also serve as an institutional mechanism within a community that could provide the administrative and other support needed to apply to the AMP for QP, or distribute QP awarded by the AMP, for use in a particular community. This role could help address concerns raised about how the AMP would be administered in practice. *See, e.g.*, comments of Washington Department of Fish and Wildlife, November 2008 Council Agenda Item F.3.e.

C. Community Fishing Associations Are Not "Regional Fishery Associations"

The Nature Conservancy's proposal is not to form "regional fishery associations" contemplated under MSA Section 303A(c)(4), though both support community stability goals.[2] What we are proposing – QS holders and other harvesters working together in private arrangements to pool risks, share costs, and collaborate on conservation and management improvements – is already permissible under the MSA and is being tested now under our EFP. However, the current preliminary preferred alternative before the Council creates limitations that would interfere with such an arrangement, and we are asking that the final preferred alternative be changed to specifically accommodate and recognize the establishment of such private community benefit arrangements among fishery participants, to prevent community and harvester dislocation and allow fishermen to increase efficiencies, while still avoiding the problems of excessive share and geographic consolidation.

The MSA authorizes associations or other persons who substantially participate in the fishery to hold and acquire quota, even if such associations are not formed under the "regional fishery association" provisions. MSA Section 303A(c)(5)(E) provides that when setting up an IFQ program, the Council shall:

> authorize limited access privileges to harvest fish to be held, acquired, used by, or issued under the system to *persons* who substantially participate in the fishery, including in a specific sector of such fishery, *as specified by the Council*.

(emphasis added). Thus, the MSA directs the Council to determine the types of "person" that can hold quota. Elsewhere, the MSA defines the term "person" to include "associations." 16 U.S.C. § 1802(31). As such, the Council has the statutory authority, independent from the provisions on "regional fishery associations," to determine that associations made up of QS holders and other members may hold or acquire quota. The Council's quota holding eligibility provisions at A-2.2.3 are similarly broad (e.g., any "person or entity," with a 75% U.S. citizenship requirement for entities).

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[2] The Magnuson-Stevens Act states that voluntary regional fishery associations (RFAs) consist of participants in the fishery who hold QS "*designated for use in the specific region or subregion*". 16 U.S.C. 1853a(c)(4). We have not included *regulatory* linkage of QS to a specific geography in the current Association proposal. Legislative history explains that RFAs were authorized in lieu of allocating "processing privileges" and that RFAs attempted to address competing shoreside linkage and community impacts concerns: "The Committee chose to take a broader view and allow allocation of harvesting privileges to communities, and inclusion of processors and other shore-based businesses in RFAs with [QS] holders which would allow for the designation or linkage of [QS] to a region or community." S. Rept 109-229 page 25. "In an RFA, quota would be allocated to the harvester but classified for use in a specific region in order to maintain a relative balance between the harvesting sector receiving the quota and the communities, processors, and other fishery-related businesses that have become dependent on the resource entering their port. S. Report 109-229 page 27.

IV. The Community Fishing Association Proposal is Consistent with the MSA, the West Coast Groundfish FMP, and Amendment 20

Table 6-1 in Chapter 6 of the PDEIS contains a list of various goals and policies of the MSA, the West Coast groundfish FMP, and Amendment 20 which guide the Council's decision on determining the preferred alternative. Exhibit A to this letter contains a similar chart which demonstrates that the Community Fishing Association proposal is consistent with those provisions. As demonstrated in Exhibit A, the Association Proposal complements the Council's preliminary preferred alternative and is consistent with the MSA and other applicable regulations.

In particular, the Association Proposal provides a mechanism to protect vulnerable fishing communities from the disruption that is expected to occur when the IFQ program is implemented. *See generally*, Decision Document, Section 4.14. However, the preliminary preferred alternative lacks sufficient protection in this respect and will likely result in many small vessel owner-operators exiting the fishery, increased barriers to entry for new participants, and significant geographic shifts in effort. It is also expected that certain Associations will incorporate specific conservation and management requirements, such as catch and by-catch monitoring and reporting improvements, area or gear limitations, and other measures to reduce impacts on habitat or weak stock species. Importantly, the proposal meets the MSA community protection requirements and promotes conservation and management goals while preventing the acquisition of excessive shares and excessive consolidation. Further, the proposal contains elements, such as the 3 year divestiture period, which meet the MSA's fair and equitable initial allocation requirements. Information provided to the agency concerning QS control by Association members could also meet the requirements of MSA Section 303A(c)(1)(J).

While Exhibit A provides an overview of the Proposal's consistency with the MSA, the following sections provide a more detailed analysis of key issues.

A. Establishing Different Accumulation and Control Limit Requirements for Associations is Consistent with MSA Requirements

As described above, and more fully in the Proposal, because Associations would represent or hold QS to be used by multiple participants, they must be afforded different, higher accumulation limits (or special rules or exemptions) than individuals within the Association in order to achieve the efficiencies and resource pooling necessary to be effective. If an Association were subject to the accumulation and control caps applicable to individuals suggested in the Decision Document, the Association would not have sufficient QS to lease or transfer to its members to be effective or achieve necessary efficiencies. In short, Associations either would not form, or, if they did, they would not result in the benefits for which they are designed. Indeed, the California Department of Fish and Game, in its October 15, 2008, submittal for the Briefing Book, agreed with this need when it wrote that for Associations managing quota, "exemptions from

accumulation limits may be necessary." *Report on Adaptive Management*, California Department of Fish and Game, at 2 (October 15, 2008).

The language in the MSA on designing limited access privilege programs provides the Council with sufficient flexibility to use creative solutions to assist entry level and small vessel owner-operators and fishing communities. For example, MSA Section 303A(c)(5)(C) provides that the Council "shall . . . include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges." MSA Section 303A(c)(5)(B) contains a similar requirement to develop "policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements." While these sections provide a mandate that the Council design the IFQ in a way that protects fishing communities, entry-level participants and small vessel owner-operators, the language leaves much discretion and flexibility to the Council to determine how best to meet those goals. Thus, to the extent that having different accumulation limits for Community Fishing Associations will assist in protecting fishing communities, small vessel owner-operators and entry-level participants, the Council has the legal authority to take this action.

In addition, providing for different, higher accumulation and control limits (or special rules or exemptions), for this narrow set of entities (Associations) will not run afoul of the MSA provisions prohibiting the acquisition of excessive share. *See* MSA § 303A(c)(5)(D). Importantly, although Associations would be subject to different, higher accumulation limits, individual members of an Association would remain subject to the regular accumulation and control limits. In order to prevent any "gaming of the system," the Council can impose transparency and reporting provisions to ensure that Association members or other parties affiliated with the Association do not gain direct or indirect control over quota share held by the Association. Furthermore, parties would not be able to control quota through ownership of the Association or by other means. The Association could be required to report its ownership structure (including the identity of all direct and indirect shareholders) and material contracts relating to control of the Association, QS and/or QP to NMFS, or any other information relevant to resolving concerns about excessive control or market power, *e.g.*, 16 U.S.C. 1853a(c)(1)(J). As a result of these protections, individual members will not gain access to or control more quota than they otherwise would if they were not a part of the Association. Thus, a special, different accumulation cap for Associations would not conflict with the MSA provisions pertaining to preventing the acquisition of excess share.

B. The Council Should Include a Divestiture Period for Entities with QS Over the Accumulation and Control Limits

1. The Divestiture Proposal Balances the MSA's Fair and Equitable Initial Allocation Requirements with Preventing Acquisition of Excessive Share

The hallmark requirement under the MSA for the initial allocation of QS is that it must be done in a fair and equitable manner. MSA § 303A(c)(5)(A); National Standard 4. The MSA regulations recognize that allocating fishing privileges may inherently involve advantaging one group to the detriment of another. 50 C.F.R. 600.325(c)(3)(i)(A). However, if the Council is going to allocate in a manner that may advantage one group over another, it must justify its action:

> An allocation of fishing privileges should be rationally connected to the achievement of OY or with the furtherance of a legitimate FMP objective. Inherent in an allocation is the advantaging of one group to the detriment of another. *The motive for making a particular allocation should be justified in terms of the objectives of the FMP; otherwise, the disadvantaged user groups or individuals would suffer without cause.*

Id. The Nature Conservancy believes that the preliminary preferred alternative to "redistribute" QS over the selected accumulation and control limits in a coast-wide manner would not only undermine the goals of the program with respect to vulnerable communities, but it is also unfair, inequitable, and not justified. Instead, initial allocation rules should apply equally to all permit holders, but those with excess QS should be required to divest within a reasonable period of time, such as 3 years from issuance of QS.

Among the initial allocation factors that must be considered are current and historical harvests and investments in the fishery. MSA § 303A(c)(5)(A). The Council's preliminary preferred alternative goes most of the way toward meeting these requirements because it bases QS on the catch history associated with a permit and it recognizes investments in the fishery by only allocating QS to current permit holders. However, as currently proposed, this rule is not applied equally to all permit holders and does not reflect historical harvests, and thus is not fair and equitable.

Instead of permitting persons to divest excess QS and thus receive at least a monetary benefit in proportion to their investment in the fishery, the preliminary preferred alternative described in the Decision Document would redistribute the excess QS according to the allocation formulas to those persons whose QS is below the accumulation limit. Decision Document, Table 2-3, A-2.2.3.e, at pg. 55; *see also*, Decision Document, at pgs. A-239-240. Thus, not only would the permit holders with excess QS not realize the full benefit of their investment, but those who are under the cap would receive additional QS – essentially a windfall, an unfair and inequitable result.

In particular, harvesters owning permits which would otherwise entitle them to QS above the accumulation limit would receive no QS for amounts in excess of the limit, thus "losing" some of the catch history and forfeiting a portion of their investment in the fishery for redistribution coast-wide. Thus, the largest permit holders would not be treated the same as smaller permit holders, and the redistribution would not reflect historical harvests, making initial allocation unfair and inequitable.

Appendix A to the Decision Document identifies divestment as an alternative to redistribution, noting in particular that it would have the benefit of providing a "wealth benefit to all individuals more in proportion to their relative history." Decision Document, at A-239-40; *see also id.* at pgs. A-266-67. More succinctly, it is fair and equitable. Despite identifying this option and recognizing its fairness, the Decision Document does not adequately justify why redistribution is preferred. The only reason the Decision Document cites for preferring redistribution is that if entities are allowed to divest excess quota, they may do so in a way that allows them to continue to exert control over the quota. *Id.* at A-266-267. There is no factual basis cited for such an assertion, and if such a concern exists for some QS holders, coast-wide redistribution is an extreme response that would sweep to broadly. The Decision Document also predicts that redistribution of QS out of a community will unlikely be much of an issue because entities will divest themselves of excess permits prior to initial allocation, thus preventing a community "loss" of quota. However, the Decision Document fails to recognize that such sales of quota prior to initial allocation in order to avoid redistribution would have the same control issues as would sales of quota after initial allocation. That is, those entities that would try to "game the system" under a divestiture model by transferring QS to other entities under their control would also try to "game the system" under a redistribution model. Addressing this concern through transfer disclosure rules under excessive share limits would provide a more targeted and transparent result. Moreover, in certain regions slated to lose QS in the transition, such as the Central Coast, targeted local divestment of QS would be a better result for communities than coast-wide redistribution.

Further, the redistribution proposal is likely to result in a greater economic loss to the permit seller. As alluded to by the Decision Document, divesting a permit prior to initial allocation would require documenting the permit's catch history and assuring the buyer that it will qualify for QS through ownership of the permit. This uncertainty will likely result in discounting of the permit price -- essentially a loss to the permit seller. As a result of this discounting for uncertain information, permit sellers could delay the sale of permits until the last possible moment, resulting in a rush of permit sales and confusion amid an inefficient market. Therefore, the Council should allow for a reasonable 3 year divestiture period to enable a more orderly market among buyers and sellers to develop, including among members of potentially vulnerable communities.

Not only is allowing divestiture fair and equitable, but divestiture is necessary for The Nature Conservancy's efforts to preserve local access to the groundfish resource in Central Coast fishing communities. The Decision Document raises the concern that a strict redistribution model could cause disruption since those communities where large

entities are currently located would essentially lose quota and fishing effort would be transferred elsewhere. Decision Document, at 495-96. The Nature Conservancy understands that the permits it owns would exceed the accumulation limits and under the preferred alternative's redistribution provisions, excess quota would be redistributed on a coast-wide basis. Such a result in the case of these permits would undermine the Council's goal of preventing dislocation in fishing communities, including the Central Coast.

If redistribution were to occur, the Central Coast communities would suffer by losing QS earned in that location and The Nature Conservancy's goals of preserving the Central Coast's historical and traditional access to groundfish resource would be frustrated. The Nature Conservancy's intent with its permits is to transfer them (or rather, transfer quota once received) to a newly formed Association or Associations located on the Central Coast. *See*, Statement of Intent. Doing so would keep quota in Central Coast communities and the Association or Associations would assist the communities with withstanding the disruption caused by the IFQ. In order to achieve this goal, however, The Nature Conservancy must be allocated its full QS and be allowed to divest excess QS into an Association.

In further support of this position, we note that it is expected that implementation of the IFQ program will result in a geographic shift of fishing activity northward away from Central California as a result of consolidation and individual and collective risk/cost impacts. Decision Document, §§ 4.15.2; 4.17.1.2. The Nature Conservancy's efforts are aimed at minimizing this impact. However, to be successful, it must be allowed to divest excess quota it is allocated to an Association. Redistributing its excess quota, on the other hand, would exacerbate the shift away from California.

We also note that other entities are likely above the accumulation caps as well, and allowing divestiture for other entities would likely also reduce disruption to other communities. While redistribution would spread the excess QS throughout the coast, if allowed to divest, an entity may be more likely to divest locally and thus quota is more likely to stay in the community, thus minimizing disruption. The existence of a Community Fishing Association into which such QS could be transferred would facilitate this divestment of QS to stabilize communities.

Allowing owners of excess QS to divest QS above the cap during a reasonable period after initial allocation is the best solution because it is fair and equitable, it meets the objectives of preventing persons from acquiring an excessive share, it minimizes disruption, and it will promote the Association Proposal. By structuring the initial allocation so that entities obtain the full QS associated with their permits histories, all permit holders would be treated equally and all would receive the full benefit of their investments in the fishery. On the other hand, by requiring the divestment of QS in excess of the accumulation and control caps within a reasonable period of time (3 years), the excess share and geographic consolidation concerns will be addressed. This is the only option which fairly balances the MSA's competing requirements.

The Nature Conservancy understands that the Council could still consider a grandfather clause under which permit holders would be allocated all QS associated with their permit history, regardless of whether it would exceed the limits, thus "grandfathering" in excess QS for the largest harvesters. The purpose of a grandfather clause is to prevent entities entitled to QS above the accumulation caps from forfeiting their excess QS. It thus recognizes all harvesters' investment in the fishery. However, for an Association such as the one the Conservancy contemplates, these rules would not accommodate changes in Association membership. The rules explicitly state that the grandfather clause would expire upon addition of a new member to the grandfathered entity (corporation, partnership). See, A-2.2.3.e. This construct is not only unworkable from the Association perspective, but it also would work against the Council's interest in providing broader economic benefits under the plan. We believe that in light of these concerns and limitations, as well as fairness issues, divestiture is preferable to a permanent grandfather clause.

As described above, the MSA requires the Council to balance several competing interests. On the initial allocation question, the "fair and equitable" requirement and the requirement to prevent entities from acquiring excess shares are in conflict. While we recognize that a grandfather clause would allocate QS to all qualified harvesters in an equal manner, and large entities would not forfeit their investment, we believe that it runs the risk of locking in an advantage for larger harvesters in perpetuity over smaller harvesters who did not qualify for grandfathered QS. In certain circumstances, an indefinite grandfather clause could also result in a particularly large permit holder owning an excessive share, and thereby run afoul of § 303A(c)(5)(D).

For these reasons, we agree with the preliminary preferred alternative not to include the proposed grandfather clause options. However, we are also sympathetic to concerns that a strict redistribution system will result in large permit holders forfeiting their investment in the fishery without compensation. A divestiture period could provide an equal allocation of QS according to catch histories, while still preventing excess shares and consolidation.

2. *Divestiture of QS, in Combination with Different Accumulation and Control Limits for Community Fishing Associations, is Preferable Means to Achieve Community Goals*

We understand that, as another way of recognizing existing investment in the fishery and address concerns of those with QS over the range of accumulation limits in the Decision Document, the Council may be considering accumulation and control limits that could be higher than that range, which were derived based on permit ownership concentrations as of 2006. The Nature Conservancy has not taken a position on the specific limits that should be placed on individual QS holders, given that the Council is deliberating on this matter and carefully considering the benefits and impacts of such an action on the goals of the program and the long term stability of the groundfish fishery.

However, in making these determinations, the Council is charged with including measures to protect fishing communities and prevent geographic consolidation. As described in the Decision Document, adopting much higher accumulation and control limits for individuals could negatively impact fishing communities, particularly those communities without large entity harvesters. Decision Document, at 495. Substantially higher individual limits could tend to promote industry consolidation, to the detriment of smaller fishing communities, and may make it more likely that individual entities are able to acquire an excessive share. These impacts are of concern to communities and harvesters coast-wide.

As noted by the Council, divestiture could still address the concerns of larger permit holders about "losing" their investment in QS if they exceed the individual limits, as long as they are afforded the opportunity to sell their excess QS and thus realize the benefit of their investment. Because divestiture answers this objection while still protecting communities, we believe it is the preferred route for community stability, if combined with special rules for Community Fishing Associations, as described above. This alternative promotes efficiency yet protects against excessive share concerns.

C. Community Fishing Association Complements Other Proposals

The Association Proposal complements other proposals by providing industry participants and their communities capacity to affect the objectives of the Trawl Rationalization. As discussed earlier, the Association Proposal is different from the Adaptive Management Program option included in the Decision Document. However, an Association is complementary to this and other proposals before the Council to address community stability and conservation. For example, in concert with the AMP, the association could also serve as an institutional mechanism within a community that could provide the administrative and other support needed to apply for, or distribute, QP for use in a particular community. This role could help address concerns raised about how the AMP would be administered in practice.

Associations can also complement other aspects of Trawl Rationalization. Assume, for example, that a member of a vulnerable community exceeds the individual accumulation limits and is required to divest excess quota. It is possible that individual members of the community lack the financial capacity to purchase such quota. In this case, the Community Fishing Association may be able to secure sufficient funding sources to purchase the quota and therefore help the community avoid a loss of quota. An Association can also support local capacity needs. If the local County government, for example, determines that the County is interested in raising money to purchase QS and anchor the QS in the community, the Association can act on behalf of the County by and through a private agreement to own and administer the QS/QP. Without an Association, representatives of several Central Coast governmental agencies have informed The Nature Conservancy that they would not be able to own or hold QS/QP.

In another example, an Association could provide information and assistance to fishermen, processors and community representatives in applying for grants from private

foundations or public agencies, or loans from entities such as the California Fisheries Fund to enable the purchase of additional QS and further the MSA's objective of community stability. Likewise, an Association could apply for research grants from academic institutions and conservation organizations to perform research aimed at promoting the MSA's conservation and/or efficiency goals. Although some, and perhaps most, of these programs are available to individual fishermen, processors or communities, pooled applicants can often realize significant economies of scale and increased likelihood of success. As an individual, the benefits of the program may be outweighed by the time and effort it takes to gather the information, complete the application, track and report results and perform the analysis required in the follow up report. Furthermore, the grantor in this example must make an often difficult decision on the merits of an individual fisherman's application. Pooled applicants under an association can be expected to realize greater success in securing these grants or loans and ultimately making progress toward achieving the MSA's goals.

Similarly, the preliminary preferred alternative allows the use of non-trawl gear to harvest trawl quota pounds and Associations can facilitate the day-to-day management of potential gear conflicts. Converting from high-volume, relatively low per unit value trawl fishing to lower volume, higher value fishing is an opportunity for communities in the Central Coast and gear switching, such as proposed in the decision document, *see* Decision Document, at Section A-1.1, is important to that movement. A Community Fishing Association, by managing where and how its members fish, could reduce potential gear conflicts that could result from trawl and fixed gear being used in the same area.

In summary, an Association could contribute to the Council achieving the MSA's goals by providing needed capacity within the community – to apply for AMP quota pounds, to prevent the loss of quota, to access grant funding or private capital to purchase quota share or other necessities, by building research partnerships that could contribute to the sustainability of the community and the fishery or by assisting with the local management of gear conflicts.

D. The Association Proposal Promotes the Conservation and Management Goals of the IFQ

While QS owned by an Association and owned or fished by Association members will be subject to the same general conservation and management restrictions as other QS, including total catch accounting, the Association approach may offer some opportunities to improve both conservation and efficiency. The Community Fishing Association contemplated by the Conservancy and its partners in the Central Coast could take advantage of opportunities afforded by the Association structure as well as changes in the management of the fishery that promote fishing flexibility and improved science and management. Some of these benefits (and costs) are being tested and measured in the Central Coast EFP, under which the participants are fishing under the proposed "gear switching" and catch pooling options offered in the Trawl Rationalization plan.

The EFP and our Conservation Fishing Agreement (using modified trawl gear in geographically specified areas to target flatfish) are testing a suite of approaches that could be included in any Community Fishing Association in support of both conservation and industry/community goals. The specific conservation and management approaches being used in the Central Coast EFP are near real-time catch and bycatch monitoring and reporting, use of more selective fixed gear, and other approaches to reduce impacts on habitat or weak stock species. These include harvest planning to target abundant stocks, avoiding bycatch of overfished species, and reducing nongroundfish mortality. The inclusion of harvest planning, more selective gear, and near real-time monitoring in such Associations, while improving conservation and management performance, could also mitigate the risk of consolidation in certain high bycatch areas (*e.g.*, some Central Coast ports).

V. As a Substantial Participant in the Fishery, The Nature Conservancy Should be Allocated Quota

The Nature Conservancy supports the preliminary preferred alternative's broad policy for those who can receive initial allocations of QS or subsequently hold QS. The Nature Conservancy understands that, as the holder of existing limited entry trawl permits and as a substantial participant in the fishery, The Nature Conservancy will be entitled to receive QS based on the catch histories associated with the permits it owns.

As described in the Decision Document, the MSA has two broad restrictions on who can participate in a limited access privilege program. First, the person holding quota must be among the entities listed in MSA Section 303A(c)(1)(D), which include "a corporation, partnership or other entity established under the laws of the United States or any State." MSA § 303A(c)(1)(D). Second, the person must "substantially participate in the fishery, as specified by the Council." MSA § 303A(c)(5)(E). We understand that the Council is proposing a broad definition of who can participate (any "entity" with 75% U.S. ownership), which would include conservation organizations, such as The Nature Conservancy. *See* Decision Document, at A-214 (noting that a conservation organization may hold quota). The Conservancy notes that it is also using its permits, and would also meet any future Council "use-or lose" provisions. *See*, Section A-2.2.2(c) ("use-or-lose" provisions deferred to consideration in program review).

As described fully in the Introduction section, The Nature Conservancy has become a substantial participant in the west coast groundfish fishery. The Nature Conservancy currently owns several limited entry trawl permits on the Central Coast and has partnered with fishermen and local communities to continue fishing those permits using more sustainable practices. It has expended significant funds and devoted significant resources to these programs and intends to remain an active participant in the fishery. *See generally*, Statement of Intent. These actions and our unique approach show a clear record of our substantial participation in the groundfish fishery and thus that The Nature Conservancy meets both the MSA and Council eligibility requirements for holding quota.

Thank you for your consideration of the comments of The Nature Conservancy.

Sincerely,

Margaret Spring
Director
California Coastal and Marine Program
The Nature Conservancy

Enc.: Exhibit A. Consistency of Community Fishing Association with Applicable Law

Community Fishing Association Proposal for the Pacific Fishery Management Council offered by The Nature Conservancy, October 15, 2008.

October 29, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Decision Document for the November 2008 Pacific Fisheries Management Council Meeting Concerning the Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery

Dear Council Members:

Thank you for the opportunity to comment on the Decision Document for the November 2008 Pacific Fisheries Management Council meeting relating to the Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery ("Decision Document"). We recognize the tremendous effort and time that the Council has put into this document and appreciate the Council's efforts to reach out to all those in the fishing community and listen to concerns, including those raised by The Nature Conservancy.

Please consider the following comments which support The Nature Conservancy's proposal for a Community Fishing Association, which was separately submitted for inclusion in the Briefing Book on October 15, 2008.

I. Executive Summary

Community Fishing Associations. The Nature Conservancy proposes that the Council make certain changes to the preliminary preferred alternative to remove impediments to the formation of Community Fishing Associations. Importantly, the Nature Conservancy's proposal is supportive of, but distinct from, the Adaptive Management proposals and is not a Regional Fishery Association. The key required changes are:

- Different accumulation limits for qualifying Associations;
- Rules to ensure that Association members cannot gain access to or control more quota share (QS) than they would be able to control otherwise; and
- A three year divestiture period for larger entities to sell off excess QS.

The MSA Permits Different Control Limits for Associations. In order to be effective and achieve the goals for which they would be formed, Associations must be subject to different accumulation and control limits than individuals. With different limits than afforded individuals, Associations will help communities to pool their resources and achieve greater efficiencies when complying with fishery regulations. Associations will have sufficient quota to lease to entry level fishermen. In these and other ways described below, enabling formation of these Associations would benefit

fishing communities, minimize disruption, and perhaps prevent excessive consolidation of the industry. These are key goals under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), 16 U.S.C. § 1801–1891d, as amended in 2006. Further, the MSA provides the Council with flexibility to adopt creative approaches such as distinct rules for Associations.

Association Members Will be Subject to Regular Accumulation Caps. Individual Association members will be subject to the same individual accumulation and control caps as others, so excessive share requirements under the MSA will be met.

Transparency and Control Rules Can Prevent Excessive Share Issues. Associations may be subject to transparency requirements to ensure that members do not control quota in excess of accumulation and control caps through their Association membership or that others affiliated with an Association are able to exert excessive control over the fishery. Transparency requirements may also assist the National Marine Fisheries Service (NMFS) with anti-trust investigations.

The Council Should Adopt a Three Year Divestiture Rule. In order to address the fairness and equity concerns relating to larger entities being forced to forfeit a portion of their quota, as would occur under the preliminary preferred alternative's redistribution model, entities with excess quota should be given a reasonable period of time (3 years) to sell their excess quota. Under the preliminary preferred alternative, excess quota would redistribute quota coast-wide, to the detriment of fishing communities with entities holding excess QS. Under a divestiture model, excess QS could be kept in the community, which is what The Nature Conservancy would do by transferring its quota to a newly formed Association.

Associations May Assist Fishing Communities and Promote Conservation and Management Goals. Associations may help fishing communities to obtain grants or special financing to purchase or lease QS. Such a role will minimize disruption of the IFQ and help with the viability of small vessel owner-operators and new entrants to the fishery. Further, it is expected that Associations will promote conservation and management goals of the groundfish FMP, as would be the case for the Association The Nature Conservancy plans to form.

The Nature Conservancy is a Substantial Participant in the Fishery and is Entitled to Receive Quota Share. Through The Nature Conservancy's considerable past efforts in the West Coast groundfish fishery, particularly its work in partnership with communities on the Central Coast, it has become a substantial participant in the fishery. As a result, under the MSA, The Nature Conservancy is eligible to receive an initial allocation of QS according to the allocation formulas based on its permits' catch histories.

II. Introduction and Overview

A. Background on The Nature Conservancy's Participation in the Fishery

The Nature Conservancy has been working closely with fishermen and communities in the Central Coast of California over the last several years to develop approaches designed to lead to more sustainable approaches to harvesting groundfish in the limited entry trawl fishery, as well as to preserve local access to the groundfish resource in fishing communities. Starting in 2005, The Nature Conservancy partnered with regulatory agencies and trawl fishermen in Central Coast communities to develop a collaborative proposal that would implement recommendations of the National Academy of Sciences aimed at reducing the impact of bottom trawling. Jointly, we identified and successfully petitioned the Pacific Fishery Management Council for 3.8 million acres of important marine habitats that would be off limits to bottom trawl gear. Simultaneously, to reduce bottom trawl fishing effort and to mitigate the economic impact of bottom trawl closures, TNC purchased federal permits and vessels from local fishermen interested in leaving the trawl groundfish industry.

As a result of this effort, The Nature Conservancy owns a number of trawl permits with fishing history in the Central Coast area that we have redeployed, or plan to redeploy, in the area under demonstration projects with our community fishing partners. In 2007, the Conservancy leased one of its permits to a Morro Bay fisherman. The lease is a voluntary, private agreement designed to test methods for making trawl fishing more sustainable and economically viable, focusing on techniques to reduce bycatch and conserve habitat. In addition to this effort, the Conservancy and our fishing community and state partners are using six of the Conservancy's permits in an Exempted Fishing Permit (EFP) approved by the Council for 2008 and 2009, to test community-based approaches that could be used in the upcoming transition to an individual fishable quota (IFQ) system. This EFP, operating out of Morro Bay and Port San Luis, is evaluating how the establishment of a community based fishing association comprised of commercial fishers using fixed gear and shared species harvest caps will provide community and economic benefits.

Through these efforts we have become a substantial participant in the groundfish fishery with a strong interest in promoting a long-term sustainable fishing future for communities in the Central Coast of California. Our permit ownership, partnerships, and investment in these projects gives us a unique perspective and interest in ensuring that the transition to an IFQ system is done in a way that protects vulnerable fishing communities, preserves traditional access to groundfish in these areas, promotes marine conservation, and allocates QS fairly and equitably. In June 2008, The Nature Conservancy provided a statement of our goals and intentions with respect to use of these permits, stating that we would work with our fishing and community partners and experts on a Central Coast fishing entity that could hold and manage fishing permits or quota for three purposes: (1) local industry access to and benefits of conservation and improved resource productivity; (2) more sustainable harvesting methods and approaches; and (3) preserving and

promoting community fishing heritage and stewardship. *Conserving a Working Seascape in California's Central Coast: Statement of Intent for Disposition of Federal Trawl Permits Owned by The Nature Conservancy,* The Nature Conservancy ("Statement of Intent").

B. The Nature Conservancy Proposes Community Fishing Associations as Part of the Rationalization Plan

Given our interests and activities in the Central Coast, particularly through our work in the EFP, the Conservancy has been following closely the Council's development of a Rationalization proposal for the Pacific Coast Groundfish Limited Entry Trawl Fishery. The Council's deliberations have been guided by a range of policy and legal requirements, including those designed to mitigate unanticipated impacts of rationalization by promoting fairness and equity, assisting communities, and minimizing disruption of current fishing practices. *See, e.g.*, Decision Document, at Ch. 6. As a result, in its analyses, the Council has identified and acknowledged several expected impacts on fishing communities, including those in the Central Coast. *See* Decision Document, Section 4.14, pgs. 521-523. Morro Bay is specifically identified as a vulnerable community and likely to receive less during initial allocation of QS than the average for all ports.[1] Chapter 4 also identifies Moss Landing as vulnerable to consolidation and predicts that Half Moon Bay is likely to experience loss of vessels and QS due to consolidation and migration of QS northward. Both communities could be constrained by managing depleted species under QS because they are located near high bycatch areas. The port of Monterey should similarly be considered at risk, although the Decision Document does not evaluate this historic Central Coast fishing port. In general, the projected migration of QS northward and resulting loss of infrastructure upon which other community fisheries depend will likely magnify impacts in this region.

In order to address these concerns and requirements, as well as achieve the goals set forth with our fishing and community partners, The Nature Conservancy proposes that the Council make some discrete changes to the Decision Document to promote community stability and improved management through establishment of voluntary "Community Fishing Associations" under which individual members (permit/quota holders and other fishermen) would work together in community-based harvesting operations to pool risks and costs, meet new conservation and management requirements, and retain local access to fishery resources. Specifically, we recommend that the Council endorse formation of such Associations and remove impediments in accumulation and

[1] The Conservancy notes, as it has noted in oral testimony before the Council at its June 2008 meeting, that the Document contains substantial errors in describing the current status of fishing in Morro Bay and the extent to which trawl permits owned by the Conservancy are being deployed there to fish. *See* Decision Document, at pg. 523. The correct information is that the Conservancy is leasing one of its trawl permits and vessels under a private conservation agreement; six other trawl permits are being fished by participants in the Exempted Fishing Permit. Landings are in Morro Bay as well as Port San Luis. Three fishermen participated in 2008 and up to six are expected in 2008. Landings are expected to increase as the EFP caps change to reflect permit landings history. Thus, any loss of QS represented by these permits would further harm Morro Bay and Port San Luis.

control limits under A.2.2.3(e) to formation of such Associations. (The Nature Conservancy's proposal is referred to herein as the "Association Proposal")

The Nature Conservancy outlined the changes needed, including with respect to accumulation limits for such Associations, in its presentation to the Groundfish Allocation Committee (GAC) during its October 8-9, 2008 meeting. While the GAC did not make any recommendations to resolve impediments in the plan to formation of such associations (*i.e.*, in the accumulation limit rules), it did recognize by consensus that community fishing associations may have a key role to play in the overall program, particularly in protecting and stabilizing vulnerable fishing communities. Groundfish Allocation Committee Report on Amendment 20 Trawl Rationalization Alternatives, at pg. 2 ("The GAC recommends that . . . [i]n implementing adaptive management, recognize formal regional (or community) fishing associations (consensus).").

The states of California and Washington in their subsequent comments have already suggested formation of community fishing associations as one component of a proactive plan to stabilize fishing communities and prevent disruptive shifts in geographic patterns of landings and fishing activity, including pointing to potential the need for exemptions from accumulation limits to foster their creation. *See*, November 2008 Council Meeting Agenda, items F.3.f. A number of California ports and communities have also identified their interest in pursuing this community fishing association approach; these materials have been submitted under Agenda item F.3.h. *See, e.g.*, Resolution No. 61-08, City Council of Morro Bay, October 13, 2008; Resolution No. 21-08, San Mateo County Harbor District, October 15, 2008; Letter from Chuck Della Sala, Mayor of Monterey, to Mr. Donald K. Hansen, October 24, 2008; Resolution No. 08-15, Port San Luis Harbor District, October 28, 2008.

The Nature Conservancy urges the Council to include the changes necessary to allow permit holders to come together to form Community Fishing Associations in the final preferred alternative that it will submit to the Secretary of Commerce for review pursuant to MSA Section 302(h)(1).

III. The Nature Conservancy's Proposal for Community Fishing Associations

A. Overview of Proposal

The Nature Conservancy previously submitted its formal proposal to enable formation of Community Fishing Associations on October 15, 2008 and can be found in the Public Comment portion of the Briefing Book. For your convenience, we attach a copy of our October 15 submittal. Changes to the current plan are needed because multiple permit holders with QS working together in a Community Fishing Association that leases quota pounds (QP) to members would trigger the accumulation/control rules, which, paradoxically, were established for the same reasons as these Associations: to try to prevent consolidation and spread quota among communities. In addition, the current preferred alternative would not allow quota to remain in its home port if the holder is

over the accumulation limits – *i.e.*, amounts over the limit would be redistributed coast-wide, rather than in the community that held the catch history.

While the details of the Community Fishing Association proposal can be found in the submittal, we highlight here the key components:

- A Community Fishing Association (Association) would be a corporation created for community benefit, with participating members that could hold QS.

- Such an Association would not be eligible for initial issuance of QS, but could acquire QS through direct acquisition from willing sellers.

- Each year, the Association would make QP available, through a private agreement, to its members for their assistance in achieving the Association's objectives, *e.g.*, maintaining landings in a given community or achieving conservation goals.

- Any fisherman may elect each year whether to be a member of the Association and enter into a private agreement with the Association.

- Any member would be eligible to access Association-owned QP up to the vessel cap. For fishermen who hold a groundfish trawl permit and QS, this will be the aggregate of individually held QP plus any Association-owned QP controlled by the individual.

- Any member who does not hold a trawl permit or QS could apply to the Association to lease a groundfish trawl permit (if one is available) and QP.

- Members of the Association would have access to services from the Association (e.g., observers) and would have to abide by the rules of the Association (e.g., to land all or some of the fish in a particular community, to abide by area or gear limitations, to cooperate with bycatch reduction efforts, etc.).

- The Rationalization Plan would establish unique accumulation limits and transparency requirements for Associations, allowing them to hold QS above the accumulation limits for individuals, as long as the Association demonstrates that no individual member holds or controls any more QS or QP than permitted under the accumulation limits for individuals, or that any individual through participation in the Association is otherwise able exert excessive control over the fishery.

- The Rationalization Plan would enable retention of quota in its home region by allowing allocation of the full amount of QS to permit holders based on their permit history, but require that amounts over the accumulation limits be divested over a reasonable period (e.g., 3 years), thus allowing an orderly transition of QS and minimizing disruption to communities.

The Nature Conservancy recognizes that the Council must perform a careful balancing of various competing goals when setting up the IFQ program, chief among which is balancing increased efficiency of the fleet as whole with impacts to fishing communities. The Decision Document quotes from a Government Accountability Office study which sums up this issue: "because the goals of community protection and new entry run counter to the economic efficiency goals, fishery councils face a delicate balancing act to achieve all goals." Decision Document, at 482-83. The purpose of The Nature Conservancy's Community Fishing Association proposal is to help the Council with this "delicate balance." As described more fully below, Associations will help to protect fishing communities, small vessel owner-operators, and new entrants to the fishery, yet will create a vehicle to allow small players to operate with greater efficiency, improved management, and increased financial viability.

In order for the Association Proposal to achieve these goals, it is essential that Associations be subject to different accumulation and control limits and rules than will apply to individual permit and QS holders within the Association. Under the alternatives before the Council, an Association would have to meet the same accumulation and control limits as an individual QS holder, even though each individual member within the Association is bound to the same limit. Council analyses have identified unintended impacts of the control limits on communities and associations as an issue to be addressed. Decision Document, Appendix A, A-2.2.3(e), pgs. A-230-235. Given projected economic pressures on vulnerable communities in the transition, it would be prudent to affirmatively establish specific rules in the plan designed to facilitate the formation of Community Associations that could hold QS historically harvested by members of such communities, provide benefits such as sharing costs and management burdens, and provide access to new entrants. *See, e.g.*, Decision Document, § 4.6.3.1, pgs. 325-326 ("individual accountability for total catch associated with IFQs and coops increases the financial risks" suggesting the benefits of risk pools under voluntary associations); § 4.6.4.2 (describing cumulative impacts placing economic pressure on harvesters, e.g., fuel costs).

Accordingly, the Decision Document should include different accumulation and control limits and related guidance that would allow such Community Fishing Associations and arrangements to form. To address stated concerns that such arrangements could be used to circumvent or undermine the Council's goal of avoiding excessive share consolidation (*e.g.*, concerns regarding market power) Appendix A, pg. A-230, the Conservancy's proposal specifies approaches to limit excessive control, including qualifying criteria and review by the National Marine Fisheries Service. This review could also require member information and disclosures to increase transparency, including information that could be used under MSA Section 303A(c) to identify anti-competitive, anti-trust, price collusion, or price fixing activities among QS holders within the Association or by persons otherwise affiliated with the Association. 16 U.S.C. § 1853a(c)(1)(J).

Such a community-based approach would actually work to prevent potential adverse community impacts related to excessive QS accumulation, and align with the

Council's attempts to reconcile economically-driven vessel consolidation with maintaining individual fishing participation. For example, the Decision Document sets vessel control limits higher than individual control limits, allowing more than one person's QS to be used on a vessel, thus providing one means of maintaining individual fishing participation even as the fleet shrinks. Decision Document, at 483-84. In a similar way, an Association would provide a community-based platform for maintaining fishing participation in a particular location, even in the face of economic pressures and consolidation.

In addition, the Decision Document contemplates that the additional QS/QP needed to reach the higher vessel cap could be owned by other entities, including "communities, conservation organizations, or other parties." *Id.* at 484. It is this type of role of holding QS and providing additional resources that an Association would play. In so doing, an Association would assist fishing communities, small vessel owner-operators and new entrants into the fishery, while also promoting the broader efficiency goals by being subject to a different cap and allowing Association members to pool resources.

B. The Association Proposal is Complimentary to, But Distinct From, the Adaptive Management Option

In order to avoid any confusion, we would like to clarify that the Association Proposal is separate and distinct from the proposal for an Adaptive Management Program (AMP) option. While the two programs may be complimentary and promote the same goals, the AMP takes a different approach and the Association Proposal is in no way dependent on the AMP. To effectuate the Association Proposal, the Council would only need to remove impediments in accumulation and control provisions of section A-2.2.3(e) to formation of such voluntary Associations; however, the AMP option could be modified to specify how such Associations would work with, and support, the AMP approach.

Under the AMP, up to 10% of the QP would be set aside which could be used as needed to, in part, "compensate for unforeseen outcomes from implementing the IFQ program." Decision Document, at 42. Thus, the AMP takes a retrospective approach, in that it compensates for problems after they arise. In contrast, the Association Proposal is prospective in nature, in that it is designed to enable the participants to prevent or minimize the expected disruption to fishing communities. While an Association could work in conjunction with the AMP, such as by receiving or distributing QP, the Association Proposal is not dependent on the AMP option.

The Association Proposal's approach could also serve as an institutional mechanism within a community that could provide the administrative and other support needed to apply to the AMP for QP, or distribute QP awarded by the AMP, for use in a particular community. This role could help address concerns raised about how the AMP would be administered in practice. *See, e.g.*, comments of Washington Department of Fish and Wildlife, November 2008 Council Agenda Item F.3.e.

C. Community Fishing Associations Are Not "Regional Fishery Associations"

The Nature Conservancy's proposal is not to form "regional fishery associations" contemplated under MSA Section 303A(c)(4), though both support community stability goals.[2] What we are proposing – QS holders and other harvesters working together in private arrangements to pool risks, share costs, and collaborate on conservation and management improvements – is already permissible under the MSA and is being tested now under our EFP. However, the current preliminary preferred alternative before the Council creates limitations that would interfere with such an arrangement, and we are asking that the final preferred alternative be changed to specifically accommodate and recognize the establishment of such private community benefit arrangements among fishery participants, to prevent community and harvester dislocation and allow fishermen to increase efficiencies, while still avoiding the problems of excessive share and geographic consolidation.

The MSA authorizes associations or other persons who substantially participate in the fishery to hold and acquire quota, even if such associations are not formed under the "regional fishery association" provisions. MSA Section 303A(c)(5)(E) provides that when setting up an IFQ program, the Council shall:

> authorize limited access privileges to harvest fish to be held, acquired, used by, or issued under the system to *persons* who substantially participate in the fishery, including in a specific sector of such fishery, *as specified by the Council.*

(emphasis added). Thus, the MSA directs the Council to determine the types of "person" that can hold quota. Elsewhere, the MSA defines the term "person" to include "associations." 16 U.S.C. § 1802(31). As such, the Council has the statutory authority, independent from the provisions on "regional fishery associations," to determine that associations made up of QS holders and other members may hold or acquire quota. The Council's quota holding eligibility provisions at A-2.2.3 are similarly broad (e.g., any "person or entity," with a 75% U.S. citizenship requirement for entities).

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[2] The Magnuson-Stevens Act states that voluntary regional fishery associations (RFAs) consist of participants in the fishery who hold QS "*designated for use in the specific region or subregion*". 16 U.S.C. 1853a(c)(4). We have not included *regulatory* linkage of QS to a specific geography in the current Association proposal. Legislative history explains that RFAs were authorized in lieu of allocating "processing privileges" and that RFAs attempted to address competing shoreside linkage and community impacts concerns: "The Committee chose to take a broader view and allow allocation of harvesting privileges to communities, and inclusion of processors and other shore-based businesses in RFAs with [QS] holders which would allow for the designation or linkage of [QS] to a region or community." S. Rept 109-229 page 25. "In an RFA, quota would be allocated to the harvester but classified for use in a specific region in order to maintain a relative balance between the harvesting sector receiving the quota and the communities, processors, and other fishery-related businesses that have become dependent on the resource entering their port. S. Report 109-229 page 27.

IV. The Community Fishing Association Proposal is Consistent with the MSA, the West Coast Groundfish FMP, and Amendment 20

Table 6-1 in Chapter 6 of the PDEIS contains a list of various goals and policies of the MSA, the West Coast groundfish FMP, and Amendment 20 which guide the Council's decision on determining the preferred alternative. Exhibit A to this letter contains a similar chart which demonstrates that the Community Fishing Association proposal is consistent with those provisions. As demonstrated in Exhibit A, the Association Proposal complements the Council's preliminary preferred alternative and is consistent with the MSA and other applicable regulations.

In particular, the Association Proposal provides a mechanism to protect vulnerable fishing communities from the disruption that is expected to occur when the IFQ program is implemented. *See generally*, Decision Document, Section 4.14. However, the preliminary preferred alternative lacks sufficient protection in this respect and will likely result in many small vessel owner-operators exiting the fishery, increased barriers to entry for new participants, and significant geographic shifts in effort. It is also expected that certain Associations will incorporate specific conservation and management requirements, such as catch and by-catch monitoring and reporting improvements, area or gear limitations, and other measures to reduce impacts on habitat or weak stock species. Importantly, the proposal meets the MSA community protection requirements and promotes conservation and management goals while preventing the acquisition of excessive shares and excessive consolidation. Further, the proposal contains elements, such as the 3 year divestiture period, which meet the MSA's fair and equitable initial allocation requirements. Information provided to the agency concerning QS control by Association members could also meet the requirements of MSA Section 303A(c)(1)(J).

While Exhibit A provides an overview of the Proposal's consistency with the MSA, the following sections provide a more detailed analysis of key issues.

A. Establishing Different Accumulation and Control Limit Requirements for Associations is Consistent with MSA Requirements

As described above, and more fully in the Proposal, because Associations would represent or hold QS to be used by multiple participants, they must be afforded different, higher accumulation limits (or special rules or exemptions) than individuals within the Association in order to achieve the efficiencies and resource pooling necessary to be effective. If an Association were subject to the accumulation and control caps applicable to individuals suggested in the Decision Document, the Association would not have sufficient QS to lease or transfer to its members to be effective or achieve necessary efficiencies. In short, Associations either would not form, or, if they did, they would not result in the benefits for which they are designed. Indeed, the California Department of Fish and Game, in its October 15, 2008, submittal for the Briefing Book, agreed with this need when it wrote that for Associations managing quota, "exemptions from

accumulation limits may be necessary." *Report on Adaptive Management*, California Department of Fish and Game, at 2 (October 15, 2008).

The language in the MSA on designing limited access privilege programs provides the Council with sufficient flexibility to use creative solutions to assist entry level and small vessel owner-operators and fishing communities. For example, MSA Section 303A(c)(5)(C) provides that the Council "shall . . . include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges." MSA Section 303A(c)(5)(B) contains a similar requirement to develop "policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements." While these sections provide a mandate that the Council design the IFQ in a way that protects fishing communities, entry-level participants and small vessel owner-operators, the language leaves much discretion and flexibility to the Council to determine how best to meet those goals. Thus, to the extent that having different accumulation limits for Community Fishing Associations will assist in protecting fishing communities, small vessel owner-operators and entry-level participants, the Council has the legal authority to take this action.

In addition, providing for different, higher accumulation and control limits (or special rules or exemptions), for this narrow set of entities (Associations) will not run afoul of the MSA provisions prohibiting the acquisition of excessive share. *See* MSA § 303A(c)(5)(D). Importantly, although Associations would be subject to different, higher accumulation limits, individual members of an Association would remain subject to the regular accumulation and control limits. In order to prevent any "gaming of the system," the Council can impose transparency and reporting provisions to ensure that Association members or other parties affiliated with the Association do not gain direct or indirect control over quota share held by the Association. Furthermore, parties would not be able to control quota through ownership of the Association or by other means. The Association could be required to report its ownership structure (including the identity of all direct and indirect shareholders) and material contracts relating to control of the Association, QS and/or QP to NMFS, or any other information relevant to resolving concerns about excessive control or market power, *e.g.*, 16 U.S.C. 1853a(c)(1)(J). As a result of these protections, individual members will not gain access to or control more quota than they otherwise would if they were not a part of the Association. Thus, a special, different accumulation cap for Associations would not conflict with the MSA provisions pertaining to preventing the acquisition of excess share.

B. The Council Should Include a Divestiture Period for Entities with QS Over the Accumulation and Control Limits

1. The Divestiture Proposal Balances the MSA's Fair and Equitable Initial Allocation Requirements with Preventing Acquisition of Excessive Share

The hallmark requirement under the MSA for the initial allocation of QS is that it must be done in a fair and equitable manner. MSA § 303A(c)(5)(A); National Standard 4. The MSA regulations recognize that allocating fishing privileges may inherently involve advantaging one group to the detriment of another. 50 C.F.R. 600.325(c)(3)(i)(A). However, if the Council is going to allocate in a manner that may advantage one group over another, it must justify its action:

> An allocation of fishing privileges should be rationally connected to the achievement of OY or with the furtherance of a legitimate FMP objective. Inherent in an allocation is the advantaging of one group to the detriment of another. *The motive for making a particular allocation should be justified in terms of the objectives of the FMP; otherwise, the disadvantaged user groups or individuals would suffer without cause.*

Id. The Nature Conservancy believes that the preliminary preferred alternative to "redistribute" QS over the selected accumulation and control limits in a coast-wide manner would not only undermine the goals of the program with respect to vulnerable communities, but it is also unfair, inequitable, and not justified. Instead, initial allocation rules should apply equally to all permit holders, but those with excess QS should be required to divest within a reasonable period of time, such as 3 years from issuance of QS.

Among the initial allocation factors that must be considered are current and historical harvests and investments in the fishery. MSA § 303A(c)(5)(A). The Council's preliminary preferred alternative goes most of the way toward meeting these requirements because it bases QS on the catch history associated with a permit and it recognizes investments in the fishery by only allocating QS to current permit holders. However, as currently proposed, this rule is not applied equally to all permit holders and does not reflect historical harvests, and thus is not fair and equitable.

Instead of permitting persons to divest excess QS and thus receive at least a monetary benefit in proportion to their investment in the fishery, the preliminary preferred alternative described in the Decision Document would redistribute the excess QS according to the allocation formulas to those persons whose QS is below the accumulation limit. Decision Document, Table 2-3, A-2.2.3.e, at pg. 55; *see also*, Decision Document, at pgs. A-239-240. Thus, not only would the permit holders with excess QS not realize the full benefit of their investment, but those who are under the cap would receive additional QS – essentially a windfall, an unfair and inequitable result.

In particular, harvesters owning permits which would otherwise entitle them to QS above the accumulation limit would receive no QS for amounts in excess of the limit, thus "losing" some of the catch history and forfeiting a portion of their investment in the fishery for redistribution coast-wide. Thus, the largest permit holders would not be treated the same as smaller permit holders, and the redistribution would not reflect historical harvests, making initial allocation unfair and inequitable.

Appendix A to the Decision Document identifies divestment as an alternative to redistribution, noting in particular that it would have the benefit of providing a "wealth benefit to all individuals more in proportion to their relative history." Decision Document, at A-239-40; *see also id.* at pgs. A-266-67. More succinctly, it is fair and equitable. Despite identifying this option and recognizing its fairness, the Decision Document does not adequately justify why redistribution is preferred. The only reason the Decision Document cites for preferring redistribution is that if entities are allowed to divest excess quota, they may do so in a way that allows them to continue to exert control over the quota. *Id.* at A-266-267. There is no factual basis cited for such an assertion, and if such a concern exists for some QS holders, coast-wide redistribution is an extreme response that would sweep to broadly. The Decision Document also predicts that redistribution of QS out of a community will unlikely be much of an issue because entities will divest themselves of excess permits prior to initial allocation, thus preventing a community "loss" of quota. However, the Decision Document fails to recognize that such sales of quota prior to initial allocation in order to avoid redistribution would have the same control issues as would sales of quota after initial allocation. That is, those entities that would try to "game the system" under a divestiture model by transferring QS to other entities under their control would also try to "game the system" under a redistribution model. Addressing this concern through transfer disclosure rules under excessive share limits would provide a more targeted and transparent result. Moreover, in certain regions slated to lose QS in the transition, such as the Central Coast, targeted local divestment of QS would be a better result for communities than coast-wide redistribution.

Further, the redistribution proposal is likely to result in a greater economic loss to the permit seller. As alluded to by the Decision Document, divesting a permit prior to initial allocation would require documenting the permit's catch history and assuring the buyer that it will qualify for QS through ownership of the permit. This uncertainty will likely result in discounting of the permit price – essentially a loss to the permit seller. As a result of this discounting for uncertain information, permit sellers could delay the sale of permits until the last possible moment, resulting in a rush of permit sales and confusion amid an inefficient market. Therefore, the Council should allow for a reasonable 3 year divestiture period to enable a more orderly market among buyers and sellers to develop, including among members of potentially vulnerable communities.

Not only is allowing divestiture fair and equitable, but divestiture is necessary for The Nature Conservancy's efforts to preserve local access to the groundfish resource in Central Coast fishing communities. The Decision Document raises the concern that a strict redistribution model could cause disruption since those communities where large

entities are currently located would essentially lose quota and fishing effort would be transferred elsewhere. Decision Document, at 495-96. The Nature Conservancy understands that the permits it owns would exceed the accumulation limits and under the preferred alternative's redistribution provisions, excess quota would be redistributed on a coast-wide basis. Such a result in the case of these permits would undermine the Council's goal of preventing dislocation in fishing communities, including the Central Coast.

If redistribution were to occur, the Central Coast communities would suffer by losing QS earned in that location and The Nature Conservancy's goals of preserving the Central Coast's historical and traditional access to groundfish resource would be frustrated. The Nature Conservancy's intent with its permits is to transfer them (or rather, transfer quota once received) to a newly formed Association or Associations located on the Central Coast. *See*, Statement of Intent. Doing so would keep quota in Central Coast communities and the Association or Associations would assist the communities with withstanding the disruption caused by the IFQ. In order to achieve this goal, however, The Nature Conservancy must be allocated its full QS and be allowed to divest excess QS into an Association.

In further support of this position, we note that it is expected that implementation of the IFQ program will result in a geographic shift of fishing activity northward away from Central California as a result of consolidation and individual and collective risk/cost impacts. Decision Document, §§ 4.15.2; 4.17.1.2. The Nature Conservancy's efforts are aimed at minimizing this impact. However, to be successful, it must be allowed to divest excess quota it is allocated to an Association. Redistributing its excess quota, on the other hand, would exacerbate the shift away from California.

We also note that other entities are likely above the accumulation caps as well, and allowing divestiture for other entities would likely also reduce disruption to other communities. While redistribution would spread the excess QS throughout the coast, if allowed to divest, an entity may be more likely to divest locally and thus quota is more likely to stay in the community, thus minimizing disruption. The existence of a Community Fishing Association into which such QS could be transferred would facilitate this divestment of QS to stabilize communities.

Allowing owners of excess QS to divest QS above the cap during a reasonable period after initial allocation is the best solution because it is fair and equitable, it meets the objectives of preventing persons from acquiring an excessive share, it minimizes disruption, and it will promote the Association Proposal. By structuring the initial allocation so that entities obtain the full QS associated with their permits histories, all permit holders would be treated equally and all would receive the full benefit of their investments in the fishery. On the other hand, by requiring the divestment of QS in excess of the accumulation and control caps within a reasonable period of time (3 years), the excess share and geographic consolidation concerns will be addressed. This is the only option which fairly balances the MSA's competing requirements.

The Nature Conservancy understands that the Council could still consider a grandfather clause under which permit holders would be allocated all QS associated with their permit history, regardless of whether it would exceed the limits, thus "grandfathering" in excess QS for the largest harvesters. The purpose of a grandfather clause is to prevent entities entitled to QS above the accumulation caps from forfeiting their excess QS. It thus recognizes all harvesters' investment in the fishery. However, for an Association such as the one the Conservancy contemplates, these rules would not accommodate changes in Association membership. The rules explicitly state that the grandfather clause would expire upon addition of a new member to the grandfathered entity (corporation, partnership). See, A-2.2.3.e. This construct is not only unworkable from the Association perspective, but it also would work against the Council's interest in providing broader economic benefits under the plan. We believe that in light of these concerns and limitations, as well as fairness issues, divestiture is preferable to a permanent grandfather clause.

As described above, the MSA requires the Council to balance several competing interests. On the initial allocation question, the "fair and equitable" requirement and the requirement to prevent entities from acquiring excess shares are in conflict. While we recognize that a grandfather clause would allocate QS to all qualified harvesters in an equal manner, and large entities would not forfeit their investment, we believe that it runs the risk of locking in an advantage for larger harvesters in perpetuity over smaller harvesters who did not qualify for grandfathered QS. In certain circumstances, an indefinite grandfather clause could also result in a particularly large permit holder owning an excessive share, and thereby run afoul of § 303A(c)(5)(D).

For these reasons, we agree with the preliminary preferred alternative not to include the proposed grandfather clause options. However, we are also sympathetic to concerns that a strict redistribution system will result in large permit holders forfeiting their investment in the fishery without compensation. A divestiture period could provide an equal allocation of QS according to catch histories, while still preventing excess shares and consolidation.

2. *Divestiture of QS, in Combination with Different Accumulation and Control Limits for Community Fishing Associations, is Preferable Means to Achieve Community Goals*

We understand that, as another way of recognizing existing investment in the fishery and address concerns of those with QS over the range of accumulation limits in the Decision Document, the Council may be considering accumulation and control limits that could be higher than that range, which were derived based on permit ownership concentrations as of 2006. The Nature Conservancy has not taken a position on the specific limits that should be placed on individual QS holders, given that the Council is deliberating on this matter and carefully considering the benefits and impacts of such an action on the goals of the program and the long term stability of the groundfish fishery.

However, in making these determinations, the Council is charged with including measures to protect fishing communities and prevent geographic consolidation. As described in the Decision Document, adopting much higher accumulation and control limits for individuals could negatively impact fishing communities, particularly those communities without large entity harvesters. Decision Document, at 495. Substantially higher individual limits could tend to promote industry consolidation, to the detriment of smaller fishing communities, and may make it more likely that individual entities are able to acquire an excessive share. These impacts are of concern to communities and harvesters coast-wide.

As noted by the Council, divestiture could still address the concerns of larger permit holders about "losing" their investment in QS if they exceed the individual limits, as long as they are afforded the opportunity to sell their excess QS and thus realize the benefit of their investment. Because divestiture answers this objection while still protecting communities, we believe it is the preferred route for community stability, if combined with special rules for Community Fishing Associations, as described above. This alternative promotes efficiency yet protects against excessive share concerns.

C. Community Fishing Association Complements Other Proposals

The Association Proposal complements other proposals by providing industry participants and their communities capacity to affect the objectives of the Trawl Rationalization. As discussed earlier, the Association Proposal is different from the Adaptive Management Program option included in the Decision Document. However, an Association is complementary to this and other proposals before the Council to address community stability and conservation. For example, in concert with the AMP, the association could also serve as an institutional mechanism within a community that could provide the administrative and other support needed to apply for, or distribute, QP for use in a particular community. This role could help address concerns raised about how the AMP would be administered in practice.

Associations can also complement other aspects of Trawl Rationalization. Assume, for example, that a member of a vulnerable community exceeds the individual accumulation limits and is required to divest excess quota. It is possible that individual members of the community lack the financial capacity to purchase such quota. In this case, the Community Fishing Association may be able to secure sufficient funding sources to purchase the quota and therefore help the community avoid a loss of quota. An Association can also support local capacity needs. If the local County government, for example, determines that the County is interested in raising money to purchase QS and anchor the QS in the community, the Association can act on behalf of the County by and through a private agreement to own and administer the QS/QP. Without an Association, representatives of several Central Coast governmental agencies have informed The Nature Conservancy that they would not be able to own or hold QS/QP.

In another example, an Association could provide information and assistance to fishermen, processors and community representatives in applying for grants from private

foundations or public agencies, or loans from entities such as the California Fisheries Fund to enable the purchase of additional QS and further the MSA's objective of community stability. Likewise, an Association could apply for research grants from academic institutions and conservation organizations to perform research aimed at promoting the MSA's conservation and/or efficiency goals. Although some, and perhaps most, of these programs are available to individual fishermen, processors or communities, pooled applicants can often realize significant economics of scale and increased likelihood of success. As an individual, the benefits of the program may be outweighed by the time and effort it takes to gather the information, complete the application, track and report results and perform the analysis required in the follow up report. Furthermore, the grantor in this example must make an often difficult decision on the merits of an individual fisherman's application. Pooled applicants under an association can be expected to realize greater success in securing these grants or loans and ultimately making progress toward achieving the MSA's goals.

Similarly, the preliminary preferred alternative allows the use of non-trawl gear to harvest trawl quota pounds and Associations can facilitate the day-to-day management of potential gear conflicts. Converting from high-volume, relatively low per unit value trawl fishing to lower volume, higher value fishing is an opportunity for communities in the Central Coast and gear switching, such as proposed in the decision document, *see* Decision Document, at Section A-1.1, is important to that movement. A Community Fishing Association, by managing where and how its members fish, could reduce potential gear conflicts that could result from trawl and fixed gear being used in the same area.

In summary, an Association could contribute to the Council achieving the MSA's goals by providing needed capacity within the community – to apply for AMP quota pounds, to prevent the loss of quota, to access grant funding or private capital to purchase quota share or other necessities, by building research partnerships that could contribute to the sustainability of the community and the fishery or by assisting with the local management of gear conflicts.

D. The Association Proposal Promotes the Conservation and Management Goals of the IFQ

While QS owned by an Association and owned or fished by Association members will be subject to the same general conservation and management restrictions as other QS, including total catch accounting, the Association approach may offer some opportunities to improve both conservation and efficiency. The Community Fishing Association contemplated by the Conservancy and its partners in the Central Coast could take advantage of opportunities afforded by the Association structure as well as changes in the management of the fishery that promote fishing flexibility and improved science and management. Some of these benefits (and costs) are being tested and measured in the Central Coast EFP, under which the participants are fishing under the proposed "gear switching" and catch pooling options offered in the Trawl Rationalization plan.

The EFP and our Conservation Fishing Agreement (using modified trawl gear in geographically specified areas to target flatfish) are testing a suite of approaches that could be included in any Community Fishing Association in support of both conservation and industry/community goals. The specific conservation and management approaches being used in the Central Coast EFP are near real-time catch and bycatch monitoring and reporting, use of more selective fixed gear, and other approaches to reduce impacts on habitat or weak stock species. These include harvest planning to target abundant stocks, avoiding bycatch of overfished species, and reducing nongroundfish mortality. The inclusion of harvest planning, more selective gear, and near real-time monitoring in such Associations, while improving conservation and management performance, could also mitigate the risk of consolidation in certain high bycatch areas (*e.g.*, some Central Coast ports).

V. As a Substantial Participant in the Fishery, The Nature Conservancy Should be Allocated Quota

The Nature Conservancy supports the preliminary preferred alternative's broad policy for those who can receive initial allocations of QS or subsequently hold QS. The Nature Conservancy understands that, as the holder of existing limited entry trawl permits and as a substantial participant in the fishery, The Nature Conservancy will be entitled to receive QS based on the catch histories associated with the permits it owns.

As described in the Decision Document, the MSA has two broad restrictions on who can participate in a limited access privilege program. First, the person holding quota must be among the entities listed in MSA Section 303A(c)(1)(D), which include "a corporation, partnership or other entity established under the laws of the United States or any State." MSA § 303A(c)(1)(D). Second, the person must "substantially participate in the fishery, as specified by the Council." MSA § 303A(c)(5)(E). We understand that the Council is proposing a broad definition of who can participate (any "entity" with 75% U.S. ownership), which would include conservation organizations, such as The Nature Conservancy. *See* Decision Document, at A-214 (noting that a conservation organization may hold quota). The Conservancy notes that it is also using its permits, and would also meet any future Council "use-or lose" provisions. *See*, Section A-2.2.2(c) ("use-or-lose" provisions deferred to consideration in program review).

As described fully in the Introduction section, The Nature Conservancy has become a substantial participant in the west coast groundfish fishery. The Nature Conservancy currently owns several limited entry trawl permits on the Central Coast and has partnered with fishermen and local communities to continue fishing those permits using more sustainable practices. It has expended significant funds and devoted significant resources to these programs and intends to remain an active participant in the fishery. *See generally*, Statement of Intent. These actions and our unique approach show a clear record of our substantial participation in the groundfish fishery and thus that The Nature Conservancy meets both the MSA and Council eligibility requirements for holding quota.

Thank you for your consideration of the comments of The Nature Conservancy.

Sincerely,

Margaret Spring

Margaret Spring
Director
California Coastal and Marine Program
The Nature Conservancy

Enc.: Exhibit A. Consistency of Community Fishing Association with Applicable Law

Community Fishing Association Proposal for the Pacific Fishery Management Council offered by The Nature Conservancy, October 15, 2008.

Community Fishing Association Proposal for the Pacific Fishery Management Council offered by The Nature Conservancy

October 15, 2008

Background and Need:

The Council's development of a Rationalization proposal for the Pacific Coast Groundfish Limited Entry Trawl Fishery has been guided by a range of policy and legal requirements, including those designed to mitigate unanticipated impacts of rationalization by promoting fairness and equity, assisting communities, and minimizing disruption of current fishing practices, see, e.g., Chapter 6 of the Decision Document (Document). As a result, in its analyses the Council has identified and acknowledged several expected impacts on fishing communities (Chapter 4; Section 4.14). The Document also points to a number of provisions that could theoretically address community needs, including: (1) broad eligibility for quota share (QS), (2) a moratorium on QS transfer, (3) control limits for QS to potentially spread QS among more communities, (4) adaptive management set-aside, and (5) regional and area management proposals. See, Appendix A, p. A-48.

However, the Document does not yet clearly articulate to potentially affected communities how these different provisions could be used separately or in aggregate to mitigate such impacts, nor does it identify changes to the rationalization proposal that would be necessary to achieve such a result.

This proposal for a Community Fishing Association describes an approach that would build on the current alternatives before the Council to address community needs, while achieving management, conservation and socioeconomic goals needed for long-term stability in the fishery.

Community Fishing Association Proposal:

We request the Council's approval of provisions (listed in the next section) that would permit the formation and operation of voluntary Community Fishing Associations, as a means to help preserve a community's fishing heritage and access to the resource, as well as contribute to the conservation and management of the fishery. Such Associations would be responsible for complying with the applicable requirements of the Magnuson- Stevens Fishery Conservation and Management Act and the West Coast Groundfish Fishery Management Plan. This proposal is intended to offer an option for a community or a group of permit or QS holders within a community to take proactive steps to help mitigate potential dislocation effects by anchoring access to the fishery in its area or sharing risks and costs. It would not require the Council to set aside a portion of QS for the participants, though such Associations could potentially interact with any adaptive management set-aside proposal the Council may adopt.

A Community Fishing Association (Association) would be a corporation[1] created for community benefit, with participating members that could hold Quota Share (QS). Such an Association would not be eligible for initial issuance of QS, but could acquire QS through direct acquisition from willing sellers. Each year, the Association would make QP available, through a private agreement, to its members for their assistance in achieving the Association's objectives, e.g., maintaining landings in a given community or achieving conservation goals. An example describing various potential roles and relationships in an association is included at the end of this proposal.

[1] An Association could be either a for-profit or a non-profit corporation.

Any fisherman may elect each year whether to be a member of the Association and enter into a private agreement with the Association. Any member would be eligible to access Association-owned QP up to the vessel cap – for fishermen who hold a groundfish trawl permit and QS; this will be the aggregate of individually held QP plus any Association-owned QP. Any member who does not hold a trawl permit or QS could apply to the Association to lease a groundfish trawl permit (if one is available) and QP. In either case, members of the Association would have access to services from the Association (e.g., observers) and would have to abide by the rules of the Association (e.g., to land all or some of the fish in a particular community, to abide by area or gear limitations, to cooperate with bycatch reduction efforts, etc.).

While each Association would have its own specific objectives and propose its own rules, Association membership agreements will include a mandatory clause that participants comply with the rules of the Association. Because failure to comply with federal fishing regulations could be grounds for revoking approval for the Association, a Community Fishing Association would require all members' full compliance. The Association could assist in enforcement by taking action to sanction a member who fails to comply –revoking Association privileges, imposing Association fines, expelling an individual from the Association, or turning over a case to state or federal law enforcement officials.

Participants will help shape the Association's objectives. There are a number of options for determining which Associations will be formed. Associations could be formed as a community-level initiative – led by a harbor commission, commercial fishermen's organization, local processor, or a non-governmental organization. The parties could present a proposal to NMFS and, if satisfactory, proceed to incorporate, raise capital, recruit a board of directors, invite participants, and purchase QS and/or permits. Participants could include, but are not limited to, fishermen, local government officials, a harbor director, commercial fishermen's organization, local processors, and/or non-governmental organizations. An alternative approach would be to for each state agency to identify as eligible those communities that will benefit, and select an organization tasked to form the Association.

A fisherman or other participating entity may join different community Associations from year to year, or may belong to multiple Associations provided that vessel caps are not exceeded and his or her total control over the fishery is fully disclosed and certified.

Basis for Proposal: Changes to Facilitate Formation of Associations:
As noted in the Decision Documents, the current Rationalization proposal includes provisions that support, and could be adjusted to link with this Association approach to address community concerns, including: initial QS allocation and QS transfer rules (A-2), the Adaptive Management option (A-3), and area management or regional landing zones (A-1 and A-8).

To create such an Association for the benefit of multiple participants or a community, the Rationalization proposal would first need to establish an exemption or a different, higher accumulation limit for Community Fishing Associations to those proposed for individuals in A-2.2.3(e). The options before the Council were based on individual ownership of QS, and thus would set control limits designed to guard against excessive control of quota by one person. Paradoxically, the limits would undermine the formation of private co-management arrangements like cooperatives or Associations, which would acquire QS for the benefit of multiple participants in a community. Such Associations could be established in and benefit vulnerable communities in multiple ways;

including ensuring access to the resource or sharing costs and risks associated with the conservation and management requirements contemplated under the Rationalization.

Avoiding Excessive Control through an Association: Under this proposal each Association would be required to verify to NMFS subject to perjury that no single individual participant is able to use his or her affiliation with the Association to exercise excessive control over the fishery.

There are several alternative means to verify that the Association is not controlled by any individual. NMFS could require an affidavit certifying that all persons serving on the board of, employed by, or members of the Association will not have a controlling interest in the Association that takes them above any control caps established under the IFQ program. A second option would be to require that a plan for the Association – including measures to address excessive control – be submitted to NMFS prior to the Association acquiring QS. Reported violations of these limits would be investigated as appropriate.

The preliminary preferred alternative for rationalization would cap the proportion of groundfish a person could accumulate or control, directly or indirectly, individually or via ownership of catcher vessel permit(s). Thus, while the Association may own an amount of QS in excess of individual accumulation limits, the established individual ownership and vessel limits would apply to individual Association participants, i.e., no individual may exercise so much control over the Association that they would exceed their individual control cap and the Association may not transfer control of quota pounds (QP) to be used on a vessel so as to exceed established vessel caps. The Association will report its membership and transfers of QP to vessels to NMFS annually.

Pacific Coast Trawl Fishery Rationalization - Requested Provisions for Community Fishing Associations:

The Nature Conservancy is proposing to establish an Association as described above in the Central Coast of California using QS issued to permits owned by The Nature Conservancy. The Nature Conservancy would work with these communities to establish such an Association and would transfer its QS to the Association.

The Nature Conservancy believes it would be fair and equitable[2] for the Council to issue to each permit holder the full amount of QS for which they qualify based on their catch history. In order to address MSA and Council concerns with excessive consolidation, The Nature Conservancy proposes that the Council require that holders of QS in excess of the accumulation caps divest of such excess within three years of initial issuance. Therefore, such holders of excess QS can be fairly and equitably compensated for their excess QS without compromising the Council's policy goal of avoiding excessive consolidation. Failure to require divestiture, for example by "grandfathering" permanently such excess QS, could permanently undermine the Council's objectives

Consistent with the Council's objective of minimizing adverse effects of the IFQ program on fishing communities, the Association proposal will benefit vulnerable or potentially vulnerable Central Coast communities and may serve as a model for other areas identified by Council members or included in the Decision Documents (e.g., Regional Landing Zone proposal, A-7). The approvals requested are well within the range of alternatives already contemplated and analyzed by the Council. While

[2] As set forth in Chapter 6, the M-SA requires fair and equitable treatment in allocation decisions , e.g. National Standard 4(a); Section 303A(c)(5).

establishment of private arrangements among harvesters and other participants through an Association does not require specific federal authorization, certain terms such as different accumulation limits for Associations, require provisions in the Trawl Rationalization proposal.

Provisions to Allow Formation and Operation of Community-Based Fishing Associations

The Community Based Fishing Association approach requires changes to A-2-2-.3(e) in the final alternative for the trawl sector IFQ program - as specified in provisions (a) and (b). These changes are needed to remove barriers to formation of multi-member associations, and to provide an opportunity for a holder of QS in excess of individual accumulation limits to divest of that QS to entities in the location where the catch history was earned, rather than having it automatically re-distributed coast-wide, as in the existing proposal.

In addition, the final plan should include direction and guidance to NMFS on the requirements for approval, operation, and compliance of such Associations, as specified in (c) – (e).

(a) Amend A-2-2.3(e) to Establish Association Control Cap QS/QP Accumulation Provisions: Notwithstanding any limitations on QS or QP under the West Coast groundfish trawl rationalization program, following review by NMFS of the Association as an entity formed for the benefit of the local communities and the purposes specified in the MSA (see b), an Association may own or control QS/QP in excess of the accumulation limits for individuals.

(b) Amend A-2-2.3(e) to allow for Divestiture of QS in Excess of Control Cap: Any party owning or controlling QS in excess of the accumulation provisions shall divest of such excess QS within three (3) years of the date on which these regulations take effect. The party may transfer such excess to any other party, including an Association, in accordance with the rules that govern such transfer.

(c) Qualification of Community Fishing Associations to Obtain Alternative Accumulation/Control Limits: The Alternatives should provide a framework for NMFS approval and review. The Council may want to consider later action to better define the details of this framework that could work as follows:
   (1) Upon receipt by NMFS of an acceptable proposal to form an Association for the purposes of addressing the needs of potentially vulnerable communities and conservation and fishery management objectives, NMFS may decide to authorize such Association. An Association can operate similar to a "harvesting cooperative." In addition, an Association will have the power to own QS.
   (2) The Association will not be approved if the NMFS determines that the sole purpose or primary effect is to allow an entity to control quota shares in excess of the control caps which apply to entities that are not part of the Association; or the Association will allow, in any manner, the Association or its members to exert anticompetitive market power with respect to exvessel price negotiations between processors and harvesters.
   (3) NMFS may revoke approval of the Association at any time based on a NMFS determination that the Association has failed to comply with the terms and conditions for its approval or is otherwise being used to circumvent or undermine the goals of the trawl rationalization program.

(d) Rules for Use of Association QP/QS: An Association may lease, sell or transfer QP to commercial fishermen who are Association members in compliance with appropriate vessel or

control cap, *provided, however*, that such Association-owned QP must be relinquished to the Association if such member leaves or is asked to leave the Association. The sale or lease of Association-owned QS or QP shall be governed by the same rules that apply to all QS and QP holders.

(e) Mechanism for Attribution of Quota Share for Purposes of Accumulation Caps: The Council should approve a mechanism for determining attribution of quota share that requires disclosure and certification of quota ownership and the amount of control over the organization that individual wields to ensure that by either measure the individual cannot use their role in an organization to exceed the control caps or vessel caps.

Requested Approvals of Related or Supporting Options:
In addition to the required approvals requested above, the proponents of this proposal request the Council and NMFS adopt each of the following options:

(a) The Adaptive Management Program Option: Following approval of an Association, if the Council and NMFS adopt the Adaptive Management Program Alternative, the Association could be an applicant to the Adaptive Management Program or could assist its participants in developing proposals. The Association or its participants would utilize the QP in accordance with the guidelines for such use established by the Council and NMFS.

(b) Geographic Management Units: For species with a coastwide OY, the management units for QS will be subdivided geographically at the 40° 10' N latitude line. Additional geographic management unit subdivisions should be considered in the future.

For more information, please contact Erika Feller (efeller@tnc.org or 415-281-0453) or George Yandell (gyandell@tnc.org or 415-281-0478) with The Nature Conservancy.

An Example of a Community Fishing Association

Associations can be established to achieve multiple objectives, including addressing community concerns, while achieving management, conservation and socioeconomic goals needed for long-term stability in the fishery. Therefore, it follows that Association-owned QS would be leased to fishermen under terms representing a balance of these objectives.

A **Community Fishing Association** is formed that holds 4 trawl permits and has acquired QS for various species. The Association serves two fishing communities and requires that 75% of all landings made by members take place in one of those two communities. The Association charges a modest lease rate for use of Association QS and has established a number of conservation guidelines to avoid bycatch.
A **Board of Directors** is formed. The Board includes one of the harbor directors, the president of the local commercial fishermen's association, the director of a local conservation non-profit, a fisheries science professor from the local university, and the owner of a local restaurant who is also a fisherman. A **management team** that runs the day to day operations of the Association reports to the Board. The management team would be responsible for ensuring compliance with regulatory requirements, developing legal agreements, contracting with observers for use by Association members, developing bycatch risk sharing agreements, etc.
Fisherman A has a vessel with a permit and received quota share. However, he would like to target more on a particular species and joins the Association to gain access to some additional QP each year. As a condition of access to the Association QP, he lands 75% of all of his catches in one of the two ports.
Fisherman B runs a highly successful fishing operation but is now interested in retiring and selling his quota. He has fished out of one of the ports for 30 years and would like to see someone take over his operation locally – his deckhand was very interested - but no individual has financing to buy him out. The Association purchases his QS and permit and leases it back to the community.
Fisherman C was a deckhand for fisherman B and is interested in starting his own business – he would like to have bought Fisherman B's quota but didn't have the money. He joins the Association and leases a permit as well as QP to use on a vessel he recently purchased. Eventually he hopes to make enough money to purchase his own QS.
The owner of **a local processing company/fish buyer** has purchased QS and enters into an agreement with the Association in which his QS will be fished according to Association community and conservation guidelines. In exchange, he will be guaranteed the right to purchase fish caught under this quota share plus a bonus amount.
The local community recognizes that the **Community Fishing Association** does not own enough QS to meet the community's objectives. With the support of local elected officials and community leaders, industry participants and the Association apply for loans and grants to enable the Association to purchase additional QS.

Exhibit A. Consistency of Community Fishing Association with Applicable Law

Guidance	Reference	Consistency
Conservation		
Allocations Reasonably Calculated to Promote Conservation	MSA - National Standard 4(b)	QS owned by an Association and owned or fished by Association members will be subject to the same general conservation and management restrictions as other QS, including catch accounting. To the extent that the Rationalization plan promotes conservation, the Associations will be consistent with, or could exceed, this requirement, based on their monitoring protocols and harvest planning approach. Associations may help to enhance or exceed compliance with the fishing regulations generally. Further, Associations are designed both to protect vulnerable fishing communities and promote conservation and management goals. It is expected that Associations, such as the Association The Nature Conservancy is proposing for the Central Coast, will incorporate specific conservation and management requirements, such as catch and bycatch monitoring and reporting improvements, area or gear limitations, and other measures to reduce impacts on habitat or weak stock species. In addition, Associations may pool knowledge and develop harvest planning approaches on how best to avoid bycatch, overfished species, and how to reduce non-groundfish mortality.
LAPPs shall assist in rebuilding overfished species	MSA – 303A(c)(1)(A)	
LAPPs shall promote fishery conservation and management	MSA – 303A(c)(1)(C)(ii)	
Maintain an information flow on the status of the fishery… as the fishery occurs	GF FMP Objective 1	
Reduce nongroundfish mortality	GF FMP Objective 4	
Minimize adverse impacts on EFH	GF FMP – Objective 5	
Total catch accounting; Reduce bycatch, discard mortality, and ecological impacts	A-20 Objective 1 & 3	
Consider biological stock structure, not exceeding the OY/ABC, minimizing localized concentrations of fishing effort, and accounting for total mortality	A-20 Constraints 1, 2, 3, & 4	
Net Benefits and Efficiency		
Consider Efficiency	MSA - National Standard 5	Associations will provide a way for fishing communities and groups of harvesters potentially vulnerable to the expected shifts in fishing effort to pool resources in order to increase efficiencies and maintain their financial viability. This is designed to minimize dislocation and disruption caused by
Contribute to reducing capacity	MSA - 303A(c)(1)(B)	
Attempt to achieve the greatest net economic benefit to the nation	GF FMP Objective 6	

Guidance	Reference	Consistency
Maximize the value of the groundfish resource as a whole	GF FMP Goal 2	the transition to IFQ, as well as provide for more certainty and stability, providing long-term economic benefits to local communities. Associations will also assist fishermen in achieving efficiencies, by allowing them to pool resources for MSA and IFQ requirements such as observers and reporting obligations. Associations may facilitate harvesting operations, such as fixed gear harvesting of traditionally trawl caught species, that results in a higher quality and therefore higher priced catch, thereby helping to maximize the value of the groundfish resource.
Provide for a[n] … efficient groundfish fishery	A-20 Objective 2	
Promote measurable economic benefits	A-20 Objective 6	
Disruption		
Accomplish change with the least disruption of current domestic fishing practices, marketing procedures, and the environment	GF FMP Objective 14	The primary goal of Associations is to stabilize and minimize disruption to permit holders and small fishing communities, particularly communities which may otherwise witness a departure of fishing effort and, as a result, onshore support capacity during the transitional time shortly after the initial allocation, while furthering the other goals of the MSA. In addition, the Association The Nature Conservancy is proposing for the Central Coast will incorporate conservation requirements and thus will not adversely impact the marine environment.
Excessive Shares		
No particular individual, corporation, or other entity [shall] acquire an excessive share of privileges	MSA - National Standard 4(c)	Individual members of an Association will be subject to the same accumulation caps as other participants in the fishery, so no one person will acquire an "excessive share." Because Associations must have greater QS than an individual is allowed under the accumulation caps in order to materially benefit the communities they serve, Associations will be subject to a higher accumulation cap
Address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery	MSA – 303A(c)(5)(B)(ii)	

Guidance	Reference	Consistency
Ensure that LAPP holders do not acquire an excessive share by (i) establishing a maximum share to hold, acquire or use, and (ii) establishing other measures to prevent inequitable concentration	MSA – 303A(c)(5)(D)	than individuals. However, Associations are still subject to a limit on QS. The proposal includes provisions to ensure that Association members do not gain control of more QS (or QP) than they could otherwise. Such provisions would require ownership and control of Associations to be transparent. Violation of such control provisions would result in termination of the Association's certification and non-issuance of quota pounds to the Association in excess of the individual accumulation
Avoid excessive quota concentration	A-20 Constraint 6	

Guidance	Reference	Consistency
Establish a review process to determine whether any illegal antitrust acts have occurred.	MSA – 303A(c)(1)(J)	

Guidance	Reference	Consistency
Fairness and Equity The excessive share objectives also relate to fairness and equity considerations.		
Allocation shall be fair and equitable to all such fishermen	MSA - National Standard 4(a)	The Nature Conservancy proposes that permit holders are initially allocated the entire QS associated with the permit's catch history, regardless of the applicable accumulation limits. However, any QS in excess of the accumulation and control cap must be divested within 3 years. This proposal is fair and equitable to all permit holders because it gives full and equal credit to catch history and prior investments in the fishery. Under the Council's preliminary preferred alternative, some fishermen will be allocated all QS associated with their catch histories, but others, *i.e.*, those that have invested the most in the fishery, may only receive QS for a portion of their catch histories. The Nature Conservancy's proposal treats all permit holders in a fair and equitable manner. At the same time, the divestiture requirement meets the goal of preventing individual entities from acquiring an excessive share of the fishery. This proposal is distinct from a traditional "grandfather" provision, which allows allocation of QS in excess of the accumulation limit without any divestiture requirement. Such a "grandfather" provision, if it were to provide too large accumulations of QS, could run afoul of National Standard 4(c) and MSA § 303A(c)(5)(D) by having the effect of locking others, including small QS holders and new entrants, out of future participation in the fishery.
Establish procedures to ensure fair and equitable initial allocations, including consideration of (i) current and historical harvests; (ii) employment in the harvesting and processing sectors; (iii) investments in, and dependence upon, the fishery; and (iv) the current and historical participation of fishing communities;	MSA – 303A(c)(5)(A)	
Issue privileges to persons who substantially participate in the fishery (as specified by the Council)	MSA – 303A(c)(5)(E)	
Provide an administrative appeals process regarding initial allocation decisions	MSA – 303A(c)(1)(I)	
Envrionmental Justice: Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects of its programs...on minority populations and low income populations.	EO 12898	

Guidance	Reference	Consistency
Avoid provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors	A-20 Constraint 5	
Sector Health		
Provide for a viable, profitable . . . groundfish fishery	A-20 Objective 2	The Association proposal will assist the health of the groundfish fishery in a variety of ways. It promotes geographic diversity of the fishery by stabilizing vulnerable fishing communities and permitholders that might otherwise exit the fishery entirely. The Association can assist individuals to pool resources in order to develop a more diverse product that is value added, not just the large quantity/low value product that an individual would likely pursue acting outside of an Association context. Associations will have the effect of sheltering or stabilizing small entities that otherwise would not have the individual economic wherewithal to survive the transition. For example, the increased monitoring requirements will increase costs, costs which a small entity may have difficulty bearing without assistance from an Association.
Promote measurable economic . . . benefits through the seafood catching, processing, distribution elements, and support sectors of the industry	A-20 Objective 6	
Maximize the value of the groundfish resource as a whole	GF FMP Goal 2	
Promote year-round marketing opportunities and extend those opportunities as long as practicable during the fishing year	GF FMP Objective 7	
Avoid unnecessary adverse impacts on small entities	GF FMP Objective 15	
Labor: Captains, Crew, & Processing Plant Workers		
Include measures to assist… entry-level and small vessel owner-operators, captains, crew… through set-asides of allocations… or economic assistance in the purchase of quota	MSA – 303A(c)(5)(C)	Associations may create opportunities for entry-level fishermen to enter the fishery. For example, an entry-level fisherman may not be able to afford to purchase QS, but an Association creates more opportunities to lease QP and thus it may provide a lower barrier entry to the fishery. Creating new entrants and new opportunities in a port helps

Guidance	Reference	Consistency
Promote measurable… employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry	A-20 Objective 6	diversify the shoreside marketing, processing, and sales opportunities. Associations may help to promote the safety of human life at sea. For example, Associations may have information on its members' fishing activity, where and when they are going, when they are expected back, and may have access to VMS or other real-time data. Such information could be provided to the Coast Guard to assist with a search and rescue operation. Further, if vessels have to carry a human observer, they are required to have a USCG safety sticker and, in some cases, additional visual inspection of the vessel by the observer program to make sure it meets their needs as far as seaworthiness. An Association could also utilize these standards, requiring a Coast Guard sticker for active membership or inspection or safe vessel practices (*e.g.*, no drifting in the shipping lanes overnight).
Promote the safety of human life at-sea	MSA - National Standard10 GF FMP – Objective 17	
Communities		
Consider importance of fishing to communities in order to provide sustained participation and to minimize adverse impacts	MSA - National Standard 8 GF FMP Objective 16 A-20 Objective 5	The primary purpose of the Community Fishing Association proposal is to stabilize or protect vulnerable fishing communities that may otherwise suffer significant adverse impacts from the shifts in fishing efforts which the

Guidance	Reference	Consistency
Consider basic cultural and social framework of the fishery through (i) the development of policies to promote sustained participation of… fishing communities that depend on the fisheries, including regional or port-specific landing and delivery requirement; (ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery	MSA – 303A(c)(5)(B)	Rationalization program is expected to cause. Associations, by agreement, may impose regional or port-specific landing requirements on its members as well as help track such landings and perform important reporting requirements to regulators. Associations, formed for community benefit purposes, will lower the barrier of entry to the fishery, for example by leasing QP at affordable rates. For fishermen interested in exiting the fishery, the local Association may acquire QS of those leaving the fishery, thereby keeping the QS previously owned by retired fishermen in the community. By stabilizing or protecting vulnerable fishing communities and local fishing operations, Associations may help to ensure that fishing efforts are spread throughout the West Coast and prevent excessive geographic consolidation of the fishery.
Include measures to assist, when necessary and appropriate… fishing communities through set-asides of harvesting allocations… or economic assistance in the purchase of quota	MSA – 303A(c)(5)(C)	

Guidance	Reference	Consistency
If a program is created in which fishing communities are given a special standing (e.g. a direct allocation to qualified fishing communities), the Council is required to consider the following criteria: (i) Traditional fishing or processing practices in, and dependency on, the fishery; (ii) The cultural and social framework relevant to the fishery; (iii) Economic barriers to access the fishery; (iv Existence and severity of projected economic and social impacts associated with implementation…; (v) Expected effectiveness, transparency and equitability; and (vi) Potential for improving economic conditions in remote coastal communities…	MSA – 303A(c)(3)(B)	
Minimize negative impacts resulting from localized concentrations of fishing effort (this constraint is also listed under "Conservation")	A-20 Constraint 3	
Small Vessels, Small Entities, and New Entrants		
Promote sustained participation of small owner-operated fishing vessels	MSA – 303A(c)(5)(B)(i)	Associations may help small owner-operated fishing vessels to remain viable and remain in the fishery. For example,

Guidance	Reference	Consistency
Include measures to assist, when necessary and appropriate, entry level and small vessel owner-operators . . . through set-asides of harvesting allocations… or economic assistance in the purchase of quota.	MSA – 303A(c)(5)(C)	Associations may help such small operators to pool resources to cover the costs of MSA requirements, such as on-board observers or other enforcement or safety requirements. Associations can lease QP to small vessel owner-operators or to entry level fishermen, providing a lower barrier to entering the fishery. Communities that prefer increased participation by small owner-operated vessels and new entrants can assist with the loan and grant applications to purchase of QS and contract with Associations to manage their QP to assist such small vessels and new entrants.
Avoid unnecessary adverse impacts on small entities	GF FMP Objective 15	
Auctions and Cost Recovery		
Auctions, or other systems to collect royalties, shall be considered for initial or any subsequent allocation	MSA – 303A(d)	The Association proposal does not impact compliance with these provisions.
Assess and provide a program of fees paid by the quota holders that will cover the costs of management, data collection and analysis, and enforcement activities	MSA – 303A(e)	
Program Performance Monitoring and Modification		
Take into account the management and administrative costs of implementing and overseeing the IFQ or co-op program and complementary catch monitoring programs, and the limited state and federal resources available.	A-20 Constraint 9	The Association could assist in the performance review process by providing coordinated reporting and compliance review of fishing operations by Association members.
Regular review and monitoring of the program for progress in meeting the goals, 5 year formal review	MSA – 303A(c)(1)(G)	

Guidance	Reference	Consistency
Privileges may be revoked, limited or modified at anytime. Provide for revocation	MSA – 303A(b)(2) MSA – 303A(c)(1)(K)	

Subject: trawl rationalization comment
From: Steve Scheiblauer <Scheibla@ci.monterey.ca.us>
Date: Wed, 29 Oct 2008 12:52:54 -0700
To: pfmc.comments@noaa.gov
CC: Mike Burner <Mike.Burner@noaa.gov>

please accept this comment letter on the trawl rationalization agenda item.

60 copies will also be hand-delivered to the San Diego meeting.

0067_001.pdf	**Content-Type:** application/pdf **Content-Encoding:** base64

CITY OF MONTEREY

Colton Hall, California Constitution Hall 1849

October 24, 2008

Mr. Donald K. Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Amendment 20: Trawl Rationalization

Dear Chairman Hansen:

The City of Monterey hereby submits comments to the Pacific Fishery Management Council on the topic "Rationalization of the Pacific Coast Ground Fish Limited Entry Trawl Fishery: Decision Document for the November 2008 Pacific Fishery Management Council Meeting".

The City of Monterey has a long and rich history of commercial fishing. The City has worked hard to maintain its fishing infrastructure and to support this industry which is so much in the fabric of life in Monterey. The City Council has acted on numerous occasions over a period of years in support of our fishermen and to try to preserve the cultural heritage and economic values which we associated with that community. Most recently, City representatives have testified before the Pacific Fishery Management Council on the topic of the potential for the Monterey Bay National Marine Sanctuary to create additional closures in our area.

With regard to the Trawl Rationalization issue before you now, please be aware that our community is unclear about how the conversion of this fishery to an Individual Transferable Quota (ITQ) system will affect fishing activities in our area. Will it potentially consolidate fishing activities into fewer port areas? It would appear that there is some potential for this to occur in an ITQ program.

Because of this concern the City of Monterey requests that the Pacific Fishery Management Council consider some form of community allocation if fishermen within a region band together to form a community association or cooperative to manage quota and local allocation issues. If some quote was assigned to communities, there would be a safeguard against the potential for drastic consolidations of the fisheries into just a few larger port areas. With regard to the potential makeup of a fishery community association or cooperative, the City of Monterey is not intending that the City would be in charge of the allocation process; rather the association or cooperative should be made up of fishermen within the City or broader region who would decide among themselves as to the allocation. We understand that this would not be a simple task by itself.

In making this recommendation, we ask the Pacific Fishery Management Council to consider this need and to put thought into the specifics of such an allocation program.

A second issue of concern is the regard for the potential for further consolidations of the trawl fleet that could result in abandoned former trawl vessels in our harbor. The City of Monterey asks that the Pacific Fisheries Management Council also consider measures to avert or mitigate this potential consequence.

Thank you for considering the comments of the City of Monterey.

Sincerely,

Chuck Della Sala
Mayor

Washington, DC 20515

RECEIVED
OCT 3 1 2008
PFMC

October 31, 2008

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

We are writing to respectfully urge the Pacific Fishery Management Council to include voluntary community fishing associations in the final preferred alternative for rationalization of the West Coast Groundfish Fishery. As Federal representatives for fishing communities on California's Central Coast, we appreciate the Council's ongoing efforts to rationalize the west coast groundfish trawl fishery and transition management to an individual transferable quota (ITQ) system.

As you are well aware, fishers, fishing related businesses, community leaders, and Council members have expressed concern repeatedly that an ITQ management scheme will lead to increased consolidation of quota and adversely impact small-scale, local fishing operations. Some have argued that quota will be consolidated in the hands of a few large businesses and fishing ports and will reduce overall fishing opportunity in numerous West Coast communities that depend on the groundfish fishery to maintain their fishing business and culture.

Voluntary community fishing associations (association) would allow local fishers to counteract consolidation and to realize a number of benefits, which could include the ability to: (1) anchor quota and access in a community; (2) share risks and costs inherent in the new management regime; (3) offer opportunity for new entrants; and (4) explore more sustainable fishing practices.

Within the West Coast Groundfish Fishery, an association would share many of the characteristics of a harvesting cooperative with the added benefit of being able to own quota share. Owning quota would enable an association to raise capital to acquire quota from local permit holders interested in selling. In this way, associations could help communities proactively preserve local industry and fishing heritage. The association would also provide the quota share to interested fishers and generate incentive to land catch locally and to maintain a high-quality local resource. Support for the association approach has been expressed by trawlers in a number of California ports, including Morro Bay, Port San Luis, Half Moon Bay, Moss Landing, Monterey, Santa Cruz, Fort Bragg, and Eureka.

As we have seen in other ITQ fisheries around the world, the effects of consolidation can be difficult if not impossible to reverse. However, a carefully designed ITQ system can contribute to the sustainability of the resource, the value of the fishery, and the well-being of historic fishing communities. We hope that as the Council takes the next important step in this complex

and difficult process, you will include options that allow communities to take advantage of the opportunity to preserve their fishing heritage.

Therefore, we urge you to provide for associations within the IFQ process by taking the following actions:

1. Affirm that the Council would like the rationalization program to encourage fishers to work together in community-based associations to anchor quota in its historic location
2. Establish special accumulation limits for associations so they can hold quota share above the limits for individuals, up to some reasonable amount.
3. Allocate quota share to permit holders based on their permit history, but require that amounts over the accumulation limits be divested over a reasonable period.

Thank you for your consideration of our request.

Sincerely,

LOIS CAPPS
Member of Congress

SAM FARR
Member of Congress

LEON E. PANETTA
15 PANETTA ROAD
CARMEL VALLEY, CALIFORNIA 93924

Agenda Item F.3.h
Supplemental Public Comment 5
November 2008

October 28, 2008

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Chairman Hansen:

I am writing to express my support for the proposal before the Council to include voluntary community fishing associations as part of the Pacific Fishery Management Council's final preferred alternative for rationalization of West Coast Groundfish Fishery and transition to an individual fishing quota management system.

While IFQ systems can pave the way for management improvements and other benefits, the design features of such systems can strongly determine the nature and magnitude of transitional impacts on participants. Many of these critical design features are included in the standards for limited access privilege programs established in the 2007 amendments to the Magnuson-Stevens Fishery Conservation and Management Act, and have been outlined in numerous expert reports.

With respect to the Council's current rationalization plan, fishermen, fishing related businesses, community leaders, and Council members have expressed strong concern recently that an IFQ management scheme will lead to increased consolidation of quota and adversely impact small-scale, local fishing operations. Their concerns are supported by Council projections and analyses that suggest quota could be consolidated in the hands of a few large businesses and fishing ports and reduce overall fishing opportunity in numerous West Coast communities that depend on the groundfish fishery to maintain their fishing business and culture.

Allowing the formation of voluntary community fishing associations, such as the one the Council has approved on an experimental basis in Morro Bay, would empower local fishermen to take steps to prevent unwanted consolidation and to realize a number of benefits offered by IFQ programs, which could include the ability to: (i) anchor quota and access in a community, (ii) share risks and costs inherent in the new management regime, (iii) offer opportunity for new entrants, and (iv) explore more sustainable fishing practices.

Within the West Coast Groundfish Fishery, such associations could share many of the characteristics of harvesting cooperatives as well as hold quota share, which could enable an association to raise capital to acquire quota from local permit holders interested in selling. In this way, associations could help proactively preserve local industry and fishing heritage, making quota share available to interested fishermen and generating incentives to land catch locally and sustainably. Support for the association approach has been expressed by trawl fishermen and fishing associations in a number of California ports, including Morro Bay, Half Moon Bay, Fort Bragg, and Eureka.

While the transition to IFQ management has caused very real and disruptive effects in other fisheries, a carefully designed IFQ system can contribute to the sustainability of the resource, the

value of the fishery, and the well-being of historic fishing communities. I hope that as the Council takes the next important step in this complex and difficult process, you will include options that allow communities to take advantage of the opportunity to preserve their fishing heritage.

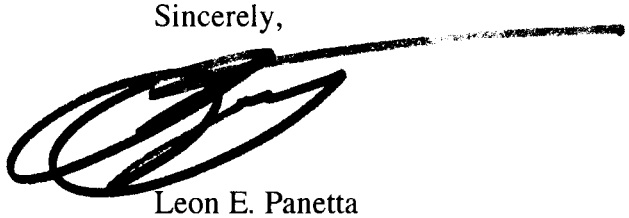
I urge you to provide establishment of voluntary community fishing associations within the IFQ process by taking following actions:

1. Affirm that the Council would like the rationalization program to encourage fishermen to work together in community-based associations to anchor quota in its historic location

2. Establish special accumulation limits for associations so they can hold quota share above the limits for individuals, up to some reasonable amount.

3. Allocate quota share to permit holders based on their permit history, but require that amounts over the accumulation limits be divested over a reasonable period, including to such associations.

Sincerely,



Leon E. Panetta

LEP:c
Enclosure

Congress of the United
Washington, DC 20515

October 31, 2008

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

We are writing to respectfully urge the Pacific Fishery Management Council to include voluntary community fishing associations in the final preferred alternative for rationalization of the West Coast Groundfish Fishery. As Federal representatives for fishing communities on California's Central Coast, we appreciate the Council's ongoing efforts to rationalize the west coast groundfish trawl fishery and transition management to an individual transferable quota (ITQ) system.

As you are well aware, fishers, fishing related businesses, community leaders, and Council members have expressed concern repeatedly that an ITQ management scheme will lead to increased consolidation of quota and adversely impact small-scale, local fishing operations. Some have argued that quota will be consolidated in the hands of a few large businesses and fishing ports and will reduce overall fishing opportunity in numerous West Coast communities that depend on the groundfish fishery to maintain their fishing business and culture.

Voluntary community fishing associations (association) would allow local fishers to counteract consolidation and to realize a number of benefits, which could include the ability to: (1) anchor quota and access in a community; (2) share risks and costs inherent in the new management regime; (3) offer opportunity for new entrants; and (4) explore more sustainable fishing practices.

Within the West Coast Groundfish Fishery, an association would share many of the characteristics of a harvesting cooperative with the added benefit of being able to own quota share. Owning quota would enable an association to raise capital to acquire quota from local permit holders interested in selling. In this way, associations could help communities proactively preserve local industry and fishing heritage. The association would also provide the quota share to interested fishers and generate incentive to land catch locally and to maintain a high-quality local resource. Support for the association approach has been expressed by trawlers in a number of California ports, including Morro Bay, Port San Luis, Half Moon Bay, Moss Landing, Monterey, Santa Cruz, Fort Bragg, and Eureka.

As we have seen in other ITQ fisheries around the world, the effects of consolidation can be difficult if not impossible to reverse. However, a carefully designed ITQ system can contribute to the sustainability of the resource, the value of the fishery, and the well-being of historic fishing communities. We hope that as the Council takes the next important step in this complex

and difficult process, you will include options that allow communities to take advantage of the opportunity to preserve their fishing heritage.

Therefore, we urge you to provide for associations within the IFQ process by taking the following actions:

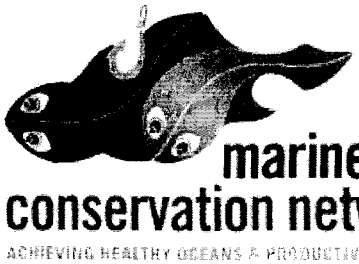
1. Affirm that the Council would like the rationalization program to encourage fishers to work together in community-based associations to anchor quota in its historic location
2. Establish special accumulation limits for associations so they can hold quota share above the limits for individuals, up to some reasonable amount.
3. Allocate quota share to permit holders based on their permit history, but require that amounts over the accumulation limits be divested over a reasonable period.

Thank you for your consideration of our request.

Sincerely,

LOIS CAPPS
Member of Congress

SAM FARR
Member of Congress



November 4, 2008

Mr. Donald Hansen
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Groundfish Fishery Management Plan Amendment 20 to Establish a Limited Access Privilege Program for the Trawl Fishery

Dear Mr. Hanson and Members of the Pacific Fishery Management Council,

These comments are submitted by the Marine Fish Conservation Network on behalf of its nearly 200 member groups in response to the Decision Document for the Rationalization of the Pacific Coast Groundfish Limited Entry Trawl Fishery.

The Magnuson-Stevens Reauthorization Act of 2006, Sec. 106, created a new MSA Section 303A authorizing Councils to create market-based Limited Access Privilege Programs (LAPPs), as defined in amended MSA Section 3(26-27). Among other things, the MSA's new LAPP provisions

- affirm that fish managers can use dedicated access privileges, including community quotas, cooperatives, and geographically based programs;
- define limited access fishery quotas as a privilege which may be modified or revoked if the holder violates the terms;
- achieve conservation of stocks;
- involve a transferable permit that specifies the amount of catch a privilege holder may take; and
- establish regular (5-year) reviews and 10-year sunset provisions for LAP programs, with renewal.

Although the Act's new LAPP provisions are billed as "national standards," they do not constitute national guidelines and they are subject to the interpretation of the regional fishery management councils on a number of critical issues, leaving it to the councils to establish policies, criteria and methodologies for compliance. Poorly conceived or structured LAPPs can have serious unintended consequences.[1] Without clear guidance from NMFS, LAPPs could lead to wholesale consolidation of fisheries under the control of larger companies at the expense of

[1] Lee G. Anderson and Mark C. Holliday (Eds.), The Design and Use of Limited Access Privilege Programs, NOAA Technical Memorandum NMFS-F/SPO-May 2007: p. 11.

coastal communities and working fishermen, who stand to lose access to public resources and livelihoods if LAPPs are not carefully designed and regulated. Poorly designed LAPPs can increase the risk of overfishing and undermine efforts to rebuild overfished stocks, reduce bycatch, and conserve fish habitat. These are the kinds of outcomes that regulatory guidelines on LAPPs should seek to prevent, which is why we requested that NMFS should write regulatory guidelines for the implementation of LAPPs. The agency did in fact initiate preliminary scoping and sought public comment on the nature of such guidance in 2007, and the Network provided detailed comments which we incorporate by reference here. However, this initiative has languished and national guidelines on LAPPs are still pending.

In the absence of clear agency guidance on LAPPs, we are concerned that the Pacific Council's proposed groundfish trawl rationalization plan does not fully comply with the letter and spirit of the MSA's new LAPP provisions. There are some promising conservation features in the proposed trawl rationalization plan that we could support, such as an adaptive management trust which allocates quota for conservation issues, one hundred percent observer coverage, and area-specific quota allocations based on geographic and oceanographic boundaries. On the other hand, the "decision document" is extremely vague on some features of the plan, such as the limit on excessive shares, the rules for transferability of quota shares, and program cost recovery. In addition, the impacts to fishing communities are not adequately analyzed or quantified to demonstrate that the plan will protect the public interest or achieve its stated social and economic objectives.

Finally, we are concerned that the decision document does not comply with NEPA. Although characterized as a "preliminary draft EIS," the decision document being used by the Council is clearly not a fully formed draft EIS. The Council should have a full EIS decision document and allow public comments on this document at a council meeting before making a final decision. To do otherwise is to make the NEPA process into a rubber stamp on decisions already made, a clear violation of the letter and spirit of NEPA.

We provide more detailed comments on the MSA's requirements for LAPPs below, which must be fully incorporated into any EIS decision document for consideration by the Council before deciding on a trawl rationalization plan.

Criteria and Constraints for LAPPs

Congress authorizes a Council to submit a limited access privilege program for a fishery that is managed under an existing limited access system, with the following criteria and constraints:

- LAPPs do not create any right, title, or interest (MSA 303A(b)(1-5))
- Any LAPP must promote and foster fishery conservation and management objectives, including rebuilding plans, capacity reduction, etc. (MSA 303A(c)(1))
- Regular monitoring and review by the Council and the Secretary are required, including a detailed 5-year review (MSA 303A(c)(1))
- LAPP permits may be issued for a period of not more than 10 years, but will be renewed before the end of the period unless otherwise modified or revoked (MSA 303A(f))

The Plan Must Promote and Foster Fishery Conservation and Management Objectives, Including Rebuilding Plans, Capacity Reduction, Etc. (MSA 303A(c)(1))

The council's plan lacks clear measures to reduce bycatch and achieve conservation of overfished species. Most of the overfished species in the trawl fishery are constraining species caught predominantly as bycatch, including cowcod, bronzespotted and widow rockfish. Although the Council's ITQ program could reduce bycatch by creating incentives to switch to lower bycatch gears, it instead allows indiscriminate gear switching, even from a lower bycatch fixed gear to high-impact, higher bycatch trawl gear. Instead, the program should have only discriminate gear switching and incentives for permanent gear conversion to lower impact gears (e.g., pots). It is also important that analysis be provided for the current preferred alternative's impact due to gear switching. The alternative allows for switching between trawl and fixed gear, but the analysis only address trawl impacts. The trawl and fixed gear fisheries impact stocks differently, and the impacts of both need to be analyzed.

Another issue of concern for achieving conservation in the groundfish fishery is the species that will be given quota under the ITQ program. To ensure that fisherman have an incentive to reduce bycatch of overfished and vulnerable species, quota pounds should be established for all species caught excepting those species that are *de minimus* in both the trawl and fixed gear fisheries. Additionally, it is crucial that the program establish a trigger that requires automatic quota establishment if a species reaches the precautionary or overfished management level, or is experiencing overfishing, or if fishing effort or mortality increases significantly. This trigger should apply to all species, even those managed in stock complexes, such as the blue rockfish, greenspotted rockfish, and the spiny dogfish.

The Adaptive Management Trust included in the preferred alternative was envisioned as means to address any unintended consequences to fish stocks, fish habitat, and other conservation concerns. The primary allocation of this Trust must be to ameliorate conservation concerns that arise within the program or affected fish stocks.

The Plan Cannot Create Any Right, Title, or Interest (MSA 303A(b)(1-5))

The MSA is very clear in its directive at 303A(b)(1-5)) that no private property right can be exerted over the public ocean resources. The ITQ program should contain fixed term limits that clearly recognize both fish stocks and oceans as a public trust, not a private property right.

The Plan Must Establish Clear Eligibility Criteria and Provide Adequate Consideration of the Impacts to Fishing Communities (MSA Sec. 303A(c)(3)(A)(i), 303A(c)(3)(B); 303A(c)(4)(C))

MSRA 303A(c)(3) and (4) lays out the eligibility criteria for fishing communities or regional fishery associations to participate in LAPPs:

- Be located within the management area of the relevant Council
- Meet criteria developed by the relevant council, approved by the Secretary, and published in the Federal Register

- Consist of residents who conduct commercial or recreational fishing, processing, or fishery-dependent support businesses
- Develop and submit a community sustainability plan to the Council and the Secretary that demonstrates how the plan will address the social and economic development needs of coastal communities

The MSRA lays out a detailed set of criteria for participation in a LAPP. In developing participation criteria for eligible communities or regional fishery associations, a Council is required to consider all aspects of the fishery, specifically:

- Traditional fishing or processing practices/dependence on the fishery
- Cultural and social framework of the fishery
- Economic barriers to access to the fishery
- Projected economic and social impacts on harvesters, crew, processors, and other businesses dependent on the fishery
- Administrative and fiscal soundness of the association
- Expected effectiveness, transparency, and equitability of the plan
- Potential for improving economic conditions in remote coastal communities

We are concerned that the current decision document before the Pacific Council does not adequately consider all aspects of the fishery, nor does it quantify the impacts to fishing communities. We believe the document fails to comply with the MSA in this significant respect. We ask the Council and NMFS to analyze community fishing associations or other community programs that will meet the criteria above. We also propose that the following elements be analyzed and incorporated into the ITQ program:

- Pooled contributions for 100% observer coverage program that are distributed based on landings, so smaller boats with smaller catch will not be disproportionately affected by observer payments.
- No processor quota. Processor quota may disproportionately affect smaller fishermen through lower availability of harvester quota and forced associations with particular processors.

The Plan Must Establish an Excessive Share Cap and Prevent Excessive Consolidation of the Fishery (MSA Sec. 303A(c)(5))

MSA Sec. 303A(c)(5)(D) requires a Council or the Secretary to ensure that participants in LAPPs do not acquire an excessive share. However, key considerations such as "excessive consolidation" and "excessive share" are not defined. In the absence of clearer national guidelines for LAPP development, the determination of what constitutes an "excessive share" of a fishery quota under any LAPP will be determined on a case-by-case basis by a Council or perhaps by the Secretary of Commerce.

In the groundfish trawl rationalization plan, the decision document proposes a three percent excessive share cap as one option but the basis for that limit is not entirely clear and seems uncertain. Thus the Pacific Council seem poised to make a decision without clearly establishing

the limit of quota shares that may be obtained by any individual, accompanied by a clear explanation of how it meets the requirements of the MSA.

For instance, Sec. 303A(c)(5)(A) requires a Council or the Secretary to establish procedures to ensure fair and equitable initial allocations, which will include consideration of:

- Current and historical harvests
- Employment in the harvesting and processing sectors
- Investments in, and dependence upon, the fishery
- Current and historical participation of fishing communities

Sec. 303A(c)(5)(B) requires a Council or the Secretary to consider the basic cultural and social framework of the fishery, including policies to promote the participation of small owner-operated fishing vessels and fishing communities and procedures to address excessive consolidation of the fishery.

Sec. 303A(c)(5)(C) requires a Council to include, if necessary, measures to assist entry-level and small vessel owner-operators, captains, crews, and fishing communities through set-asides of harvesting privileges, or economic assistance in the purchase of limited access privileges.

We believe all these elements should be fully incorporated into the groundfish trawl rationalization plan before it is approved. Specifically, we urge the Council and NMFS to select a cap of no greater than three percent (3%) on initial distribution and accumulation of control. A 'no grandfather' clause should be also be enacted for the ITQ program accumulation limits. Furthermore, the council needs to address to potential for excessive consolidation of trawl gear fisheries. The alternatives for initial quota distribution are based on time periods during which trawl had become a predominant gear type. Earlier periods had much higher participation by fixed gear fishermen. Thus the current program may excessively consolidate quota pounds and control within the trawl gear type to the detriment of lower impact fixed gear fishermen. Further detail and analysis of the impact of this program to the range of potential gear types is needed, in addition to an allocation that better represents fixed and other non-trawl gears, provides equitable distribution of quota among gear types, and rewards use of lower impact or lower bycatch gears.

The Plan Must Establish a Policy and Criteria for Transferability of Quota Shares That Consider Social Impacts, Not Just Efficiency (Sec. 303A(c)(7))

Transferability allows holders of LAPs to buy, sell, give away or lease their privileges.[2] Freely transferable quota shares, however, will tend to concentrate fishery benefits into the hands of wealthy few. MSA § 303A(c)(7) states that a council must establish a policy and criteria for the transferability of limited access privileges (through sale or lease), which is consistent with the policies of 303A(c)(5), including a process for monitoring transfers.

In establishing polices for transferability in this plan, the Pacific Council should give as much weight to social considerations as to economic efficiency so that the interests of affected

[2] Anderson and Holliday (2007): p. 48.

communities and working fishermen are not lost. In addition, the trawl rationalization plan's should include the following measures to p:

- Where participation in a fishery includes a diversity of vessel size classes or a wide range of producers (low volume to high volume), LAPPs shall be available in appropriate quantities, blocks or by criteria such that the range of participants can reasonably compete for LAPs that are transferable.
- Set-asides of a predetermined quantity of quota shares should be employed where circumstances warrant to ensure that owners of small vessels, fishing communities and prospective new entrants have opportunities to gain access to fisheries. Such set-asides are not sufficient to satisfy regulatory guidelines and program objectives focused on enhancing resource conservation and resource access by independent, community-based fishermen. LAPs initially allocated to owner-operators should only be transferred to owner-operators.

The Plan Should Be Subject to Referendum by Eligible Permit Holders in the Fishery (MSA Sec. 303A(c)(6))

Sec. 303A(c)(6) specifies that more than 50% of the permit holders in a fishery, or holders of more than 50 percent of the allocation in a fishery, may submit a petition to the Secretary requesting the relevant Council to initiate development of a LAPP, but more than two-thirds of eligible permit holders must approve the petition in the New England region and a majority of eligible permit holders must approve the petition in the Gulf of Mexico region.

We feel that the Pacific Council's trawl rationalization plan should also be put to a vote of all affected permit holders (including fixed gear and other non-trawl affected fisheries) in the fishery before approval because of the massive restructuring that it will entail. MSA Sec. 407(c) lays out the rules for conducting referendums in the Gulf of Mexico red snapper fishery in which any referendum shall be decided by a majority of votes, which may serve as one example of how such a referendum could be conducted in this case. We emphasize, however, that referenda apply to LAPPs only and should not be applied to other decisions made by the Council and NMFS.

Sincerely,

Bruce Stedman, Executive Director
Marine Fish Conservation Network

Agenda Item F.3.h
Supplemental Public Comment 8
November 2008

PHD Logistics

21848 76th Avenue South
Kent, WA 98032
(253) 220-4402 Fax (253) 395-8825
www.phdlogistics.com

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

October 29, 2008

Attn: Donald McIsaac, Executive Director

Dear Mr. Isaac:

As Executive Director for PFMC you will be meeting to decide the final outcome and structure of the IFQ program for the Pacific Ground-fish Trawl fishery. The direction of this vote will have permanent and long term implications for those of us who participate and survive in this industry.

As Owner and President of PHD Logistics, LLC, I have committed substantial resources over the past fifteen years toward the handling and transportation of ground-fish resources between shore-side processors and the end consumer. I employ an average of 30 individuals as drivers, fish handlers and office support and provide critical freight forwarding services to a number of small and medium size support businesses that also rely on this industry.

In order to maintain the investment and commitment in the communities I service, it is critical that the shore-side processors be guaranteed a minimum of a 20 percent allocation of the total fishing quota. Anything less will be devastating to the structure of my business and those of the businesses I support.

Please give careful consideration as you and the members of the council vote to secure our vital resources in balance with the needs of our industry.

Sincerely,

Patrick A. Price
President

LeDuc Packaging Inc.

4424 4th Ave S.
Seattle, WA 98134-2312

November 3, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Dear Sir or Madam:

This letter serves to offer a few brief comments concerning the new Individual Fishing Quota (IFQ) Program.

We, as a supplier to the processing industry, have seen over the course of several decades how companies such Bornstein Seafoods contribute jobs, growth, and overall vitality to the communities in which they are located. The loss of the groundfish fishery would be a severe blow to those businesses and communities. Similarly, such a loss would have a significant adverse affect on our own revenues and employment levels, as well as those of the numerous other suppliers to the industry.

We urge you to recognize the important contributions of the processors to the seafood industry and the communities in which they operate.

Sincerely,

Philip G. LeDuc
President

Brown Line, LLC
P.O. Box 1708
Mount Vernon, Washington 98273
(360) 424-1720
(800) 426-2050 USA
(800) 231-5062 Canada
Fax: (800) 247-7339

October 23, 2008

Mr. Colin Bornstein
Bornstein Seafoods, Inc.
P.O. Box 188
Bellingham, Washington 98227

Dear Mr. Bornstein:

Brown Line LLC, the major carrier of sea food products along the West Coast, thanks you for your continuing efforts to promote a sustainable fishing industry throughout our Pacific coastline. We strongly feel that commercial fishing, subject to environmental parameters, is vital to the welfare of all of the participants of this industry, from the provisioning of the boats, the fishing community itself, the companies and individuals who fillet and process the seafood into a marketable offering, to the trucks that transport the products to the final consumers. All of these companies and their employees are mutually dependent on the other.

If a quota system is in place to govern fishing operations, it is imperative that an allocation of the seafood taken from our waters be tendered to the processing community. Fish processors have always taken the major responsibility of promoting the industry, establishing a market for the products, and finding the value for the seafood which all of the participants depend on.

A decline or curtailment of responsible fishing operations would seriously affect our company, from the numerous drivers who haul the products to established and new markets across the country to the mechanics and dock workers who keep our trucks rolling. Our capital expenses in trucks and trailers, our investment of training of a professional fleet of drivers, our staff of over 100 employees, trained to serve this industry are seriously jeopardized unless our partners in this industry, the seafood processor, has access to the very product it has striven to sustain, promote, and from which it generates the proceeds necessary for all involved.

Sincerely,

JASON JANSEN
GENERAL MANAGER
BROWN LINE, LLC

VersaCold
WAREHOUSE AND DISTRIBUTION SERVICES

Bornstein Seafoods, Inc.
P.O. Box 188
Bellingham, WA. 98227-0188
October 27, 2008

Dear Collin,

I have read and appreciate you contacting me about the upcoming meeting of the Pacific Fishery Management Council (PFMC). If the PFMC doesn't allocate 20% of the total fishing quota to the shoreside processors it will have devastating results on our business and the employees involved in our day to day operations at Versacold.

We have 2 to 3 full time people whose jobs are directly tied to the freezing, handling, and storage of seafood at our facility in Lynden, WA. We hire up to 15 people periodically for higher than normal receipts of different seafood products. We have a value added seafood company leasing space from us that has become an integral part of our business. There are approximately 15 to 20 full time jobs in his company, and twice that many during months of heavy harvest. We also have hundreds of thousands of dollars worth of seafood processing equipment on site. We offer belt and tray freezing of many species of seafood.

The seafood industry now provides up to 10% of our revenue stream and would have a devastating effect on the people who would loose those jobs during a time of high unemployment in our state. The financial crisis in our country is large enough without adding additional job loss to the local economy. I would request that the PFMC weigh heavily how their decision would eliminate jobs, should they not consider an adequate quota of seafood to the shoreline processors of Washington and other affected states. Thank you for your consideration of this information during your decision making process!

Best Regards,

Dan Shuler
General Manager

Versacold Cascade, Inc.
P.O. Box 709
Lynden, WA. 98264
Ph: 360-354-2138
Fax: 360-354-1304

Pacific Fishery Management Council
7700 NE Ambassador Place Suite 101
Portland Oregon 97220-11384

International Belt
& Rubber Supply

10/24/08

To Whom It May Concern

Several of our customers in the fishing community have made us aware of the pending decision to be made concerning the IFQ program. The decision if made that would diminish the quota of less than 20% would have long reaching effects not only of the land processing plants, and their communities, but as a supplier of mechanical goods to keeps these plants operational would force us to lay off personal.

Please think of spreading the wealth which helps to stabilize several rather than a selected few.

Sincerely,

Bill Andre
Pres.

Cc: Colin Bornstein, Borenstein Seafoods Inc.c

4132 B Place N.W., Auburn, WA 98001-2446 TEL: (253) 833-6034 FAX: (253) 833-5700
TOLL FREE: (800) 426-5525

PORT OF BELLINGHAM
Washington State

October 28, 2008

Colin Bornstein
Bornstein Seafoods, Inc.
Box 188
Bellingham, WA 98227-0188

Dear Colin:

Thank you for your letter of October 22nd regarding the upcoming meeting of the Pacific Fishery Management Council (PFMC). As requested, I would offer the following comments on behalf of the Port of Bellingham.

- The Port of Bellingham supports the continuation of working waterfronts, including the valuable contributions made by local seafood processors.
- The Port of Bellingham places a high value on continuing waterfront employment opportunities and we encourage the Pacific Fishery Management Council to recognize the contributions of processors to local communities and the seafood industry.
- Our local waterfronts in Blaine, Bellingham and Fairhaven have a longstanding tradition of contributing to their local communities by participating in the seafood processing industry. The Port of Bellingham supports Individual Fishing Quotas (IFQs) that help to stabilize both the fisheries and our local communities that depend on them.

Please let us know if there is anything else that we can do to assist you.

Sincerely,

James S. Darling
Executive Director

cc: Commissioner Doug Smith
Commissioner Scott Walker
Commissioner Jim Jorgensen

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10-29-08

Mr. Colin Bornstein
Bornstein Seafoods
Sec-Teasurer
P.O. Box 188
Bellingham, Wa. 98227-0188

With the desire that you and your Company would be willing to carry this letter and the associated sentiment to the upcoming Pacific Fishery Management Council (PFMC) meeting in November and share same with them, I would like to weigh-in on the question of Individual Fishing Quotas (IFQ's).

Considering the recent past and current status quo approach to fishery management, an IFQ program, which takes into consideration an allocation of quota for shoreside processors, is imperative for the survival of these processors and those businesses that support them.

As President of our Company, I have been asked to speak for our 70 employee family members to request of the PFMC that they allocate a generous quota for shore side processors.

Respectfully,

Peter A. Knehr,
President

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F.3.h
Agenda Item F.3.h
Supplemental Public Comment 9

MS Ocean Phoenix
MS Excellence
MS Arctic Storm
MS Arctic Fjord

Don Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Pl., Suite 101
Portland, OR 97220-1384
October 30, 2008

RE: Amendment 20. Anti-trust issues.

Dear Chairman Hansen,

The Pacific Fishery Management Council is scheduled to take final action on Amendment 20 at its November Council meeting. A last minute concern has been raised about anti-trust issues related to the Mothership Sector Cooperative options. In an effort to appropriately address those issues, our companies have hired a prominent Seattle attorney, with significant experience in anti-trust law. It is his legal opinion (attached) that none of the Mothership sector options, either separately or together, constitutes an anti-trust violation.

The attached legal opinion was drafted at the request of the MS Ocean Phoenix, MS Excellence, MS Arctic Storm and MS Arctic Fjord. All four vessels qualify as motherships under Amendment 20.

Thank you for your detailed attention to our fishery and your efforts to rationalize it.

Sincerely,

Arctic Storm Management Group
Doug Christensen, President

Premier Pacific Seafoods, Inc.
Doug Forsyth, President

~~Supreme~~ Alaska Seafoods, Inc.
F. Joseph Bersch III, President

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November 4, 2008

Doug L. Christensen
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F. Joseph Bersch III
Supreme Alaska Seafoods
4225 23rd Avenue W., #104
Seattle, WA 98199

Doug Forsyth
Phoenix Processor Ltd. Partnership
111 West Harrison Street
Seattle, WA 98119

Re: Pacific Whiting – NOAA General Counsel Comments

Dear Gentlemen:

I have had an opportunity to review the October 31, 2008 letter from NOAA General Counsel with regard to the potential antitrust issues related to Amendment 20.

The issue for the Council's and Secretary's consideration is whether the proposed linkage requirement presents a potential antitrust violation. The secondary question raised by some parties relating to the closure of the mothership class is moot since the Council and Secretary have already approved closure.

The antitrust authorities cited are not in question. As noted in my letter of October 31, 2008, the antitrust savings clause contained in 16 U.S.C. 1853a(c)(9), preserves application of the antitrust laws to the MSA. *Verizon Communications, Inc. v. Trinko,* 540 U.S. 398 (2004), cited by NOAA counsel confirms that principle however the case is otherwise instructive for the situation at hand.

> Antitrust analysis must always be attuned to the particular structure and circumstances of the industry. [citations omitted]. "[A]ntitrust analysis must sensitively recognize and reflect the distinctive economic and legal setting of the industry to which it applies."
> [citation omitted]
>
> One factor of particular importance is the existence of a regulatory scheme designed to deter and remedy

> anticompetitive harm. Where such a structure exists, the additional benefit to competition provided by antitrust enforcement will tend to be small, and it will be less plausible that the antitrust laws contemplate such additional scrutiny.

540 U.S. 398, 411-412.

This is precisely the industry at hand which is intensely regulated.

I have yet to see any explanation of why the linkage proposal could possibly be an antitrust issue. To the contrary the existing economic analysis contained within the EIS demonstrates that efficiency and stability of the market are improved by linkage

The letter from NOAA counsel cites *United States v. Hinote*, 823 F.Supp. 1350 (S D Miss 1993), for the proposition that fishermen's cooperatives may lose their antitrust immunity in certain circumstances when integrated with processing. That was the precise issue addressed by Joel Klein, Assistant Attorney General in his approval of the Northern Victor Cooperative which contained processor ownership interests. (Ex A to my October 31, 2008 letter). The DOJ approved that coop on grounds of added efficiency.

Here the limited access privilege has Congressional authority for implementation if in a fishery which may have over capacity and the program will promote safety, conservation and management and social and economic benefits. The Congressional mandate contained in the MSA requires such a plan to include an allocation of harvesting to fishermen and processors, and an allocation of competition. 109 P.L. 479. Thus there is a clear delegation of the responsibility to the Council and Secretary to remedy anticompetitive harm. Under the decision in *Verizon*, the additional benefit to competition provided by antitrust enforcement will tend to be small and it is less plausible that the antitrust laws even contemplate additional scrutiny.

The probable outcome of the limited access being granted to fishermen and their subsequent formation of a cooperative will create a seller's monopoly. The EIS analysis reasons that the operation of that monopoly will be somewhat tempered and more efficient and stable if the linkage is included as was accomplished under the AFA model. No analysis is presented to the contrary, hence I have concluded that there can be no violation of antitrust law if the linkage provision is included.

Very truly yours,

Douglas M. Fryer

DMF:nds

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October 31, 2008

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Seattle, WA 98199

Doug Forsyth
Phoenix Processor Ltd. Partnership
111 West Harrison Street
Seattle, WA 98119

Re: The Antitrust Implications of Amendment 20

Gentlemen:

You have requested an opinion on the potential anti-trust implications of proposed agency action to complete rationalization of the Pacific Whiting Fishery under Amendment 20. I am advised that the Pacific Fishery Management Council has identified as its preferred alternative for rationalizing the Mothership Sector a cooperative style fishing effort similar to the one used by the inshore sector of the American Fisheries Act (AFA) Pollock fishery. I am also advised that some vessel owners have questioned whether, as proposed, the closed class and linkage provisions would require either an explicit exemption from Congress or would constitute an antitrust violation.

RELEVANT ANTITRUST LAW

The Sherman Anti-trust Act 15 USC 1-7 is the touchstone for the inquiry. It provides in pertinent part:

> Every contract, combination in the form of a trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, is declared to be illegal. Section 1[1]

[1] The Magnuson/Stevens Act 16 USC 1853a(c)(9) specifically preserves application of the laws with reference to the Clayton Act 15 USC 12 which in turn refers to the Sherman Act, Section 1.

The definition of a restraint of trade is by judge made law. While Section 1 of the Sherman Act states that every contract in restraint of trade is unlawful, every contract contains the essence of restraint. *National Society of Professional Engineers v. United States,* 435 U.S. 679 (1978). Thus a host of decisions have shaped a body of law to determine when restraints are unreasonable. There are two complementing categories of anti-trust analysis (1) agreements that are so plainly anticompetitive that no elaborate study is necessary and are illegal per se (e.g. price fixing conspiracies among competitors), and (2) agreements which must be analyzed under the Rule of Reason by examining the facts peculiar to the business. *Id.* It is only after considerable experience with certain business relationships that courts can classify them as per se violations; where the situation is new and *sui generis*, a more careful analysis is required. *Broadcast Music v. Columbia Broadcasting System*, 441 U.S. 1 (1979). The instant situation is unique and thus any analysis of the proposed agency action must be under a Rule of Reason.

The industry at hand is highly regulated; the resource is limited and would be scarce if not so regulated. Regulation by the Secretary is analogous to that of a Public Utility. Antitrust law is framed to guard against monopoly market power which may be achieved by one company or a combination of companies (e.g. conspiracy to fix prices). Where resources are limited, public regulation may substitute for market forces which cannot operate successfully. Thus unlimited competition and the resulting race for fish in the North Pacific and west coast fisheries has led to public allocation to improve efficiency.

The Magnuson/Stevens Act requires that any fishery management plan shall be consistent with the National Standards which require optimum yield, the best scientific information, and efficiency. It also requires that any fishery plan contain what is "necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore and promote the long term health and stability of the fishery." (Sec. 303 (a) (1) (A)) 16 USC 1851.

On January 12, 2007, the Reauthorization Act of 2006 provided that the Secretary might approve a limited access program which meets the requirements of 16 USC 1853a. The requirements for such a program include fishing safety, fishery conservation and management 16 USC 1853a(c)(l) C, and the fair and equitable distribution of access privileges in the fishery. 16 USC 1853(6) (F).

In theory any barrier to entry in an industry tends to lessen competition. *See* DEPT. OF JUSTICE HORIZONTAL MERGER GUIDELINES, ENTRY ANALYSIS (REV APRIL 8, 1997). Thus the limited access to fishermen is a barrier to new entrants which lessens competition by other fishermen. In proposing to segregate the harvested market share to individual vessels, the Council is contemplating that, in ending the race for fish, the impacts of this barrier to competition will be mitigated by the conservation gains to the public resource as well as enhance the economic stability of the fishery. And in proposing to close the class of mothership processors and establish linkages between catcher vessels and processors, the Council is contemplating whether these barriers to entry will be mitigated by increased efficiency, quality, product form, yield and stability of the fishery that will benefit the consumer.

A number of limited access fisheries have been created by the Secretary (e.g. halibut, sablefish and other non-AFA groundfish) with Congressional Approval. (e.g. crab) or by Congress itself (e.g. the AFA Pollock Fishery). Fishermen's cooperatives are not immune from the statutes if they abuse their market power. *Hinton v. Columbia Packers Association,* 131 F2d 88 (9th Cir 1942). The AFA did not provide explicit exemption from antitrust provisions. It did provide tools that allowed the formation of fishery cooperatives as a vehicle to achieve the conservation, safety, and efficiency goals of the action. Following passage of AFA, all nine AFA coops sought and received favorable antitrust business review letters from the Department of Justice. In all cases the DOJ determined that fishery cooperatives, insofar as cooperatives ended the race for fish and allowed increased processing efficiency and reduced bycatch, could have procompetitive effects. "To the extent that the proposed agreement allows for more efficient processing that increases the usable yield (output) of the processed Alaskan Pollock and/or reduces the inadvertent catching of other fish species whose preservation is also a matter of regulatory concern, it could have procompetitive effects." DOJ letter to Northern Victor Cooperative, a shoreside cooperative. June 21, 2000. (See Attachment A).

The principles adopted by Congress and the North Pacific Council to close the class of catcher vessels, motherships and shoreside processors and to establish a linkage between catcher vessels and processors to facilitate efficiency in the fishery are equally applicable to consideration by the Pacific Council of Amendment 20.

With respect to the ability of the Pacific Council to close the class of Motherships, the Council recommended and the Secretary approved Amendment 15 which sought to limit entry of vessels into the whiting fishery, including new entry by motherships without sector specific historical participation. The goal of Amendment 15 was to provide a "bridge" to Amendment 20 when rationalization of all trawl-caught groundfish could be completed. Motherships are vessels engaged in the operation of fishing and so are within the jurisdiction of the MSA and regulated by the Secretary. Motherships are specifically defined under 50 C.F.R. 660.373(a) as "vessels that process, but do not harvest, Whiting during a calendar year." Such vessels are required to be documented with a fishery endorsement. 46 USC 12101, 12108; and are within the definition of fishing vessels under the MSA. 16 U.S.C. 1802(18)(B)

The Pacific Fishery Management Council has taken several important actions seeking to limit or segregate market share beginning in 1991 with approval of Amendment 6 which created the license limitation program, Amendment 9 which created additional limited entry endorsements in the fixed-gear sablefish fishery, Amendment 14 which further rationalized the sablefish fishery by allowing "stacking" of endorsements, the Trawl Buyback Program that allowed purchase of excess permits , the segregation of the whiting fishery into three sectors in 1997, and Amendment 15 that sought to reduce bycatch and stabilize the fishery by prohibiting new sector-specific entry into the three whiting sectors. In segregating entry into the groundfish fisheries over time, the Council has established a long and consistent track record that utilizes limits to competition as a vehicle to best manage the fisheries under its jurisdiction. Having already segregated entry into the fisheries, then the sectors, the Council will take its final step to rationalize the groundfish trawl fisheries, as directed by Congress, by segregating the allocation at the vessel level in Amendment 20.

In the Reauthorization Act, Congress directed the Council to develop a rationalization program and mandated as follows to specifically address concerns of market power and competition:

> In developing the proposal to rationalize the fishery, the Pacific Council shall fully analyze alternative program designs, including the allocation of limited access privileges to harvest fish to fishermen and processors working together in regional fishery associations or some other cooperative manner to harvest and process the fish, as well as the effects of these program designs and allocations on competition and conservation. (Emphasis Supplied).

109 P.L. 479, Title III, 302.

The Environmental Impact Statement (EIS) prepared by the Council to meet this congressional mandate and assess the market power and competition issues includes an analysis by NOAA economist Merrick Burden.[2] That analysis demonstrates that a linkage between processor and harvester provides a processor more certainty over delivery volumes even though that linkage may be broken by the catcher vessel and that it adds stability and more rational fishing practices. The report concludes that the proposed linkage will result in more cost efficiencies and more balanced business planning.

In fact, the model proposed is based on the AFA shoreside delivery program which is discussed above and which has operated successfully since 2000. A goal of the AFA was to benefit both harvesters and processors and give them some share in profits. The AFA model has had review and approval by the Department of Justice.

The stated goal of Amendment 20 is to "Create and implement a capacity rationalization plan that increases net economic benefits, creates economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts and achieves individual accountability of catch and bycatch". Among the specific congressional objectives to support this goal is to "provide for a viable, profitable, and efficient groundfish fishery" and to "avoid any provisions were the intent is to change the marketing power balance between harvesters and processors."

Application of the Rule of Reason to the closing of the class to harvesters and mothership processors results in a clear conclusion that the restraint on competition is reasonable in view of the limited resource and statutory guidelines. Similarly the proposed processor linkage in Amendment 20 based upon the AFA model appears clearly sustainable given the Congressional mandate to balance marketing power and the historical success of the model itself. An express Congressional exemption is not required because there is no violation of law. To the contrary, adoption of a Management Plan without including the modest linkage proposed would leave the balance of market

[2] EIS Appendix B.

power more overtly with fishermen and hence more problematical from an antitrust standpoint.

Very truly yours,

Douglas M. Fryer

DMF:nds
Enclosures

DEPARTMENT OF JUSTICE
Antitrust Division

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June 21, 2000

Joseph M. Sullivan, Esq.
Mundt, MacGregor, L.L.P.
999 Third Avenue, Suite 4200
Seattle, Washington 98104-4082

Dear Mr. Sullivan:

This is in response to your request on behalf of the Northern Victor Cooperative ("the Cooperative") and its members for the issuance of a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department of Justice's antitrust enforcement intentions with respect to a proposed joint harvesting agreement in which the Cooperative's members would allocate amongst themselves the fixed quota of Bearing Sea/Aleution Island ("BS/AI") Alaskan Pollock allotted to the members as a group by the United States Government under the American Fisheries Act ("AFA") and regulations thereunder.

The United States Government, for environmental and economic reasons, has determined to limit the amount of certain species of fish that may be harvested from United States waters in a given year. This conservation policy is administered by the Department of Commerce in a program that has substantial private industry participation. An annual harvest quota has been established for Alaskan Pollock caught in the "BS/AI" waters. In addition to determining the maximum amount of BS/AI Alaskan Pollock that may be harvested, the regulatory program divides the total quota between three groups. Effective January 1, 1999, the American Fisheries Act allocates 10% of the total quota to Community Development Quota Groups.[1] The remaining ninety percent is divided between "Mothership" processors (ships that have on-board processing capabilities but do not catch the fish) (ten percent), vessels that catch and process their own fish on-board ("catcher/processors" or "C/Ps"), (forty percent), and on-shore processing plants (fifty

[1] The "CDQ" Groups are Western Alaskan Native villages that receive an allocation as part of an economic development program.

percent). The Cooperative's initial members will be twelve catcher vessels that supply the processing vessel the Northern Victor, which is considered to be an onshore processor under the AFA. There are degrees of cross ownership between some of the member catcher vessels and the Northern Victor, as well as between some of the member vessels and other processors, and between members and catcher vessels that supply Alaskan Pollock to processors other than the Northern Victor. [2]

Under the regulatory plan, the entire sub-allocation of each group of processors may be harvested by each licensed participant. This is referred to as an "olympic" system because it provides each individual processor with the incentive to harvest as much as possible of its sector's total allotment as fast as it can (any amount not harvested by one member of the group will be lost to other members of the group).

The Cooperative and its members assert that their proposal to sub-allocate their collective quota amongst the members will allow them to avoid the inefficiencies encouraged by the "olympic" system. By removing the urgency from their harvesting, they claim that they will be able to "maximize the value of product obtained from the fish", and reduce the amount of incidental by-catch of other fish species that the Government seeks to protect. The proposed activities will be limited to the above-described harvesting allocation. There will be no joint marketing by the Cooperative. Nor will any competitively-sensitive information be exchanged between different processors.

On the basis of the information and assurances that you have provided to us, it does not appear that the proposed elimination of the olympic system race to gather the governmentally-fixed quota of Alaskan Pollock for the catcher vessels that supply the Northern Victor would have any incremental anticompetitive effect in the regulated output setting in which the harvesting agreement would take place. The Department of Justice has previously concluded that reliance on an olympic race system to gather a fixed quota of fish "is both inefficient and wasteful" because it is likely to generate "inefficient overinvestment in fishing and processing

---

[2] In response to a request from the Department of Commerce, the Department of Justice's Office of Legal Counsel interpreted Section 210(b) of the AFA to allow processor-owned catcher vessels to join joint harvesting cooperatives under the AFA. As a consequence, the partial vertical integration that exists here does not disqualify the Cooperative and its members from the antitrust exemption afforded by the AFA.

capacity."[3] From a consumer perspective, the harvesting agreement does not reduce the output of processed Alaskan Pollock or the end products into which it is incorporated. On the contrary, if the Applicant's assertion that "haste makes waste" is true, then eliminating the race will increase processing efficiency and concomitantly the output of Alaskan Pollock products. Since the prices paid for Alaskan Pollock products by consumers will be determined by the intersection of supply and demand for those products, elimination of the race to gather an input whose output is fixed by regulation seems unlikely to reduce output or increase price under any likely scenario.

To the extent that the proposed agreement allows for more efficient processing that increases the usable yield (output) of the processed Alaskan Pollock and/or reduces the inadvertent catching of other fish species whose preservation is also a matter of regulatory concern, it could have procompetitive effects.

For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the proposed harvesting agreement. This letter, however, only applies to the allocation among the members of the quota that they would be entitled to collectively under the AFA. It does not apply to any joint marketing by the members, or information exchanges or agreements between or amongst processors. Moreover, this letter expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right, in appropriate circumstances, to bring any enforcement action in the future if the actual operation of the proposed agreement proves to be anticompetitive in any purpose or effect.

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[3] Comments of the Department of Justice filed in Department of Commerce Docket No. 911215-1315, January 30, 1992 (involving Alaskan Pollock). On May 20, 1997 the Department of Justice issued an affirmative Business Review Letter to counsel for the Whiting Conservation Cooperative with respect to its proposal to allocate amongst its members the total quota of Pacific Whiting allocated to the group by the United States Government.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within 30 days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

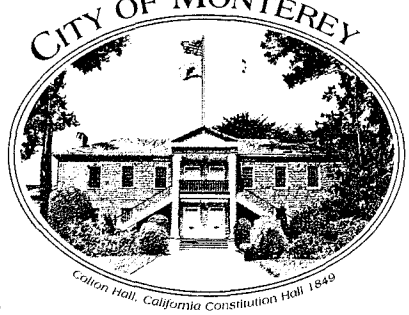
Sincerely,

Joel I. Klein
Assistant Attorney General

Agenda Item F-3-H; Public Comment

Agenda Item F-3h
Supplemental Public Comment 10
November 2008

CITY OF MONTEREY



October 24, 2008

Mr. Donald K. Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Comments on Amendment 20: Trawl Rationalization

Dear Chairman Hansen:

The City of Monterey hereby submits comments to the Pacific Fishery Management Council on the topic "Rationalization of the Pacific Coast Ground Fish Limited Entry Trawl Fishery: Decision Document for the November 2008 Pacific Fishery Management Council Meeting".

The City of Monterey has a long and rich history of commercial fishing. The City has worked hard to maintain its fishing infrastructure and to support this industry which is so much in the fabric of life in Monterey. The City Council has acted on numerous occasions over a period of years in support of our fishermen and to try to preserve the cultural heritage and economic values which we associated with that community. Most recently, City representatives have testified before the Pacific Fishery Management Council on the topic of the potential for the Monterey Bay National Marine Sanctuary to create additional closures in our area.

With regard to the Trawl Rationalization issue before you now, please be aware that our community is unclear about how the conversion of this fishery to an Individual Transferable Quota (ITQ) system will affect fishing activities in our area. Will it potentially consolidate fishing activities into fewer port areas? It would appear that there is some potential for this to occur in an ITQ program.

Because of this concern the City of Monterey requests that the Pacific Fishery Management Council consider some form of community allocation if fishermen within a region band together to form a community association or cooperative to manage quota and local allocation issues. If some quote was assigned to communities, there would be a safeguard against the potential for drastic consolidations of the fisheries into just a few larger port areas. With regard to the potential makeup of a fishery community association or cooperative, the City of Monterey is not intending that the City would be in charge of the allocation process; rather the association or cooperative should be made up of fishermen within the City or broader region who would decide among themselves as to the allocation. We understand that this would not be a simple task by itself.

In making this recommendation, we ask the Pacific Fishery Management Council to consider this need and to put thought into the specifics of such an allocation program.

A second issue of concern is the regard for the potential for further consolidations of the trawl fleet that could result in abandoned former trawl vessels in our harbor. The City of Monterey asks that the Pacific Fisheries Management Council also consider measures to avert or mitigate this potential consequence.

Thank you for considering the comments of the City of Monterey.

Sincerely,

Chuck Della Sala
Mayor

F.3.h

Agenda Item F.3.h
Supplemental Public Comment 11
November 2008

PORT of GRAYS HARBOR
On Washington's Pacific Coast

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Commissioners:
Jack Thompson
Stan Pinnick
Chuck Caldwell

Executive Director:
Gary G. Nelson

November 3, 2008

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Re: Support of Individual Fishing Quota

Dear Members of the Pacific Fishery Management Council,

The commercial fishing industry has been a major contributor to Grays Harbor's economy since the 19th century. Ocean Gold Seafoods/Ocean Cold, long-term Port tenants and industry leaders are one of these contributors. Through their innovation and forward thinking leadership, Westport has become one of the largest fish landing ports on the West Coast. Their commitment to our community and the seafood industry has been shown in the $9 million dollar, 95,000 square foot cold storage facility recently opened in Westport. The "Ocean" family of companies is one of the largest employers in Grays Harbor County.

The Port of Grays Harbor would like to express our support for the IFQ alternative supported by the council in the recent 8-4 decision. This decision is in the best interests of the City of Westport and Grays Harbor County.

If I can be of further assistance, please contact me at 360-533-9515.

Sincerely yours,

PORT OF GRAYS HARBOR

Leonard Barnes

Leonard Barnes
Deputy Executive Director

Cc: Ocean Gold Seafoods

F.3.h

Agenda Item F.3.h
Supplemental Public Comment 12
November 2008

Ocean Conservancy
Start a Sea Change

November 5, 2008

Mr. Donald Hansen and Members of the Pacific Fishery Management Council
Pacific Fishery Management Council
770 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Comments on Proposed Amendment 20: Trawl Rationalization

Dear Chairman Hansen and Members of the Pacific Fishery Management Council:

On behalf of Ocean Conservancy and our 170,000 members and activists nationwide, we submit the following recommendations regarding the selection of final preferred alternatives for the West coast groundfish trawl rationalization program.

The groundfish trawl rationalization program must be part of an integrated management framework designed to achieve the conservation mandates of the Magnuson Steven Fishery Conservation and Management Act (MSA). The 2006 amendments to the MSA include many requirements for limited access privilege programs (LAPPs) that are essential to sound fisheries management. Three provisions of the MSA are particularly relevant to the design of West Coast groundfish individual transferable quota (IFQ) program. Specifically, the statute requires that IFQ programs developed and submitted by the councils must: (1) assist in the rebuilding of overfished species; (2) contribute to capacity reduction in overcapitalized fisheries; and (3) include and effective system for enforcement, monitoring and management, including the use of electronic monitoring systems and observers. To maximize the success of the program, the trawl rationalization program must also be consistent with other key conservation provisions of the law including accounting for and minimization of bycatch and bycatch mortality, ending overfishing and protecting essential fish habitat (EFH). A carefully crafted IFQ program, in conjunction with conservatively set annual catch limits (ACLs), accountability measures (AMs), measures to reduce bycatch, proper monitoring and enforcement and protection of EFH, can help to ensure the long term sustainability of the Pacific groundfish fishery by providing the right incentives for conservation.

A-1.1 Scope of IFQ Management (Species Coverage)

Recommendation: Assign quota for a broader range of groundfish species for all sectors, prioritizing vulnerable species.

The Council's preliminary preferred alternative enumerates certain species in the shoreside trawl sector that would be excluded from receiving quota. The proposed Amendment notes that coverage of species with quota is intended to function as a catch control tool to ensure that management targets are achieved. While it is neither practicable nor efficient to include all species that interact with the groundfish trawl program under the quota share program, a broader range of species coverage than recommended by the GAC is warranted. Incomplete analyses coupled with overdue and data poor stock assessments suggest a need to assign quota for more species in all sectors. Specifically, we recommend that the Council consider inclusion of species such black rockfish, spiny dogfish and nearshore rockfish. Additional analysis is needed, as well as a mechanism and appropriate triggers to bring initially excluded species into the quota system.

Unless all overfished species are assigned quota, the most vulnerable species will not be subject to the market incentives for more selective fishing, and much of the potential benefit of the trawl rationalization program will be lost. Quota for other groundfish species creates incentives to reduce bycatch of those species and individual accountability for unwanted impacts. The analysis in Appendix A examines historic catch by *trawlers* of species under consideration for exclusion from quota, but not past catch by *fixed gear*, which is relevant given the potential for gear switching. Species excluded from quota should have triggers for assigning quota, based on factors like change in stock status or catch rates by quota holders.

A-1.1 Gear Switching

Recommendation: Support gear switching provision in the preliminary preferred alternative.

The preliminary preferred alternative would authorize limited entry (LE) trawl vessels to switch between trawl and nontrawl groundfish gears, including fixed gear, for the purpose of catching their quota pounds (QP). It would also allow a nontrawl vessel to acquire a trawl permit and utilize trawl QP to catch the LE trawl allocation using nontrawl gear.

Gear switching encourages transition to more selective fishing practices while providing vessels with the flexibility to determine the most efficient mix of fishing strategies. Appendix A: IFQ Program Components, A-16, October 2008. However, flexible (2-way) gear switching is likely to facilitate increased catch of target species without creating conservation benefits. On the other hand, allowing fixed gear permit holders to purchase trawl quota share is apt to shift effort from trawl to lower impact gears. "[A] scope that allows gear switching may generate some conservation benefits if the gears to which harvest is switched generate smaller habitat impacts or have selectivity that increases stock productivity." *Id.* While the draft decision document contemplates the potential conservation gains associated with switching from trawl to gears with demonstrated better conservation performance, the analysis fails to address the potential impacts of switching from nontrawl gears to trawl.

A-7.0 Gear Conversion

Recommendation: Support combining the gear switching provision in the preliminary preferred alternative with the option to provide incentives for permanent conversion to lower impact gears.

In addition to gear switching the draft decision document includes a separate option to authorize permanent gear conversion from trawl to some other legal groundfish gear. Unlike gear switching, gear conversion entails a permanent shift from trawl to nontrawl gear. Gear conversion from trawl to fixed gear is likely to reduce bottom trawl contact and habitat disturbance in areas where trawl gear is allowed to fish. *Id* at A-353. Permanent conversion from trawl to pots, for example, could decrease the intensity and possibly the extent of trawling, benefiting bottom habitat and reducing the catch of limiting species. Jenkins, Lekeila D., Gear Conversion as a Means to Reduce Bycatch and habitat Impacts in the U.S. West Coast Sablefish Fishery, March 2008.

Incentives for permanent conversion may appeal to trawlers in areas of high bycatch risk (Washington) and places with high consumer demand for non-trawl-caught fish (central and south central California). A recent study found that pots consistently have the least overfished species bycatch and are the preferred choice of trawlers interested in conversion. *Id.* An incentive program could make gear conversion a viable alternative to complete divestment of quota shares. Incentives could include among other things, supplemental quota from the adaptive management program (AMP) for the first couple of years after permanent conversion or funds to buy new gear. Without such incentives, the groundfish fleet may miss opportunities for a more optimal voluntary partition of quota between trawl and other sectors that could benefit fishermen, fish and the marine environment.

A-1.2 IFQ Management Units

Recommendation: Support option to subdivide quota geographically including use of latitudinal management units.

For species or species groups for which the OY is not already geographically subdivided (there is only a coastwide OY), the draft document provides an option whereby the quota shares would be subdivided geographically at the 40°10' N latitude line. We concur with the concerns raised by the GAC that absent more definitive information regarding the range and geographic boundaries of stocks and substocks within the fishery, subdividing quota geographically at the 40°10' N latitude line is appropriate and necessary to help to prevent localized depletion in one region due to shifting fishing patterns. This approach should be regarded as an interim measure until data is available to inform finer-scale spatial delineations and management for species with limited ranges. Toward this end, the Council should prioritize and expedite research into and discussion of precautionary area-specific subdivisions and quota allocations.

A-2.3.1 Tracking and Monitoring

Recommendation: Select Option 3 – 100% observer coverage with cameras if effective and feasible. No small vessel exception.

Recognizing that successful fisheries management requires effective tracking, monitoring and enforcement mechanisms, the MSA specifies that a LAP program must include a system for enforcement, monitoring and management of the program. MSA §303A(c)(1)(H). The Council's preliminary preferred alternative mandating 100% observer coverage and electronic/video monitoring systems where feasible and appropriate is consistent with this statutory requirement.

Moreover, 100% observer coverage is fundamental to the integrity and effectiveness of the trawl rationalization program.

We also support the tracking element of the Council's preliminary preferred alternative to count discards against the vessel's quota pounds (QP) to ensure a more accurate estimate of total mortality and incentivize more selective fishing practices. Additional tracking requirements to submit landings reports and economic data, identify bycatch and discards and cross check catch records against sales records may help monitor program performance, facilitate more informed management and encourage greater accountability.

A-3 Adaptive Management

Recommendation: Support adoption of an Adaptive Management Provision, with conservation as a primary purpose, to be implemented upon implementation of trawl ITQ program.

The Council's preliminary preferred alternative includes an option for an Adaptive Management Provision (AMP) in the trawl ITQ program for the groundfish fishery. Under this option, every two years, as part of the Council's biennial management specifications process, the Council may elect to set aside up to 10% of the available quota pounds (QP) for use in this program. As envisioned, the AMP program could be used for several purposes related to socio-economic balance and conservation including increasing landings in certain communities, increasing deliveries to certain processors, helping crew and others enter the fishery, encouraging greater use of fixed gear by trawlers, encouraging specific harvesting behaviors, such as bycatch avoidance, and to mitigate unforeseen outcomes of program implementation.

Ocean Conservancy is supportive of inclusion of the AMP in the Council's final preferred alternative and believes conservation should be a primary purpose of this program. The ITQ program as designed does not include strong incentives to reduce bycatch or habitat impacts related to non-quota species. The AMP could be used to strengthen the conservation performance of these fisheries by, for example, providing additional incentives to reduce bycatch (e.g., by rewarding the most selective fishermen with additional quota) or by encouraging switching to more selective gear. It is imperative that a significant portion of this be used for conservation purposes, and if the Council elects to utilize this AMP as the sole tool for community stability, we would urge consideration of a set-aside of up to 15 percent to ensure adequate poundage is available to meet the AMPs conservation objectives.

We strongly urge you to not delay the implementation of this aspect of the program. By postponing implementation of the AMP, distribution of all quota share would become the status quo, and later repossession of 10 percent of this quota for the AMP would likely be met with significant opposition, decreasing the ease (and likelihood) of successful implementation of the AMP provision down the road.

We appreciate the intention of the Council to leave the purposes and intended uses of the AMT vague to provide maximum flexibility. However, there seems to be considerable differences in Council members' opinions as to what the priority purposes of this program should be. While it is understandable that it may be difficult to describe specific elements of this program at this juncture, it is certainly appropriate (and necessary) that the Council come to an agreement on the

priority uses for the AMT. It is imperative that conservation considerations be identified as a priority, and that use of AMT to mitigate community disruption not preclude an opportunity to use AMT to improve the conservation performance of this fishery. The priority uses of this quota must be established at the outset, and a more thoroughly detailed description of the intent and objectives for this program should be included as part of the Council's final preferred alternative.

Community Fishing Associations

Recommendation: Support the concept of Community Fishing Associations as proposed by The Nature Conservancy as a means of improving conservation performance in the groundfish fisheries.

The Nature Conservancy (TNC) has submitted a proposal to include voluntary Community Fishing Associations (CFAs) as an element of the IFQ management framework. CFAs, which may include QS holding NGOs, are intended to help preserve a community's fishing heritage and access to the resource while contributing to the conservation and management of the fishery. TNC is also proposing to establish a CFA themselves in the Central Coast of California using quota shares issued to permits owned by TNC.

Innovative programs like the one proposed by TNC could help to meet the conservation and management goals of the MSA and the Groundfish FMP. For example, a system is which bycatch quota is shared amongst a group of people may create incentives for bycatch avoidance, and information sharing can allow groups of harvesters to identify and avoid high bycatch areas. The Council should make the necessary changes to allow for programs such as this, which have the potential to improve the conservation performance of the fishery, to be allowed to form and operate, subject to an application process and approval by NMFS.

Accumulation Limits

Recommendation: Urge the Council and NMFS to further analyze the relative impacts of proposed accumulation limits and more accurately determine what constitutes an excessive share.

When determining what constitutes an excessive share and establishing accumulation limits, managers should bear in mind that some degree of fleet consolidation is often desirable and/or necessary, and that reducing overcapacity is one of the objectives of a limited access privilege program (LAPP) under the reauthorized MSA (See 303A(c)(1)(B)). The issue of excessive shares is referenced in National Standard 4 of the MSA (Section 301(a)(4)) and in the new national LAPP standards under the reauthorized MSA in Section 303A(c)(5)(D).
The statute also includes language instructing fishery managers to consider the basic cultural and social framework of the fishery and to include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, or economic assistance in the purchase.

To date, there has been little guidance from either NOAA or the Council on what constitutes an "excessive share" and how a "maximum share" should be determined. In the recently released

NMFS Draft Technical Memorandum, Anderson and Holliday (2007) made a very useful distinction of market power (MP) excessive share and management objective (MO) excessive share. Lee G. Anderson and Mark C. Holliday (Eds.), The Design and Use of Limited Access Privilege Programs, NOAA Technical Memorandum NMFS-F/SPO-May 2007 Anderson and Holliday (2007), pp. 50-59. MP excessive share occurs when an operator obtains a significant amount of quota shares that result in monopoly profits in the seafood market or a monopoly or monopsony in the market for quotas. MO excessive share has been defined as a concentration of ownership of quota shares that result in a change in a change of social or community structure and the lifestyle of fishing households and fishing communities. Anderson and Holliday further state that "the excessive share limit should at least be restrictive enough to prevent monopolistic price control, but it can be more restrictive depending upon careful consideration of the management objectives and potential negative effects on industry operation and plan administration costs." *Id.* At 52.

In determining ways to address the social and cultural goals of the trawl rationalization program, fishery managers should keep in mind that putting limits on ownership may not be the only way to achieve such goals. Other measures, including the proposed Adaptive Management Program (AMP) and Community Fishing Associations (CFAs) may promote socio-economic objectives without compromising the economic efficiency gains that result from a freely transferable market for quota shares. For example, a CFA could be formed and granted quota shares to maintain the social and cultural framework of a particular community. The AMP set aside program could also be used to assist with and encourage the continued participation of small-vessel owner-operators and entry-level fishermen. Before selecting an accumulation limit, we recommend that fishery managers evaluate the relative impacts of proposed accumulation limits and determine more accurately what constitutes an excessive share.

Finally, we recommend that the Council incorporate the various environmental options proposed in the draft document and through public comments into a single conservation alternative. We appreciate the hard work that has gone into the development of the trawl rationalization program and welcome the opportunity to work with Council and NMFS staff to further develop and refine the design elements of the trawl rationalization program. Thank you for your consideration of our comments.

Sincerely,

Meghan Jeans
Pacific Fish Conservation Manager

F.3.h

Agenda Item F.3.h
Supplemental Public Comment 13
November 2008

Testimony before the Pacific Fisheries Management Council concerning San Mateo County Harbor District opposition to allocation of harvesting shares to fish processing companies

November 6, 2008
At San Diego

Thank you for the opportunity to testify before the Council. My name is Peter Grenell. I am the General Manager of the San Mateo County Harbor District. We operate Pillar Point Harbor on Half Moon Bay. The San Mateo County coastside, the entire County, and the wider San Francisco Bay Area enjoy direct and indirect economic benefits of Pillar Point Harbor and depend on the fishing industry, which offers a variety of fish harvests, charters, bait, tackle, fresh seafood restaurants, fresh fish retail sales off the boats, and marine services to residents and visitors from around the world.

Our District is already on record supporting fishermen, most recently support for the Alliance of Communities for Sustainable Fisheries. I am before you today to deliver the resolution unanimously passed by our District on Oct. 15 of this year concerning how the IFQ program could affect the fishing community of Pillar Point Harbor, and therefore could affect the many economic, social and environmental benefits derived from our port.

Trawl fishermen vessels in the Pacific Groundfish fishery, along with those who use seine, hook and trap gear, contribute significantly to the economic health of fishing communities in our region and all along the Pacific Coast. It is in that spirit that I offer these comments to the Council on behalf of the District regarding proposed changes in the management of the Pacific Groundfish fishery, specifically in the implementation of IFQs.

This change may lead to greater economic efficiency in the trawl sector, but reduce the number of vessels and people employed in the fishery – and there are many unanticipated impacts on communities that follow. The question on the minds of our District leaders is the following: how best to address these unanticipated consequences, while still allowing for the efficiency improvements that IFQs can provide?

On Oct. 4, the first fishing boat that used Pillar Point Harbor back in the 1920s, the newly restored Monterey type vessel the F/V Irene, was launched at Pillar Point. Members of the fourth generation of the fishing family that first used the Irene presided at the ceremony, with participation of District personnel and several hundred people of the Harbor community. It is this community base upon which the continued welfare of California's coastal fisheries depends. As a body representing the economic well-being

of Pillar Point Harbor and its coastside community, the District wants to ensure that the IFQ program takes into account how best to stabilize communities that might be affected by shifts in quota ownership.

Therefore, we **oppose** the allocation of IFQs to seafood processors. There are potential anti-trust implications of allocating catch shares to fish processors. Additionally, allocation of quotas to fish processors will not guarantee a fishing community continuous access to trawl-caught groundfish or the jobs derived by that community from the harvest of groundfish. Furthermore, the District believes that the allocation of quota shares to fish processors threatens the economic viability of individual fishing vessel operators. This includes reducing the price paid to fishermen for their toil, and eliminating conservation incentives that might otherwise be created through limiting fishing access privileges.

We want to **support** actions the PFMC may be considering to enable the creation of community fishing associations, consistent with the re-authorized Magnuson-Stevens Act, to assure the ongoing protection of a fishing community's access to harvestable fish resources off their shores. We also support the Adaptive Management Program as the right tool to target quota to communities that may be vulnerable to losing vessels or landings, and understand that this program will allow fishermen continued access to quota to meet community-stability needs.

The District also urges development of a collaborative and cost-effective framework for monitoring quota requirements, and quota program design to facilitate gear switching to local trap and hook and line gear to tap this growing market and help sustain and enhance these fisheries.

The San Mateo County Harbor District reaffirms its support of its local fishing fleet, based in Pillar Point Harbor, by opposing processor quotas and at the same time, pledging to work with its local fish processors and others dependent on the catch of Pacific Groundfish to assure a constant supply of locally caught groundfish offloaded at Pillar Point for sale, processing and distribution.

Thank you again for this opportunity to present our views to you.

MEMORANDUM

San Mateo County Harbor District
400 Oyster Point Boulevard, Suite 300
South San Francisco, CA 94080
650/583-4400

TO: **Pacific Fisheries Management Council**

FROM: **Theresa DellaSanta, Deputy Secretary**

SUBJECT: **CERTIFICATION OF COPY OF ORIGINAL DOCUMENT**

This is to certify that the attached San Mateo County Harbor District document, Resolution 21-08 of the San Mateo County Harbor District to opposing allocation of harvesting shares to fish processing companies by the Pacific Fisheries Management Council is a true copy of the original document on file at the San Mateo County Harbor District Administrative Office, 400 Oyster Point Blvd., Suite 300, South San Francisco, California 94080.

Theresa DellaSanta
Deputy Secretary

October 16, 2008
Date

Resolution Number 21-08
of the San Mateo County Harbor District
Opposing allocation of harvesting shares to fish processing companies by the Pacific Fisheries Management Council

WHEREAS, The San Mateo County coastside, the entire County, and the wider San Francisco Bay Area enjoys direct and indirect economic benefits of Pillar Point Harbor and is dependent on the fishing industry, which offers a variety of fish harvests, charters, bait, tackle, fresh seafood restaurants, fresh fish off the boats and marine services to residents and visitors from around the world; and

WHEREAS, The San Mateo County Harbor District is already on record supporting fishermen most recently the Alliance of Communities for Sustainable Fisheries; and

WHEREAS, Trawl fishing vessels in the Pacific Groundfish fishery, along with seine, hook and trap vessels in that fishery, contribute significantly to the economic health of fishing communities along the Pacific Coast, helping to maintain vital fishery infrastructure, contributing to the diversity of fish and shellfish offloaded and often processed in coastal fishing ports, including Pillar Point Harbor, and the groundfish fishery supports over 1,000 jobs and currently contributes approximately $30 million annually to California's economy; and

WHEREAS, The Pacific Fishery Management Council is considering changes in the way the Pacific Groundfish fishery is managed, including the allocation of the catch to trawl vessels through a system of individual transferable quotas, which may lead to greater economic efficiency in the trawl sector of the groundfish fleet, but reduce the number of vessels and people employed in the fishery; and

WHEREAS, The Pacific Fishery Management Council is considering, as part of the change, an individual quota system that may include catch quotas that could be purchased by non-fishermen, including processors, as well as issue quotas directly to fish processors which, in either the case of harvest quotas being held by non-fishermen or processor quotas, will likely lead to fishermen losing control of their fishing, including their right to choose who to sell their catch and the price they ask for the fish effectively rendering them "seafaring sharecroppers:" and

WHEREAS, In addition to the potential anti-trust implications of allocating catch shares to fish processors and others not involved directly in the harvest of fish at sea, the allocation of quota to fish processors will not guarantee a fishing community continuous access to trawl-caught groundfish or the jobs derived by that community from the harvest of groundfish; and

WHEREAS, The reauthorization of the federal Magnuson-Stevens Fishery Conservation and Management Act now allows for the creation of regional fishing associations to assure the ongoing protection of a fishing communities' access to harvestable fish resources off their shores thereby eliminating any need for fish processors to own or control quota shares of any kind in a fishery; and

WHEREAS, The allocation of quota shares to fish processors threatens the economic viability of individual fishing vessel operators including reducing the price paid to fishermen for their toil, eliminates conservation incentives that might otherwise be created through limited fishing access privileges, and may make fishing even more dangerous;

NOW THEREFORE BE IT RESOLVED, The San Mateo County Harbor District reaffirms its support of its local fishing fleet, based in Pillar Point Harbor, by opposing processor quotas or processor ownership of fish harvest quotas and, at the same time, pledging to work with its local fish processors and others dependent on the catch of Pacific Groundfish to assure a constant supply of locally caught groundfish offloaded at Pillar Point for sale, processing and distribution;

AND BE IT FURTHER RESOLVED, The San Mateo County Harbor District transmit to the Pacific Fisheries Management Council and the National Marine Fisheries Service, within the Department of Commerce, the request that processor quota or processor ownership of harvest quotas be prohibited and, instead, the Council and the Fisheries Service permit the creation of regional fishing associations and utilize an Adaptive Management Program to protect local fishermen, local fish processors and others in the community dependent on the fish stocks harvested off our shores.

AND BE IT FURTHER RESOLVED, San Mateo County Harbor District urges (a) development of a collaborative and cost-effective framework for monitoring quota requirements, and (b) quota program design to enable and facilitate gear switching to local trap and hook and line gear to tap this growing market and further help sustain and enhance these fisheries.

Adopted this fifteenth day of October, 2008 at the regular meeting of the Board of Harbor Commissioners by a vote as follows:

For: Tucker, Parravano, Padreddii, Lundie

Against:

Abstaining:

Absent: Campbell

Attested

Theresa DellaSanta
Deputy Secretary

BOARD OF HARBOR COMMISSIONERS

Ken Lundie
President

MOTHERSHIP SECTOR PROPOSAL

Permits

Close class of MS, qualifying criteria: 1000 mt in two years, 1997-2003

Create MS permit; permits are transferable two times during the year, provided that the second transfer is back to the original mothership vessel (i.e. only one transfer per year to a different mothership vessel)

Mothership sector endorsement placed on CV Permit. Qualifying criteria 500 MT 1994-2003; not severable from permit. Permits are transferable two times during the year, provided that the second transfer is back to the original vessel.

Create a maximum length endorsement for the CV permit consistent with the existing point system. Intent is that the length endorsement will not be reduced by transfer to a vessel smaller than maximum endorsement. When combining permits to increase size of length endorsement, only one mothership sector endorsement is required on a CV permit.

MS Permit Usage Limit of 45%

History/Allocation

Assign whiting catch history (QS) to CV permits based on qualifying period 1994-03, drop none

Assign bycatch allocation to CV permits pro rata based on their whiting catch history

By September 1 of the year prior to implementation, CV permit holders shall notify NMFS of whether the QP associated with their CV permit will be assigned to a co-op or the non-coop fishery in the following year. If the QP is to be assigned to a co-op then the CV permit holder shall also notify NMFS of the mothership permit to which the quota will be delivered.

The co-op/non-co-op designation and the mothership permit assignment will automatically renew for the following year unless the CV permit holder changes that designation and/or assignment by notifying NMFS in writing prior to September 1 of any subsequent year. If a CV permit holder intends to move from one mothership permit to another, they shall notify the mothership permit holder from which they are transferring of their intent to do so, in writing, not less than 60 days prior to notifying NMFS.

In the event that there is agreement between the CV permit holder and the mothership permit holder to which it is assigned, the QP may be transfered to another mothership permit.

In the event of mothership permit withdrawal subsequent to QP assignment, the CV permit is free to participate in the co-op or non- co-op fishery. Mothership permit shall notify NMFS of its withdrawal and CV permit shall notify NMFS of their intent to participate in the co-op or non-co-op fishery thereafter.

Co-op Formation

Nothing in this proposal requires the formation of co-ops

Single or multiple co-ops may be formed.

A co-op may be formed by CV permit holders comprising 20% or more of the eligible MS endorsed CV permits.

NMFS will deposit whiting QP and bycatch into a non- co-op or co-op pool(s) based on permit history assignment as determined above.

In the event there is more than one co-op, catch and bycatch will be transferable between co-ops through inter co-op agreement.

Co-op Agreement Provisions

See B-2.3.3 e

F.3.h
Supplemental Public Comment 15

Ann Samuelson's Testimony to the Pacific Fisheries Management Council
November 6, 2008 - San Diego, California

Mr. Chairman, members of the Council. Thank you for your public service. My name is Ann Samuelson. I'm here today to represent the Clatsop County Commission and to support our fishermen. I am one of five county commissioners. I am also proud to say that I am the daughter of a former Columbia River fisherman, and I myself have fished the Columbia River. I also own a small business.

I am passionate about this issue and this cause, as are all of us in this room. In fact, the diversity of many groups working together to support our fishermen have, for me, made this experience unique.

As a former union employer I negotiated union contracts. I can't imagine negotiating with skilled workers, who have invested in their careers, and start negotiations by looking my employees in the eye and expect them to take a 20-percent pay cut--just so I could have more in my pocket.

Considering that the values of economic, habitat, and recreational sustainability are at stake, I know you are weighing the long-term effects of your decision. The Individual Fishing Quota will give our fishermen what they need to make an honest living and will give government more effective oversight. All stakeholders should be involved in this process, as we are doing here today. The difference is—this debate appears to have opposing sides. There is a "we vs. them" attitude, rather than an open and collaborative effort to move toward a resolution that works for all; for our fishermen, our

processors, and ultimately our communities. As public officials, it is our job to make collaboration happen.

Like you, I have many other priorities on which I could be focusing my energies today. I was shocked and frankly disappointed when I read in a press release that my participation here today was somehow being bought. I felt a responsibility to my community and to these fishermen, and the office I hold, to speak the truth. At the end of the day, that's all that really matters.

Please understand that I am here by my own motivation and by my own financial means. I have paid the airfare, lodging and transportation to be here--- out of my own pocket. Further, as a county commissioner, I receive $800 monthly, with no benefits, as a stipend for public service. But I choose to be here today to share with you my grave concern for my community.

On August 27th the Clatsop County Board of Commissioners passed a unanimous resolution in support of our fishermen, and opposing processors quotas. I repeat-- it was unanimous-- even though we were challenged by an aggressive lobbying effort.

As public officials, whether appointed or elected, the Pacific Fisheries Management Council members share, as I do, a unique public responsibility. We are entrusted to act in the best interests of the greater good. Sometimes, that comes with great political peril. I am sure that each of you are doing your best to represent your states with integrity, conviction and a basic rule of doing the right thing regardless of the personal costs.

Perhaps you have experienced public character assassination. Perhaps you have endured severe political pressure. Know that I understand what that is like, and how that feels. It hurts even more when it comes from people you know and from people who have appeared to have supported you in the past.

This 20-percent allocation has become a divisive issue within my community and I imagine in other coastal communities as well.

I see no good coming from this. I see fisherman unable to pay their bills, feed their families or work for the betterment of our community if processors are given the gift of quotas without the risk that my friends the fishermen face. It seems as though a quota system, taking away 20 percent from fishermen and giving it to processors would be an unfair labor practice with no place to file a challenge.

My days of fishing are over, but fishing is part of the culture, diversity and history of the Pacific Northwest. Your 20 percent proposal for processors, although well intentioned, threatens the extinction of every small business in my community. I now view our local fishermen as endangered species. Government and regulatory agencies have protected, preserved and allocated this industry into poverty.

How far do we want this decline to go?

All of us have watched the Big Box stores challenge local small businesses. We must be careful not to adopt a plan that 'big boxes' our fishing industry. There is great danger of unfairness and limiting, if not eliminating, opportunities for small business now and in the future.

You don't want that to happen. I don't want that to happen, and I don't even believe the processors want that to happen. What you do

with this decision will determine if we are able to be and exist in the Northwest as a fishing industry.

Our local fishermen have sacrificed for many generations to provide this product which has great value to the processors and ultimately the consumer, or we would not be here today having this conversation.

Call me simple, but when is enough, enough? It appears that some stakeholders have the disease of more. Only you can prevent the financial ruin of our fishing industry. It is a huge responsibility and I respect your commitment to the goal of 'doing the right thing.'

Thank you.

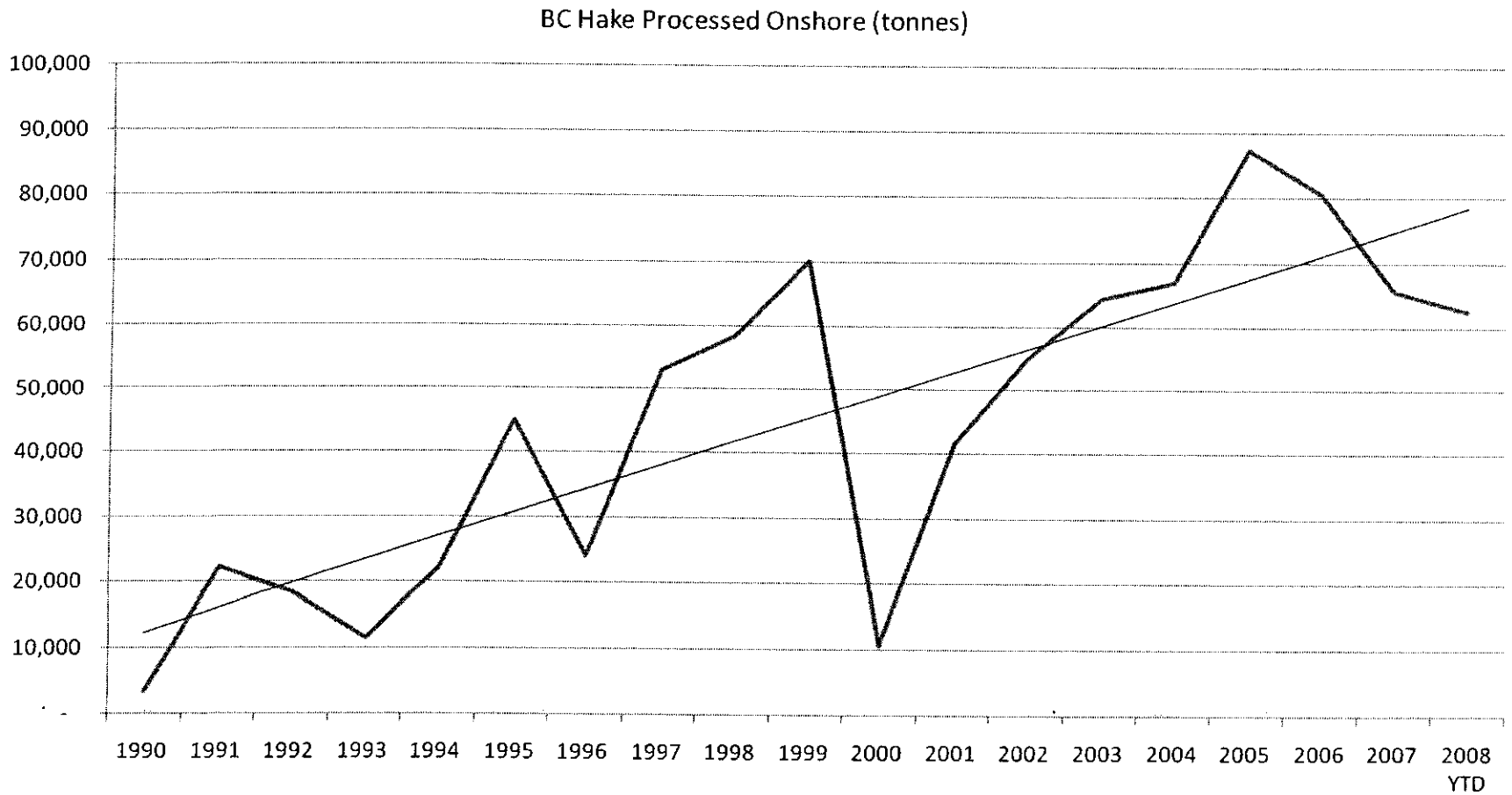
Information on the BC Trawl Fishery

Presentation to Pacific Fisheries Management Council
By Stuart Nelson, Nelson Bros Fisheries Ltd
Surrey, BC
November, 2008

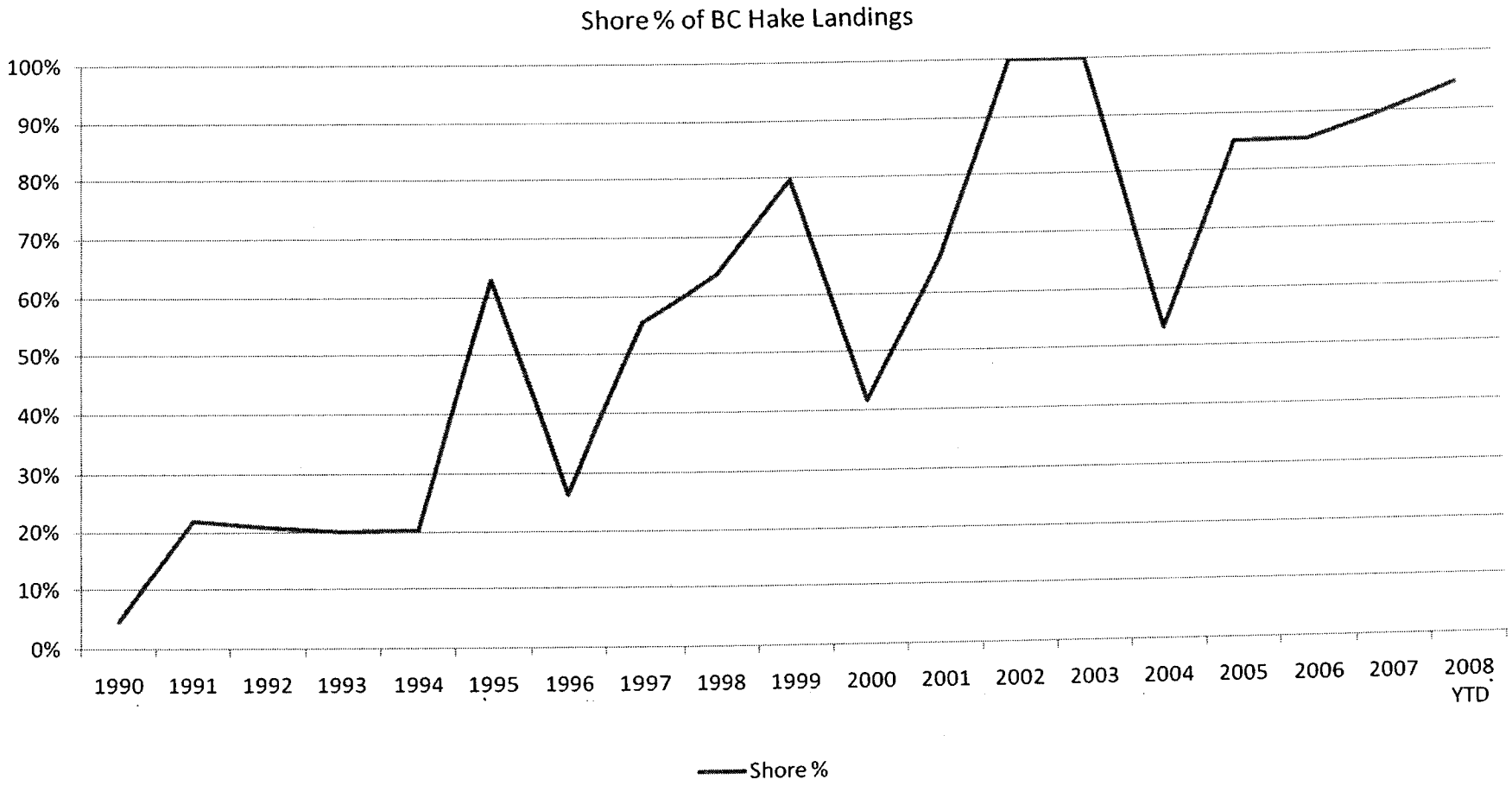
Supplemental Public Comment 1/c

F.3.h

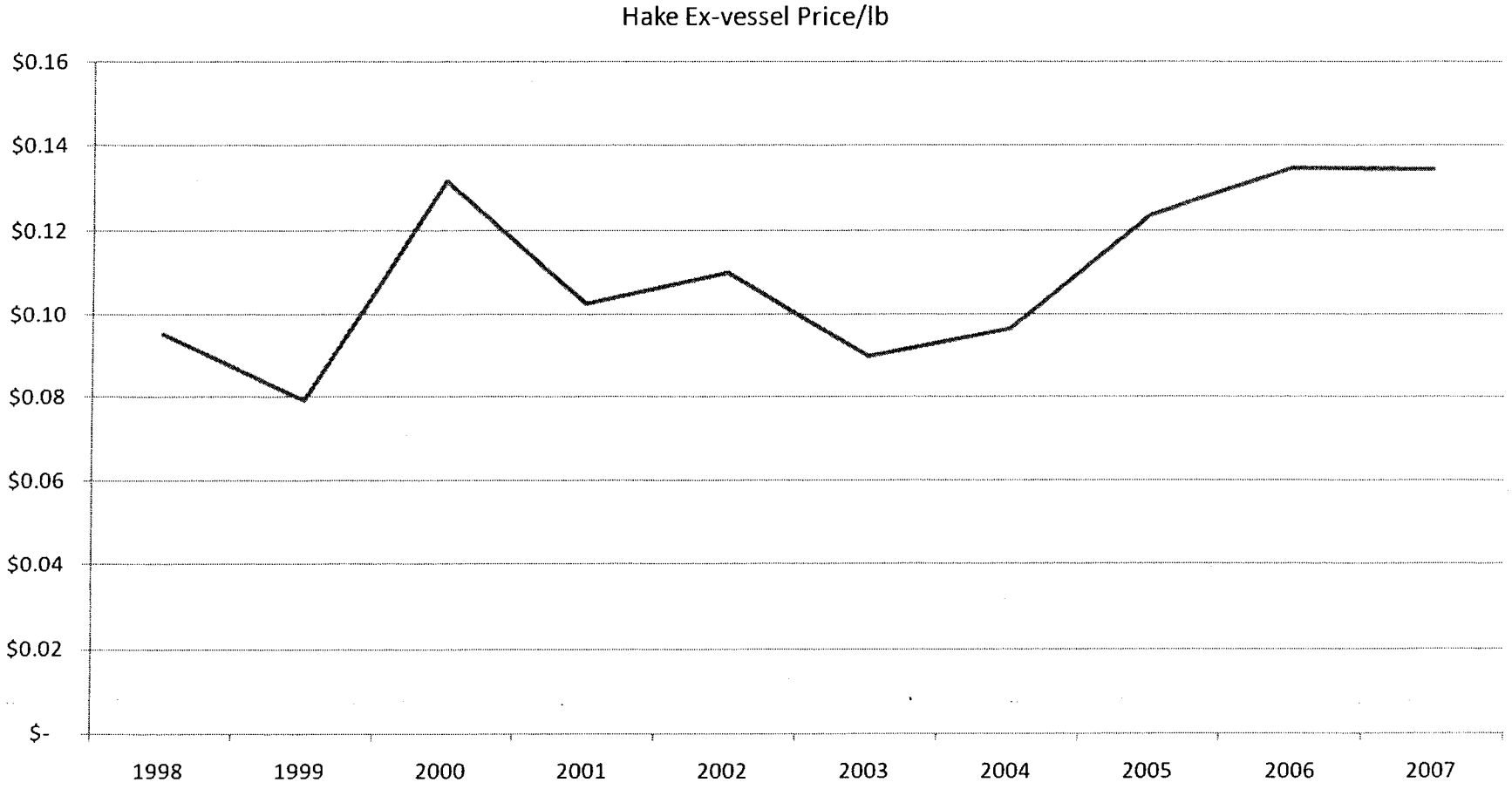
BC Shore Processing Volume



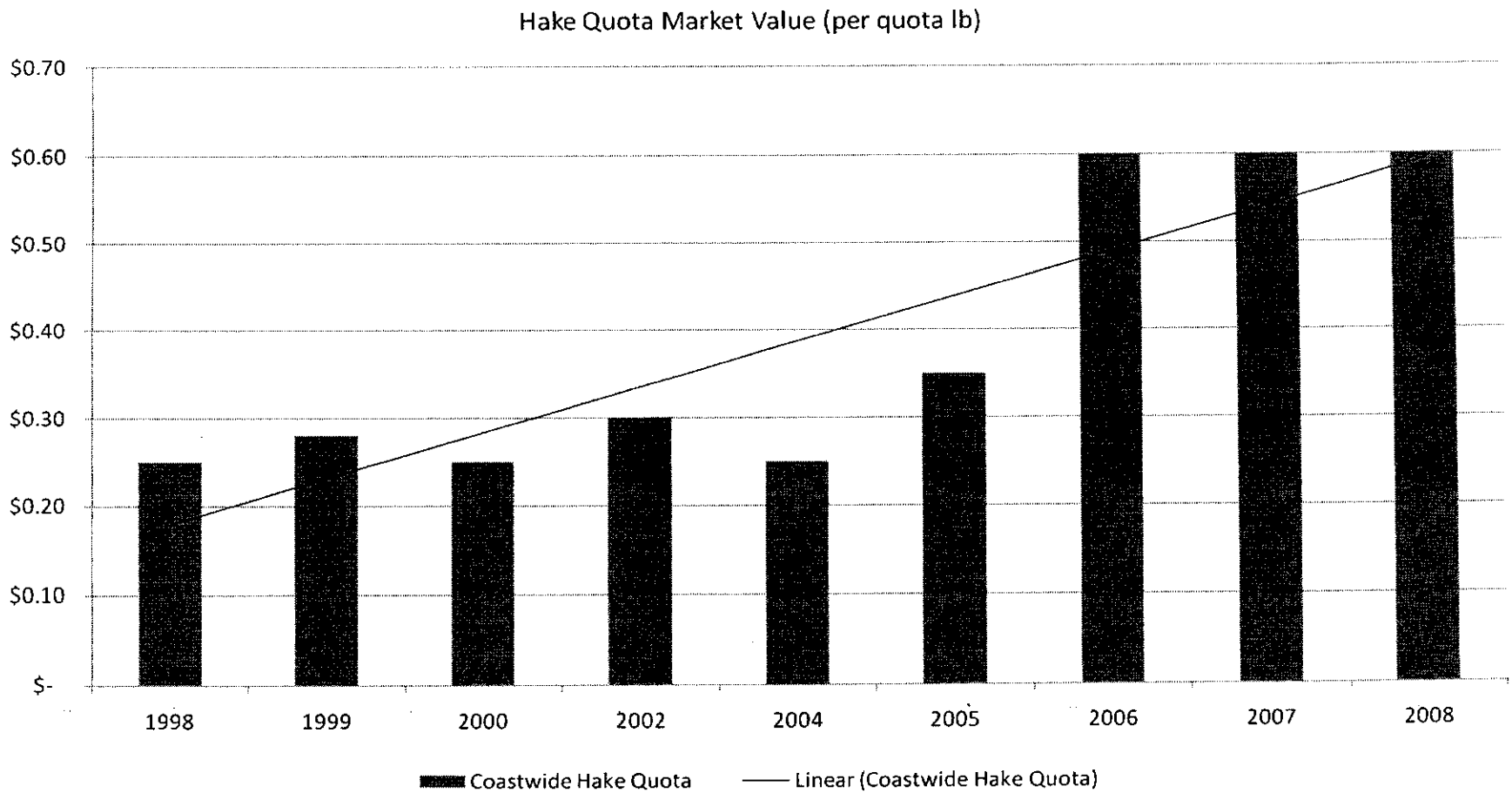
BC Hake Shore Landings Share



BC ex-Vessel Prices (BC Gov't Stats)



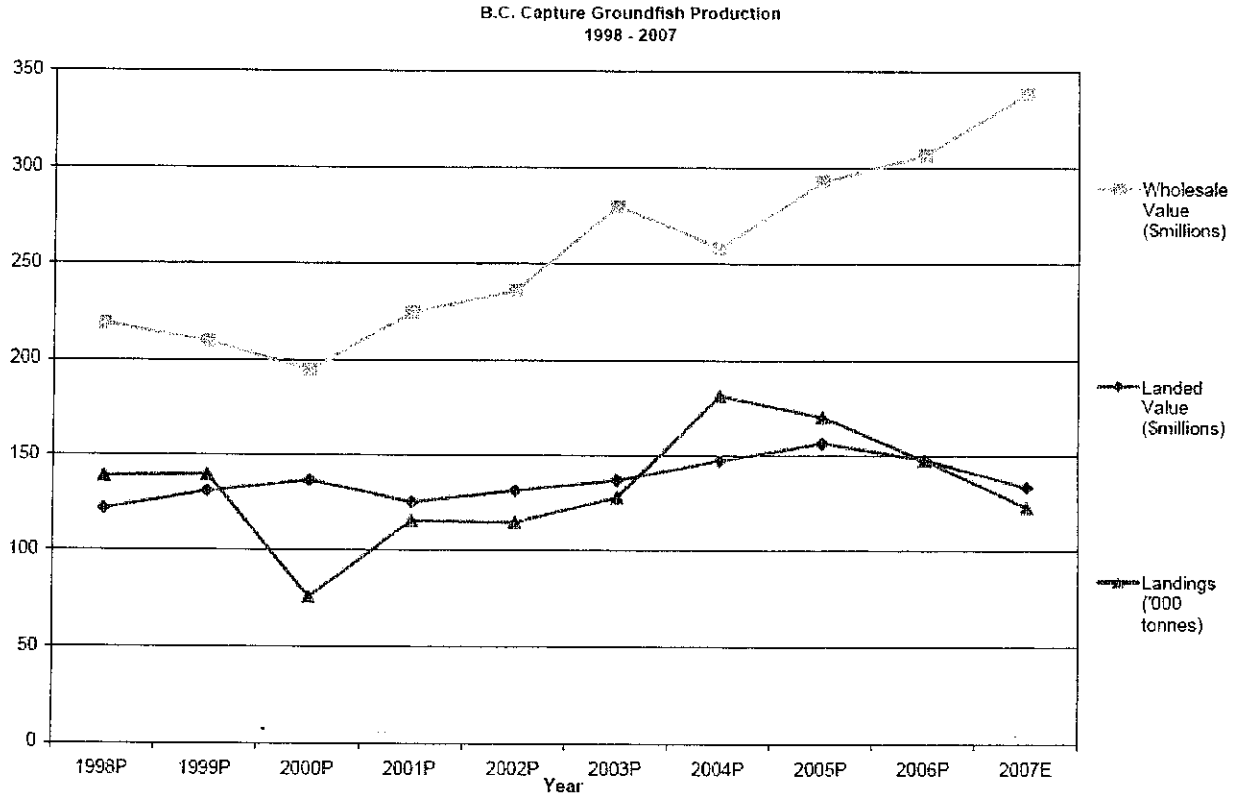
BC Hake Quota Valuations (per lb)



BC Groundfish Trends

(all groundfish fisheries)

BRITISH COLUMBIA
The Best Place on Earth



Ministry of Environment
Oceans & Marine Fisheries

www.env.gov.bc.ca/omfd
September 2008

AGENDA ITEM F.3.h
Supplemental Public Comment 17
November 2008

INITIAL ALLOCATION OF QUOTA TO PROCESSORS IN THE PACIFIC COAST GROUNDFISH FISHERY

Some Comments and Considerations

Prepared by:
Phil Smith
October 2008

The Pacific Fishery Management Council is currently contemplating, and will soon take final action upon, a proposal to limited access to the Pacific Coast groundfish fishery using (at least for the onshore non-whiting trawl sector) an ITQ (transferable quota) system. Under consideration is a system whereby an initial allocation of quota (representing a fraction of the annual allowable harvest in the fisheries) would be awarded to those who hold (limited entry) licenses allowing them to participate in the fishery. The amount of quota to be allocated to the current license holders would be premised upon the history of harvests associated with each such license. This is a fairly "standard" feature of the initial allocation of quota in such programs, and does not by itself engender a great deal of concern.

However, the Council has indicated its intent (by selection of a "Preliminary Preferred Alternative") to take another step. After determining how much quota each of the license holders would receive, the Council would then reduce the quota to be held by harvesters by 20% and reallocate that amount to a small number of processors (who would already receive quota without the adjustment, premised on the licenses they currently hold). This raises a number of policy and legal questions.

I have been asked to comment on the scheme. In doing so, I have reviewed the Council's DEIS for the program, as well as a recent paper by Dr. Jim Wilen, an economist with the Department of Agriculture and Resources Economics at the University of California, Davis, prepared for the Fishermen's Marketing Association and the Fishing Vessel Owners' Association.

Dr. Wilen's arguments in opposition to the proposed extra allocation to processors are quite compelling. He effectively rebuts the arguments that such an allocation policy would address the issue of "stranded capital," that it would lead to a level playing field in negotiations with harvesters in price formation, and that it would simply be more "fair" to the processors.

Additionally, and just as importantly, I would suggest that the Council has no legitimate basis upon which to make the proposed allocation.

National Standards

Under the "National Standards" set out in Section 304 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), a Council may only design a program if it uses the "best scientific information available" (Standard 2), and may only allocate fishing privileges if such allocation is "(A) fair and equitable...(B) reasonably calculated to promote conservation...; and (C) carried out in such a manner that **no particular individual, corporation, or other entity acquires an excessive share of such privileges**" (Standard 4). [*emphasis supplied*] Finally, National Standard #8 provides that, "to the extent practicable," a program should "minimize adverse economic impacts on ... communities" (the National Standards are appended).

Data

There are insufficient data in the EIS to determine the actual outcome of the proposed alternative. Even if landings data attributed to each license are adequate for analysis purposes, there is no break-out of licenses (and the fishing history associated with them) held by processors and subsidiaries of processors. In other words, no one really knows whether the proposed initial distribution will result in an excessive share being allocated to the processing companies, individually or collectively. When the additional quota (above the amount derived from license histories) is taken from harvesters and allocated to processors, the result could well be that all processors receive quota at the level of the cap; i.e., protected from excessive shares by the program requirement that divestiture of QS will be required if any entity receives more than the (yet-to-be-determined) caps on quota holdings. This is a laudable feature, but if there is no "individually and collectively" test, and if there are no data to implement it, overlapping ownership of license-holding processing entities could result in actual control of the quota lodged in the hands of a very few processing companies.

This problem can be cured. Managers can calculate how much quota any particular entity holds, or controls. Once the Council determines what an "excessive share" of quota would be, and caps on quota holding are set at a certain level or percentage, ownership data could be scrutinized to insure that overlapping ownership mechanisms are not used to foil the cap calculations. Similar information should be received and analyzed by the Council before it sets out initial allocation rules, thus insuring that the final program design fits within the requirements of the National Standards.

This "individual and collective" feature is not an untested. Consider the regulations for the halibut/sablefish IFQ, and the BSAI crab programs in Alaska. The regulations for those programs provide:

> [For the halibut/sablefish IFQ program, at 50 CFR 679.42(j)(8)]: A corporation, partnership, or other entity, except for a publicly held corporation, that receives an initial allocation of QS assigned to category B, C, or D must provide annual updates to the Regional Administrator identifying all current shareholders or partners and affirming the entity's continuing existence as a corporation or partnership.
> The reporting form can be found at: **www.alaskafisheries.noaa.gov/ram/Ownchan.pdf**

[For the BSAI crab program, at 50 CFR 680.42(a)(6]: Non-individual persons holding QS will be required to provide, on an annual basis, a list of persons with an ownership interest in the non-individual QS holder. This list of owners shall beprovided to the individual level and will include the percentage of ownership held by each individual. This annual submission of information must be submitted as part of the complete annual application for crab IFQ/IPQ permit.
The reporting form can be found at:
www.alaskafisheries.noaa.gov/sustainablefisheries/crab/rat/ram/ifqipqannualapp.pdf

Quota-holding entities that are not individuals (natural persons) complete the forms annually, and are required to attest to the accuracy and completeness of the information provided (failure to honesty complete the form is perjury). The agency enters the submitted data and uses the information to test for "collective" holdings in excess of the limits established by the regulations. The data are also reviewed when such an entity applies to receive additional quota by transfer.

Fairness

In most quota programs, initial allocation is accomplished by providing each eligible person (in this case, license holder) with an amount of quota that reflects a close proximity to the holder's recent history in the fishery. As a result, when the fishing under the program begins, and participation in the fishery is thus limited, each participant is effectively "grandfathered in" to the fishery at approximately the same level that s/he enjoyed prior to the limitation being imposed. This is fair, as it allows each participant to continue in the fishery and to exit the fishery on his or her own terms.

However, subtracting 20% of a license holder's quota at the outset of the program and redistributing it to a small class (and, further, "taxing" the fisherman's annual harvest value at 3% to meet the MSA cost recovery requirement) will have the immediate effect of driving some fishery participants out of the fishery. Such was not the intent of the MSA and it should not be the outcome of a Council program, particularly when such outcomes have not been fully analyzed and, therefore, fully understood.

Excessive Shares

Further, in the absence of the ownership data discussed above, it is surely premature for the Council to blindly force a reallocation of quota away from harvesters (who are readily identifiable, in most cases, as individual owner-operators or family-owned businesses) to a small group of businesses that may or may not be legally tied together through corporate structures. As noted this is not "fair and equitable," nor does it guard against a complex of corporate entities receiving an excessive share of the harvest privileges.

This problem can be cured by establishing an "individually and collectively" rule (discussed above) that would assure initial identification of ownership structures and would be used to avoid over-allocation and subsequent over-consolidation of quota into too few hands. Such a system should be a permanent part of the program, included in the regulations, and the ownership data should be updated annually.

Community Impacts

Once allocated quota, there is nothing in the program as proposed that would protect communities from processors who decide to move their operations, close plants, etc. In the BSAI crab program, there are a plethora of community protection measures, including regional landing requirements, constraints on processors attempting to move their operations, community right of first refusal to purchase quota, etc. No such measures are proposed for the Pacific fishery. Such operational decisions should not be encouraged by the way the quota is initially distributed.

Although it is true that harvesters may transfer (sell) their quota, and may move from their home communities, thus shifting the residence of those who hold it,[1] most harvesters have deep roots in their communities and are less mobile than their fishing operations. By only allocating harvesting quota to harvesters (license holders), community stability will no doubt be enhanced.

The Control Issue

Allocating quota to processors (in excess of the quota represented on licenses they currently hold) will not only be unfair to fishermen and communities, it will also raise the distinct possibility of a handful of processors controlling a large component of the industry. And even if sufficient steps are taken to insure that the "individual and collective" holdings are kept below the caps, there is still a possibility that business arrangements could lead to effective control over significant elements of the industry.

This control is not only the disproportionate bargaining power the processors will gain by their "oligopsonistic" control of the price negotiation process, it also extends to the formation of vertically integrated business structures in which two or more firms associate with each other and control harvesting, processing, marketing, and (in some situations) retailing of the public's fishery resources.

Such behavior, if allowed, is inconsistent with American business practices, fair play, the best interests of consumers, and the public. Taken to extremes, it could run afoul of the law and subject the industry to the disruption and uncertainties resulting from anti-trust investigations and prosecutions. At all events, concentrating industry control in a very few corporate hands is surely not in the public interest, nor is it consistent with fisheries management policies and authorities.

Other than insuring full disclosure of ownership structures by corporate recipients of the harvest privilege (as discussed above) there are not a large number of options for managers to insure that such control does not evolve over time. But an effort has been

[1] In transferable license limitation programs and quota programs in Alaska, there has been a general trend of permits and quota to "migrate" from small and isolated rural villages to larger, more centralized, communities over time. In less isolated, more stable West Coast communities, this phenomenon is not expected to occur, at least to the same degree.

made. In the BSAI crab program, the Council provided firm guidelines to determine which entity was "affiliated" (not just owned) by others. For instance, the crab regulations provide (at 50 CFR 680.2) that an "affiliation" of entities exists when:

> ... a relationship between two or more entities in which one directly or indirectly owns or controls a 10 percent or greater interest in, or otherwise controls, another, or a third entity directly or indirectly owns or controls a 10 percent or greater interest in, or otherwise controls, both. For the purpose of this definition, the following terms are further defined:
>
> (1) Entity. An entity may be an individual, corporation, association, partnership, joint-stock company, trust, or any other type of legal entity, any receiver, trustee in bankruptcy or similar official or liquidating agent, or any organized group of persons whether incorporated or not, that holds direct or indirect interest in:
>
> (i) Quota share (QS), processor quota share (PQS), individual fishing quota (IFQ), or individual processing quota (IPQ); or,
>
> (ii) For purposes of the economic data report (EDR), a vessel or processing plant operating in CR fisheries.
>
> (2) Indirect interest. An indirect interest is one that passes through one or more intermediate entities. An entity's percentage of indirect interest in a second entity is equal to the entity's percentage of direct interest in an intermediate entity multiplied by the intermediate entity's direct or indirect interest in the second entity.
>
> (3) Controls a 10 percent or greater interest. An entity controls a 10 percent or greater interest in a second entity if the first entity:
>
> (i) Controls a 10 percent ownership share of the second entity, or
>
> (ii) Controls 10 percent or more of the voting stock of the second entity.
>
> (4) Otherwise controls.
>
> (i) A PQS or IPQ holder otherwise controls QS or IFQ, or a QS or IPQ holder, if it has:
>
> (A) The right to direct, or does direct, the business of the entity which holds the QS or IFQ;
>
> (B) The right in the ordinary course of business to limit the actions of or replace, or does limit or replace, the chief executive officer, a majority of the board of directors, any general partner or any person serving in a management capacity of the entity which holds the QS or IFQ;
>
> (C) The right to direct, or does direct, the transfer of QS or IFQ;
>
> (D) The right to restrict, or does restrict, the day-to-day business activities and management policies of the entity holding the QS or IFQ through loan covenants;
>
> (E) The right to derive, or does derive, either directly, or through a minority shareholder or partner, and in favor of a PQS or IPQ holder, a significantly disproportionate amount of the economic benefit from the holding of QS or IFQ;
>
> (F) The right to control, or does control, the management of, or to be a controlling factor in, the entity holding QS or IFQ;
>
> (G) The right to cause, or does cause, the sale of QS or IFQ;
>
> (H) Absorbs all of the costs and normal business risks associated with ownership and operation of the entity holding QS or IFQ; and
>
> (I) Has the ability through any other means whatsoever to control the entity that holds QS or IFQ.
>
> (ii) Other factors that may be indicia of control include, but are not limited to the following:
>
> (A) If a PQS or IPQ holder or employee takes the leading role in establishing an entity that will hold QS or IFQ;
>
> (B) If a PQS or IPQ holder has the right to preclude the holder of QS or IFQ from engaging in other business activities;
>
> (C) If a PQS or IPQ holder and QS or IFQ holder use the same law firm, accounting firm, etc.;
>
> (D) If a PQS or IPQ holder and QS or IFQ holder share the same office space, phones, administrative support, etc.;
>
> (E) If a PQS or IPQ holder absorbs considerable costs and normal business risks associated with ownership and operation of the QS or IFQ holdings;

(F) If a PQS or IPQ holder provides the start up capital for the QS or IFQ holder on less than an arm's length basis;

(G) If a PQS or IPQ holder has the general right to inspect the books and records of the QS or IFQ holder; and

(H) If the PQS or IPQ holder and QS or IFQ holder use the same insurance agent, law firm, accounting firm, or broker of any PQS or IPQ holder with whom the QS or IFQ holder has entered into a mortgage, long-term or exclusive sales or marketing agreement, unsecured loan agreement, or management agreement.

The affiliation language quoted above results from the issuance of processing quota in the BSAI fisheries, and the Council's attempt to guard against *de facto* vertical integration within the industry. Although the groundfish fishery under consideration by the Pacific Council does not contain a processing quota option (only an excessive allocation of harvesting quota to processors), the problems of vertical integration and excessive control may well still exist.

One of the tools to analyze those effects, used in the BSAI crab fisheries includes extensive reporting of otherwise private economic data by quota holders, subject to continuing analysis and Council review. The economic data reporting requirement resulted from processors agreeing to such revealing and intrusive data collection in exchange for the unique privilege or receiving processing quota. The authority for the reporting requirement is derived from the statutory mandate to implement the program, a mandate that was specific to the rationalization program for the BSAI crab fisheries.

Although such reporting may be beneficial in the fisheries under discussion, the Council and NOAA Fisheries lack legal authority to require it; specific legislative authority would be required. Currently, the MSA prohibits the collection of financial and business information. In Section 402, the Act provides as follows:

> **(a) COUNCIL REQUESTS.**--If a Council determines that additional information (***other than information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations***) would be beneficial for developing, implementing, or revising a fishery management plan or for determining whether a fishery is in need of management, the Council may request that the Secretary implement an information collection program for the fishery which would provide the types of information (***other than information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations***) specified by the Council. The Secretary shall undertake such an information collection program if he determines that the need is justified, and shall promulgate regulations to implement the program within 60 days after such determination is made. If the Secretary determines that the need for an information collection program is not justified, the Secretary shall inform the Council of the reasons for such determination in writing. The determinations of the Secretary under this subsection regarding a Council request shall be made within a reasonable period of time after receipt of that request. [*emphasis supplied*]

Accordingly, unless the Council requests and receives specific legislative authority to collect the otherwise prohibited financial and business information, perhaps the best way to insure that excessive controls are not exerted by a handful of quota holders in the fishery is to insure that the rules provide for a fair and rational distribution of the shares,

and not devise a "super-allocation" for processors in the initial distribution element of the program.

Why Stop With Processors?

In any program designed to drain excess harvesting capacity from a fishery, the operating assumption is that the fishery is "overcapitalized" (defined by some as "too many boats chasing too few fish"). The economics of the fishery are thus skewed by spending too much money "up front" to harvest the fish in the race for fish environment, resulting in inefficiencies, safety issues, product quality declines, waste, etc.

As a result of the economic inefficiencies and their attendant problems, transferable quota programs are designed to allow harvesters to "rationalize" the economics of the fishery. This is accomplished by allowing fishermen to trade (buy and sell) shares, normally under certain rules specific to the fishery. Thus, the "excess capital" is, over time, removed from the fishery and the savings are shared with participants.

It should be noted, however, that others benefit from the race for fish. Vessel builders and ship yards, insurers, fuel suppliers, part-time crew members, processors, etc. all benefit, to some extent, from the money being spent on the race. And all of those "sectors" of the industry will be disadvantaged, at least to some extent, by ending the race.

But not all of them can be compensated, and certainly not with a special allocation of shares. Under these circumstances, it seems fundamentally unfair to only address the potential distress of processors.[2]

One approach that has been considered, and deserves more thought and analysis, is the possibility of allowing anyone who suffers a loss that can be directly attributed to the reallocation of capital resulting from the program to formalize a claim that documents the nature and extent of the loss. With such information in hand, those with claims could present them to an independent Council-appointed group to evaluate. When all losses have been totaled, Congress could allocate a "loan" to the industry to compensate for the losses, with such a loan to be repaid over time by a small ex-vessel tax on the landings. This is conceptually very similar to the current vessel/permit buyback provisions of the MSA, and would help all segments of the industry, not just the segment with the most political power.

[2] Processors benefit from the race to fish by decreeing when they wish to see product arrive at the docks, thus limiting their business expenses to shorter periods of time; further, because fishermen have only a narrow window of time in which to fish, processors are advantaged at the bargaining table. Rationalizing a fishery simply returns the relationship between processors and harvesters to the "status quo ante" (i.e., the relationship that existed before the overcapitalization that causes the race.

Disproportionate Bargaining Power

As noted above (and in the Wilen report), one of the arguments for allocating extra harvesting shares to processors is to insure that the bargaining table for price formation is relatively level. A concern expressed is that holding IFQs, and the ability to fish them at any time during a lengthened season, will give harvesters disproportionate bargaining power. But (as noted by Dr. Wilen) such an assertion is unfounded. There are so very few processors that a bigger problem may well be processor collusion in setting prices, in violation of anti-trust laws.

Either way, one solution that has been proposed to the unequal bargaining power problem (if such exists) is an arbitration system similar to that used to form prices in the BSAI crab fisheries. Although that system appears to work, it does so only because a federal regulation, premised on a specific federal law, requires the parties to bargain in good faith; further, it provides for binding arbitration in situations where good faith bargaining sessions lead to impasse.

Although the Alaska arbitration system may work in the crab fisheries, it can not be exported and mandated by the Pacific Council for the groundfish fishery without specific legislation to authorize it. I have not conducted any formal research on the matter, but officials with both NOAA Fisheries (NMFS) and staff to the North Pacific Council agree with that assessment.

So What to Do?

As noted, there do not appear to be any truly meritorious arguments for allocating additional shares to processors. However, in a process that is fundamentally political, the Council may find it necessary, or desirable, to make such an allocation. That can be done, but doing so should not be done on the current record. There are alternative ways to accomplish the task.

Get Good Data

Obtaining better ownership information is imperative before making an allocation that could well result in a violation of National Standard 4's prohibition on any entity holding an "excessive share" of the quota. The Council, and NOAA Fisheries, should collaborate on rule-making to require any non-individually held entity (corporation, partnership, etc.) to fully disclose its entire ownership structure to NOAA Fisheries and the Council. Only with those data in hand can the Council make an informed and rational judgment about the advisability of allocating additional quota to processors.

Consider a "Trailing Amendment"

While the basic program recommendation (without the extra processor allocation) goes forward to rule-making and implementation, the Council can conduct the data-gathering and analysis exercise and consider whether to proceed with its preliminary

recommendation to allocate additional quota to processors. If, having conducted the analysis, the Council decides to proceed with the recommendation, it can pass an amendment to the program to accomplish the goal.

Although such an amendment would no doubt be disruptive to the implementation process, and cause anxiety among fishery participants, it could be done. Even if the initial allocation had proceeded (unlikely, in consideration of the time and tasks required to implement this very complex program), a "post-implementation" adjustment in the allocation could be accomplished. There are two ways in which this could happen:

1. Simply decree the shift in share allocation and simply reduce shares held by all non-processors and re-allocate those shares to qualified processors in one step; or, in a more orderly fashion,

2. Accomplish the transfer of quota over time, with a small percentage reduction in non-processor shares (over a period of years) and reallocation. Though this would be less fraught for the harvesters, it would also inject an element of uncertainty into the intended market advantages of the program and would make business planning more difficult.

Trailing amendments have been used extensively in Alaska's limited access efforts. The Council, wishing the basic program to go forward, has put off formal adoption of one or more elements until more data were available and the public had a chance to fully understand, and comment on, the proposal. Examples of such amendments include the "block" system for the halibut/sablefish IFQ program (and subsequent adjustments to the basic program), some features of the groundfish and crab License Limitation Program, the adjustment of the fishery definitions in the BSAI crab fisheries, etc.

In other words, in what is clearly a dynamic process, the Council can make adjustments to the program when its information has improved and the requirements of the program demand it. Although that is not always tidy, it is preferable to starting the program with a glaringly unfair misallocation problem.

Conclusion

In this short paper, I have tried to offer helpful comments on the proposal to allocate additional shares to processors in the West Coast groundfish fishery. The findings and conclusions are my own, and I take responsibility (and blame, if need be) for any errors of misconceptions.

Persons with questions or comments may contact me at the address provided in the appendix (overleaf):

Philip J. Smith
Juneau, Alaska
October 2008

Appended:

1. Information (bio) on Phil Smith

2. National Standards from the Magnuson-Stevens Fishery Conservation and Management Act

About Phil Smith

Phil Smith retired from NOAA Fisheries in late 2006. In his 13 years with that agency, he organized and staffed the Restricted Access Management (RAM) Division, the Alaska Regional organization unit that implemented all of the Alaska Region's limited access programs (including the halibut and sablefish IFQ system, the groundfish and crab license limitation program, the American Fisheries Act, and the Bering Sea/Aleutian Islands crab rationalization program). Phil's job was to take a Council-passed limited entry system, assist with the regulatory development, engage the interested public with informational visits and other communications, oversee the application and issuance procedures, provide access to the administrative appeals system, and maintain the programs over time.

Prior to NOAA Fisheries, for eight years (1983 – 1991), Phil served as a Commissioner on the State of Alaska's Commercial Fisheries Entry Commission. While on the Commission, he worked with two colleagues to devise regulations to implement the Alaska Limited Entry statute, governing almost all State-water fisheries.

In addition to his hands-on work experience, he has also done considerable writing and research on limited access systems world-wide, and has presented papers and served on panels at fishery conferences, not only in the U.S. but at international events in Australia, Canada, South Africa, and Chile. Most recently, he was an invited expert at a two-day symposium for Council members from around the U.S., sponsored by Duke and Stanford Universities, and organized by the Environment Defense Fund (the "Fisheries Leadership and Sustainability Forum").

Phil was raised in rural Alaska (primarily Cordova) and has extensive early experience as a commercial fisherman and cannery worker. He's a veteran, and also has ten years experience working with rural Alaskan communities in addressing their social and economic concerns. He is currently consulting on a limited basis. Recent clients have included the Environmental Defense Fund (writing and research on limited access programs), the Alaska Marine Conservation Council (program development), and the Chenega Corporation (fisheries strategic planning and community involvement in the halibut and sablefish fisheries).

Phil and his wife Deborah live in Juneau, Alaska; their two grown children live in Amsterdam and Anchorage, so keeping up with family obligations is a major effort!

Phil Smith
dba Phil Smith & Associates
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Juneau, Alaska
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National Standards from Section 304 of the Magnuson-Stevens Fishery Conservation and Management Act

1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

(2) Conservation and management measures shall be based upon the best scientific information available.

(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(5) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

Agenda Item F.3.h
Supplemental Public Comment 18
November 2008

Shorebased Whiting Only

- Allocation of Whiting Quota 80% to vessel permit owners; 20& to processors.
- Harvesting history years: 1994- 2003, drop two years.
- Processing history years: 1998-2004, drop two years.
- No adaptive management shorebased whiting fishery.
- Use it or lose it provision.

Handed out during testimony of:

Joe Plesha

David Jincks

Richard Carroll

F.3.h

Agenda Item F.3.h
Supplemental Public Comment 19
November 2008

November 7, 2008

To members of the Pacific Fishery Management Council:

Yesterday during public testimony, Craig Urness made a statement that a meeting had been held where a proposal was presented regarding distribution of ITQ shares in the non-whiting groundfishery. This was described as 80% going to harvesters, 15% going to processors and 5% held back for adaptive management. Craig Urness reported there was a lot of interest in this proposal.

We have drafted and circulated the attached letter to show that this is not true. Most of us did not know about the meeting to which Craig is referring. We have not been able to identify any fisherman that is in agreement with the proposal.

We hope that this will correct the false impression that may have been created by Mr. Urness's testimony.

F.3.h

November 6, 2008

Chairman Donald K. Hansen
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

Dear Chairman and members of the Council,

We the undersigned representatives of the west coast groundfish trawl fleet wish to reiterate our support for 100% allocation to harvesters coupled with an Adaptive Management Program as a critical component of Amendment 20.

We support the Adaptive Management Program with the understanding that it is in lieu of any allocation of harvester shares to processors. We unanimously oppose any allocation of harvester shares to processors.

We believe the Adaptive Management Program, once more detail has been developed, can serve to meet important community stability needs and assist the Council in addressing unintended consequences. We look forward to working collaboratively with the Council and other stakeholders to flesh out the AMP.

Sincerely,

KEVIN L. DUNN

Table B-3. Permit level participation in the mothership whiting fishery and the effect of qualification years (only includes permits that meet the minimum metric ton threshold for CV(MS) endorsement qualification).

		Qualification Years Considered for Receiving a Mothership CV Endorsement									
	AD-HOC PERMIT ID	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Permits Included/ Excluded by Formula	A		X								
	B		X		X						
	C			X	X	X					
	D			X			X	X			
	E	X		X	X						
	F	X	X		X	X					
	G	X			X	X					
	H	X	X	X	X		X		X		
	I	X			X	X	X				
	J			X	X	X	X	X			
	K					X	X	X	X		
	L					X	X	X	X	X	X
	M	X	X	X	X	X	X	X			
	N	X	X	X	X	X	X	X			
	O	X		X	X	X	X	X	X		
Permits Not Affected by Formula	P	X	X	X	X	X	X	X			X
	Q	X	X		X	X	X	X	X		
	R	X		X	X	X	X	X	X	X	
	S	X	X	X	X	X	X	X	X		
	T					X	X	X	X	X	X
	U	X	X	X	X	X	X	X	X		X
	V	X	X	X				X	X	X	X
	W	X	X	X	X	X	X	X	X		
	X	X	X	X	X	X	X	X	X	X	X
	Y	X		X	X	X	X	X	X	X	X
	Z	X	X	X	X	X	X	X	X	X	X
	AA	X	X	X	X	X	X	X	X	X	X
	BB	X	X	X	X	X	X	X	X	X	X
	CC	X	X	X	X	X	X	X	X	X	X
	DD		X	X	X	X	X	X	X	X	X

- Effect of Catch History Calculation Formulas

The effect of the two catch history calculation formulas is shown in the figure below. The results of both formulas are plotted against the average catch share for each permit during the years 2003 to 2006. This compares the allocation of catch history to status quo participation, and shows that both allocation formulas grant catch history to more permits than were active over the 2003 to 2006 time period. The difference between the two catch history formulas is slight for most permits, though some permits see differences of several percentage points. When compared to catch during the 2003 to 2006 period (the period after the control date), some permits receive catch shares that differ very little, while others receive catch shares that are several percentage points different.

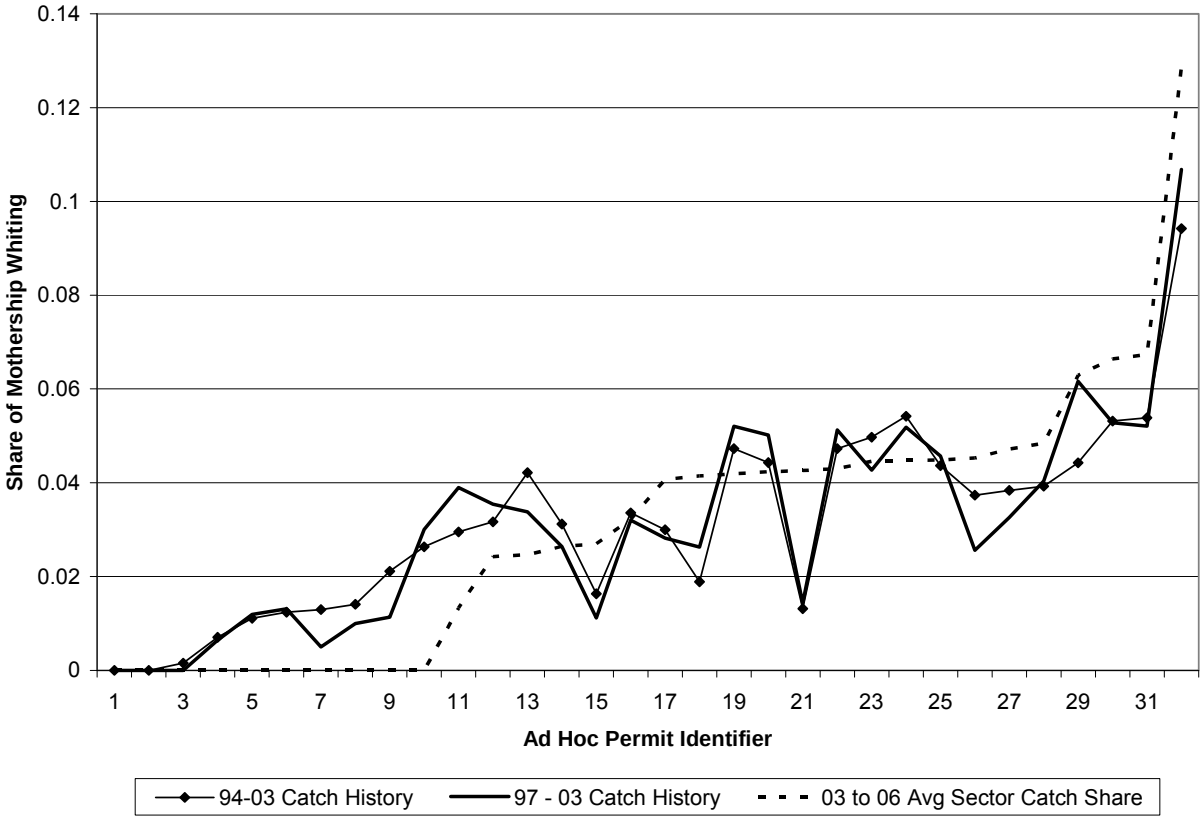

Figure B-2. Catch history distributions to permits by calculation formula.

When catch history distributions are estimated at the business entity level, the effect is somewhat different than when examined at the permit level. Like the permit level, only one entity exceeds the 10 percent accumulation limit (because it only holds a single permit), but the distribution across entities looks different than the distribution across permits. Some entities receive catch histories that are several percentage points different than their recent catch shares regardless of the allocation formula.

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 1: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
General Provisions - Whiting Co-ops			
		The mothership and catcher-processor sectors will be managed under a co-op system rather than an IFQ system	***Same as June***
Bycatch Rollover	B-1.3.2	Option 1 - Unused bycatch may be rolled over from one sector to another if the sector's full allocation of whiting has been harvested or participants do not intend to harvest the remaining sector allocation	Same as June
Bycatch Management	B-1.3	Subdivide bycatch among whiting sectors and within sectors, subdivide between co-op and non-co-op fishery and among co-ops within sectors	Same as June
At-Sea Observers/ Monitoring	B-1.4	Include as specified	Same as June
Mandatory Data Collection	B-1.5	Include as specified	Same as June

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 2: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Mothership (MS) Sector			
Groundfish LE Permit Length Endorsement	B-1	Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel); and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had recommended removal of the length endorsement
Processor Participation	B-2.1a & c & B-2.2c	As specified for CVs and processors. Vessels excluded: Motherships operating as a catcher-processor may not operate as a mothership during a year in which it also participates as a catcher-processor	Same as June
Catcher Vessel Allocations	B-2.2a	Qualifying for a CV whiting endorsement in the MS fishery: minimum 500 mt in 1994-2003	Same as June
		Catch history assignment: 1994-2003, drop 2 years	Same as June
		Bycatch history assignment: Pro-rata in proportion to whiting catch assignment	Not addressed in June
Whiting Endorsement Transferability	B-2.2b	Transfer Option 1 - The CV whiting endorsement may not be severed from the permit	In June, Option 2 - change underlined
		CV permits may be transferred two times during the fishing year, provided that the second transfer is back to the original CV (I.e., only one transfer per year to a different CV).	In June, allowed two transfers per year
MS Processor Permit Qualification	B-2.2a	Qualifying Entities: The owner or bareboat charterer of qualifying motherships will be issued MS permits	Same as June
		Qualification Requirements: Minimum requirement of 1000 mt of whiting in any two years, 1997-03	Same as June
MS Processor Permit Transferability	B-2.2c	Transferability: MS permits will be transferable and MS permits may be transferred to a vessel of any size	Same as June
		Option 1 - MS permits may not be transferred to a vessel engaged in harvest of whiting in the year of the transfer	Same as June
		Modified Option - MS permits may be transferred two times during the fishing year, provided that the second transfer is back to the original mothership (I.e., only one transfer per year to a different mothership).	In June, had allowed two transfers per year
		Usage Limit: No individual or entity owning an MS permit may process more than 45% of the total MS sector whiting allocation	In June, had limited usage to 40%

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 3: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Catcher Processor Sector			
General Provisions	B-4	Adopt a co-op for the catcher-processor sector; include provisions as specified	Same as June
		Specify harvest amounts in regulation for co-op	
		Do not require unanimous consent for a member to leave the co-op	Same as June
		If the voluntary co-op fails, then QS will be divided equally among ten CP permits in sector	Same as June
		Catcher processor cannot operate as a mothership during the same year it participates in the CP fishery	Same as June
		Mandatory data collection included	Same as June
		Annual co-op report required	Same as June
		Bycatch: The CP sector fishery will close based on projected attainment of its bycatch allocation	Same as June
CP Endorsement		Create a catcher-processor endorsement to be placed on qualified limited entry permits. Qualified permits are those that harvested and processed in the catcher-processor sector of the whiting fishery sometime from 1997-2003. Limited entry permits with catcher-processor endorsements will continue to be transferable; however, the endorsement is not severable from the permit.	Same as June
Permit Transfer		CP permits may be transferred two times during the fishing year, provided that the second transfer was back to the original CP (I.e., only one transfer per year to a different CP).	In June, had allowed one transfer per year (status quo).
Length Endorsement		Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement; and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had retained length endorsement

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Topic	Section	Council Preferred Alternative	Change from June?
Co-op Formation	B-2.3.1	Co-ops are not required, but may be voluntarily formed. A minimum of 20% CV permit holders is required to form a co-op. This minimum threshold balances the potential advantages for multiple co-ops while limiting implementation and management costs and administrative requirements for managing this sector.	In June, had required minimum of one co-op
		Subdivide whiting between co-op and non-co-op fishery and among co-ops within sectors.	Same as June
		In the event there is more than one co-op, whiting and bycatch QP will be transferable between co-ops through an inter-co-op agreement.	Same as June
		The non-co-op fishery will close based on projected attainment of their allocation of either whiting or one or more bycatch species	Same as June
Co-op Agreement Provisions	B-2.3.3e	Include as specified. The intent is to have MS participants work with NMFS to develop and describe a process and co-op agreement requirements to include in the implementing regulations for this action.	Same as June
Initial Ties to the Motherships	B-2.4.1	No processor tie. By September 1 of the year prior to implementation and every year thereafter, CV permit is required to contact NMFS and indicate whether CV permit will be participating in the co-op or non-co-op fishery in the following year. If participating in the co-op fishery, then CV permit must also provide the name of the MS permit that CV permit QP will be linked to in the following year (i.e., annual CV-MS linkage that may be changed each year without requirement to go into "open access" fishery). Once established, the CV-MS linkage shall remain in place until changed by CV permit.	In June, required 90% processor tie and allowed "stacking" of 10%
		By July 1 of the year prior to implementation and every year thereafter, if CV permit would be participating in the co-op fishery in the following year, then CV permit must notify the MS permit that the CV permit QP will be linked to in the following year.	
		In the event there is agreement between the CV permit holder and the MS permit holder to which it is linked, the QP may be transferred to another MS permit.	Same as June
MS Processor Withdrawal	B-2.4.2	If the MS permit withdraws subsequent to QP assignment, then the CV permits that it is linked with is free to participate in the co-op or non-co-op fishery. The MS permit shall notify NMFS and linked CV permits of its withdrawal, and CV permits shall notify NMFS of their intent to participate in the co-op or non-co-op fishery thereafter. If continuing in co-op fishery, then CV permit shall provide NMFS with the name of the MS permit for new linkage.	

Verbal Motions on Trawl Rationalization on Friday November 7, 2008

Motion: ~~The Council should manage the non-whiting fishery in a status quo manner (no IFQ).~~ Failed

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 4: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
IFQ Program			
General Provisions	A-1	Applies to shoreside whiting and non-whiting fisheries	Same as June
Scope: Gears and Fisheries Covered	A-1.1	Modified Option 2 - If a vessel has an LE trawl permit and groundfish is caught by any gear, IFQ must be used, with the following exceptions: exempted trawl, coastal pelagic species gear, highly migratory species gear, salmon troll, crab pot, and LE fixed gear (when it is declared they are fishing against their endorsement).	Not addressed in June
Gear Switching and Conversion	A-1.1 & 1.7	Gear switching allowed. Do not include provisions for permanent gear conversion.	Change underlined
IFQ Management Units: Species	A-1.2	<u>For non-whiting sector</u>, IFQ is required for all species, except: longspine S. of 34.27'; minor nearshore rockfish (N & S); black rockfish (WOC); CA scorpionfish; cabezon; kelp greenling; shortbelly rockfish; other rockfish; spiny dogfish. The catches of these species would be accounted for and tracked against the overall OY. If a trawl allocation for any of these species is adopted in the future, then QS/QP for those species could be added at that time. <u>For whiting fisheries, IFQ required for whiting and the following species; sablefish, widow, canary, and darkblotched rockfish, and Pacific ocean perch. The catches of all groundfish species would be accounted for and tracked against the overall OY.</u>	Change underlined
Area Management	A-1.2	<u>For species managed under coastwide OY with precautionary harvest policy (I.e., 40:10 or some other policy) applying to a specific area, subdivide the OY and apply the precautionary policy as recommended by the Council's SSC.</u>	Only applies to species currently managed in this manner, rather than all species
Number of Trawl Sectors	A-1.3	Three trawl sectors	Same as June
Limited Entry Permit Length Endorsement	A-1.6	<u>Retain the length endorsement for permits, with a modification: If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel).</u>	In June, had recommended removal of the length endorsement
Initial Allocation - Whiting	A-2.1	<u>80% to harvesters;20% to processors (no adaptive management)</u>	In June: 80 harvesters/20 processors (with 10 adaptive)
Initial Allocation - Non-whiting	A-2.1	<u>90% harvesters; 10% to adaptive management</u>	In June: 80 harvesters/20 processors (with 10 adaptive)
Attributing and Accruing Processor History	A-2.1.1	Option 3 (whiting) - Attribute history to the receiver reported on the fish ticket, except history may be reassigned to an entity not on the landings receipt, if parties agree or through an agency appeals process	Two options adopted in June (1 and 3)

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 5: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Recent Participation Requirements (Permits)	A-2.1.2	Recent participation not required	Same as June
Recent Participation Requirements (Processors - SS)	A-2.1.2	Option 2 (whiting) - 1 mt or more of deliveries from whiting trips in each of any two years from 1998-04	Change underlined
Allocation Formula for Catcher Vessel Permits	A-2.1.3	Option 2 – An equal division of the buyback permits' pool of QS for all groundfish, except overfished species, among all qualifying permits plus allocation of the remaining QS based on each permit's history	Same as June, but not for allocation of OF species
		Non-whiting non-overfished species: Use permit catch history (1994-03, drop 3 worst years)	Same as June
		Non-whiting overfished species: Modified option 2 - use finer scale bycatch rates	Change underlined
		Shoreside Whiting: Use 1994-03, drop 2 worst years	Same as June
		Shoreside Whiting overfished species: Option 2 - pro-rata based on whiting allocation	Same as June
Allocation Formula for Processors	A-2.1.3	Shoreside Whiting: No bycatch allocation; whiting allocation based on 1998-2004 (drop 2 worst years) and use relative history	Same as June
Permit Holding Requirement	A-2.2.1	If a vessel has an overage: Element 4 - Allow exceptions for vessel to participate in the fisheries for which IFQ would not be required to cover groundfish catch: exempted trawl; CPS purse seine; HMS fisheries; salmon troll; and crab pot. Element 6 - Alternative compliance options would not apply.	In June, had included Elements 4 and 6; change underlined
Carryover	A-2.2.2	Will not apply to QP that are not transferred to a vessel's account	Same as June
Eligibility to Own or Hold	A-2.2.3a	Include as specified (p. A-212)	Same as June
Temporary Transfer Rules	A-2.2.3c	Suboption 2 - QS will not be transferred in the first two years of the program (QP will be transferable)	Same as June
Accumulation Limits	A-2.2.3e	It is the intent of the Council to have accumulation limits. However, the details of the accumulation limits would be further developed and analyzed through a trailing action. Items to be addressed through the trailing action would include: 1) identification of the species that would be subject to accumulation limits; 2) description of how to treat overfished species; 3) determination of whether to apply accumulation limits at the vessel (usage) or entity (ownership/control) level or both; 4) how accumulation limits would be tracked, and 5) how accumulation limits would apply to and affect community based or regional fishing associations. The intent would be to have the trailing action process completed in time for the accumulation limits to begin upon implementation of the trawl rationalization program.	Needs specificity
Grandfather Clause	A-2.2.3	No grandfather clause	Same as June

Amendment to WDFW Motion 5 – Rod Moore

Allocation formula for processors is amended to include:

"*Allocate whiting quota share based on the entity's history for the allocation period of 1998 – 2004 (drop two worst years) and use relative history*"

This amends section A-2.1.3(d) of the IQ alternatives regarding whiting

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 6: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Tracking and Monitoring	A-2.3.1	Program: Alt 1 - discards allowed; discards of IBQ required	Same as June
		At-sea Catch Monitoring - Non-whiting: Alt 2 - At-sea observers required	Same as June
		Shoreside Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		At-sea Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		MS and CP: Remove reference to "supplemental video monitoring on processors may also be used"	Same as June
		Shoreside Catch Monitoring - Include as specified	Same as June
		Catch Tracking Mechanisms - Include as specified	Same as June
		Landing Hour Restrictions: Landing hours may be restricted	In June, had Alt 2 - landing hours limited
		Vessel Certification - Include as specified	Same as June
		Program Performance Measures - Include as specified	Same as June
Data Collection	A-2.3.2	Include as specified	Same as June
Program Costs	A-2.3.3	Cost Recovery: Option 1 - Fees up to 3%	Same as June
Program Duration and Modification	A-2.3.4	Include as specified: 4-year review process	Same as June
Pacific Halibut IBQ	A-4	Establish limit for legal-sized Pacific halibut bycatch mortality through the use of an IBQ in the trawl fishery up to 10% of the Area 2A Constant Exploitation Yield (CEY) as set by the International Pacific Halibut Commission. This amount will be set initially at 10% and may be adjusted through the biennial specifications process.	Needed specificity
Other Provisions		Require that all QP be deposited into a vessel account each year	
		Require that all retained IFQ non-whiting groundfish in the non-whiting groundfish fishery be landed shoreside (i.e., no at-sea landings allowed for non-whiting groundfish). Ensuring that non-whiting groundfish continues to be delivered shoreside helps protect shoreside processors and communities that have historically relied on groundfish deliveries.	
		Initiate a trailing action process to require eligibility criteria to own or hold QS (e.g., ownership interest in a vessel or permit) to help ensure that QS holders have direct ties or investments in the fishery. Requirements should not be so onerous so as to preclude or discourage crew members, for example, from acquiring QS and entering the fishery.	

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 7: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Adaptive Management	A-3	It is the intent of the Council to have an adaptive management program for the shoreside non-whiting sector. Up to 10% of the non-whiting QS will be reserved for this program. QS will be divided among the 3 states. QS/QP will be provided through separate, but parallel, processes in each of the three states (e.g., through the use of regional fishery associations or community stability plans or other means). Further details will be developed through a trailing action with the intent of having the adaptive management provisions apply during the first year of implementation of the trawl rationalization program.	Needs specificity

Amendment on adaptive management (A-3) – Rod Moore

Note: This Amendment was withdrawn, not voted on.

The Council will allocate 10% of target species quota shares (QS) to be set aside for fishing communities.

The Council will distribute these shares to fishing communities (as defined) on a first-come, first-serve basis with no less than 3% available to fishing communities in each of the states of Washington, Oregon, and California. Distributions will be made in perpetuity subject to future action by the Council. Special accumulation caps will apply to fishing communities. Upon dissolution of a fishing community, QS will revert to the Council to be redistributed. At the end of the 6 year period following initial implementation of the IQ system, any QS not distributed to fishing communities or returned following dissolution of a fishing community shall be distributed to initial recipients of QS on the same basis as QS were originally distributed.

Definition of fishing community:
A fishing community shall consist of one shoreside processor (as defined under A-2.1.1(c)) of non-whiting groundfish and at least 2 entities owning or holding non-whiting groundfish quota shares. The fishing community may include other entities. Members of the fishing community must demonstrate by a signed contract among all parties that QS issued to the fishing community will be harvested and processed in the port where the processor is located and must provide a business plan showing how the QS will be used.

Note: This Amendment was withdrawn, not voted on.

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 1: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
General Provisions - Whiting Co-ops			
		The mothership and catcher-processor sectors will be managed under a co-op system rather than an IFQ system	
Bycatch Rollover	B-1.3.2	Option 1 - Unused bycatch may be rolled over from one sector to another if the sector's full allocation of whiting has been harvested or participants do not intend to harvest the remaining sector allocation	Same as June
Bycatch Management	B-1.3	Subdivide bycatch among whiting sectors and within sectors, subdivide between co-op and non-co-op fishery and among co-ops within sectors	Same as June
At-Sea Observers/ Monitoring	B-1.4	Include as specified	Same as June
Mandatory Data Collection	B-1.5	Include as specified	Same as June

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 2: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Mothership (MS) Sector			
Groundfish LE Permit Length Endorsement	B-1	Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel); and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had recommended removal of the length endorsement
Processor Participation	B-2.1a & c & B-2.2c	As specified for CVs and processors. Vessels excluded: Motherships operating as a catcher-processor may not operate as a mothership during a year in which it also participates as a catcher-processor	Same as June
Catcher Vessel Allocations	B-2.2a	Qualifying for a CV whiting endorsement in the MS fishery: minimum 500 mt in 1994-2003	Same as June
		Catch history assignment: 1994-2003, drop 2 years	Same as June
		Bycatch history assignment: Pro-rata in proportion to whiting catch assignment	Not addressed in June
Whiting Endorsement Transferability	B-2.2b	Transfer Option 1 - The CV whiting endorsement may not be severed from the permit	In June, Option 2 - change underlined
		CV permits may be transferred two times during the fishing year, provided that the second transfer is back to the original CV (I.e., only one transfer per year to a different CV).	In June, allowed two transfers per year
MS Processor Permit Qualification	B-2.2a	Qualifying Entities: The owner or bareboat charterer of qualifying motherships will be issued MS permits	Same as June
		Qualification Requirements: Minimum requirement of 1000 mt of whiting in any two years, 1997-03	Same as June
MS Processor Permit Transferability	B-2.2c	Transferability: MS permits will be transferable and MS permits may be transferred to a vessel of any size	Same as June
		Option 1 - MS permits may not be transferred to a vessel engaged in harvest of whiting in the year of the transfer	Same as June
		Modified Option - MS permits may be transferred two times during the fishing year, provided that the second transfer is back to the original mothership (I.e., only one transfer per year to a different mothership).	In June, had allowed two transfers per year
		Usage Limit: No individual or entity owning an MS permit may process more than 45% of the total MS sector whiting allocation	In June, had limited usage to 40%

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Topic	Section	Council Preferred Alternative	Change from June?
Co-op Formation	B-2.3.1	Co-ops are not required, but may be voluntarily formed. A minimum of 20% CV permit holders is required to form a co-op. This minimum threshold balances the potential advantages for multiple co-ops while limiting implementation and management costs and administrative requirements for managing this sector.	In June, had required minimum of one co-op
		Subdivide whiting between co-op and non-co-op fishery and among co-ops within sectors.	Same as June
		In the event there is more than one co-op, whiting and bycatch QP will be transferable between co-ops through an inter-co-op agreement.	Same as June
		The non-co-op fishery will close based on projected attainment of their allocation of either whiting or one or more bycatch species	Same as June
Co-op Agreement Provisions	B-2.3.3e	Include as specified. The intent is to have MS participants work with NMFS to develop and describe a process and co-op agreement requirements to include in the implementing regulations for this action.	Same as June
Initial Ties to the Motherships	B-2.4.1	No processor tie. By September 1 of the year prior to implementation and every year thereafter, CV permit is required to contact NMFS and indicate whether CV permit will be participating in the co-op or non-co-op fishery in the following year. If participating in the co-op fishery, then CV permit must also provide the name of the MS permit that CV permit QP will be linked to in the following year (i.e., annual CV-MS linkage that may be changed each year without requirement to go into "open access" fishery). Once established, the CV-MS linkage shall remain in place until changed by CV permit.	In June, required 90% processor tie and allowed "stacking" of 10%
		By July 1 of the year prior to implementation and every year thereafter, if CV permit would be participating in the co-op fishery in the following year, then CV permit must notify the MS permit that the CV permit QP will be linked to in the following year.	
		In the event there is agreement between the CV permit holder and the MS permit holder to which it is linked, the QP may be transferred to another MS permit.	Same as June
MS Processor Withdrawal	B-2.4.2	If the MS permit withdraws subsequent to QP assignment, then the CV permits that it is linked with is free to participate in the co-op or non-co-op fishery. The MS permit shall notify NMFS and linked CV permits of its withdrawal, and CV permits shall notify NMFS of their intent to participate in the co-op or non-co-op fishery thereafter. If continuing in co-op fishery, then CV permit shall provide NMFS with the name of the MS permit for new linkage.	

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 3: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Catcher Processor Sector			
General Provisions	B-4	Adopt a co-op for the catcher-processor sector; include provisions as specified	Same as June
		Specify harvest amounts in regulation for co-op members	Same as June
		Do not require unanimous consent for a member to leave the co-op	Same as June
		If the voluntary co-op fails, then QS will be divided equally among ten CP permits in sector	Same as June
		Catcher processor cannot operate as a mothership during the same year it participates in the CP fishery	Same as June
		Mandatory data collection included	Same as June
		Annual co-op report required	Same as June
		Bycatch: The CP sector fishery will close based on projected attainment of its bycatch allocation	Same as June
CP Endorsement		Create a catcher-processor endorsement to be placed on qualified limited entry permits. Qualified permits are those that harvested and processed in the catcher-processor sector of the whiting fishery sometime from 1997-2003. Limited entry permits with catcher-processor endorsements will continue to be transferable; however, the endorsement is not severable from the permit.	Same as June
Permit Transfer		CP permits may be transferred two times during the fishing year, provided that the second transfer was back to the original CP (I.e., only one transfer per year to a different CP).	In June, had allowed one transfer per year (status quo).
Length Endorsement		Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement; and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had retained length endorsement

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 4: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
IFQ Program			
General Provisions	A-1	Applies to shoreside whiting and non-whiting fisheries	Same as June
Scope: Gears and Fisheries Covered	A-1.1	Modified Option 2 - If a vessel has an LE trawl permit and groundfish is caught by any gear, IFQ must be used, with the following exceptions: exempted trawl, California halibut trawl, coastal pelagic species gear, highly migratory species gear, salmon troll, and crab pot.	Not addressed in June
Gear Switching and Conversion	A-1.1 & 1.7	Gear switching allowed. Do not include any provisions for permanent gear conversion.	Change underlined
IFQ Management Units: Species	A-1.2	For non-whiting sector, IFQ is required for all species, except: longspine S. of 34.27'; minor nearshore rockfish (N & S); black rockfish (WOC); CA scorpionfish; cabezon; kelp greenling; shortbelly rockfish; other rockfish; spiny dogfish. The catches of these species would be accounted for and tracked against the overall OY. If a trawl allocation for any of these species is adopted in the future, then QS/QP for those species could be added at that time. For whiting fisheries, IFQ required for whiting and species with bycatch caps. Bycatch caps would be established for: widow, canary, and darkblotched rockfish, and Pacific ocean perch. The catches of all groundfish species would be accounted for and tracked against the overall OY.	Change underlined
Area Management	A-1.2	For species managed under coastwide OY with precautionary harvest policy (I.e., 40:10 or some other policy) applying to a specific area, subdivide the OY and apply the precautionary policy as recommended by the Council's SSC.	Only applies to species currently managed in this manner, rather than all species
Number of Trawl Sectors	A-1.3	Three trawl sectors	Same as June
Limited Entry Permit Length Endorsement	A-1.6	Retain the length endorsement for permits, with a modification: If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel).	In June, had recommended removal of the length endorsement
Initial Allocation - Whiting	A-2.1	80% to harvesters; 20% to processors (no adaptive management)	In June: 80 harvesters/20 processors (with 10 adaptive)
Initial Allocation - Non-whiting	A-2.1	90% to harvesters; 10% to adaptive management	In June: 80 harvesters/20 processors (with 10 adaptive)
Attributing and Accruing Processor History	A-2.1.1	Option 3 (whiting) - Attribute history to the receiver reported on the fish ticket, except history may be reassigned to an entity not on the landings receipt, if parties agree or through an agency appeals process	Two options adopted in June (1 and 3)

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 5: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Recent Participation Requirements (Permits)	A-2.1.2	Recent participation not required	Same as June
Recent Participation Requirements (Processors - SS)	A-2.1.2	Option 2 (whiting) - 1 mt or more of deliveries from whiting trips in each of any two years from 1998-04	Change underlined
Allocation Formula for Catcher Vessel Permits	A-2.1.3	Option 2 – An equal division of the buyback permits' pool of QS for all groundfish, except overfished species, among all qualifying permits plus allocation of the remaining QS based on each permit's history	Same as June
		Non-whiting non-overfished species: Use permit catch history (1994-03, drop 3 worst years)	Same as June
		Non-whiting overfished species: Modified option 2 - use finer scale bycatch rates	Change underlined
		Shoreside Whiting: Use 1994-03, drop 2 worst years	Same as June
		Shoreside Whiting overfished species: Option 2 - pro-rata based on whiting allocation	Same as June
Allocation Formula for Processors	A-2.1.3	Shoreside Whiting: No bycatch allocation; whiting allocation only	Same as June
Permit Holding Requirement	A-2.2.1	If a vessel has an overage: Element 4 - Allow exceptions for vessel to participate in the fisheries for which IFQ would not be required to cover groundfish catch: exempted trawl; California halibut trawl; CPS purse seine; HMS fisheries; salmon troll; and crab pot. Element 6 - Alternative compliance options would not apply.	In June, had included Elements 4 and 6; change underlined
Carryover	A-2.2.2	Will not apply to QP that are not transferred to a vessel's account	Same as June
Eligibility to Own or Hold	A-2.2.3a	Include as specified (p. A-212)	Same as June
Temporary Transfer Rules	A-2.2.3c	Suboption 2 - QS will not be transferred in the first two years of the program (QP will be transferable)	Same as June
Accumulation Limits	A-2.2.3e	It is the intent of the Council to have accumulation limits. However, the details of the accumulation limits would be further developed and analyzed through a trailing action. Items to be addressed through the trailing amendment would include: 1) identification of the species that would be subject to accumulation limits; 2) description of how to treat overfished species; 3) determination of whether to apply accumulation limits at the vessel (usage) or entity (ownership/control) level or both; and 4) how accumulation limits would be tracked. The intent would be to have the trailing amendment process completed in time for the accumulation limits to begin upon implementation of the trawl rationalization program.	Needs specificity
Grandfather Clause	A-2.2.3	No grandfather clause	Same as June

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 6: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Tracking and Monitoring	A-2.3.1	Program: Alt 1 - discards allowed; discards of IBQ required	Same as June
		At-sea Catch Monitoring - Non-whiting: Alt 2 - At-sea observers required	Same as June
		Shoreside Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		At-sea Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		MS and CP: Remove reference to "supplemental video monitoring on processors may also be used"	Same as June
		Shoreside Catch Monitoring - Include as specified	Same as June
		Catch Tracking Mechanisms - Include as specified	Same as June
		Landing Hour Restrictions: Alt 1 - Landing hours not restricted	In June, had Alt 2 - landing hours limited
		Vessel Certification - Include as specified	Same as June
		Program Performance Measures - Include as specified	Same as June
Data Collection	A-2.3.2	Include as specified	Same as June
Program Costs	A-2.3.3	Cost Recovery: Option 1 - Fees up to 3%	Same as June
Program Duration and Modification	A-2.3.4	Include as specified: 4-year review process	Same as June
Pacific Halibut IBQ	A-4	Establish limit for legal-sized Pacific halibut bycatch mortality through the use of an IBQ in the trawl fishery up to 10% of the Area 2A Constant Exploitation Yield (CEY) as set by the International Pacific Halibut Commission. This amount will be set initially at 10% and may be adjusted through the biennial specifications process.	Needed specificity
Other Provisions		Require that all QP be deposited into a vessel account each year	
		Require that all retained IFQ non-whiting groundfish be landed to a shoreside processor (i.e., no at-sea landings allowed for non-whiting groundfish). Ensuring that non-whiting groundfish continues to be delivered shoreside helps protect shoreside processors and communities that have historically relied on groundfish deliveries.	
		Initiate a trailing amendment process to require eligibility criteria to own or hold QS (e.g., ownership interest in a vessel or permit) to help ensure that QS holders have direct ties or investments in the fishery. Requirements should not be so onerous so as to preclude or discourage crew members, for example, from acquiring QS and entering the fishery.	

Motion Package # 1 - Addresses At-Sea Whiting and Shoreside Whiting and Non-Whiting

Motion # 7: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Adaptive Management	A-3	It is the intent of the Council to have an adaptive management program for the shoreside non-whiting sector only, setting aside 10% of the annual QP allocated to the trawl fishery. QP will be divided equally among the three states (i.e., 33.3% for each state). QP will be provided through separate, but parallel, processes in each of the three states (e.g., through the use of regional fishery associations or community stability plans or other means). Further details will be developed through a trailing action with the intent of having the adaptive management provisions apply during the first year of implementation of the trawl rationalization program.	Needs specificity

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion #2: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
General Provisions - Whiting Co-ops			
		The mothership and catcher-processor sectors will be managed under a co-op system rather than an IFQ system	
Bycatch Rollover	B-1.3.2	Option 1 - Unused bycatch may be rolled over from one sector to another if the sector's full allocation of whiting has been harvested or participants do not intend to harvest the remaining sector allocation	Same as June
Bycatch Management	B-1.3	Subdivide bycatch among whiting sectors and within sectors, subdivide between co-op and non-co-op fishery and among co-ops within sectors	Same as June
At-Sea Observers/ Monitoring	B-1.4	Include as specified	Same as June
Mandatory Data Collection	B-1.5	Include as specified	Same as June

Not used

Supplemental WDFW Motion 2

F.3.J

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion # 2: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Mothership (MS) Sector			
Groundfish LE Permit Length Endorsement	B-1	Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel); and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had recommended removal of the length endorsement
Processor Participation	B-2.1a & c & B-2.2c	As specified for CVs and processors. Vessels excluded: Motherships operating as a catcher-processor may not operate as a mothership during a year in which it also participates as a catcher-processor	Same as June
Catcher Vessel Allocations	B-2.2a	Qualifying for a CV whiting endorsement in the MS fishery: minimum 500 mt in 1994-2003	Same as June
		Catch history assignment: 1994-2003, drop 2 years	Same as June
		Bycatch history assignment: Pro-rata in proportion to whiting catch assignment	Not addressed in June
Whiting Endorsement Transferability	B-2.2b	Transfer Option 1 - The CV whiting endorsement may not be severed from the permit	In June, Option 2 - change underlined
		CV permits may be transferred two times during the fishing year, provided that the second transfer is back to the original CV (I.e., only one transfer per year to a different CV).	In June, allowed two transfers per year
MS Processor Permit Qualification	B-2.2a	Qualifying Entities: The owner or bareboat charterer of qualifying motherships will be issued MS permits	Same as June
		Qualification Requirements: Minimum requirement of 1000 mt of whiting in any two years, 1997-03	Same as June
MS Processor Permit Transferability	B-2.2c	Transferability: MS permits will be transferable and MS permits may be transferred to a vessel of any size	Same as June
		Option 1 - MS permits may not be transferred to a vessel engaged in harvest of whiting in the year of the transfer	Same as June
		Modified Option - MS permits may be transferred two times during the fishing year, provided that the second transfer is back to the original mothership (I.e., only one transfer per year to a different mothership).	In June, had allowed two transfers per year
		Usage Limit: No individual or entity owning an MS permit may process more than 45% of the total MS sector whiting allocation	In June, had limited usage to 40%

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Topic	Section	Council Preferred Alternative	Change from June?
Co-op Formation	B-2.3.1	Co-ops are not required, but may be voluntarily formed. A minimum of 20% CV permit holders is required to form a co-op. This minimum threshold balances the potential advantages for multiple co-ops while limiting implementation and management costs and administrative requirements for managing this sector.	In June, had required minimum of one co-op
		Subdivide whiting between co-op and non-co-op fishery and among co-ops within sectors.	Same as June
		In the event there is more than one co-op, whiting and bycatch QP will be transferable between co-ops through an inter-co-op agreement.	Same as June
		The non-co-op fishery will close based on projected attainment of their allocation of either whiting or one or more bycatch species	Same as June
Co-op Agreement Provisions	B-2.3.3e	Include as specified. The intent is to have MS participants work with NMFS to develop and describe a process and co-op agreement requirements to include in the implementing regulations for this action.	Same as June
Initial Ties to the Motherships	B-2.4.1	No processor tie. By September 1 of the year prior to implementation and every year thereafter, CV permit is required to contact NMFS and indicate whether CV permit will be participating in the co-op or non-co-op fishery in the following year. If participating in the co-op fishery, then CV permit must also provide the name of the MS permit that CV permit QP will be linked to in the following year (i.e., annual CV-MS linkage that may be changed each year without requirement to go into "open access" fishery). Once established, the CV-MS linkage shall remain in place until changed by CV permit.	In June, required 90% processor tie and allowed "stacking" of 10%
		By July 1 of the year prior to implementation and every year thereafter, if CV permit would be participating in the co-op fishery in the following year, then CV permit must notify the MS permit that the CV permit QP will be linked to in the following year.	
		In the event there is agreement between the CV permit holder and the MS permit holder to which it is linked, the QP may be transferred to another MS permit.	Same as June
MS Processor Withdrawal	B-2.4.2	If the MS permit withdraws subsequent to QP assignment, then the CV permits that it is linked with is free to participate in the co-op or non-co-op fishery. The MS permit shall notify NMFS and linked CV permits of its withdrawal, and CV permits shall notify NMFS of their intent to participate in the co-op or non-co-op fishery thereafter. If continuing in co-op fishery, then CV permit shall provide NMFS with the name of the MS permit for new linkage.	

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion # 3: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Catcher Processor Sector			
General Provisions	B-4	Adopt a co-op for the catcher-processor sector; include provisions as specified	Same as June
		Specify harvest amounts in regulation for co-op members	Same as June
		Do not require unanimous consent for a member to leave the co-op	Same as June
		If the voluntary co-op fails, then QS will be divided equally among ten CP permits in sector	Same as June
		Catcher processor cannot operate as a mothership during the same year it participates in the CP fishery	Same as June
		Mandatory data collection included	Same as June
		Annual co-op report required	Same as June
		Bycatch: The CP sector fishery will close based on projected attainment of its bycatch allocation	Same as June
CP Endorsement		Create a catcher-processor endorsement to be placed on qualified limited entry permits. Qualified permits are those that harvested and processed in the catcher-processor sector of the whiting fishery sometime from 1997-2003. Limited entry permits with catcher-processor endorsements will continue to be transferable; however, the endorsement is not severable from the permit.	Same as June
Permit Transfer		CP permits may be transferred two times during the fishing year, provided that the second transfer was back to the original CP (I.e., only one transfer per year to a different CP).	In June, had allowed one transfer per year (status quo).
Length Endorsement		Retain the length endorsement for permits, with two modifications: 1) If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement; and 2) to add length to a permit, additional permits required (as needed), but only one endorsement would be required for all combined permits (i.e., do not need to acquire multiple endorsed permits).	In June, had retained length endorsement

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion # 4: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative:	Change from June?
IFQ Program			
General Provisions	A-1	Applies to shoreside whiting fishery	In June, had applied to shoreside whiting and non-whiting
Scope: Gears and Fisheries Covered	A-1.1	Modified Option 2 - If a vessel has an LE trawl permit and groundfish is caught by any gear, IFQ must be used, with the following exceptions: exempted trawl, California halibut trawl, coastal pelagic species gear, highly migratory species gear, salmon troll, and crab pot.	Not addressed in June
Gear Switching and Conversion	A-1.1 & 1.7	Gear switching allowed. Do not include any provisions for permanent gear conversion.	Change underlined
IFQ Management Units: Species	A-1.2	For whiting fisheries, IFQ required for whiting and species with bycatch caps. Bycatch caps would be established for: widow, canary, and darkblotched rockfish, and Pacific ocean perch. The catches of all groundfish species would be accounted for and tracked against the overall OY.	In June, had applied to shoreside non-whiting
Number of Trawl Sectors	A-1.3	Four trawl sectors	In June, had three trawl sectors
Limited Entry Permit Length Endorsement	A-1.6	Retain the length endorsement for permits, with a modification: If a permit is transferred to a smaller vessel, then the permit would retain the larger length endorsement (e.g., if a permit endorsed for a 75 ft vessel is transferred on to a 50 ft vessel, the permit would retain the endorsement for a 75 ft vessel).	In June, had recommended removal of the length endorsement
Initial Allocation - Whiting	A-2.1	80% to harvesters; 20% to processors (no adaptive management)	In June: 80 harvesters/20 processors (with 10 adaptive)
Attributing and Accruing Processor History	A-2.1.1	Option 3 (whiting) - Attribute history to the receiver reported on the fish ticket, except history may be reassigned to an entity not on the landings receipt, if parties agree or through an agency appeals process	Two options adopted in June (1 and 3)

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion # 5: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Recent Participation Requirements (Permits)	A-2.1.2	Recent participation not required	Same as June
Recent Participation Requirements (Processors - SS)	A-2.1.2	Option 2 (whiting) - 1 mt or more of deliveries from whiting trips in each of any two years from 1998-04	Change underlined
Allocation Formula for Catcher Vessel Permits	A-2.1.3	Shoreside Whiting: Use 1994-03, drop 2 worst years	Same as June
		Shoreside Whiting overfished species: Option 2 - pro-rata based on whiting allocation	Same as June
Allocation Formula for Processors	A-2.1.3	Shoreside Whiting: No bycatch allocation; whiting allocation only	Same as June
Permit Holding Requirement	A-2.2.1	If a vessel has an overage: Element 4 - Allow exceptions for vessel to participate in the fisheries for which IFQ would not be required to cover groundfish catch: exempted trawl; California halibut trawl; CPS purse seine; HMS fisheries; salmon troll; and crab pot. Element 6 - Alternative compliance options would not apply.	In June, had included Elements 4 and 6; change underlined
Carryover	A-2.2.2	Will not apply to QP that are not transferred to a vessel's account	Same as June
Eligibility to Own or Hold	A-2.2.3a	Include as specified (p. A-212)	Same as June
Temporary Transfer Rules	A-2.2.3c	Suboption 2 - QS will not be transferred in the first two years of the program (QP will be transferable)	Same as June
Accumulation Limits	A-2.2.3e	It is the intent of the Council to have accumulation limits. However, the details of the accumulation limits would be further developed and analyzed through a trailing action. Items to be addressed through the trailing amendment would include: 1) identification of the species that would be subject to accumulation limits; 2) description of how to treat overfished species; 3) determination of whether to apply accumulation limits at the vessel (usage) or entity (ownership/control) level or both; and 4) how accumulation limits would be tracked. The intent would be to have the trailing amendment process completed in time for the accumulation limits to begin upon implementation of the trawl rationalization program.	Needs specificity
Grandfather Clause	A-2.2.3	No grandfather clause	Same as June

Motion Package # 2 - Addresses At-Sea Whiting and Shoreside Whiting Only

Motion # 6: Move to adopt as the Council's preferred alternative:

Topic	Section	Council Preferred Alternative	Change from June?
Tracking and Monitoring	A-2.3.1	Program: Alt 1 - discards allowed; discards of IBQ required	Same as June
		Shoreside Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		At-sea Whiting: Observers would be required in addition to or as a replacement for video monitoring	Same as June
		MS and CP: Remove reference to "supplemental video monitoring on processors may also be used"	Same as June
		Shoreside Catch Monitoring - Include as specified	Same as June
		Catch Tracking Mechanisms - Include as specified	Same as June
		Landing Hour Restrictions: Alt 1 - Landing hours not restricted	In June, had Alt 2 - landing hours limited
		Vessel Certification - Include as specified	Same as June
		Program Performance Measures - Include as specified	Same as June
Data Collection	A-2.3.2	Include as specified	Same as June
Program Costs	A-2.3.3	Cost Recovery: Option 1 - Fees up to 3%	Same as June
Program Duration and Modification	A-2.3.4	Include as specified: 4-year review process	Same as June
Other Provisions		Require that all QP be deposited into a vessel account each year	
		Initiate a trailing amendment process to require eligibility criteria to own or hold QS (e.g., ownership interest in a vessel or permit) to help ensure that QS holders have direct ties or investments in the fishery. Requirements should not be so onerous so as to preclude or discourage crew members, for example, from acquiring QS and entering the fishery.	

Agenda Item F.4
Situation Summary
November 2008

FINAL CONSIDERATION OF INSEASON ADJUSTMENTS (IF NEEDED)

Consideration of inseason adjustments to 2008 or initial 2009 groundfish fisheries may be a two-step process at this meeting. The Council will meet on Monday, November 3, 2008, and consider advisory body advice and public comment on inseason adjustments under Agenda Item F.1. If the Council elects to make final inseason adjustments under Agenda Item F.1, then this agenda item may be cancelled, or the Council may wish to clarify and/or confirm its decisions. If the Council tasks advisory bodies with further analysis under Agenda Item F.1, then the Council task under this agenda item is to consider advisory body advice and public comment on the status of 2008 and initial 2009 groundfish fisheries and adopt final inseason adjustments as necessary.

Council Action:

Consider information on the status of ongoing 2008 or initial 2009 groundfish fisheries and adopt inseason adjustments as necessary.

Reference Materials:

None.

Agenda Order:

a. Agenda Item Overview — John DeVore
b. Reports and Comments of Agencies and Advisory Bodies
c. Public Comment
d. Council Action: Adopt or Confirm Final Adjustments to 2008 and Initial 2009 Groundfish Fisheries

PFMC
10/16/08