

CALIFORNIA RECREATIONAL FISHERY SURVEY
2004 PROGRAM REVIEW

In response to concerns from the Council, constituents, and policy representatives about the credibility of the Marine Recreational Fishery Statistical Survey (MRFSS), staff from the California Department of Fish and Game (CDFG) and the Pacific States Marine Fisheries Commission (PSMFC) designed a new program for estimating the catch of groundfish in California's marine recreational fisheries, incorporating some modified elements of the previous MRFSS program and the high quality sampling of California's Ocean Salmon Project.

This new program, the California Recreational Fisheries Survey (CRFS), was implemented in January 2004 and preliminary results are anticipated for review at this Council meeting. MRFSS has been an integral part of recreational fishery monitoring, but was not designed to estimate catch and effort at the level of precision needed for management or assessment; it was designed to provide a broad perspective on national fisheries. Until 2004, California recreational groundfish fishery monitoring has relied solely on MRFSS, however, because these data may be imprecise and are highly variable, particularly for rare or non-retained species, management of California recreational groundfish fisheries has been difficult. Aspects of the MRFSS program will be conducted in parallel with the new CRFS program for 2004 to allow calibration of prior year estimates to the CRFS methods.

Mr. Russell Porter, Field Programs Administrator for PSMFC, and Mr. Steve Crook, CRFS Mandate Coordinator for CDFG will update the Council on CRFS program methodology and implementation.

The Council is to hear the program review, as well as advice from the Council advisory bodies and the public, and consider providing recommendations and guidance on further implementation of the CRFS program.

Council Task:

Consider the report on CRFS and provide guidance on the next steps in the CRFS program.

Reference Materials:

1. Agendum C.1.b, Attachment 1: California Recreational Fisheries Survey (CRFS), A Review of the New Sampling Methods for 2004.

Agenda Order:

- a. Agendum Overview
- b. Program Report
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Guidance on the Next Steps in the CRFS Program

Mike Burner
Russell Porter/CDFG

PFMC
08/26/04

California Recreational Fisheries Survey (CRFS) A Review of the New Sampling Methods for 2004

BY

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RecFIN Committee Chairman

And

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CRFS Mandate Coordinator

Pacific Fishery Management Council Meeting
September 14, 2004

CALIFORNIA RECREATIONAL FISHERIES SURVEY (CRFS) SAMPLING METHODS

This new recreational sampling program covers all modes of marine fishing in California. The CRFS is funded by state funds and RecFIN funds. CRFS utilizes California Department of Fish & Game (CDFG) employees and Pacific States Marine Fisheries Commission (PSMFC) employees as field samplers and supervisors. Catch and effort estimates are made for six geographic areas of the coast and by integration of seven sampling and estimation methods:

A. Primary Private Boat Sites [PR1] (90% of catch of important species occurs here) – Each site sampled 8 days per month

Effort Survey: Counts all boats returning from fishing and trailer counts of trailers remaining on site at the end of the day. Angler effort is from the count of anglers per fishing boat. Fishing vs. non-fishing vessels, anglers per vessel and catch per vessel are applied to remaining trailers at the end of the sampling day.

Creel Survey: Samples most fishing boats for the day. Sample unit is the boat. Data elements collected include target species, species caught, length & weight, angler data, area of catch, and fish discarded by the angler.

Catch Estimates: Vessel counts and total anglers from sampled days are expanded to all days of the month based on weekday and weekend samples. CPUE by species from the creel survey for all days sampled is multiplied by total angler trips to estimate total catch for the month by six geographic areas for all the PR1 sites in each geographic area.

B. Secondary Private Boat Sites [PR2] (10% of catch of important species occurs here) - Sites sampled in a roving clusters 3 days per month.

Effort Survey: Roving instantaneous counts of trailers at these sites and monitoring of changes of effort while on-site.

Creel Survey: Samples fishing boats completing their trips at the site. Sample unit is the boat. Data elements collected include target species, species caught, length and weight of fish, anglers/boat,

angler data, area of catch, duration of trip, and fish discarded by the angler.

Catch Estimates: Vessel and trailer counts and total anglers from sampled days are expanded to all days of the month based on weekday and weekend samples. CPUE by species from the creel survey for all days sampled is multiplied by total angler trips to estimate total catch for the month by six geographic areas for all the PR2 cluster sites in each geographic area.

C. Private Boats at Night and at Private Access Sites

Effort Survey: The Angler License Telephone Survey (G) is used to estimate angler trips by trip type from private or locked marinas or private waterfront homes and night fishing.

Creel Survey: Trips by trip type from the Primary Boat Sites (A) and the Secondary Boat Sites (B) are combined to estimate the CPUE by time period, geographic area and water body fished.

Catch Estimation: CPUE by trip type, time period, geographic area and water body are multiplied by matching trip estimates to get catch estimates by species.

D. Commercial Passenger Fishing Vessels (Party/Charter Boats)

Effort Survey: Weekly telephone survey of vessel skippers. A 10% sample of all active boats selected at random each week. Skippers provide data on trips taken for the week including the number of anglers carried each trip. Vessel trip samples, field validation rates and an adjustment for boats not included in the telephone survey are used to estimate total angler trips for the month.

Creel Survey: On-board samplers ride most passenger fishing boats to sample anglers and catch for species, lengths & weights, area of catch, discards and angler specific data.

Catch Estimation: The CPUE from the creel survey is multiplied by total trips to get total catch estimates by species and catch category, including discarded catch weight estimates.

E. Beach and Bank Fishing

Effort Survey: The Angler License Telephone Survey (G) estimates total angler trips for all access, day and night fishing by geographic area, time period and water body fished.

Creel Survey: Roving access point survey at publicly accessible beaches during daylight hours. Individual angler interviews collect species caught, lengths and weights, biological and angler data, and discards.

Catch Estimation: CPUE by trip type, time period, geographic area and water body are multiplied by matching trip estimates to get catch estimates by species.

F. Man Made Structure Fishing

Effort Survey: Roving instantaneous counts of anglers at access points with monitoring for changes in effort while on-site is used for estimation of effort. The Angler License Telephone Survey (G) is used to estimate the private access and night fishing effort.

Creel Survey: Interviews of anglers at completion or during their trip to collect species, lengths & weights, target species, angler and biological data, and discards.

Catch Estimation: CPUE by trip type, time period, geographic area and water body are multiplied by matching trip estimates to get catch estimates by species.

G. Angler License Telephone Survey

Effort Survey Only: This survey of licensed anglers estimates fishing effort by trip type, time period, geographic area and water body fished for all modes of fishing for trips taken in daylight or night or by private or public means of access. The estimates are used for total Beach/Bank effort estimates and for the effort from private access sites and night fishing in all modes except for CPFV (D), which already includes night fishing and chartered passenger trips. This is a monthly survey of licensed anglers that captures saltwater angler trips taken the previous month.

CALIFORNIA RECREATIONAL FISHING SURVEY (CRFS) UPDATE
Prepared by the California Department of Fish and Game
August 23, 2004

CRFS Strengths: CRFS was designed to specifically address data needs that the Marine Recreational Fisheries Statistical Survey (MRFSS) was unable to provide for recreational fisheries management in California. Several significant changes in sampling methodology were initiated to improve the accuracy and precision of the collected data as described above. These have provided for the following improvements:

1. Catch estimates are now stratified into six geographic regions of California as compared to two regions under MRFSS.
2. Effort estimates for all modes except CPFV and beach/bank anglers are now made by direct daily field counts of anglers at the fishing sites as compared to the household telephone survey at two-month intervals under MRFSS. This direct count method was used by the California ocean salmon project and has produced estimates with a higher degree of precision. Therefore, it was implemented in CRFS sampling for the entire recreational private boat fishery and man made structure anglers.
3. The CPFV estimates continue to use the direct sampling of 10% of all skippers each week began in 2001 to profile angler trips taken for estimation of total effort. Field samplers ride the CPFV's to examine angler catch.
4. Catch and effort estimates are made monthly as compared to the two-month periods under MRFSS.
5. Field sampling rates of anglers at fishing sites under CRFS are in excess of 3 times the MRFSS field sample sizes.
6. Effort and Catch estimates are computed by trip type and mode under CRFS as compared to only by mode under MRFSS.
7. Difficult effort estimates for some modes (beach/bank anglers and boat anglers returning to private access areas and taking trips to Mexico) are estimated by means of a new monthly angler license database phone survey. The license database effort survey, while not used for CPFV, Private Boat and Pier and Jetty angler effort estimates, can be used as a tool to verify the effort estimates made for these modes by direct field counts.
8. The MRFSS household phone survey was discontinued in January, 2004 as the method for estimating fishing effort.

Field Data Collection: Preliminary results from the first six months of CRFS sampling for 2004 showed that field sampling increased dramatically over MRFSS sampling in 2003. A total of 44,971 CRFS anglers was interviewed at fishing sites in the field this year between January-June versus 13,594 MRFSS anglers between January-June last year. This is a 231% increase in the number of angler interviews. It is projected that for the year as a whole in excess of 100,000 angler will be sampled. During 2004, CRFS

samplers examined 45,579 fish during January-June field sampling, while during the same period in 2003, MRFSS samplers examined 17,112 fish. This is a 166% increase in the number of fish examined. This will contribute to greater accuracy in estimating catch, especially for overfished species or fish that are rarely taken.

CRFS Challenges: The program still encounters challenges in full implementation, although these are becoming fewer. Several thousand lines of programming code has been written and checked to accommodate the CRFS sample frame and catch estimation programs. California Department of Fish and Game (staff) is working closely with Pacific States Marine Fisheries Commission (PSMFC) staff to assure that coding is correct and that correct estimates are made. The Department is working diligently to review preliminary estimates from the new program before releasing catch and effort numbers for management consideration.

Angler License Database Phone Survey. The Department implemented an angler license database phone survey in January to estimate fishing effort for beach/bank anglers and private boats returning to private, inaccessible access sites. This phone survey is done on a monthly basis. The angler license phone survey methodology is consistent with the angler license phone surveys used by Oregon for inland boat and shore effort and in Washington for Puget Sound boat effort which began in mid-2003 under RecFIN. In California, the angler license database represents one angler name and phone number for each 20 licenses sold from books of 20 licenses. Initial response by license vendors returning angler name and telephone number cards from each license book to the Department was poor. However, during early April, after each vendor was contacted by telephone and sent a follow up mailing, compliance increased dramatically. Initially, the Department was receiving 500 names and numbers per month. Currently, we are receiving over 2,500 cards per month. Because of the initial low vendor response, CRFS did face a challenge in having an adequate license database upon which to make telephone calls during the first part of this year. Despite this low vendor response, the distribution of returned cards reflects the distribution of license sales in past years. At the current rate of 2,500 new entries per month, adequate numbers are available to insure angler contacts are at planned levels. License books will be modified in 2005 to further accommodate the collection of angler names and telephone numbers. With similar sample sizes, angler contacts from the angler license database are greatly increased over the MRFSS household survey where most households contacted contained no anglers.

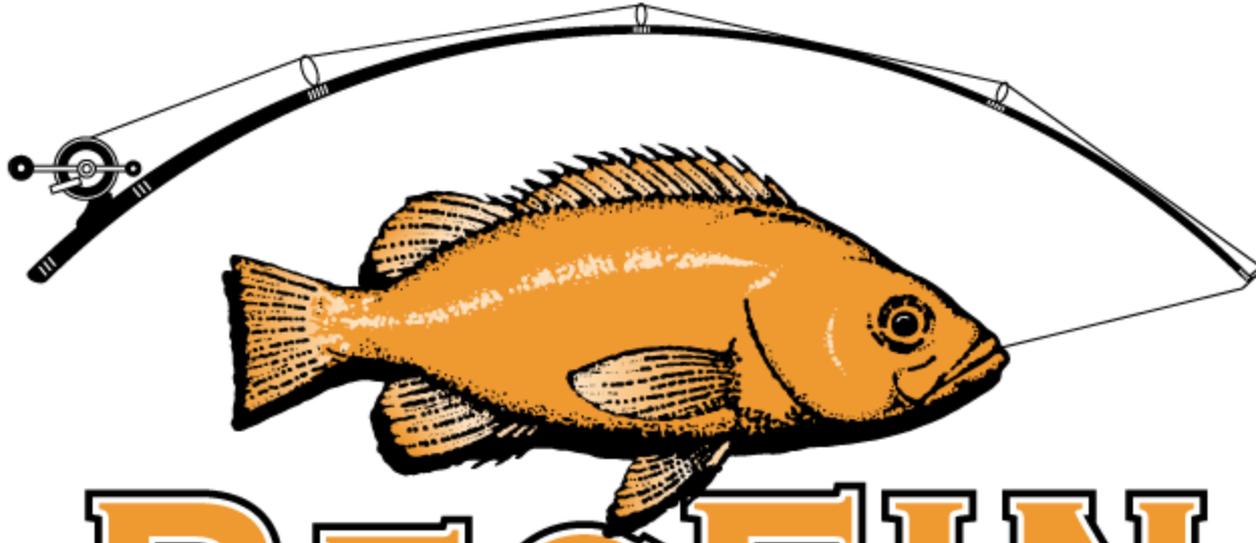
CIC Research Inc. has been contracted to conduct the angler license phone survey portion of the CRFS. This survey only provides effort estimates for saltwater anglers fishing from private boats returning to private access sites and effort estimates for beach/bank anglers. Unlike the MRFSS household survey of past years, the CRFS angler license effort survey is based on a sample frame of annual resident, annual non-resident, 1-day, 2-day and 10-day recreational California fishing license holders. The sample frame is provided through the License and Revenue Branch of the Department and is processed at CIC Research. The telephone survey is conducted on a monthly

basis and uses one-month recall of saltwater fishing trips. All modes of saltwater fishing are considered in the CRFS survey questions. Information collected includes fishing trip duration, area fished, public vs. private access to fishing site, distance from shore, targeted fish species, fishing methods, as well as fishing effort in waters of Mexico. In 2004 at least 10,000 interviews will be conducted using computer assisted telephone interviewing techniques. The collected data are edited and checked for quality assurance. Electronic data are provided to the PSMFC to be used with field (creel) survey information to generate monthly estimates of fishing effort and catch for beach bank modes and private boat effort returning to private access sites.

Preliminary Results of CRFS Telephone Survey: For the period from January through June 2004, CIC Research called 6,987 telephone numbers out of the 9,427 obtained from the Department's angler license base. A total of 4,101 anglers provided interviews which could be used to estimate angler effort. Of the anglers contacted, 862 (21%) said they had fished in saltwater during the prior month. Since January through June represents only 50% of the sample frame, and the sample frame is growing substantially, it is fair to assume that by the end of 2004, over 2,300 saltwater anglers will be contacted from about 10,000 calls. The license-based telephone survey will not be used to estimate CPFV (party/charter), launch ramp or pier angler effort, but will be used as a tool to verify the effort estimates produced in these modes through direct field counts.



Pacific Coast Catch & Effort Database for California, Oregon & Washington



RECFIN

**RECREATIONAL FISHERIES
INFORMATION NETWORK**

RecFIN Organization

- **RecFIN Steering Committee**
 - [CA,OR, WA State Director Rep., PFMC, PSMFC, NMFS/NWR & NWFSC]
- **RecFin Technical Committee**
 - [CA,OR, WA, PSMFC, PFMC & NMFS Regions, Centers, HQ]
 - RecFIN Statistical Subcommittee
 - RecFIN Database Subcommittee
 - RecFIN Economic Subcommittee



NEVADA

ASK & BAN

NEVADA
KPZ

CA

OUR WINNS

WASHINGTON

- **(OSP) Ocean Sampling Program**

- **Effort** — Daily Exit counts of vessels at ocean ports.
- **Creel** — Boat interviews at completion of trips to tally catch by species, length, catch area and discards.

- **Puget Sound Boat Survey**

- **Effort** — Angler license frame phone survey.
- **Creel** — Boat interviews at completion of trip to tally catch by species, length, catch area and discards and license type.

OREGON

- **Oregon Recreational Boat Survey (ORBS)**

- **Effort** — Exit counts of boats at ocean ports
- **Creel** — Samples CPFV and Private boats at completion of trip for species, length & weight, catch area and discards.

- **Shore & Estuary Boat Survey (SEB)**

- **Effort** — Angler license frame phone survey.
- **Creel** — Samples anglers fishing from shore and inland boats for species, length & weight, catch area and discards.

CALIFORNIA

CRFS – California Recreational Fisheries Survey

- Primary Private Boats
(PR1)
- Secondary Private Boats **(PR2)**
- Private Access Boats
- **CPFV** –Commercial Passenger Fishing Vessels

- Shore Anglers
- Man-Made Structure Anglers
- Angler License Phone Survey : *Shore and Private Access Boat Effort*
- CPFV Skipper Weekly Effort Survey









CRFS

Private/Rental Boat Sampling

- **Primary Boats (PR1)**
 - [90% of Catch Occurs at these sites + management species of concern] Sampled 8 times/Mo.
 - **Effort** – Count all boats returning to the site for the day
 - **Creel** – Sample all boats at the completion of trip. Anglers/boat and trip type
 - Identify species caught, measure & weigh fish, area of catch, fish discarded
- **Secondary Boats (PR2)**
 - [10% or less of catch. Clusters of Sites sampled 3 times/mo]
 - **Effort** – Instantaneous counts of boat trailers while roving the cluster of sites.
 - **Creel** – Sample individual anglers as boats return at completion of trip. Anglers/boat and trip type
 - ID species , measure & weigh, area of catch and discards.

CRFS

Private/Rental Boat Sampling

- **Private Access Boats**
 - **Effort** – Angler license phone survey to determine effort by boats departing from private marinas and private homes on the waterfront..
 - **Creel** – Voluntary catch log from a panel of private access anglers/fishing clubs. Validate with logs from public access boat ramps.
 - Utilize catch rates and CPUE from similar targeted trips at adjacent public launch ramps.
- Continue to explore methods to properly estimate CPUE and species along with appropriate lengths and weights of the catch.
- Discards must also be determined.

CRFS

CPFV — Commercial Passenger Fishing Vessels [Party/Charter boats]

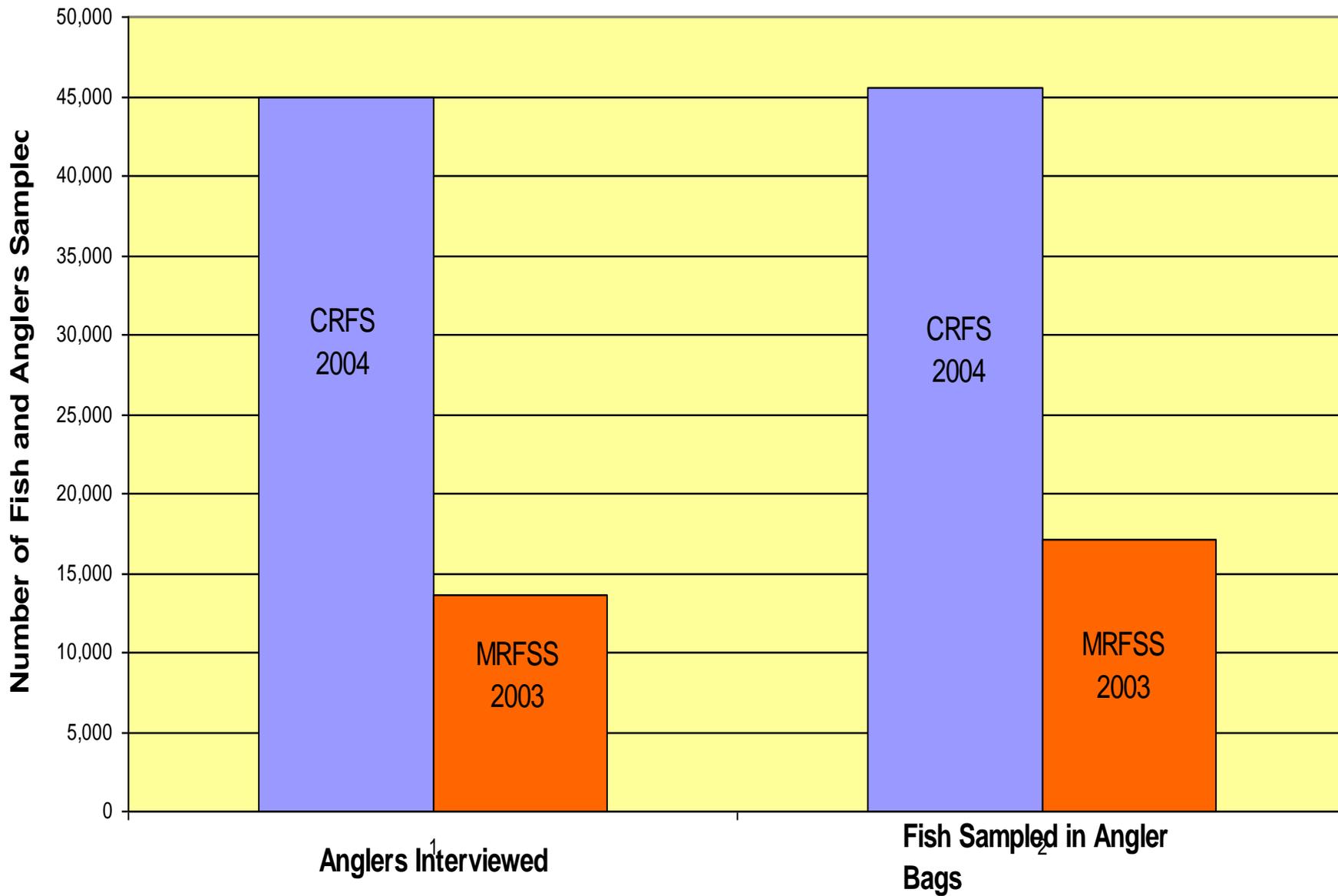
- **Effort** — Weekly phone survey of 10% of all active vessel's skippers to profile trips for the week, trip type and anglers carried for each profiled trip.
- **Creel** — Samplers ride boat and tally all fish caught and discarded, area of catch for each stop with catch at that stop (GPS unit), depth, discards, length of discards and sample of angler demographics.

CRFS

Shore & Man-Made Structures

- Beach/Bank Anglers
 - **Effort** – Angler license phone survey
 - **Creel** – Sample individual anglers at the fishing site at the completion of their trip. Roving sample of a cluster of sites.
 - Identify catch, lengths and weights, discards, target species, angler demographics, and license type.
- Man-Made Structures
 - **Effort** – Count of anglers on the pier etc. at arrival and tally of arrivals and departures during the day along with count at departure.
 - **Creel** – Interview individual anglers at completion of their trip. Identify catch, lengths and weights, discards, angler demographics & license?

Anglers Interviewed and Fish Examined, Jan-Jun - MRFSS, 2003 & CRFS, 2004



GROUND FISH ADVISORY SUBPANEL STATEMENT ON
CALIFORNIA RECREATIONAL FISHERIES SURVEY PROGRAM REVIEW

The Groundfish Advisory Subpanel (GAP) received an update from Mr. Russell Porter of the Pacific States Marine Fisheries Commission (PSMFC) on the data gathering and analysis changes being made to improve recreational data for Pacific groundfish.

The GAP would like to thank PSMFC and the State of California for their efforts to get more and better data on the recreational fishery. As we have seen in the past, imprecise and incomplete data can have a far ranging effect, not only on recreational fisheries, but on all fisheries on our coast.

While we recognize the new California Recreational Fisheries Survey has only been established this year, we want to emphasize the need to have the survey running and the data available for use in 2005; and we encourage all involved to make that a reality.

PFMC
09/14/04

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
CALIFORNIA RECREATIONAL FISHERY SURVEY PROGRAM REVIEW

Mr. Russell Porter (Pacific States Marine Fisheries Commission) briefed the Scientific and Statistical Committee (SSC) about updates to the California Recreational Fisheries Survey (CRFS), which was implemented in January 2004, replacing the Marine Recreational Fishery Statistics Survey (MRFSS) in California. The CRFS was designed to address data needs that the MRFSS was unable to provide for recreational fisheries management in California. CRFS samples all sport fisheries and is intended to provide monthly catch and effort estimates with only a one-month time lag. The Recreational Fishery Information Network (RecFIN) statistical subcommittee currently reviews the methodologies used in CRFS from a statistical sampling point of view. However, the SSC suggests that a separate review may be needed for methods to project inseason catch.

Collection of discard information is not standardized among the three West Coast states. Currently, California categorizes discards into a dead or alive category, whereas Oregon and Washington combine all discards into a single category. The SSC recommends that each state assign discards into either an alive or dead category, as this will allow a more accurate assignment if hooking/handling mortality rates to the “alive” portion of the discards.

During 2004, NMFS employed a household phone survey in California using MRFSS. Mr. Porter stated that this effort was expected to continue for two or three years, so a comparison of the effort and catch statistics generated from CRFS and MRFSS can be made. The SSC recommends continuation of the telephone survey so that CRFS and MRFSS datasets can be compared to ensure the historical recreational data from MRFSS can be used with the new CRFS data.

PFMC
09/14/04

INITIAL CONSIDERATION OF STATUS OF FISHERIES
AND INSEASON ADJUSTMENTS

The Groundfish Management Team (GMT) is scheduled to begin consideration of the status of 2004 groundfish fisheries and inseason adjustments the afternoon of Sunday, September 12 (see Ancillary A, GMT Agenda). The GMT will meet with the Groundfish Advisory Subpanel (GAP) on Monday, September 13 to discuss issues and analyses relative to inseason adjustments (see Ancillary B, GAP Agenda). This agenda item was scheduled to provide the GMT and the GAP an opportunity to pose any key policy questions that would substantially facilitate further GMT analysis on inseason adjustments. Council guidance on these matters is intended to focus GMT analyses of proposed inseason adjustments prior to final Council action, scheduled for Thursday afternoon, September 16 (Agendum C.9).

Council Task:

Consider the comments/questions of the GMT and the GAP, as well as comments of other advisory bodies and the public, and provide guidance, if necessary.

Reference Materials:

None.

Agenda Order:

- a. Agendum Overview
- b. GMT/GAP Comments/Questions
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Guidance

Mike Burner
Michele Culver/Rod Moore

PFMC
08/25/04

GROUND FISH ADVISORY SUBPANEL REPORT ON
INITIAL CONSIDERATION OF STATUS OF FISHERIES AND INSEASON
ADJUSTMENTS

The Groundfish Advisory Subpanel (GAP) met with the Groundfish Management Team (GMT) to discuss preliminary proposals for inseason adjustments.

The GAP is aware that there may be proposals forthcoming for adjustments to Oregon and California recreational fisheries and will comment on them when received.

The GAP understands a technical change needs to be made to the regulations governing the limited entry fixed gear and open access California deeper nearshore fisheries, which were published with an incorrect trip limit. The GAP has no objection to the change.

The GAP and the GMT had some initial discussions on modifications to the limited entry trawl fishery north of 38° in order to reduce darkblotched rockfish catch, at which time the GAP provided the GMT with suggested priorities on ways to deal with the problem. We also discussed re-allocation of unused mothership whiting quota to the shore-based and catcher-processor sectors. Unfortunately, we subsequently discovered that the darkblotched catch had reached a level which would preclude the re-allocation and which will require severe actions to be taken in regard to the limited entry trawl fishery.

The GAP recognizes that we have no choice under the law, but to take the actions which will be recommended by the GMT. Nevertheless, we believe it is important for the Council to recognize the significant economic impact these actions will have.

In regard to the limited entry trawl fishery, fishermen will mostly lose the opportunity to harvest petrale sole in November and December. This has long been an important winter fishery which benefits fishermen and processors. Restricting vessels to deeper areas will likely cause us to forgo catches of slope rockfish and species in the deepwater complex. Again, these are important winter fisheries.

By not re-allocating the unused whiting catch, approximately 15 vessels and their crews will lose delivery opportunities. Close to 400 workers in processing and distribution facilities in Oregon and Washington will not be getting an extra two weeks of pay; in some cases, workers that were laid off at the end of the primary shore-based whiting season will not be re-hired. A very conservative estimate of the community impact for just the shore-based fishery is forgone revenue of \$2.3 million in Oregon and Washington; added to this is the forgone revenue from the catcher-processor sector, which we cannot determine.

Again, the law dictates what must be done, but we all should be aware of the cost to our coastal communities.

PFMC
09/14/04

GROUND FISH MANAGEMENT TEAM REPORT ON
INITIAL CONSIDERATION OF STATUS OF FISHERIES AND INSEASON
ADJUSTMENTS

The Groundfish Management Team (GMT) reviewed the recreational and commercial catch estimates and updated the bycatch scorecard (estimated impacts that have been updated are highlighted in bold) and have identified two significant issues for inseason consideration.

Darkblotched Rockfish

In June, the GMT estimated the total mortality of darkblotched rockfish in the limited entry trawl fishery would be 75.6 mt for the year, plus 1.0 mt for fixed gear and open access impacts for a total commercial catch of 76.6 mt for the year. As of the end of August, the landed commercial catch of darkblotched rockfish is 172 mt. Using a discard proportion (33%), based on the amount of landings and estimated discard in 2003, 172 mt of landings would correspond to a total commercial catch of 258 mt. Combined with the estimated mortalities in the other fisheries and research, this produces a total mortality estimate of 276.5 mt. For darkblotched, the Council set the optimum yield (OY) equal to the acceptable biological catch (ABC); therefore, the total mortality estimate, through August for directed commercial plus through December for all other fisheries, is 36.5 mt over the ABC.

To minimize the commercial darkblotched catch for the remainder of the year, the seaward trawl Rockfish Conservation Area boundary would have to move from 150 fm to 250 fm N of 38° N latitude, beginning October 1, and the petrale areas would not be available in Period 6. The GMT also reviewed a proposal to reallocate the whiting left unharvested by the mothership sector to the other sectors; however, the potential impacts to darkblotched rockfish resulting from this reallocation cannot be accommodated.

Canary Rockfish

The GMT estimated the total mortality of canary rockfish in the limited entry trawl fishery would be 9.2 mt for the year, plus 1.9 mt for fixed gear and open access, for a total commercial catch estimate of 11.1 mt. Through the end of August, the GMT estimates the total commercial canary catch is 18 mt, based on the amount of landings and the discard proportion estimated for 2003. Adding this amount to the other fisheries in the scorecard produces a total mortality estimate (through August for commercial plus through December for all other fisheries) of 52.5 mt, which is 5.2 mt over OY.

As part of the updates to the scorecard, the GMT revised the estimated mortalities for the whiting mothership and shoreside sectors (which are closed) and tribal sector (which is near complete), with their final catch amounts. The 2004 bycatch rate in the catcher-processor sector for canary rockfish would produce a new canary estimate of 6.7 mt for all whiting sectors combined; however, the catcher-processor fishery is still ongoing. As such, the GMT did not revise the

canary estimate for the whiting fishery in the scorecard, yet.

The GMT is applying the preliminary estimated discard proportion from 2003 to estimate the total commercial catch of darkblotched and canary rockfish because the landed catches of both of these species currently exceeds what the bycatch model is predicting for total commercial catch. In the case of canary rockfish, the total mortality in the commercial fisheries is estimated to be 84.9 mt in 2002 and 24.6 mt (compared to a bycatch model projection of 11.9 mt) in 2003. For the long-term, the GMT believes that input from the Scientific and Statistical Committee on how to address differences between model projections and landed catches inseason would be helpful.

The GMT would appreciate Council guidance on how to address both the darkblotched and canary rockfish estimated mortalities exceeding their respective OYs (which, in the case of darkblotched, equals the ABC) in 2004 and the potential implications for the 2005-2006 fisheries.

PFMC
09/14/04

DRAFT C.2.b Attachment 1. Estimated Impacts as a Result of Proposed Inseason Adjustments

9/14/2004 8:57

Fishery	Bocaccio a/	Canary	Cowcod	Dkbl	Lingcod	POP	Widow	Yelloweye
Limited Entry Groundfish								
Trawl- Non-whiting	47.4	18.0	0.4	258.0	104.7	95.0	2.5	0.2
Fixed Gear	13.4		0.1		20.0	0.3	0.5	2.5
Open Access: Groundfish directed	10.6		0.1		70.0	0.1		0.6
Whiting								
At-sea whiting motherships		7.3		3.0	0.8	0.1	11.4	0.0
At-sea whiting cat-proc			7.6	0.4	10.1	84.6	0.4	
Shoreside whiting			0.7	0.7	0.7	28.6	0.0	
Tribal whiting			0.0	0.0	0.2	1.6	0.0	
Open Access								
CA Halibut	0.1			0.0	2.0	0.0		
CA Gillnet b/	0.5			0.0		0.0	0.0	
CA Sheephead b/				0.0		0.0	0.0	0.0
CPS- wetfish b/	0.3							
CPS- squid c/								
Dungeness crab b/	0.0		0.0	0.0		0.0		
HMS b/		0.0	0.0	0.0				
Pacific Halibut b/	0.0		0.0	0.0		0.0	0.0	0.5
Pink shrimp	0.1	0.5	0.0	0.0	0.5	0.0	0.1	0.1
Ridgeback prawn	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon troll	0.2	1.6	0.0	0.0	0.3	0.0	0.0	0.2
Sea Cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot Prawn (trap)								
Tribal								
Midwater Trawl		1.3		0.0	0.1	0.0	40.0	0.0
Bottom Trawl		0.5		0.0	9.0	0.0	0.0	0.0
Troll		0.5		0.0	1.0	0.0		0.0
Fixed gear		0.3		0.0	15.0	0.0	0.0	2.3
Recreational Groundfish								
WA d/		1.7			71.7			3.4
OR		6.8			109.7		1.4	3.2
CA e/	62.8	9.3	1.8		268.9		8.2	3.7
Research: Based on 2 most recent NMFS trawl shelf and slope surveys, the IPHC halibut survey, and LOAs with expanded estimates for south of Pt. Conception.								
	2.0	3.1		4.0	3.0	3.0	0.5	1.0
Non-EFP Total	137.5	51.0	2.4	273.3	677.8	109.5	179.4	18.1
EFPs f/								
CA: NS FF trawl	10.0	0.5	0.5		20.0			0.5
OR: DTS g/		0.0		0.2		0.6		0.0
WA: AT trawl		1.0		3.0	4.5	8.5	5.5	0.5
WA: dogfish LL		0.0		0.0	0.5	0.0	0.0	0.0
WA: pollock		0.0					0.0	0.0
EFP Subtotal	10.0	1.5	0.5	3.2	25.0	9.1	5.5	1.0
TOTAL	147.5	52.5	2.9	276.5	702.8	118.6	184.9	19.1
2004 OY	250	47.3	4.8	240	735	444	284	22
Difference	102.5	-5.2	1.9	-36.5	32.2	325.4	99.1	2.9
Percent of OY	59.0%	110.9%	60.4%	115.2%	95.6%	26.7%	65.1%	87.0%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data sources.							

a/ South of 40°10' N. lat.

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

c/ 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). In 2001, out of 84,000 mt total landings 1 mt was groundfish. This suggests that total bocaccio was caught in trace amounts.

d/ Estimates for yelloweye have not been updated.

e/ Estimates for bocaccio, cowcod, widow, and yelloweye have not been updated.

f/ Values are proposed EFP bycatch caps, not estimates of total mortality. The EFP is terminated inseason if the cap is projected to be attained early.

g/ The darkblotched rockfish and Pacific ocean perch caps are not defined yet for this EFP but are expected to be lower than the placeholders in this scorecard.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic Atmospheric Administration
National Marine Fisheries Service
Sustainable Fisheries Division
7600 Sand Point Way N. E., Building. 1, Bin C15700
Seattle, WA 98115-0070

DATE: September 10, 2004
TO: DISTRIBUTION
FROM: F/NWR2 -Becky Renko
SUBJECT: PRELIMINARY Report #6 -- 2004 Pacific Whiting Fishery

This report consolidates preliminary state, federal, and tribal data for the 2004 Pacific whiting fishery off Washington, Oregon, and California.

	Allocation		Catch* (mt)	Thru [date]	Status	Percent of allocation taken
	Percentages	Metric Tons				
California (south of 42 N lat.)	(5% shore alloc'n; included in WOC shore allocation)	4,526	4,589	--	CA season began April 1; temporary closure from May 22 to June 15	
Oregon	--	NA	58,637	--		
Washington	--	NA	25,659	--		
WOC shore-based	42% commercial OY	90,510	88,885	8/14	Began June 15; ended 1600 August 14	98.2%
Mothership (n. of 42 N. lat.)	24% commercial OY	51,720	24,102	6/12	Began May 15	46.6%
Catcher/processor (n. of 42 N. lat.)	34% commercial OY	73,270	41,269	9/7	Began May 15	56.0%
Total nontribal	commercial OY	215,500	154,256	--	--	71.6%
Tribal (Makah)		32,500	28,648	8/15	Began May 20	
Total directed fishing		248,000	182,904	--	--	73.8%
Other (research & incidental catch in non- groundfish fisheries)		2,000	unknown at this time			--
Total	OY=optimum yield	250,000	--	--	--	--

* Catch includes discards from at-sea processors; weigh-backs from shore-based catcher vessels; and small amounts landed under the trip limit between the seasons. The data for at-sea processing (catcher/processors and motherships) are preliminary and are based on reports from NMFS-trained observers. Data for shore-based processors also are preliminary and are provided by each State to NMFS for the purpose of monitoring the fishery. Preliminary data for the Makah fishery are from NMFS-trained observers or state fish tickets. All weights are round weight (the weight of the whole fish before processing) or round-weight equivalents. One metric ton is 2,204.6 pounds.





NEWPORT TRADEWINDS DEEP SEA FISHING

Agendum C.2.d

Supplemental Public Comment

September 2004

DEEP SEA CRUISES

653 S.W. BAY BOULEVARD, NEWPORT, OREGON

TELEPHONE 265-2101

Patty Burke (Manager of ODFW)
2040 SE Marine Science Dr.
Newport, OR 97365

09/03/04

RECEIVED

SEP 07 2004

Patty Burke:

Just a few words to inform you and the handful of people you work with, to know what an **Injustice** you are doing!!!

All over Oregon, our skippers and deckhands depend on the ground fishery to make a living and feed their families. Winter months through early Spring especially, all they were allowed to catch was bottom fish, to carry them through until salmon season starts again. This is the cycle you have put us in. Now you have ruled to take this away from us leaving nothing to make a living with this winter. How can you sleep at Night???

There is not a shortage of fish, you admitted to that!!! It all falls on the metric tons (inaccurate) count and what you call the **CAP**. (Last two years)

We have gone along with the limit of 10 Misc. and two ling - per person - but feel the injustice comes with the tonnage and cap. You know this is unfair and needs to be corrected. (Done away with) You can't control the poundage of what each fish weighs, any more than we can, nor can you get an accurate poundage of fish caught. Your inaccurate estimates are interfering with peoples lives and should be stopped.

We have all worked with you, allowing observers to go out on our boats, (no charge) and fish checkers to come down to our privately owned docks, to help them do their job.

How and what would they feel and you, yourself, if we say - **NO MORE !!!** and then maybe they are out of a job - and - maybe this would eventually effect your job too. Also you should take into account the cost increase on fishing licenses - one day licenses included. What about John Q Public on that???

Sincerely,

Helen Waddell
Owner/Newport Tradewinds

P.S. **GIVE US BACK OUR FISHING RIGHTS.**

Cc: OFWL - Katie Theil - Salem, Pac Fish Mgt C. - Portland, Cyreis Schmitt - Newport,
Darlene Hooley - Salem, Allen Brown - Salem, Gordon Smith - Eugene, Ron Wyden - Eugene,
John Kitzhaber - Salem



STOP WISHIN' — COME FISHIN'



Rep. Brown seeks to ease impact of sports fishing ban

Representative Alan Brown, R-Newport, called on Governor Kulongoski Thursday to ease the impact on small businesses and coastal communities caused by the Oregon Fish and Wildlife Department's (ODFW) decision to end the sports fishing season today (Friday).

"The Oregon Department of Fish and Wildlife closed sport fishing with no prior notice before one of the busiest sports fishing weekends of the year, and that's unacceptable to me," said Brown. "This decision is going to have a profound economic impact on our communi-

ty, and I want some answers about why this is happening now."

Brown said he was encouraged by a conversation he had Thursday with Theresa McHugh, the governor's chief of staff, when he asked that funds be made available to the small businesses who will lose money because of the ODFW decision. He also asked that tourism dollars be spent to let Oregonians know they can still do some sport fishing on the coast, and requested utilizing funds from the Economic and Community Development De-

partment.

"Our coastal communities cannot afford to go without the dollars they would otherwise have received from fishing expeditions this weekend," said Brown. "Something has to be done to make sure people know they can still come to the coast to fish, but that there are some limitations.

"In light of the decision to end fishing for some species, our coastal community - without notice - is going to have a tough time," Brown continued. "I'm working to mitigate that as much as possible."



**PORT
BROOKINGS
HARBOR**

August 31, 2004

**America's
Wild Rivers
Coast**
101 MILES OF NATURE'S BEST

RECEIVED

SEP 07 2004

PFMC

Ms. Patty Burke, Manager
Marine Resources Program
Oregon Department of Fish & Wildlife
2040 SE Marine Science Drive
Newport, OR 97365

RE: Sport Groundfish Fishery Closure

Dear Ms. Burke:

As the news of the sports ground fishery closure moves like a storm through Brookings Harbor, numerous individuals have contacted the Port of Brookings Harbor to discuss this topic and state their total disappointment with this decision to close the sports groundfish without much notice. The impact is being felt already by this community and is expected to multiply extensively in the next few days. Southern Oregon is struggling to create employment opportunities and keep this one key element of the tourism industry alive, which is our recreational fishing industry. This is a blow to our economy that is unexpected and, plainly speaking, should be justified to the general public, as each of our fishermen knows very well that there is a tremendous abundance of groundfish available in this area.

The Port of Brookings Harbor understands that the number of fish available is not considered, but rather it's the metric tons harvested that is the trigger. What we don't understand is how we got to this situation without notice and why adjustments were not made early on to lessen the 2004 harvest rate, thus eliminating the need to close the fishery entirely. If time was available, why could not there have been meetings of the fisheries managers to seek exceptions and keep Oregon fishery and coastal economies on track. Hind sight is always 20/20, and now the question is how do we collectively as communities make sure our input is considered when decisions of this magnitude are made and what can we do today to guard against this type of future sports ground fishery closures.

Board of Commissioners:

Chairman

S. John Zia

Vice Chairman

Norma H. Fitzgerald

Secretary/Treasurer

Kenneth L. Byrtus

Board Members

Edmund G. Gray

Lloyd D. Whaley

Executive Director:

C. Russ Crabtree

Port Legal Counsel:

Christopher Keusink

Financial Director:

Merle E. Mehlhoff

Economic Development Dir.:

Nita J. Rolfe

Office Manager:

Betty A. Sumner

Harbormaster:

Daniel L. Thompson

Marketing Director:

Jean Pyne

P.O. Box 848
Brookings, OR 97415
Ph: (541) 469-2218
Fax: (541) 469-0672

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Ms. Patty Burke
August 31, 2004
Page Two

The Port of Brookings Harbor has always strived to be participatory in fisheries management and again is willing to do so, but we must have justification for this decision that is understandable and have it provided to our community. The one good thing that is forthcoming out of this year's debacle is the self-mobilization of community support and an increased participation in the next year's fisheries management process.

The community of Brookings Harbor would appreciate a response to this correspondence and, if there are any other discussions or information exchange needed, please feel free to contact me at (541) 469-2218 or by email at russ@port-brookings-harbor.org.

Sincerely,



Russ Crabtree
Executive Director

c: Port Board of Commissioners
Oregon South Coast Fishermen
Curry County Board of Commissioners
City of Brookings
Governor Ted Kulongoski
Representative Wayne Krieger
Senator Ron Wyden
Senator Gordon Smith
Representative Peter DeFazio
~~Don McLissac, PFMC~~
Oregon Coastal Ports Association
Oregon Coastal Zone Management Association

CONSIDERATION OF LIMITED REFINEMENTS TO THE 2005/2006 FISHERY MANAGEMENT SPECIFICATIONS

The Council has just completed the first biennial groundfish management decision-making process by setting final 2005-2006 management measures in June. Since that time, the Groundfish Management Team (GMT) and Council staff completed the Draft Environmental Impact Statement (DEIS) supporting those decisions, which is in the National Environmental Policy Act public review period. In the course of completing the DEIS, a few errors were discovered. In particular, two specifications for the limited entry fixed gear sector should be reconsidered before implementation of new management measures. These two specifications are the thornyhead trip limits for the limited entry fixed gear fishery and the 2006 fixed gear sablefish tier limits.

Since the June Council meeting when the Council-preferred Alternative was decided, the GMT realized the increase in trawl trip limits for thornyheads due to fleet reduction from the trawl buyback program were probably not intended to apply to the limited entry fixed gear fleet, which was not subject to a buyback program. The GMT expressed concern that the limited entry fixed gear thornyhead limits are too high, which might lead to early attainment of the shortspine thornyhead OY. Therefore, the GMT recommends the Council re-specify lower 2005 and 2006 thornyhead trip limits for the limited entry fixed gear sector at this meeting.

The GMT also revised projections of anticipated research catches in 2005 and 2006 subsequent to the June Council meeting. The revision in the anticipated research catch of sablefish affected the calculation of the 2006 limited entry fixed gear allocation of sablefish and the 2006 tier limits. The GMT originally set aside 53 mt of expected sablefish catch in 2005 and 2006 research fisheries when they modeled the effects of alternative limited entry fixed gear sablefish management measures. However, the revised research catch estimates of 48.2 mt of sablefish in 2005 and 86 mt of sablefish in 2006 affected these model results. While the 2005 sablefish tier limits and associated overfished species' impacts did not change, the 2006 specifications did. The revised 2006 tier limits are 62,700 pounds for Tier 1; 28,500 pounds for Tier 2; and 16,300 pounds for Tier 3 with an associated slight decrease in the estimated impact on overfished species (Table 2-29c [excerpted from the DEIS], Agendum C.3.a, Attachment 1). The Council should consider re-specifying the 2006 tier limits at this meeting.

Council Action:

- 1. Consider re-specifying 2005 and 2006 limited entry fixed gear thornyhead limits.**
- 2. Consider re-specifying 2006 limited entry fixed gear sablefish tier limits.**

Reference Materials:

1. Agendum C.3.a, Attachment 1: Table 2-29c. Revised 2006 sablefish primary fishery tier limits and projected bycatch of depleted species associated with all sablefish catch in the limited entry fixed-gear fishery to be considered by the Council in September 2004.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. **Council Action:** Adopt Recommendations for Specification Refinements

John DeVore

PFMC
08/25/04

TABLE 2-29c. Revised **2006** sablefish primary fishery tier limits and projected bycatch of depleted species associated with all sablefish catch in the limited entry fixed-gear fishery to be considered by the Council in September 2004. (Page 1 of 1)

	Seaward boundary of RCA at 100 fm north of 40°10' N. lat. and at 150 fm south of 40°10' N. lat.			
	Coastwide summary	Gear rates and bycatch		Combined bycatch
		Longline	Pot	
Total catch allocated (mt)	2,482			
Observed sablefish discard rate	15.91%	14.89%	18.00%	
Discard mortality percentage of landed mt + discarded mt	3.65%	3.39%	4.207%	
Assumed discard mortality (mt) ^{a/}	91			
Landed catch target (mt)	2,391			
Amount allocated to:				
DTL (mt)	359			
Primary fishery (mt)	2,032			
Primary fishery tier limits (lb)				
Tier 1	62,661	62,700		
Tier 2	28,482	28,500		
Tier 3	16,276	16,300		
Percent of total catch, by area	100%			
Percent of area catch, by gear		63.2%	36.9%	
Estimated distribution of total catch, by gear	2,482	1,567	914	
Bycatch ratios ^{b/}				
Lingcod		0.368%	0.148%	
Widow rockfish		0.001%	0.000%	
Canary rockfish		0.036%	0.000%	
Yelloweye rockfish		0.081%	0.000%	
Bocaccio rockfish ^{c/}		0.000%	0.000%	
Cowcod rockfish ^{c/}		0.000%	0.000%	
Pacific ocean perch		0.018%	0.000%	
Darkblotched rockfish		0.045%	0.009%	
Projected bycatch impacts (mt)				
Lingcod		5.8	1.4	7.1
Widow rockfish		0.0	0.0	0.0
Canary rockfish		0.6	0.0	0.6
Yelloweye rockfish		1.3	0.0	1.3
Bocaccio rockfish ^{c/}		0.0	0.0	0.0
Cowcod rockfish ^{c/}		0.0	0.0	0.0
Pacific ocean perch		0.3	0.0	0.3
Darkblotched rockfish		0.7	0.1	0.8

a/ As in previous years, the rate of mortality for discarded sablefish in the fixed gear fishery is assumed to be 20%.

b/ The bycatch ratios are calculated by dividing the total catch of each species by the total poundage of sablefish that was caught.

c/ Note that the observer data on which these rates are based include no observations from south of Fort Bragg, California, so these are likely underestimates of true bycatch.

GROUND FISH ADVISORY SUBPANEL STATEMENT ON INITIAL
CONSIDERATION OF LIMITED REFINEMENTS TO THE 2005/2006
FISHERY MANAGEMENT SPECIFICATIONS

The Groundfish Advisory Subpanel (GAP) met with the Groundfish Management Team (GMT) to discuss limited refinements to 2005/2006 groundfish management specifications.

The GAP agrees with the Groundfish Management Team recommendations on revising the fixed gear sablefish tier limits to properly account for research catch and on revising the limited entry fixed gear trip limits on thornyheads, which were inadvertently set higher than intended.

The GAP had a lengthy discussion on a Washington proposal to increase the amount of lingcod attributed to the Washington and Oregon recreational fisheries. The proposal results from the use of more recent data applied to projections for recreational catch. The GAP agrees that the most recent data should be used, and the bycatch projection table (formerly known as the "scorecard") should be corrected. However, taking this action should not preclude future inseason increases for the commercial fishery if they are warranted. The GAP notes there is a large residual amount of lingcod shown to be available at the start of the 2005 season and believes that the commercial sector should have an equal opportunity for access to harvestable fish.

PFMC
09/14/04

GROUND FISH MANAGEMENT TEAM REPORT ON
CONSIDERATION OF LIMITED REFINEMENTS TO THE 2005/2006 FISHERY
MANAGEMENT SPECIFICATIONS

The Groundfish Management Team (GMT) has identified four proposed refinements to the 2005/2006 management specifications for Council consideration:

Limited Entry Fixed Gear Thornyheads South of 40°10' N latitude.

In 2005-2006, the trip limits for thornyheads in this area are scheduled to be the same as the limited entry trawl thornyhead limits for this area. However, limited entry trawl trip limits were adjusted upward beginning in 2004 to reflect the trawl buyback, and therefore, the limited entry fixed gear limits should not have been adjusted upward to be the same as trawl. The GMT recommends the limited entry fixed gear limits be adjusted back to the 2004 limits, which are similar to the limited entry fixed gear limits in the north.

Currently, trip limits for 2005-2006 are 19,000 lb/2 months for longspine thornyhead and 4,200 lb/ 2 months for shortspine thornyhead. The GMT recommends these trip limits be reduced to 10,000 lb/2 months for longspine thornyhead and 2,000 lb/2 months for shortspine thornyhead.

Limited Entry Fixed Gear Sablefish Tier Limits

Derivation of the 2005-2006 tier limits for the limited-entry fixed-gear sablefish fishery recommended by the GMT in June were based on inclusion of outdated estimates of the research catch expected in both years. The GMT had updated estimated 2005-2006 research catches this spring, but those amounts were inadvertently not included in the tier calculations. As described in the Agendum Overview and Attachment 1, the sablefish tier limits for 2006 need to be updated as a result of the revised projected research catch to the following:

- Tier 1 - 62,700 lb
- Tier 2 - 28,500 lb
- Tier 3 - 16,300 lb

Washington and Oregon Recreational Lingcod Harvest Guideline

The GMT received a presentation from the States of Washington and Oregon on a potential revision to the harvest targets for northern recreational lingcod in the 2005-2006 annual specifications. Anticipated take for these fisheries under proposed (status quo) regulation was calculated in June using the increasing linear trend of lingcod catches since 2001. This trend appears to be the result of increasing availability of lingcod to the recreational fishery due to successful rebuilding of the stock. Angler effort, angler success, and average fish weight all display an increasing trend. This trend was recalculated replacing the previously estimated 2004 catch with actual inseason catch estimates. The result was a slight increase to the 2005 and 2006

estimated catch. The GMT supports this updated calculation which makes use of the most recent available data.

Limited Entry Trawl Slope Rockfish

In response to the higher darkblotched rockfish mortalities, the GMT recommends the limited entry trawl management measures for the beginning of 2005 be revised. Specifically, beginning Period 1, move the seaward trawl boundary from 150 fm to 200 fm north of 38° N latitude with allowing the petrale areas, and reduce the slope rockfish trip limit to 4,000 lbs/2 months, which is the level that 2004 started with. These rockfish conservation area (RCA) boundaries and/or trip limits can then be adjusted inseason as more information becomes available.

GMT Recommendations

1. Adopt the revised trip limits for limited entry fixed gear for shortspine and longspine thornyheads south of 40°10'N latitude for 2005 and 2006.
2. Adopt the revised 2006 sablefish tier limits for the limited entry fixed gear fishery.
3. Adopt the revised Washington/Oregon recreational lingcod harvest guideline based on the updated catch projections.
4. Adopt the revised limited entry trawl RCA boundary and slope rockfish trip limit north of 38°N latitude beginning in Period 1.

PFMC
09/14/04

WASHINGTON AND OREGON DEPARTMENTS OF FISH AND WILDLIFE
REPORT ON CONSIDERATION OF LIMITED REFINEMENTS TO THE
2005/2006 FISHERY MANAGEMENT SPECIFICATIONS

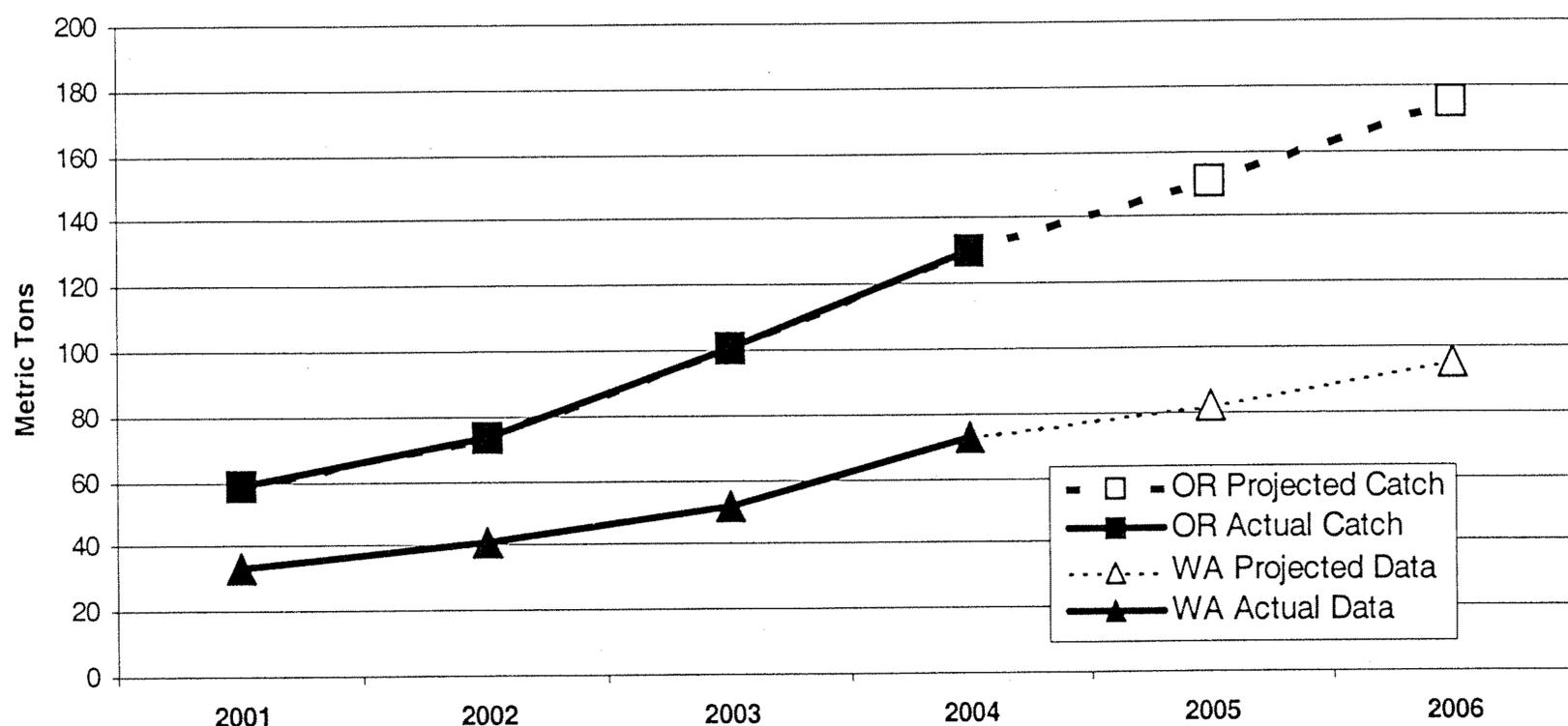
Recreational Lingcod

At the June Council meeting, Washington and Oregon staff reviewed lingcod catch data from their respective recreational fisheries from 2001-2003 and noticed a linear trend. This increasing catch trend is consistent with the recent stock assessment data which indicates that lingcod in the north have recovered to above B40%. The trend will likely continue in 2005 and 2006 as lingcod become increasingly available to northern recreational fishers.

Based on the Council guidance to accommodate recreational fisheries in setting harvest guidelines, Washington and Oregon recommended using this trend to project catch estimates for 2005 and 2006. This approach would meet current rebuilding strategies while avoiding early closure of the northern recreational fisheries because of lingcod harvest guideline attainment.

However, when this approach was adopted in June, the catch projections for 2005 and 2006 were based on an estimate for 2004. Actual catches through July in both Washington and Oregon recreational fisheries this year are higher than previously estimated. As such, the linear trend has changed and the projections for 2005 and 2006 are slightly higher than initially projected (see Figure 1). Therefore, Washington and Oregon recommend that the northern recreational harvest guideline be adjusted from 206 mt to 234 mt in 2005, and from 239 mt to 271 mt in 2006 to accommodate this increased projection.

Figure 1. Washington/Oregon coastal lingcod harvest 2001-2003 (actual) and 2004-2006 (projected).



Agendum C.3.c
Supplemental Public Comment
September 2004

imap://john.devore@mercury.akctr.noaa.gov:143/fetch%3EUID%3E...

Subject: sport ground fish closure
From: "T Merriman" <tmer@masco.net>
Date: Tue, 31 Aug 2004 08:57:22 -0700
To: <Mike.Burner@noaa.gov>
CC: <john.devore@noaa.gov>
X-Mozilla-Status: 0001
X-Mozilla-Status2: 00000000
Return-Path: <tmer@masco.net>
Received: from relay-east.nems.noaa.gov ([205.156.4.216]) by mercury.akctr.noaa.gov (Netscape Messaging Server 4.15 mercury Jun 21 2001 23:53:48) with ESMTP id I3BJ1T00.934; Tue, 31 Aug 2004 08:58:41 -0700
Received: from mx-east.nems.noaa.gov ([140.90.121.147]) by relay-east.nems.noaa.gov (Netscape Messaging Server 4.15) with SMTP id I3BJ1R00.A1I; Tue, 31 Aug 2004 11:58:39 -0400
Received: from unknown(199.108.229.186) by mx-east.nems.noaa.gov via csmmap id 1eb3d29a_fb68_11d8_804f_003048245d2f_7347; Tue, 31 Aug 2004 12:09:22 -0400 (EDT)
content-class: urn:content-classes:message
MIME-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
X-MimeOLE: Produced By Microsoft Exchange V6.0.6487.1
Message-ID: <6A00C4865C95EB44AF30888C8FEEEC8A019D3D@mason.masco.net>
Thread-Topic: sport ground fish closure
Thread-Index: AcSPczMCOtXl5IPwRPyMVGg3szZngA==
X-NAI-Spam-Score: -2.5
X-NAI-Spam-Rules: 1 Rules triggered BAYES_00=-2.5

Dear Mike Burner, John DeVore

I would like to express my disappointment for the total closure of sport ground fish harvesting in the oceans of Washington and Oregon. As an active sport fisherman that fishes the waters of the Columbia River and Halibut catch area #1. We have been restricted to fishing Salmon and Tuna since the miniscule 7000lb Halibut quota was reached in early July of this year. The tiny Halibut quota catch area #1, as compared to catch area 2A, was a injustice but now we no longer can plan on fishing for bottom fish on our normal harvest area 23 miles off Tillamook Head. These waters are appx. 100 fathoms deep, well past the hard fished nearshore harvest areas of the South Jetty and Tillamook Head.

This closure will require that I cancel all my trips and let my customers also cancel all hotel and dinner plans for October and November of 2004.

Our normal harvesting pattern was comprised of about 80% widow rockfish, a few lings and china rockfish. An occasional yellow eye were also thrown in the catch.

I will now plan on leaving the Northern Oregon coast upon the closure of the 2004 salmon season.

As a side note, of my 12 Halibut trips to the waters of the Astoria Canyon this 2004 Halibut season, we only had one yellow eye and no canary rockfish.

We did catch a few true cod and lots of black cod. Our trips were quite productive depending on the weather with a average of one Halibut per angler each trip. I think the central Oregon Coastal waters and the wastage of this "threatened" yellow eye and canary fish are truly a crime. One only needs to visit these waters of Newport and witness the yellow eye "floaters" and wastage of a resource.

It is sad the few commercial interests far out distance the revenue generated by public visiting and spending tourist dollars in these hard hit local coastal towns.

Tom Merriman
2504 Sahalee Drive East
Sammamish, Wa. 98074

RED LIGHT/GREEN LIGHT THRESHOLD FOR OPTIMUM YIELD ADJUSTMENTS

The Council adopted Groundfish Fishery Management Plan (FMP) Amendment 17 in November 2002 which put in place a new biennial groundfish management process. As part of this action, the Council adopted the Groundfish Management Team (GMT) advice to include a mid-process “best available science” check of harvest specifications (Agendum C.4.a, Attachment 1). The mid-process check would be responsive to new assessments and other scientific information that might compel the Council to consider adjusting optimum yields (OYs) before the second year of the biennial management cycle. For instance, new groundfish assessments adopted by the Council in November 2005 might compel the Council to change OYs before the start of the 2006 fishing year. The exact wording of the Council's November 2002 motion is as follows:

Adopt Alternative 3 as described in the EA Exhibit G.5, Attachment 1, including (1) the mid-process best available science check in the Exhibit G.5.c, Revised Supplemental GMT Report, (2) including the two one-year OY recommendations as in Exhibit G.5.c, Revised Supplemental GMT Report, and (3) with the exception that whiting may be done on an annual basis.

Further the GMT will be tasked to work with the Council advisory bodies to come up with the thresholds for determining whether mid-process changes are necessary.

While the policy for considering a mid-process check on OYs, including the thresholds for triggering this decision, has yet to be developed, there has been some confusion as to, (1) whether the mid-process check would allow consideration of both decreases and increases of OYs (i.e., red light/green light) or only decreases in OYs (i.e., red light only) and (2) what species are eligible for potential adjustment. The transmittal letter for the proposed FMP amendment referred to “altering harvest levels” in light of new science, implying either direction and for any species (Agendum C.4.a, Attachment 2, third paragraph). However, the FMP amendatory language, that spoke to the mid-process check of OYs and was approved by the Secretary of Commerce when Amendment 17 was approved, only considered downward adjustments to OYs and only for overfished stocks (Agendum C.4.a, Attachment 3). This amendatory language was not presented to the Council when the Amendment 17 decision was made in November 2002, but was included in the materials put forward for Secretarial approval. The FMP Amendment 17 approval letter refers to a checkpoint process ensuring harvest levels are adequately conservative to protect overfished species (Agendum C.4.a, Attachment 4, second paragraph). On the other hand, recent GMT and Scientific and Statistical Committee discussions refer to investigating adjustments in either direction and are not limited to overfished species (Agendum C.4.a, Attachments 5 and 6, respectively).

The Council task under this agendum is to provide guidance to the National Marine Fisheries Service on the Council's intent when they adopted the concept of a mid-process check of OYs under multi-year management and to discuss future plans for development of a mid-process check on OY levels to reflect best available science.

Council Task:

- 1. Provide a finding of whether the mid-process check of harvest specifications was intended to include consideration of both increases and decreases of OYs and for just overfished species or all species.**
- 2. Provide guidance on assignments to advisory bodies.**

Reference Materials:

1. Agendum C.4.a, Attachment 1: Revised Supplemental GMT Report from the November 2002 Council meeting.
2. Agendum C.4.a, Attachment 2: Amendment 17 transmittal letter from Dr. Donald McIsaac to Mr. Robert Lohn dated May 14, 2003.
3. Agendum C.4.a, Attachment 3: FMP Amendment 17 amendatory language (Section 5.7.1 as amended).
4. Agendum C.4.a, Attachment 4: Amendment 17 approval letter from Mr. Robert Lohn to Mr. Donald Hansen dated August 19, 2003.
5. Agendum C.4.a, Attachment 5: Excerpt from summary minutes of the February 2003 GMT meeting.
6. Agendum C.4.a, Attachment 6: Excerpt from summary minutes of the March 2003 SSC meeting.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. Council Guidance on Defining the Task

John DeVore

PFMC
08/25/04

REVISED SUPPLEMENTAL GMT REPORT FROM
THE NOVEMBER 2002 COUNCIL MEETING

**GROUND FISH MANAGEMENT TEAM STATEMENT
ON AMENDMENT 17 - MULTI-YEAR MANAGEMENT**

The Groundfish Management Team (GMT) received an update on Amendment 17 at its October meeting from Yvonne deReynier, National Marine Fisheries Service. With regard to the multi-year management cycle, the GMT prefers Alternative 3, a three-meeting biennial process with a January 1 start date for the fishing year and statistical year. This alternative does not use the most current science for the development of management measures, but it does provide for consistency with historic management practices as it reflects the status quo fishing period. This consistency allows fishery managers to compare current statistics with historical data.

Table 1. Multi-year Management Timeline (Alternative 3, Amendment 17)							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Survey	A	B	C	D	E		
Assessment		A		A-C*		A-E	
Management			A		A-C		A-E
Fishing				A	A	A-C	A-C
* Assessments for fishing in Years 6-7 would be complete by October of Year 4. November Council meeting of Year 4 could allow checkpoint for Year 5 harvest levels to ensure that those harvest levels set in earlier management process are adequately conservative to meet overfished species protection and conservation requirements.							

The GMT is aware of the desire of industry to maintain a January 1 start date to accommodate established marketing practices. Starting the fishery later in the year (e.g., March or May) could cause additional problems as those start dates could result in inseason adjustments having to be made outside of regularly scheduled Council meetings. It is for those reasons that the GMT is proposing a mid-process "best available science" check on harvest levels.

The GMT also believes that a three-meeting process would serve best to provide adequate time for stakeholder involvement in the decision-making process, as well as time needed to review stock assessment and/or rebuilding results, develop management measures, prepare necessary NEPA documents, and make necessary changes to documents prior to the Council taking final action.

The GMT also discussed the trade-offs associated with having a two-year optimum yield (OY) vs. two one-year OYs. The GMT recommends two one-year OYs (status quo) because of the fishing and management implications associated with overharvest in the first year of a two-year OY. If this would occur, not only could it severely constrain fisheries in the second year, ~~it may also result in overfished species not meeting rebuilding targets.~~ Further, the GMT does not believe that overages should be transferred as this could result in severe fishing and management problems the following year. The GMT also recognizes that transferring underages only could increase the likelihood that cumulative OYs over the long-term will be exceeded. The GMT notes that, under the status quo, overages are accounted for when stock assessment or rebuilding analyses are updated.

The GMT recognizes there are trade-offs in transition year (2004) management process alternatives. Table 2 provides the Status Quo two-meeting process used this year to develop 2003 management measures and an alternative three-meeting process consistent with the Council-preferred Alternative 3 multi-year management alternative. While a three-meeting process is preferred by the GMT for the reasons stated above, there are potential difficulties associated with a three-meeting transition year process. Perhaps the greatest potential problem is the confusion that may be associated with the Council deciding final 2004 management measures at the same meeting in which preliminary harvest levels and management measures for 2005-2006 are being decided. Further GMT modeling of 2004 management measures following the September meeting would also reduce the resources available for preparing the preliminary 2005-2006

package for the November meeting. Finally, the GMT notes that NMFS Regional staff will have to publish some form of Federal regulations by January 1. Delaying the final decision on 2004 management measures until November will significantly increase the end-of-year workload associated with meeting that deadline.

The notice and comment period constraints for a supporting NEPA analysis for 2004 management measures could be sustained under this alternative if emergency measures are adopted for the first four months of 2004 or a roll-over of 2003 OYs and management measures is adopted for the first four months of 2004. The extent to which a rollover from 2003 might meet Council needs during the first four months of 2004 will depend on finding that observer data do not indicate higher bycatch rates of overfished species than were used in modeling the 2003 fishery. The GMT also notes that decisions resolving how the first 2 or 4 months of 2004 ~~will be handled~~ will need to be made by the September Council meeting in order to ensure implementation by January 1.

If staff workload associated with developing the 2004 regulatory and analysis package between the September and November Council meetings is a major consideration in evaluating the desirability of a 3-meeting process in 2003, the GMT recommends that the Council also consider an option of maintaining the status quo decision-making schedule, but delaying delivery of the final 2004 NEPA analysis until after the November meeting, and making the necessary emergency rule/rollover provisions for the first 4 months of 2004.

PFMC
10/31/02

* Verbiage in ~~strikeout~~ was orally deleted by Dr. Jim Hastie on the Council floor when the GMT statement was presented.

Agendum C.4.a
Attachment 2
September 2004

PACIFIC FISHERY MANAGEMENT COUNCIL

7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

EXECUTIVE DIRECTOR
Donald O. McIsaac

CHAIRMAN
Hans Radtke

Telephone: (503) 820-2280
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May 14, 2003

Mr. Robert Lohn, Regional Administrator
National Marine Fisheries Service, Northwest Region
7600 Sand Point Way NE
BIN C15700, Building 1
Seattle, WA 98115-0070

Dear Mr. Lohn:

During its meeting on October 31, 2002, the Pacific Fishery Management Council (Council) adopted Amendment 17 to the Groundfish Fishery Management Plan (FMP). Amendment 17 would change the groundfish management process to a multi-year schedule so that measures can be established for two years, rather than one. This could provide more time for the Council and National Marine Fisheries Service (NMFS) to work on other critical groundfish issues, such as strategic plan implementation. In addition, a revised management schedule would provide enough time for NMFS to publish a proposed rule in the *Federal Register* and take public comment before its final decision on whether to approve the Council recommendations.

In adopting Amendment 17, the Council selected a preferred alternative that would establish a biennial management cycle for groundfish beginning with the 2005-2006 fishing years. Under this alternative, a three Council meeting process (November-March/April-June) would be used to prepare biennial management measures. The Council also selected a preferred alternative for establishing optimum yield (OY) values. Under the preferred alternative, OY values for managed species would be established for each fishing year during the two-year management period. That is, two one-year OYs would be specified for each managed species.

To ensure the Council could respond to significant changes in a fishery, the Council also included in Amendment 17 a process for reviewing fishing levels during the multi-year management period. These checkpoints would consider whether new science or assessment information should be used to alter harvest levels. The Council tasked the Groundfish Management Team (in consultation with the Scientific and Statistical Committee and Groundfish Advisory Subpanel) to develop thresholds for determining whether mid-process changes are necessary.

In recognition of the population dynamics of Pacific whiting and its management through transboundary agreements, the Council included an option for managing whiting on an annual basis.

Mr. Robert Lohn
May 14, 2003
Page 2

The Council requests your review, approval, and implementation of Amendment 17 (provided separately from this letter). Please call upon Mr. Dan Waldeck of the Council staff for any additional assistance you may need to complete the implementation process.

Sincerely,


for D. O. McIsaac, Ph.D.
Executive Director

JCC:dsh

c: Ms. Eileen Cooney
Ms. Paula Evans
Mr. Rod McInnis
Mr. Bill Robinson

5.7 Inseason Procedures for Establishing or Adjusting Specifications and Apportionments
(previously 5.9)

5.7.1 Inseason Adjustments to ABCs, OYs, HGs, and Quotas

Under the biennial specifications and management measures process, stock assessments for most species will become available every other year, prior to the November Council meeting that begins the three-meeting process for setting specifications and management measures. The November Council meeting that begins that three-meeting process will be the November of the first fishing year in a biennial fishing period. **If the Council determines that any of the ABCs or OYs set in the prior management process are not adequately conservative to meet rebuilding plan goals for an overfished species, harvest specifications for that overfished species and/or for co-occurring species may be revised for the second fishing year of the then current biennial management period.** Occasionally, new stock assessment information may become available inseason that supports a determination that an ABC no longer accurately describes the status of a particular species or species group. However, adjustments will only be made during the annual specifications process and a revised ABC announced at the beginning of the next fishing year.

The only exception is in the case where the ABC announced at the beginning of the fishing year **Beyond this process, ABCs, OYs, HGs, and quotas may only be modified in cases where a harvest specification announced at the beginning of the fishing period** is found to have resulted from incorrect data or from computational errors. If the Council finds that such an error has occurred, it may recommend the Secretary publish a notice in the *Federal Register* revising the **ABC incorrect harvest specification** at the earliest possible date.

NOTE: Gray highlight added for emphasis.

Agendum C.4.a
Attachment 4
September 2004



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

AUG 19 2003

RECEIVED

AUG 21 2003

PFMC

Mr. Donald Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place
Portland, OR 97220

Dear Mr. Hansen:

By this letter, I am approving Amendment 17 to the Pacific Coast Groundfish Fishery Management Plan (FMP). As you know, Amendment 17 revises the Pacific Fishery Management Council's (Council's) annual groundfish management process so that it becomes a biennial process with time for notice and comment rulemaking to implement the biennial specifications and management measures. Amendment 17 is intended to ensure that the specifications and management measures process responds to a court ruling in Natural Resources Defense Council, Inc. v. Evans, 316 F.3d 904 (9th Cir. 2002,) to make the Council's development process for specifications and management measures more efficient in order to allow time for other management activities, and to streamline the NMFS regulatory process for implementing the specifications and management measures. A proposed rule to implement Amendment 17 was published on June 13, 2003 (68 FR 35354), and we expect to have the final rule effective by October 31, 2003. Because Amendment 17 primarily addressed the Council process, the primary effect of the final rule to implement Amendment 17 will be to revise regulatory references to the annual groundfish management process.

Under the biennial management process introduced by Amendment 17, the groundfish specifications and management measures would be developed and recommended by the Council through a three-meeting process, usually November-April-June meetings. The Council's November 2003 meeting will mark the start of the Council process for developing 2005-2006 harvest specifications and management measures. You may recall that, when the Council adopted Amendment 17, it asked its Groundfish Management Team (GMT) to develop a process that would give the Council a mid-biennium checkpoint "to ensure that those harvest levels set in [the] earlier management process are adequately conservative to meet overfished species protection and conservation requirements." NMFS would be pleased to work with the Council in developing this checkpoint process for overfished species rebuilding.

NMFS appreciates the Council's efforts to improve the efficiencies of its management processes, particularly to accommodate NMFS's needs for providing an expanded notice and comment rulemaking for the groundfish specifications and management measures.

Sincerely,


D. Robert Lohn
Regional Administrator

Excerpt from Summary Minutes of the March 2003 SSC Meeting

Initial Review of Groundfish Management Team Multi-Year Management Mid-Point Review Thresholds

Dr. Hastie provided background information and reviewed GMT consideration of this issue. He noted that when the Groundfish Multi-year Management Process (Amendment 17) was adopted, the Council directed the GMT to recommend a methodology react to survey results (or any new relevant information) in an off-year that is dramatically different from those previously considered to set OYs under multi-year management.

In their February 2003 meeting summary, the GMT noted that thresholds need to be established for adjustments for both decreasing and increasing stock sizes.

The GMT developed several threshold options for consideration:

- *Only species not under rebuilding.*
- *Any change (in either direction) that has significant effects- "case-by-case" basis.*
- *Minimum change of 5% to 10% in OY (in either direction).*
- *Maximum change of 20% in OY (in either direction) as a cap on the amount of change allowed.*
- *Include potential changes in NEPA documents when two one-year OYs are adopted for analytical purposes.*

Dr. Hastie noted that the GMT preferred an automatic process rather than a discretionary process. Under multi-year management and using the mid-point review process, when management specifications are developed, an evaluation of potential mid-course corrections should be included in the management specifications environmental assessment or environmental impact statement. This would facilitate changes to the specifications, because the effects would have been analyzed previously and could possibly be treated as an inseason change.

Because of the amount of work involved, the GMT advised this process should be used prudently and only if major adjustments were needed.

The SSC agreed it would be critically important to have an automatic process where impacts and alternatives had been previously analyzed. The SSC suggested that past stock assessments be reviewed to determine how often the need for mid-course corrections could arise. The SSC also discussed their previous advice to the Council on multi-year management, "The SSC reiterates that it is most important to base management advice on results from stock assessments that use the most recent data. However, across the four biennial options considered, there is a substantial range in the timeliness of the scientific information that will be used to manage the groundfish fishery. Alternative 5 provides the most current information and is, therefore, the option preferred by the SSC" (Exhibit G.5.c, Supplemental SSC Report, November 2002). The SSC will continue to work with the GMT as the GMT develops the mid-point review process.

Excerpt from Summary Minutes of the February 2003 GMT Meeting

P. Thresholds for Mid-Course Corrections to OYs During the Multi-Year Management Process

The Team was asked to recommend a methodology to react to survey results (or any new relevant information) in an off-year that is dramatically different from those previously considered to set OYs under multi-year management. The Team initially considered a percentage drop in biomass as a trigger for action but stock health is also dependent on the strength of individual age classes. However, survey results are highly variable and corrections should not be based on one survey alone. In addition to survey results changing, exceeding OYs in a given year could also be a reason for mid-course correction.

The Team proposed some modeling of future stock productivity to test the sensitivity of management measures or OYs to stock fluctuations but these efforts cannot begin until after this year's STAR panels. This issue needs to be more fully developed with input from the Science Centers and the SSC. Thresholds need to be established for adjustments for both decreasing and increasing stock sizes.

Table from the GMT Statement at the November, 2002 Council meeting:

Multi-year Management Timeline (Alternative 3, Amendment 17)							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Survey	A	B	C	D	E	F	G
Assessment		A		A-C*		A-E	
Management			A		A-C		A-E
Fishing				A	A	A-C	A-C

Mid-course assessments, like those in 'Year 4' in the above table, will be calculating an OY for the next two year period (Years 6 and 7) which is not directly comparable to the previously calculated OY for the current two year period. The only directly comparable values following the mid-course assessment would be things like biomass estimates.

The Council intent for the schedule is that the GMT will work on this in February for SSC review during the March meeting, and for Council and GAP consideration at the April meeting. The GMT has the discretion to change the schedule if this time line cannot be met (the November, 2003 Council meeting is the start of the initial multi-year management process). Even a relatively simple trigger will likely take all year to development given the current workload. If the end result is a COP change and not an FMP amendment the administrative workload would be less. A COP could be administered as a mechanism for management, but a NEPA analysis will be required to assess the effects of the decision.

Dr. MacCall proposed a scenario where the threshold consideration is a product of the STAR panel. There would then need to be a formal public process to address what actions, if any, need to be taken. He proposed the following steps:

- 1) Identify the potential issue, e.g., value of upcoming survey abundance
(Note: this can only apply to statistics than are not subject to behavioral modification, so something like CPUE cannot be used.)
- 2) Give the anticipated expected value, based on the current stock assessment. This is status quo.
- 3) Identify range of alternative values, +100%, -50% etc.
- 4) Do simulated assessment using alternative values of the survey abundance.
- 5) Give resulting biomass estimates. Assume F_{MSY} is unchanged.
- 6) Give resulting ABC values $B * F_{MSY}$.
- 7) Present to Council as an if-then action (could be based on ranges, or on a linear

formula, for example), which will be pre-decided at the time the first OY is adopted, and will be adopted automatically when the actual number comes in.

Do we need several thresholds, one for how a new assessment can change management, another for how catch deviations from expectations can change management? This is also a stock-specific situation. For some species for which we already do not attain OY, a large change in OY will not have any appreciable effect on management. Therefore, thresholds need to be considered on a case by case basis. If triggers or thresholds are set at too sensitive a level the process will slide back into annual management.

Stock assessment scientists would have a new task of looking forward to consider the likely range of future population trends. The GMT then would have a new task of considering what the management implications may be in response to the new stock assessment and these projections.

It is important to include in the NEPA document a range of possible threshold mechanisms and responses so that if a threshold is met, action needed to be taken can happen in an efficient manner. The threshold process should be kept fairly simple and automatic and should not require a huge workload given the other tasks ahead and the novelty of multi-year management. As the multi year program gets more institutionalized, a more complicated threshold and action process can evolve.

The GMT considered the possibility of exempting rebuilding species' OYs from mid-course correction. The only consideration would be if a rebuilding threshold is attained (B_{MSY}). However, if you do not develop thresholds for the species that are constraining fisheries, then the development of thresholds for other stocks has little use or value to management

Ms. Robinson reviewed the following threshold options for consideration:

- Only species not under rebuilding
- Any change (in either direction) that has significant effects- "case-by-case" basis
- Minimum change of 5-10% in OY (in either direction)
- Maximum change of 20% in OY (in either direction) as a cap on the amount of change allowed
- Include potential changes in NEPA documents when two one-year OYs are adopted for analytical purposes

A review of stock assessments over the last 10 years to estimate the variability in stock assessment results was proposed. It would be helpful to then see how often your mid-course corrections would have been made under various threshold policies. Dr. Hastie will work with staff at the NWFSC to determine the value of the work and to see what sort of resources are available for this exercise.

There could be need in the future, after initial review by the GMT and SSC, of holding a workshop with technical, industry and management people. The question of thresholds is more than a technical question and will have to be decided at a policy level as well.

GROUND FISH MANAGEMENT TEAM REPORT ON
RED LIGHT/GREEN LIGHT THRESHOLD FOR OPTIMUM YIELD

The Groundfish Management Team's (GMT's) understanding of the Council direction to develop recommendations for midcourse corrections was (1) that the corrections (i.e., optimum yield changes) could be considered for both decreases (red light) and increases (green light), and (2) all species could be considered for midcourse corrections. However, in the GMT's previous discussions on this topic, the GMT believes there is sufficient rationale to treat overfished stocks differently than non-overfished stocks in developing thresholds.

The GMT recommends that species-specific (or species category) thresholds be set at fairly high levels so that midcourse corrections would rarely occur, so as to not disrupt fisheries and affect the integrity of the biennial management process, while providing protection for overfished stocks, avoiding overfishing, and allowing harvest on healthier stocks. The GMT notes that, in essence, midcourse corrections would only affect the OY set for the second year of the biennial management cycle.

If the GMT's understanding of the direction provided by the Council is in error, we would appreciate clarification. We also request additional Council guidance on the next steps for addressing this issue.

PFMC
09/14/04

GROUND FISH MANAGEMENT TEAM REPORT ON
RED LIGHT/GREEN LIGHT THRESHOLD FOR OPTIMUM YIELD

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The GMT recommends that species-specific (or species category) thresholds be set at fairly high levels so that midcourse corrections would rarely occur, so as to not disrupt fisheries and affect the integrity of the biennial management process, while providing protection for overfished stocks, avoiding overfishing, and allowing harvest on healthier stocks. The GMT notes that, in essence, midcourse corrections would only affect the OY set for the second year of the biennial management cycle.

If the GMT's understanding of the direction provided by the Council is in error, we would appreciate clarification. We also request additional Council guidance on the next steps for addressing this issue.

PFMC
09/14/04

NATIONAL MARINE FISHERIES SERVICE REPORT ON
GROUNDFISH MANAGEMENT

National Marine Fisheries Service (NMFS) Northwest Region will briefly report on recent regulatory developments relevant to groundfish fisheries and issues of interest to the Council. NMFS Northwest Fisheries Science Center will briefly report on groundfish-related science and research activities.

Council Task:

Discussion.

Reference Materials:

None.

Agenda Order:

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

Steve Freese
Elizabeth Clarke

PFMC
08/25/04

GROUND FISH ESSENTIAL FISH HABITAT ENVIRONMENTAL IMPACT STATEMENT —PRELIMINARY ALTERNATIVES

In response to litigation, National Marine Fisheries Service (NMFS) is preparing an environmental impact statement (EIS) evaluating: (1) the designation of essential fish habitat (EFH) and habitat areas of particular concern (HAPC) for species in the Pacific Coast Groundfish Fishery Management Plan (FMP), (2) measures to mitigate fishing impacts to EFH, and (3) adaptive management measures to enhance knowledge about the location, characteristics and function of EFH, and to better understand fishing and non-fishing impacts to EFH. In support of this effort, NMFS developed a comprehensive risk assessment, which includes data and analytical tools organized within a geographic information system (GIS). In April 2004, the Council reviewed and approved for use the EFH designation component of the analytical framework. In June 2004, the Council found that the fishing impacts model, a second component of the analytical framework, currently could not be used in its entirety, although a Scientific and Statistical Committee (SSC) review found that elements of the model, such as gear- and location-specific habitat sensitivity and recovery indices, could be used independently. (See *Review of Fishing Impacts on Groundfish Essential Fish Habitat—A Report of the SSC Economics and Groundfish Subcommittees*, Agendum C.6.c.)

At the direction of the Council, the Ad Hoc EFH EIS Oversight Committee (EFH EISOC) met August 16-18, 2004 to develop a preliminary range of alternatives for the Council to consider adopting for analysis. The EFH EISOC developed four sets of alternatives: eight EFH designation alternatives, eight HAPC alternatives, 13 alternatives with measures to mitigate the adverse impacts of fishing on EFH, and three enhanced monitoring alternatives. The report of the EFH EISOC, containing a statement of the purpose and need for the proposed action and summary descriptions of each alternative, is provided under Agendum C.6.b. Two alternatives, HAPC alternative eight—designate areas around oil production platforms, and impact mitigation alternative 11—designate a no-trawl zone on the central California coast, are based on proposals submitted by members of the public. (Letters and materials in support of these proposals are included under Agendum C.6.d).

It should be noted that under the settlement agreement in the aforementioned lawsuit, the plaintiffs (Oceana) may submit a set of alternatives to be evaluated in the EIS and considered by the Council. Such a set of alternatives is not specifically identified in the EFH EISOC report.

Once the Council has adopted a preliminary range of alternatives, the EFH EIS drafting team will begin analyzing them. According to the current schedule, this analysis, contained in a preliminary draft EIS (DEIS), will be made available to the Council for their November 2004 meeting, at which time the Council would identify their preferred alternatives. The revised settlement agreement between NMFS and the plaintiffs stipulates that NMFS must publish a DEIS for public comment by February 5, 2005.

Council Action:

Adopt a range of alternatives for analysis in a preliminary DEIS.

Reference Materials:

1. Agendum C.6.b, EFH EISOC Report 1: Report of the Ad Hoc EFH EIS Oversight Committee.
2. Agendum C.6.c, SSC Report: SSC Economics and Groundfish Subcommittees Report.
3. Agendum C.6.d, Public Comment: Letters and attached materials from Dr. Milton Love (University of California at Santa Barbara), Mr. George Steinbach (California Artificial Reef Enhancement Program), and Mr. Chuck Cook (The Nature Conservancy).
4. Agendum C.6.b, Supplemental EFH EISOC Report 2.

Agenda Order:

- | | |
|---|---------------|
| a. Agendum Overview | Kit Dahl |
| b. EFH Oversight Committee Report | Phil Anderson |
| c. Reports and Comments of Advisory Bodies | |
| d. Public Comment | |
| e. Council Action: Adopt Range of Alternatives for Preliminary DEIS Analysis | |

PFMC
08/27/04

Report of the Ad Hoc Essential Fish Habitat Environmental Impact Statement Oversight Committee

August 2004

Introduction

The Ad Hoc Essential Fish Habitat (EFH) Environmental Impact Statement (EIS) Oversight Committee EFH EISOC met August 16-18, 2004, in Portland, Oregon, to provide advice on a draft statement of the proposed action and its purpose and need and to develop a preliminary range of alternatives for consideration by the Council. This report contains the purpose and need statement and a summary of the alternatives.

Purpose and Need and Need for the Proposed Action

The Proposed Action

The proposed action is to amend the Pacific Coast Groundfish FMP, pursuant to section 303(a)(7) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), to (1) describe and identify EFH for the fishery, (2) minimize to the extent practicable the adverse effects of fishing on EFH, and (3) identify other actions to encourage the conservation and enhancement of EFH. The project area for this action is the Pacific Coast Exclusive Economic Zone.

Purpose of the Proposed Action

The purpose of proposed action is, first, to provide the Council and the National Marine Fisheries Service (NMFS) with the information they need to better account for the function of Pacific Coast groundfish EFH when making fishery management decisions; second, to ensure this EFH is capable of sustaining groundfish stocks at levels which support vibrant fisheries; and third, it is a healthy component of fully functioning ecosystems.

Need

The proposed action is needed because the Council and NMFS have not had the tools needed to consider habitat and ecosystem function, and their relation to other biological and socioeconomic conditions affecting the groundfish fishery, in management decision making. The West Coast groundfish fishery suffers from numerous problems; although identifying and conserving EFH cannot address all these problems, the proposed action will allow managers to consider solutions in a more comprehensive way. The most important problems facing the fishery are overcapacity, or too many boats chasing too few fish; declining stock sizes, leading the Secretary of Commerce

to declare nine groundfish stocks overfished;^{1/} and changing ocean conditions, which may have contributed to the failure of some groundfish stocks to replace themselves (recruitment failure). An overriding problem has been the challenge of managing fisheries with limited scientific data. This increases the risk that decisions exacerbate the kinds of fishery- and stock-related problems just identified.

In Section 2(9) of the MSA, Congress found that “one of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats” and “habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.” Furthermore, one of long-term goals for the groundfish fishery, adopted by the Pacific Fishery Management Council in its strategic plan, is “to protect, maintain, and/or recover those habitats necessary for healthy fish populations and the productivity of those habitats” (PSMFC 2000).

These statements underscore the need to understand and conserve EFH as part of a holistic approach to fishery management. Each of the key problems mentioned earlier is related to the need to sustain fully functional EFH. Overcapacity, for example, if it results in higher levels of fishing effort than would otherwise be necessary, may contribute to adverse fishing impacts to EFH. On the biological side of the system, degraded EFH may be factor in declines in stock abundance. However, these questions cannot be definitively answered without better scientific information about the location of EFH and the role it plays in stock productivity.

Objectives Satisfied By This EIS

Acting on the advice of the National Academy of Sciences (NRC 2002), NMFS and the Council have engaged in a public process to develop a comprehensive risk assessment to determine if EFH-related problems exist, and if so, which of these problems could be appropriately considered through the Council and the National Environmental Policy Act (NEPA) processes. The risk assessment focuses on the identification of EFH, threats to its health and function, and the delineation of gaps in the available data, which if filled, would improve the risk assessment and support its ongoing use. Once the risk assessment was completed, the following problem statement was developed, in order to highlight those issues that this EIS is intended to resolve:

Based on the results of the risk assessment, the Council, NMFS, and partner organizations have developed the following objectives for this EIS:

- *consider alternatives for the designation of EFH and HAPCs;*
- *address gaps in available data; and,*
- *consider alternatives for minimization of adverse effects of fishing on EFH.*

1/ One of these stocks, Pacific whiting, has subsequently been declared rebuilt.

Preliminary Range of Alternatives

Introduction

The EFH EISOC developed alternatives based on four objectives for the EIS:

- designation of EFH;
- designation of HAPC;
- minimization of adverse effects of fishing on EFH; and,
- adaptive management.

The EFH EISOC developed separate sets of alternatives for each objective. The alternatives are not mutually exclusive either within or between categories.

Mapped representations of area-specific alternatives will be provided as supplemental briefing material at the September Council meeting.

Alternatives for Designation of EFH

Alternative 1 (Status Quo): Maintain current designation (i.e., whole Exclusive Economic Zone [EEZ]), based on the following seven habitat composites: Estuarine; Rocky Shelf; Nonrocky Shelf; Canyon; Continental Slope/Basin; Neritic Zone; and Oceanic Zone.

Alternative 2: Designate upper 90% area of overfished species^{2/} habitat suitability probability^{3/} (HSP) greater than zero, 80% area greater than zero for precautionary zone species,^{4/} and upper 70% of HSP area for all other groundfish, and all seamounts.

Alternative 3: Designate 100% of the HSP area of overfished species, upper 90% of the HSP area for precautionary zone species, and upper 80% of the HSP area or all other groundfish, and all seamounts.

Alternative 4: Designate 100% of the area where HSP is greater than zero for all species.

Alternative 5: Designate upper 70% of the area where HSP is greater than zero.

Alternative 6: Designate upper 30% of the area where HSP is greater than zero for all species.

2/ Bocaccio, canary rockfish, cowcod, darkblotched rockfish, lingcod, Pacific ocean perch, yelloweye rockfish, and widow rockfish.

3/ Habitat suitability probability refers to the probability that an area is suitable habitat for groundfish. A complete description of the methods for calculating HSP was presented to the Council in April 2004 and is available online at <http://www.pcouncil.org/habitat/habrisk.html>.

4/ Dover sole, sablefish, and shortspine thornyhead.

Alternative 7: Designate 100% of the area where HSP is greater than zero for assessed species only.

Alternative 8: Designate 100% of the area where HSP is greater than zero for all species and any additional area in depths $\leq 3,500$ m.

Draft Alternatives to Designate HAPC

Alternative 1 (status quo): No HAPC designation.

Alternative 2: Designate estuaries as HAPC. This alternative would designate, through an FMP amendment, estuary areas off the West Coast as HAPC. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function and may be, or may become, stressed by development activities.

Alternative 3: Designate canopy kelp as HAPC. This alternative would designate, through an FMP amendment, areas off the West Coast where canopy kelp (*Macrocystis* spp. and *Nereocystis* sp.) has been documented and mapped. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function.

Alternative 4: Designate sea grass beds as HAPC. This alternative would designate, through an FMP amendment, areas off the West Coast where eelgrass (*Zostera* spp. and *Ruppia* sp.) and surfgrass (*Phyllospadix* spp.) has been documented and mapped. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that provide an important ecological function and may be, or become, stressed by development activities.

Alternative 5: Designate core habitat for juvenile and adult overfished and precautionary zone groundfish species as HAPC. This alternative would designate, through an FMP amendment, core areas off the West Coast of EFH for the juvenile and adult life history stages of overfished species and precautionary zone groundfish species. Core areas are identified for this alternative as the upper 10% HSP. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

Alternative 6: Designate nearshore rocky reef areas HAPC. This alternative would designate all rocky reef areas within 3 nm of shore and in depths less than or equal to 35 fm that are in waters outside of 3 nm. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

Alternative 7: Designate areas of interest HAPC. This alternative would designate specified areas based on sensitivity, complexity, and ecological importance. These areas are: the northern portion of the Olympic National Marine Sanctuary; Astoria canyon; Daisy Bank; Heceta Bank; Rogue Canyon; Gorda Escarpment; Juan de Fuca Ridge; Cordell Bank; Monterey Canyon; Monterey Bay; Morro Ridge; Thompson Seamount; President Jackson Seamount; Taney Seamount; Guide Seamount; Pioneer Seamount; Gumdrop Seamount; Davidson Seamount; San Juan Seamount; and the Cowcod Conservation Area(s). Each area of interest is presented as a

separate suboption. The Council could choose any combination of these areas as a preferred alternative. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in areas that are of ecological importance to depressed populations of groundfish.

Alternative 8: Designate areas around oil production platforms as HAPC. This alternative would designate, through an FMP amendment, the areas around existing oil rigs as HAPC. The intent of the alternative is to provide NMFS with geographic focus for consultation on non-fishing activities in unique habitat areas that are of ecological importance.

Draft Alternatives to Minimize Adverse Impacts to EFH

Alternative 1 (status quo): Describe current measures intended to minimize adverse impacts to EFH.

Alternative 2: Depth-based gear restrictions for large footrope trawl gear and fixed gear.

Option 1: Amend the FMP and implementing regulations to prohibit the use of large footrope trawl gear shoreward of 200 fm and prohibit all fixed gear shoreward of 100 fm north of 40°10' N latitude and 150 fm south of 40°10' N latitude.

Option 2: Amend the FMP and implementing regulations to prohibit the use of large footrope trawl gear throughout the EEZ and prohibit all fixed gear shoreward of 100 fm north of 40°10' N latitude and 150 fm south of 40°10' N latitude.

Alternative 3: Control-rule based area closures using habitat sensitivity index values.

Option 1: The area closures are defined for each gear type by the following control rule: those areas where the sensitivity index value is greater than or equal to 2; the recovery index value is greater than 1; and cumulative trawl hours are less than 100 hours for the years 2000 through 2002.

Option 2: The same as Option 1 except no adjustment is made for trawl effort.

Alternative 4: Restrict the expansion of commercial fisheries. This alternative is designed to limit the potential for trawl fisheries to expand into areas that are currently unimpacted or have not been trawled between 2000 and 2002.

Option 1: Trawl fisheries would be prohibited from fishing in areas that were untrawled during 2000-2002.

Option 2: Apply the expansion limit to all bottom-tending gear types. Due to the absence of geo-referenced fishing effort data for fixed-gear fisheries, the closure would extend west from a line approximating the 2,000 meters (1,094 fm) depth contour to the seaward margin of the EEZ.

Alternative 5: Prohibit development of the krill fishery. This option is designed to protect the prey field as a component of pelagic habitat, for species that rely on krill either as a primary prey or through secondary or later food web dependencies. It is a proactive option because there is not currently a krill fishery that operates within the project area.

Alternative 6: Close 25% of representative habitat to all fishing.

Option 1: Identify 25% of the area of each habitat type identified in the comprehensive risk assessment GIS. (The level in the hierarchical classification system to be used for identification of habitat type, which 25% of each habitat type area to designate, and how to create reasonably contiguous areas remains to be determined.)

Option 2: Identify 25% of the area identified as having high densities of benthic structure forming invertebrates.

Alternative 7: Prohibit bottom trawling in “hotspot” area that also coincide with areas with high sensitivity and recovery index values. Hotspot areas are determined by identifying the upper 20% of all areas with an HSP greater than zero for all species and finding those areas for which this condition is satisfied for 50 or more species. (The alternative would be analyzed using three different sensitivity/recovery index values.)

Alternative 8: Limit fishing impacts in areas of interest.

Option 1: Prohibit bottom trawling in any or all of the areas of interest identified under HAPC alternative 7 above.

Option 2: Prohibit all bottom-contacting activities in any or all of the areas of interest identified under HAPC alternative 7 above.

Alternative 9: Zoning Alternative. This alternative would limit the use of bottom-tending mobile fishing gear to those areas where the NMFS determines that such activities can be conducted without altering or destroying a significant amount of habitat.

All areas deeper than, or beyond the 2,000 meter contour along the continental slope extending to the maximum westward range of groundfish EFH would immediately be closed to bottom-tending mobile fishing gear (trawls and dredges). The remaining area of EFH would remain open to these activities, subject to all other regulations, for the next five years.

Within this five-year period, NMFS will conduct the research necessary to delineate zones within EFH where various types of bottom-tending mobile fishing gear could be used without altering or destroying significant amounts of habitat. Any unavoidable adverse impacts must be expected to be minimal and temporary, based on the best scientific information available. All areas not specifically zoned to permit such activity would be closed to those methods of fishing.

NMFS will conduct a gear substitution and modification research program intended to redesign bottom fishing gear to reduce damage to habitat. This program will have a significant cooperative research element that employs fishermen in the design and testing of new gear.

The zoning system will be regularly modified to incorporate new information about habitat sensitivity and recovery factors, gear impacts on habitat, and to accommodate use of newly developed or modified gear.

Option 1: This alternative would only apply to bottom-contact trawls, dredges, and similar bottom-tending mobile fishing gear.

Option 2: This alternative would apply to all gear with bottom contact, including bottom longlines, traps and pots.

Alternative 10: Establish impact-reducing fishing gear requirements. Options below are not mutually exclusive.

Option 1: For bottom trawl gear, prohibit roller gear larger than 15 inches.

Option 2: Require the use of weak links on tickler chains designed to break if the chain snags on hard habitat.

Option 3: Prohibit the use of flat trawl doors (i.e., require cambered doors).

Option 4: Analyze five-year phase in requirement for aluminum trawl doors.

Option 5: Limit longline groundline to 3 nm.

Option 6: Limit longline groundline to 1 nm.

Option 7: Require use of x floats/fathom on longline groundline to keep line off bottom except at anchor points.

Option 8: Assess potential to employ “habitat-friendly” anchoring systems for fixed gear.

Option 9: Assess string length restrictions for pot gear.

Option 10: Prohibit dredge gear.

Option 11: Prohibit beam-trawl gear.

Option 12: Prohibit set-gillnets in waters deeper than 30 fm.

Option 13: Prohibit stick gear.

Option 14: Prohibit dingle bar gear (troll groundfish gear).

Alternative 11: Designate a no-trawl zone on the central California coast (Santa Cruz to Point Conception) in cooperation with The Nature Conservancy and tied to a privately funded buyout of eligible fishing permits in the designated no-trawl zone. (Refer to The Nature Conservancy’s letter and project proposal included written public comment for the September 2004 Council meeting.)

Research and Monitoring Alternatives

Alternative 1: Amend the FMP and implementing regulations to require all commercial and charter fishing vessels to participate in the logbook program.

Option 1: Collect haul by haul data on all fishing operations of all fishing vessels;

Option 2: Collect haul by haul data on all fishing operations of a representative, random sample of all fishing vessels

Alternative 2: Amend the FMP and implementing regulations to require all commercial and charter fishing vessels to participate in the Vessel Monitoring System program.

Options: consider thresholds related to vessel length overall.

Alternative 3: Establish a system of research closures to provide areas for experiments to observe habitat condition in open and closed areas and to monitor *in situ* changes in various habitat types caused by known amounts of fishing effort by fishing gears currently used. This alternative will be developed in conjunction with other alternatives that establish open and closed areas.

PFMC
08/27/04

Supplement to the Report of the Ad Hoc Essential Fish
Habitat Environmental Impact Statement Oversight
Committee

Maps of the Alternatives

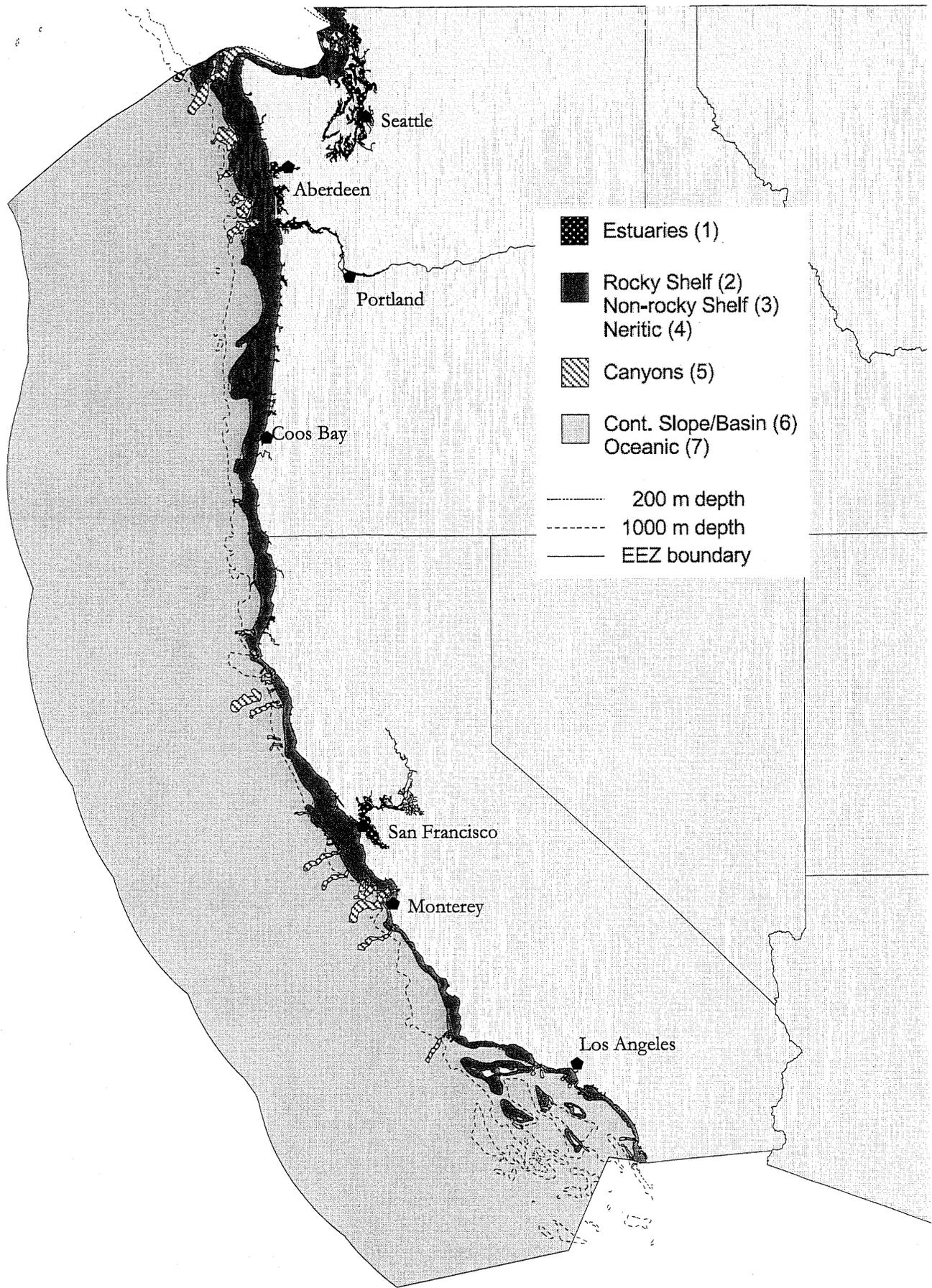
Errata

On page 3 of the Report (Agendum C.6.b, Committee Report), under the heading Alternatives for Designation of EFH:

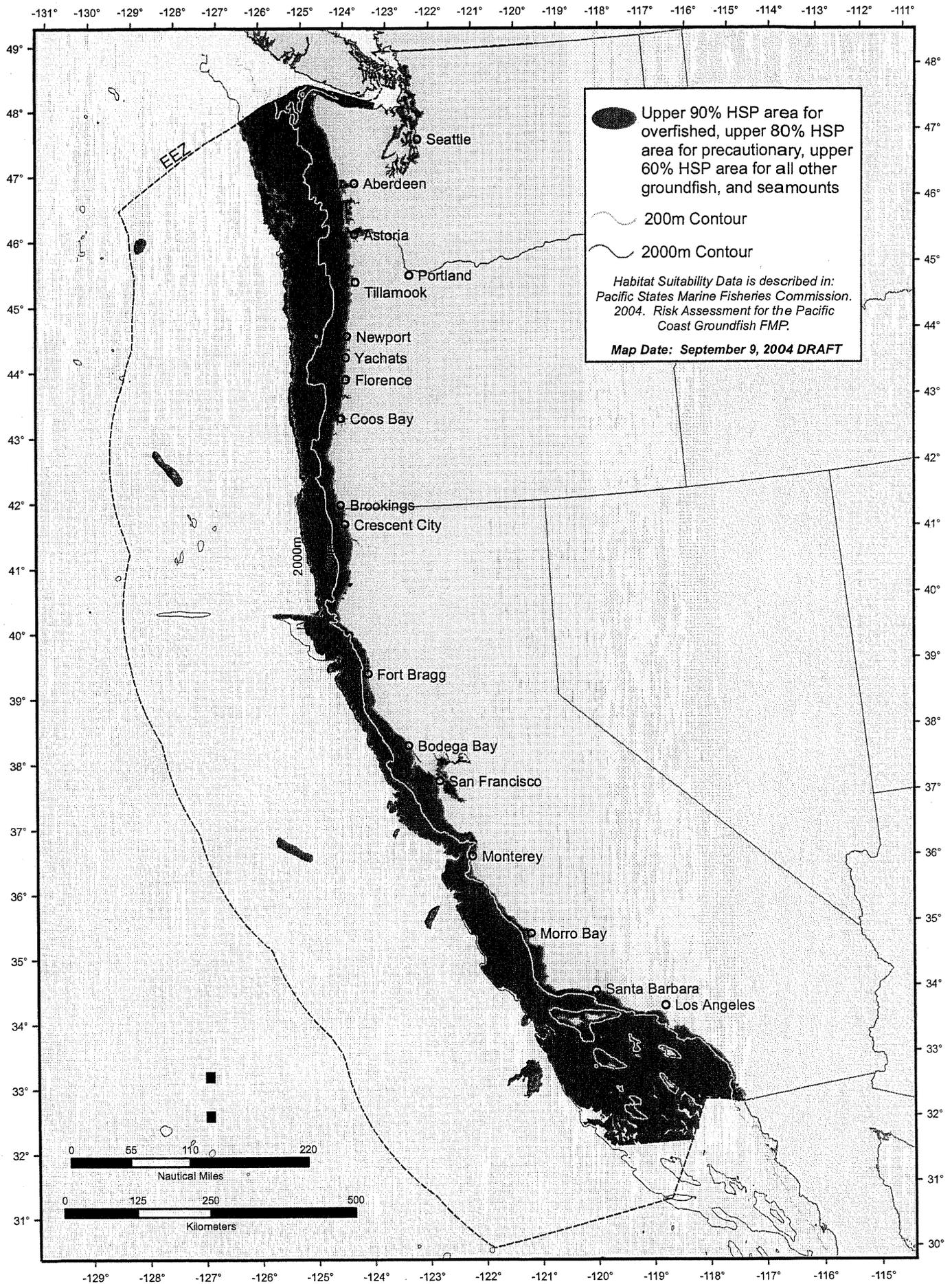
Alternative 2, "...upper **70%** of HSP area for all other groundfish..." should read "...upper **60%** of HSP area for all other groundfish..."

Alternative 3, "...upper **80%** of the HSP area for all other groundfish..." should read "...upper **70%** of the HSP area for all other groundfish..."

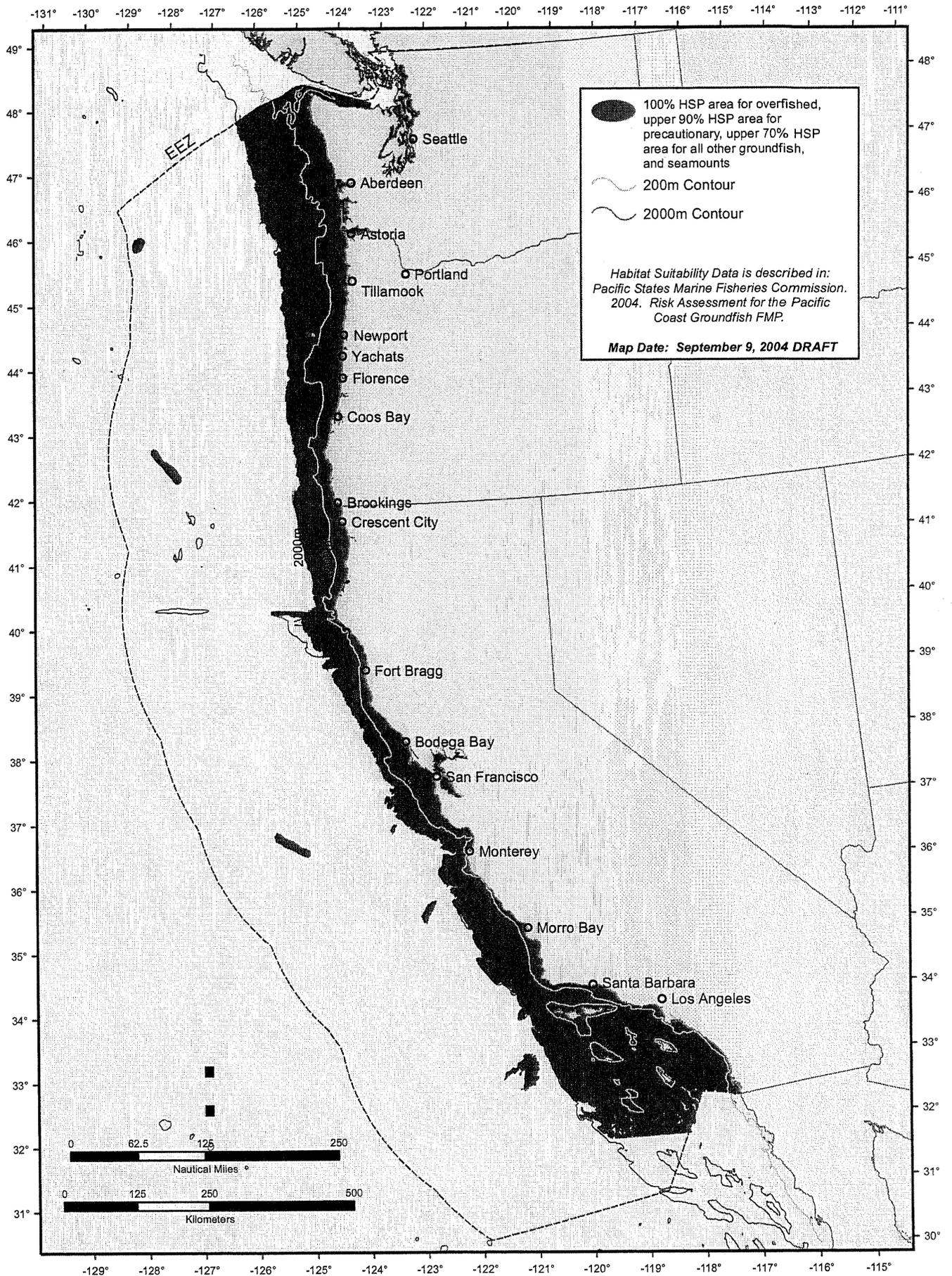
The enclosed maps are based on the corrected values.



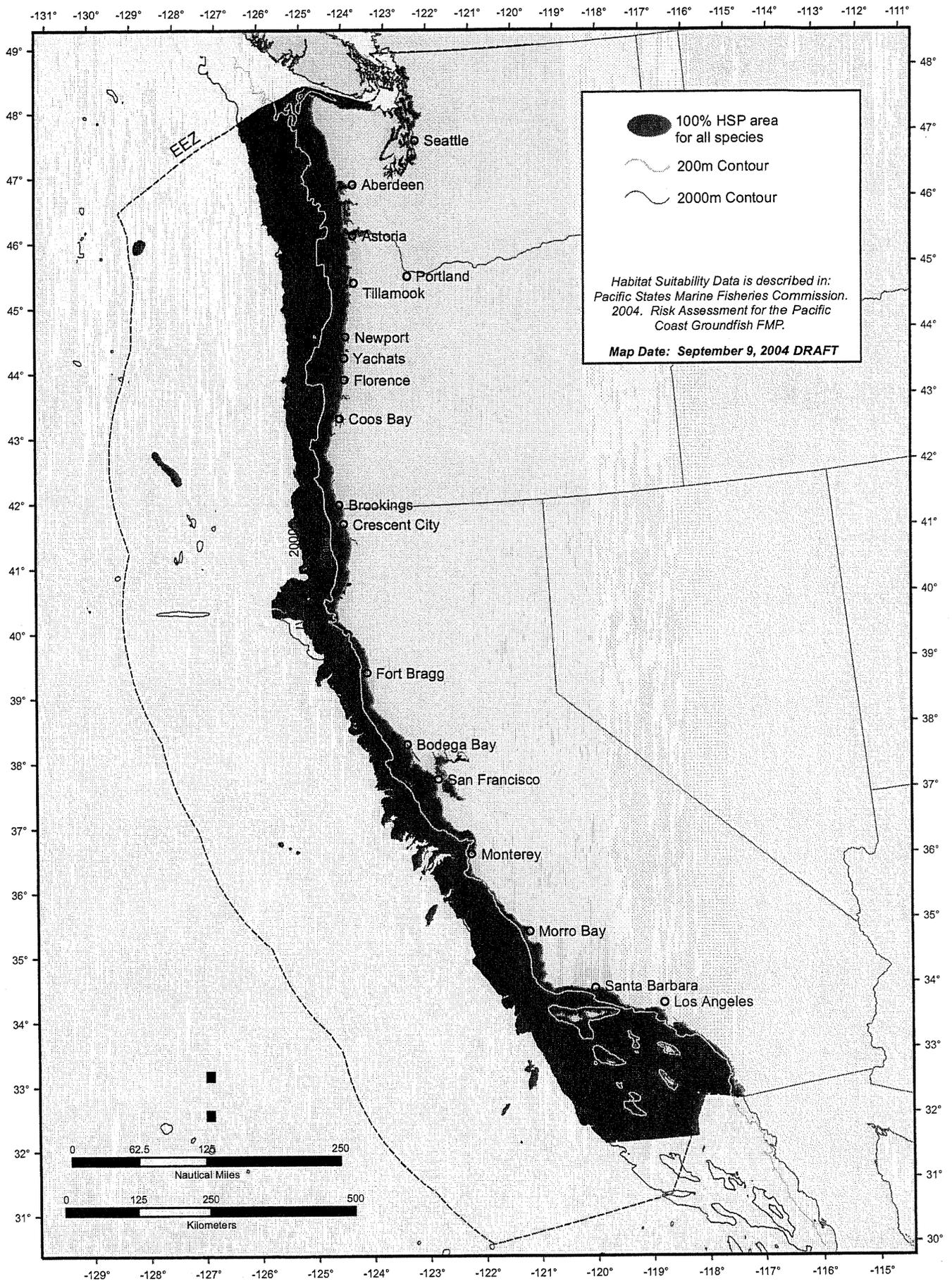
EFH Alternative 1 (Status Quo): Maintain current designation (i.e. whole EEZ), based on the following seven habitat composites: Estuarine; Rocky Shelf; Nonrocky Shelf; Canyon; Continental Slope/Basin; Neritic Zone; and , Oceanic Zone.



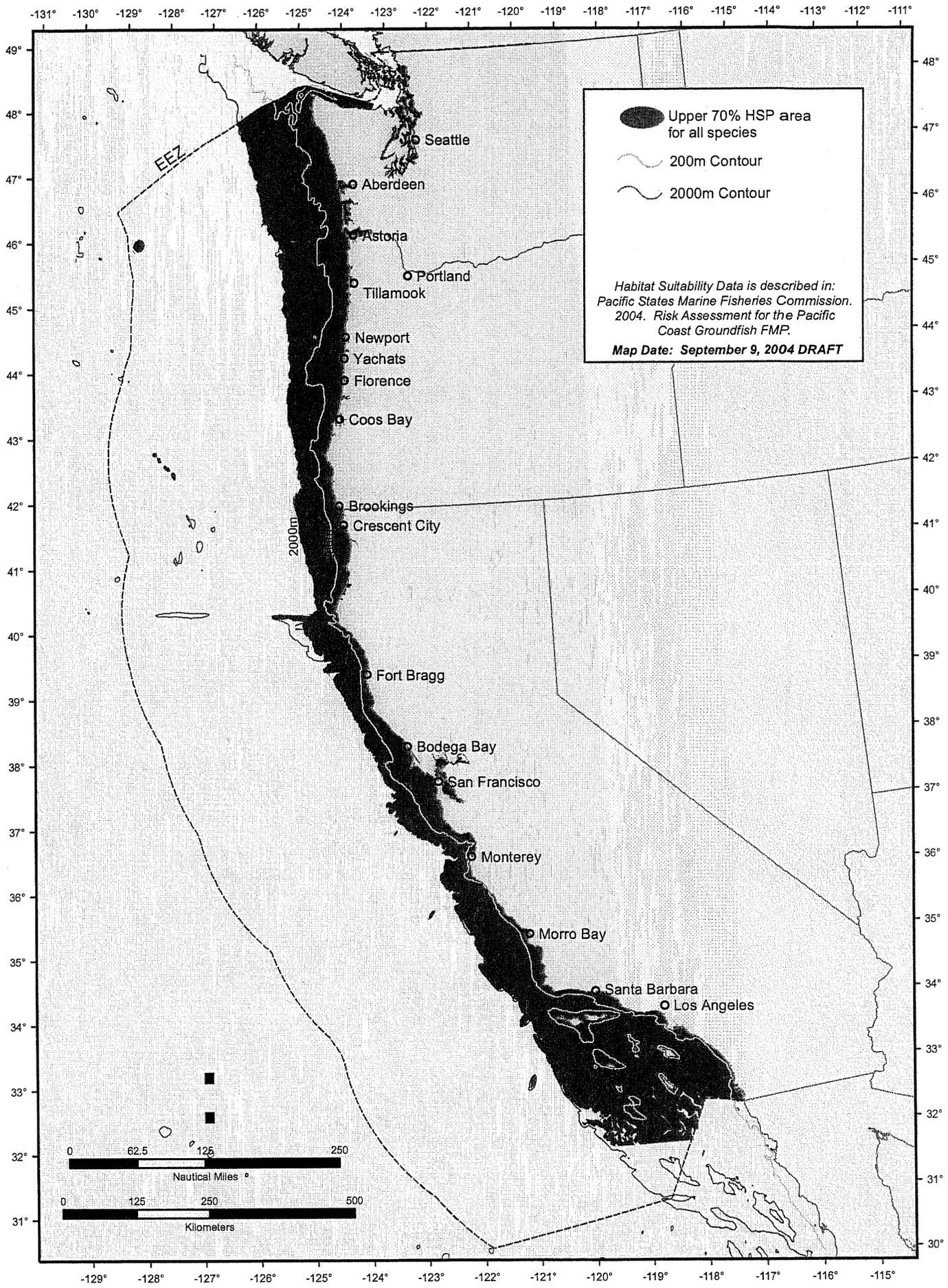
EFH Alternative 2: Designate upper 90% area of overfished species habitat suitability probability (HSP) greater than zero, 80% area greater than zero for precautionary zone species, and upper 60% of HSP area for all other groundfish, and all seamounts.



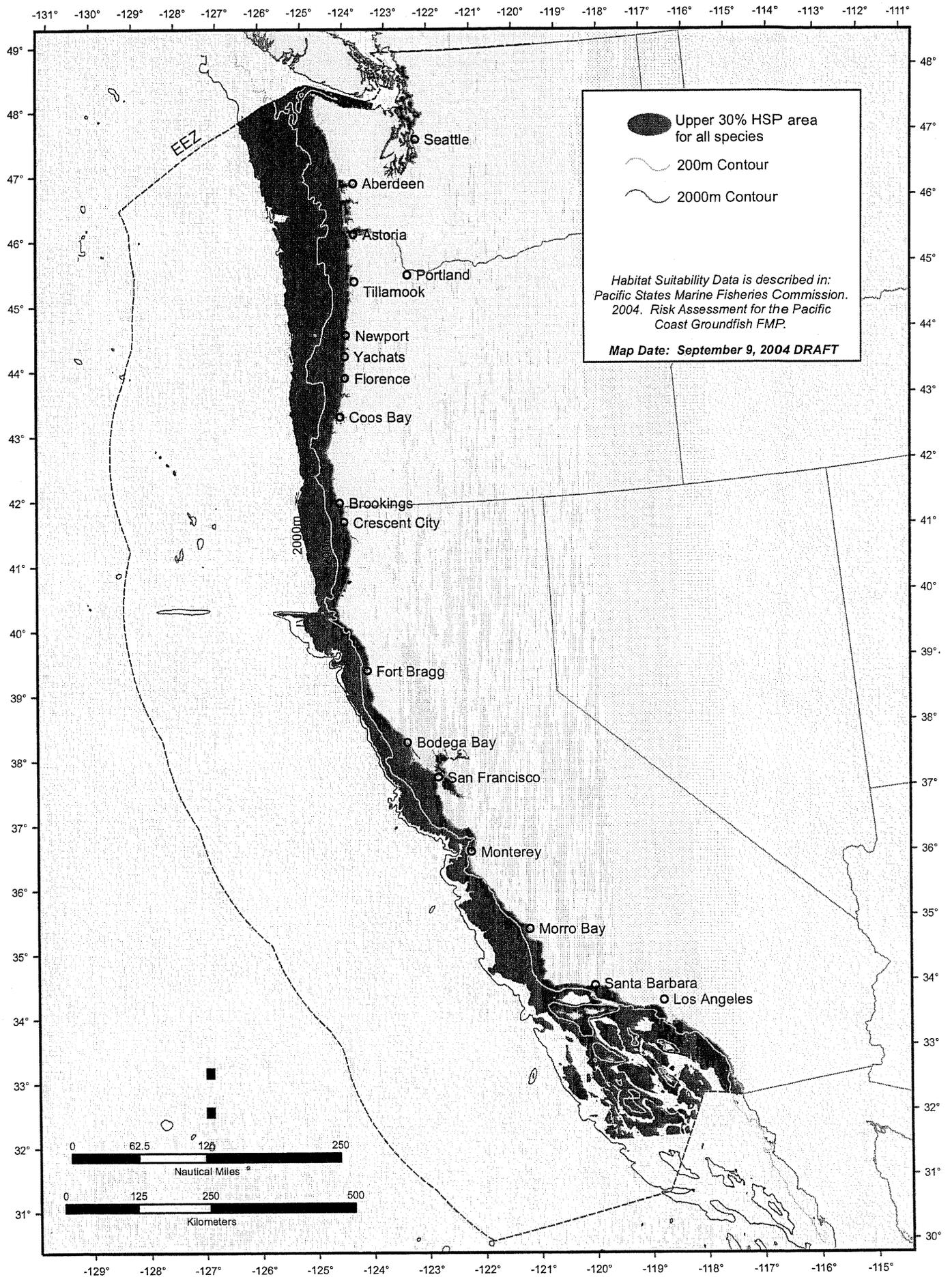
EFH Alternative 3: Designate 100% of the HSP area of overfished species, upper 90% of the HSP area for precautionary zone species, and upper 70% of the HSP area or all other groundfish, and all seamounts.



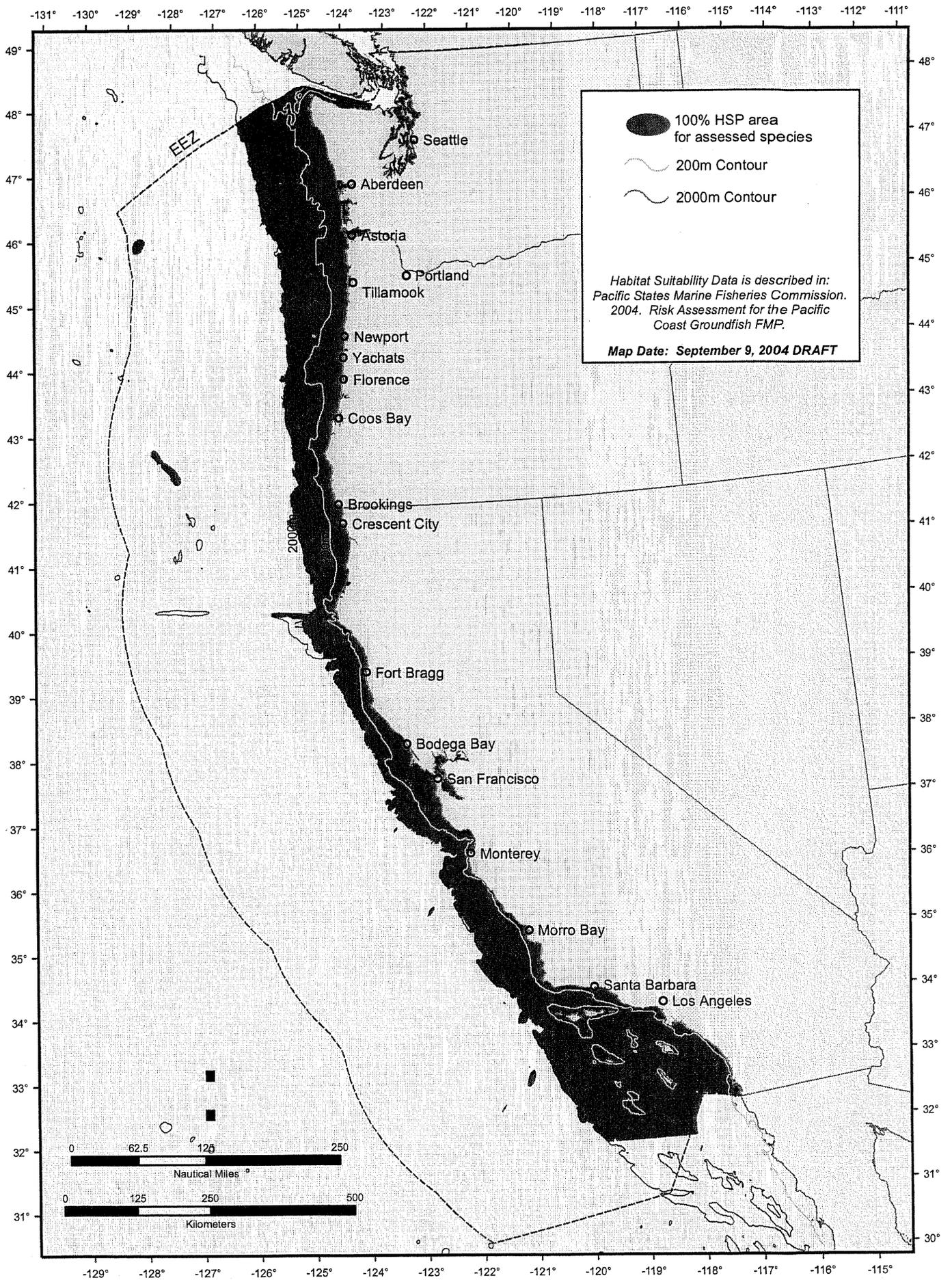
EFH Alternative 4: Designate 100% of the area where HSP is greater than zero for all species.



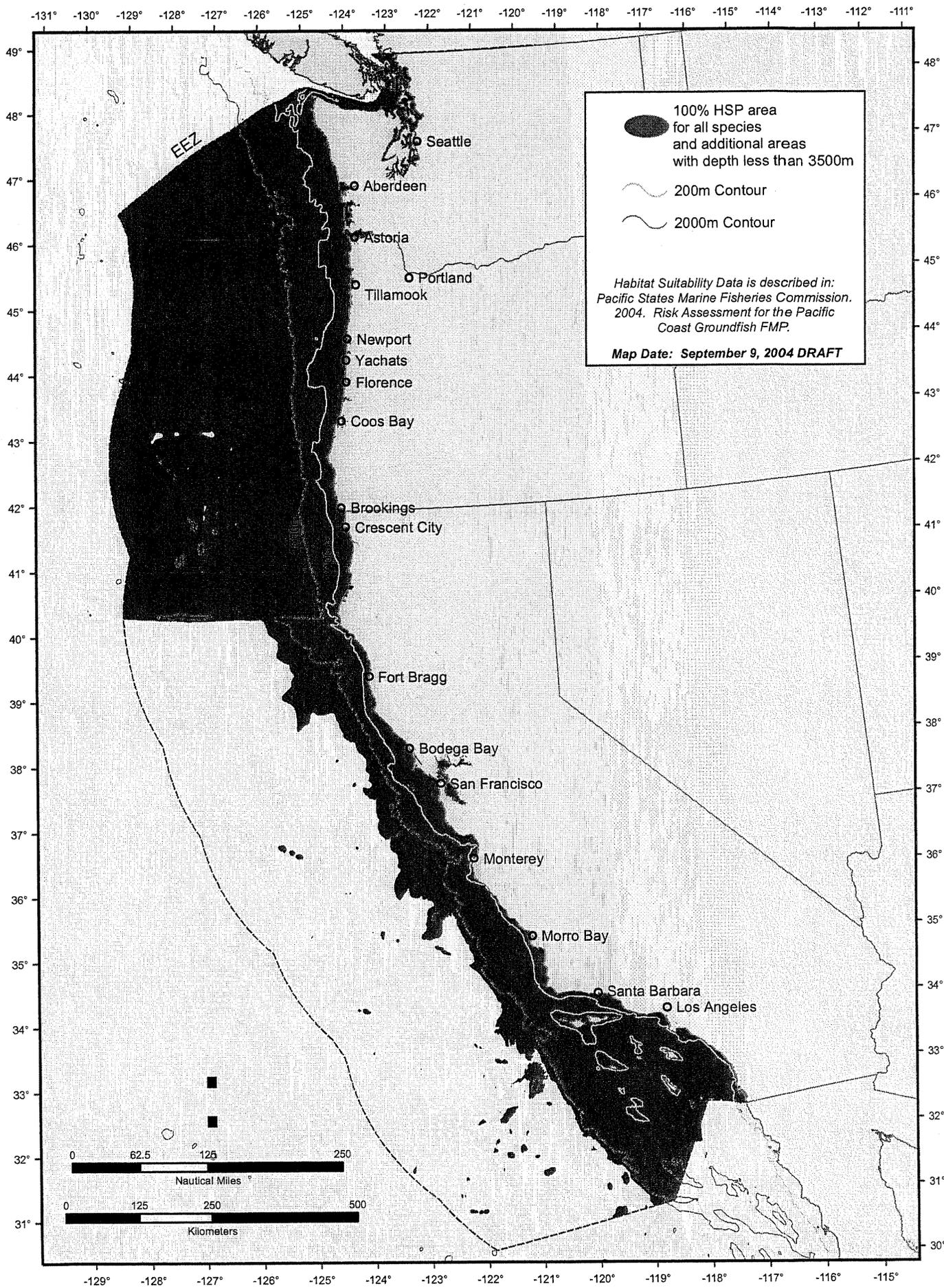
EFH Alternative 5: Designate upper 70% of the area where HSP is greater than zero.



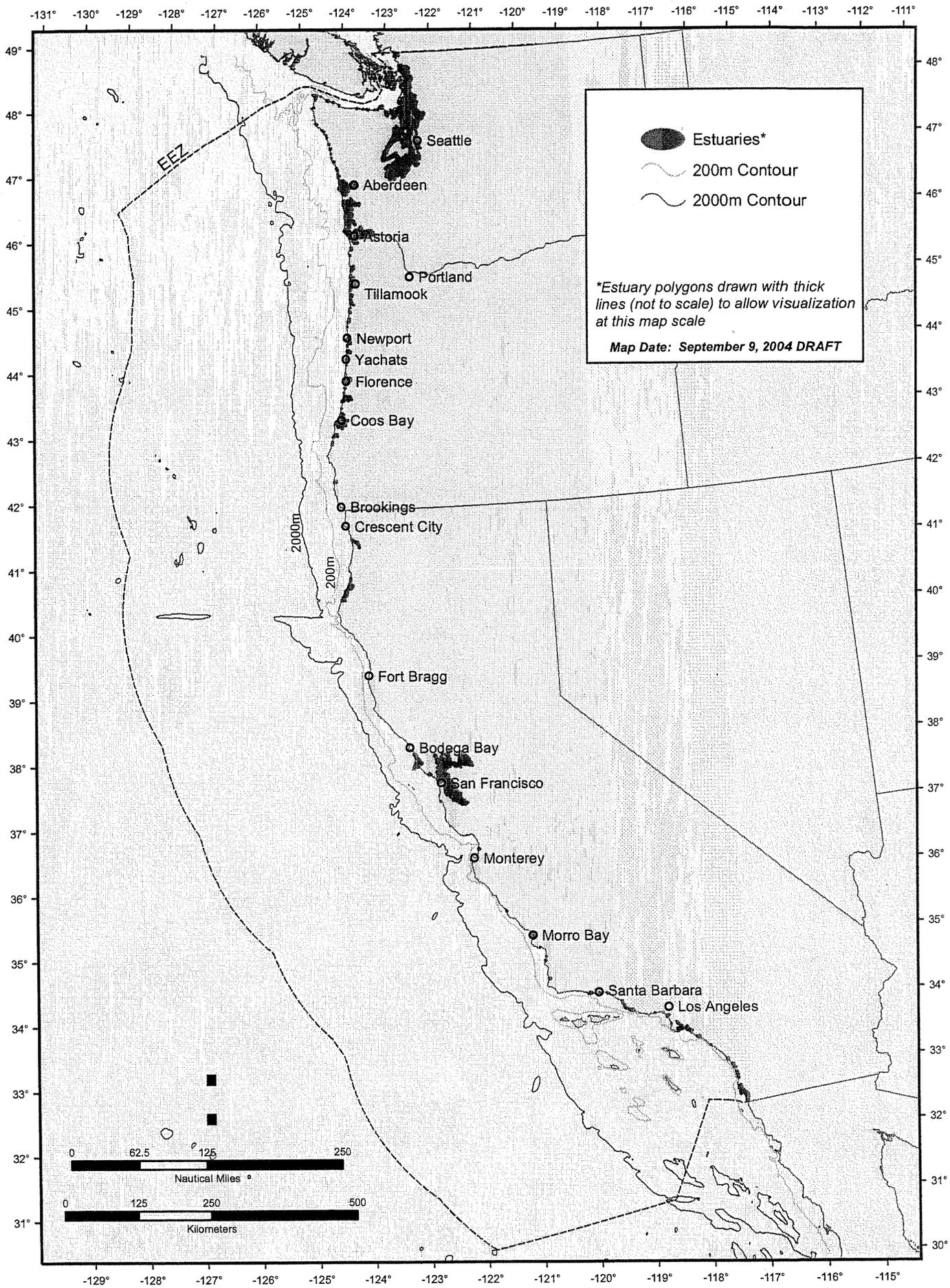
EFH Alternative 6: Designate upper 30% of the area where HSP is greater than zero for all species.



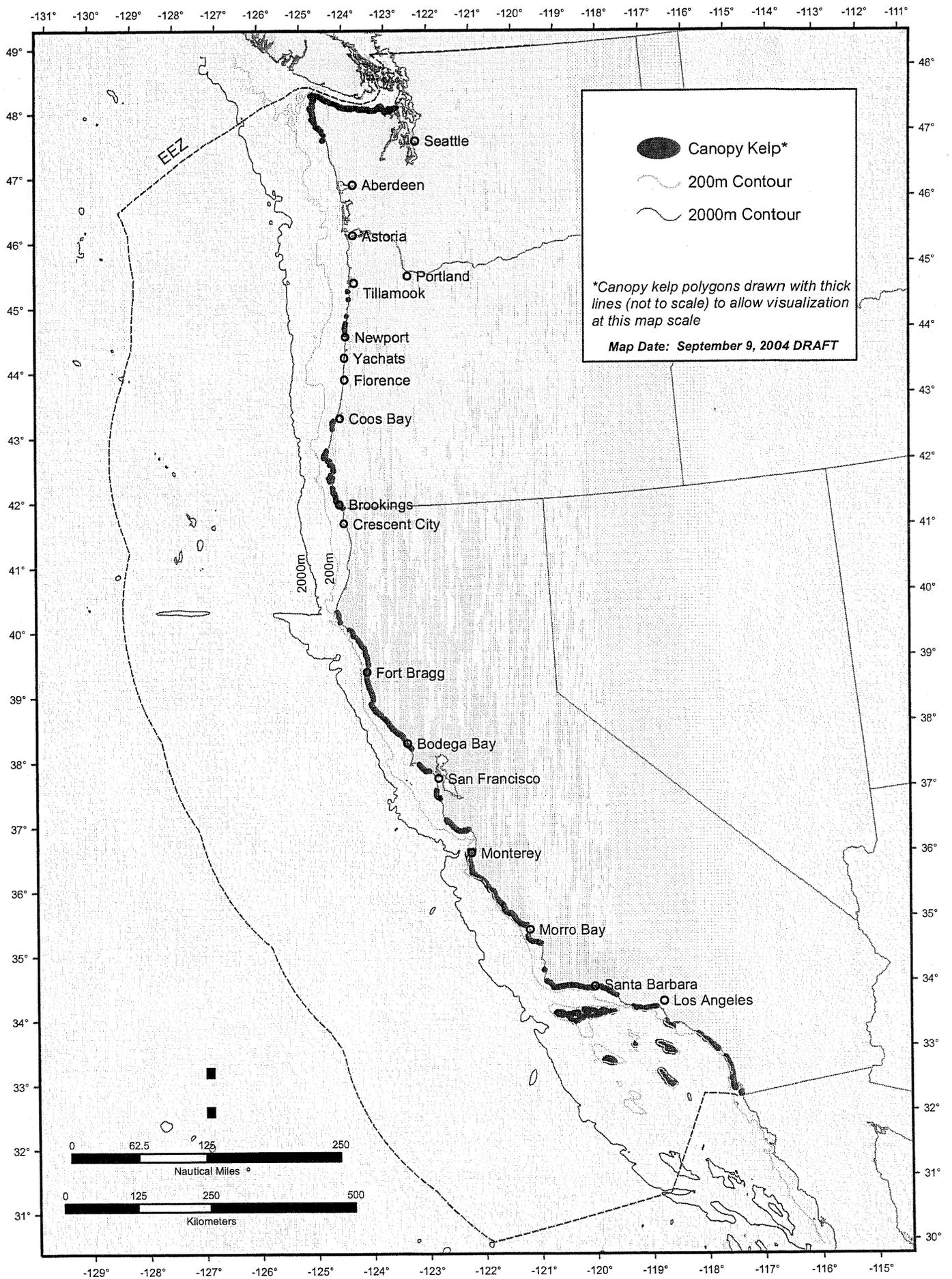
EFH Alternative 7: Designate 100% of the area where HSP is greater than zero for assessed species only.



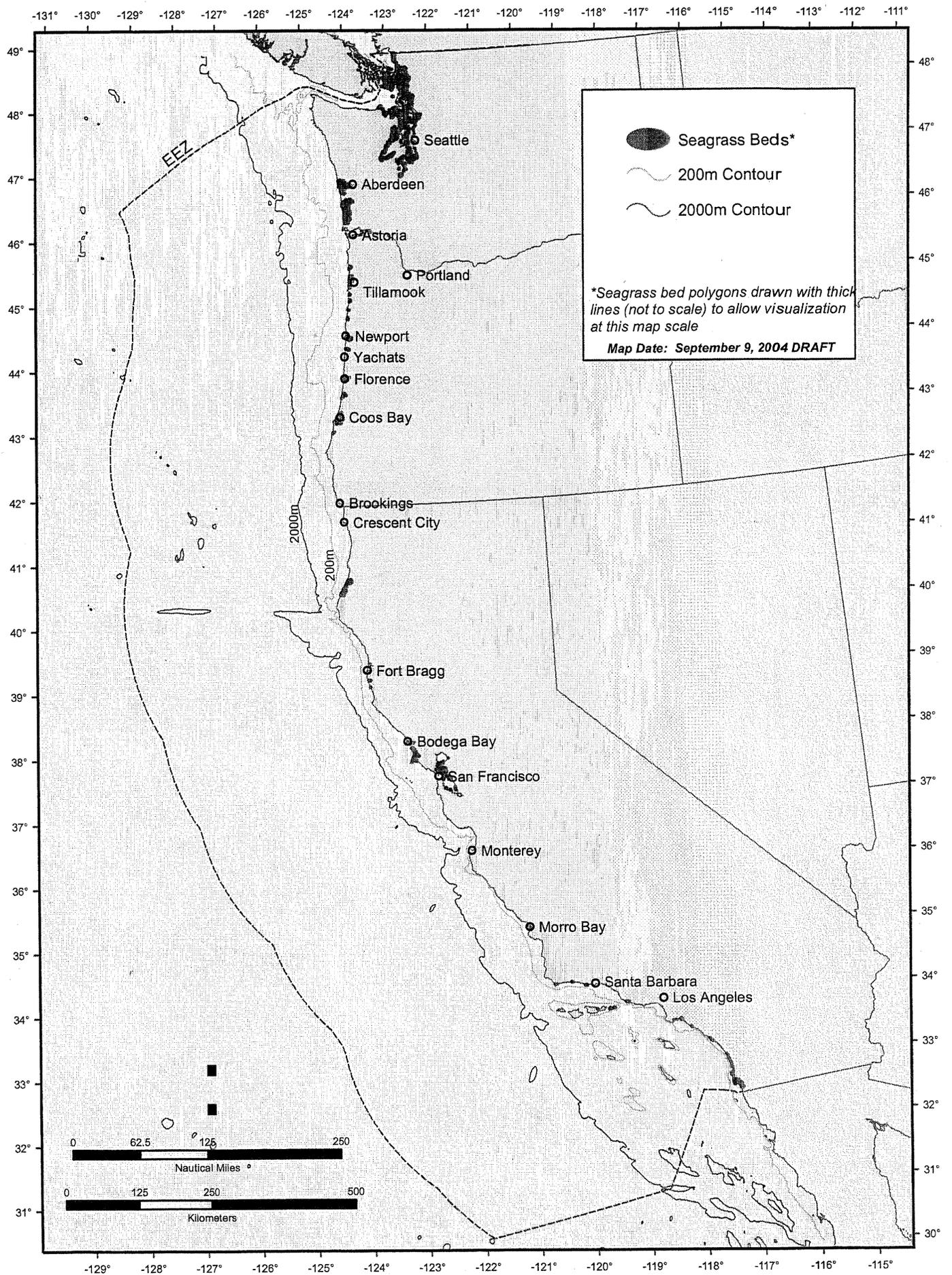
EFH Alternative 8: Designate 100% of the area where HSP is greater than zero for all species and any additional area in depths $\leq 3,500\text{m}$



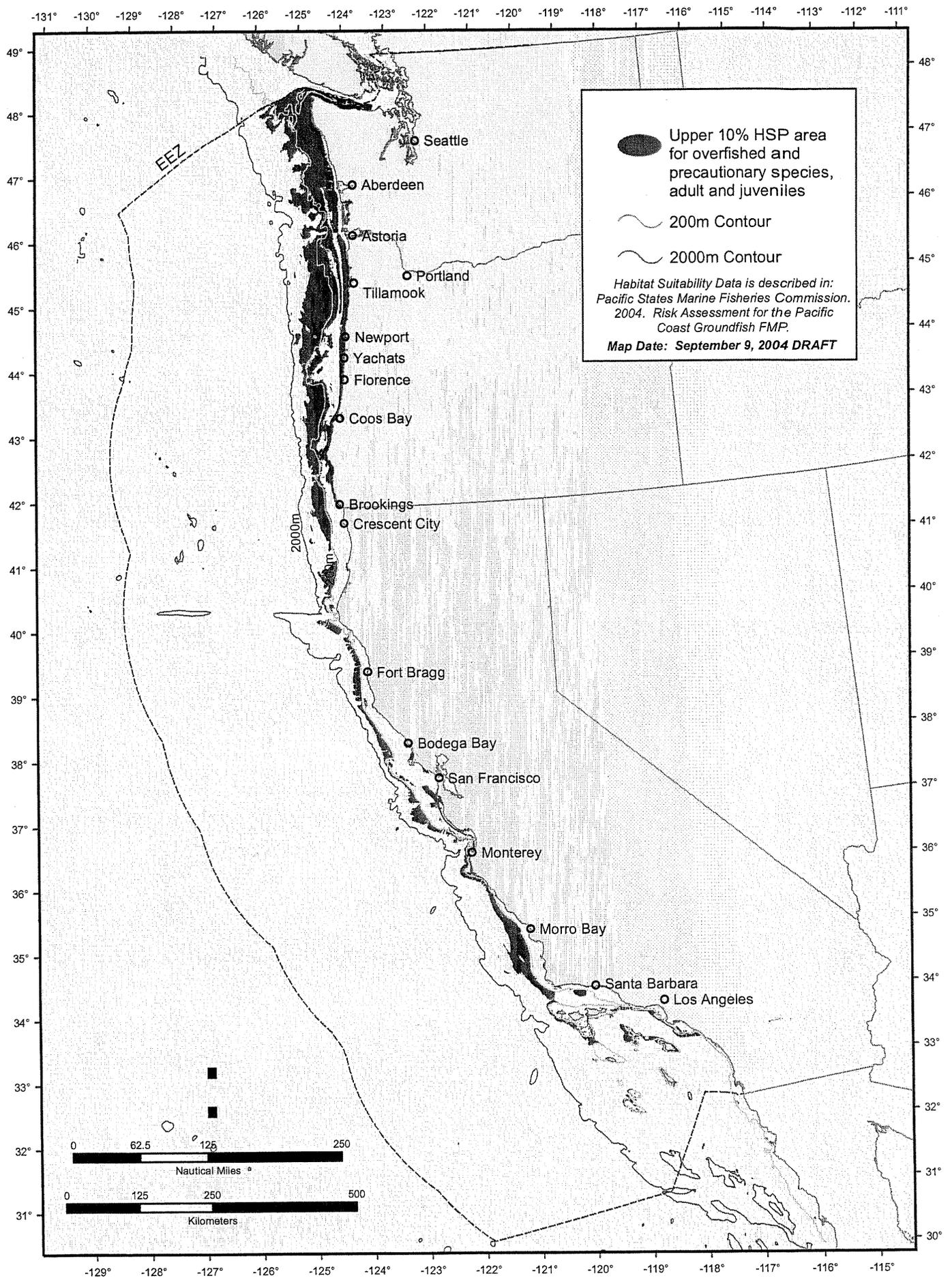
HAPC Alternative 2: Designate estuaries as HAPC.



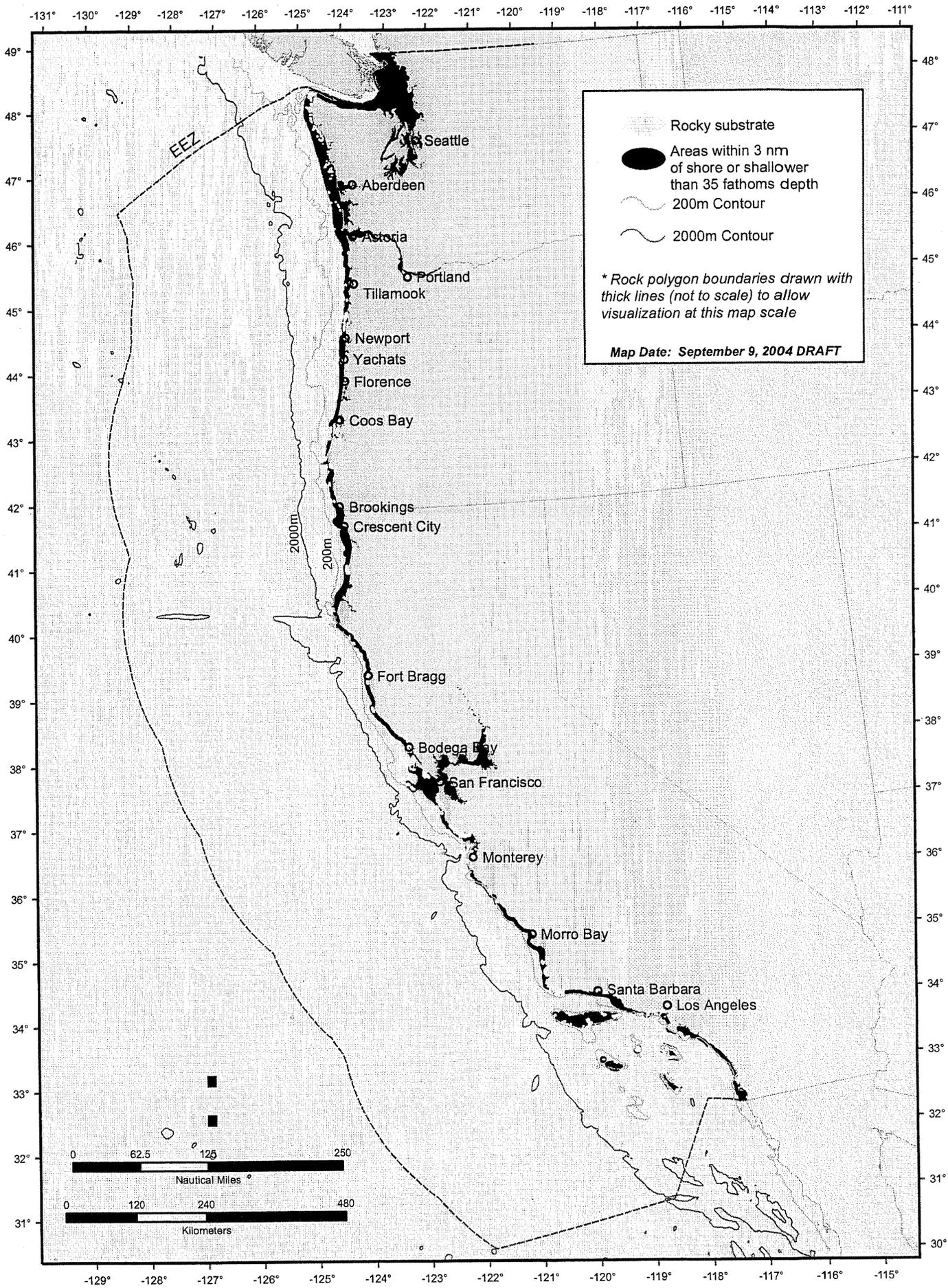
HAPC Alternative 3: Designate canopy kelp as HAPC.



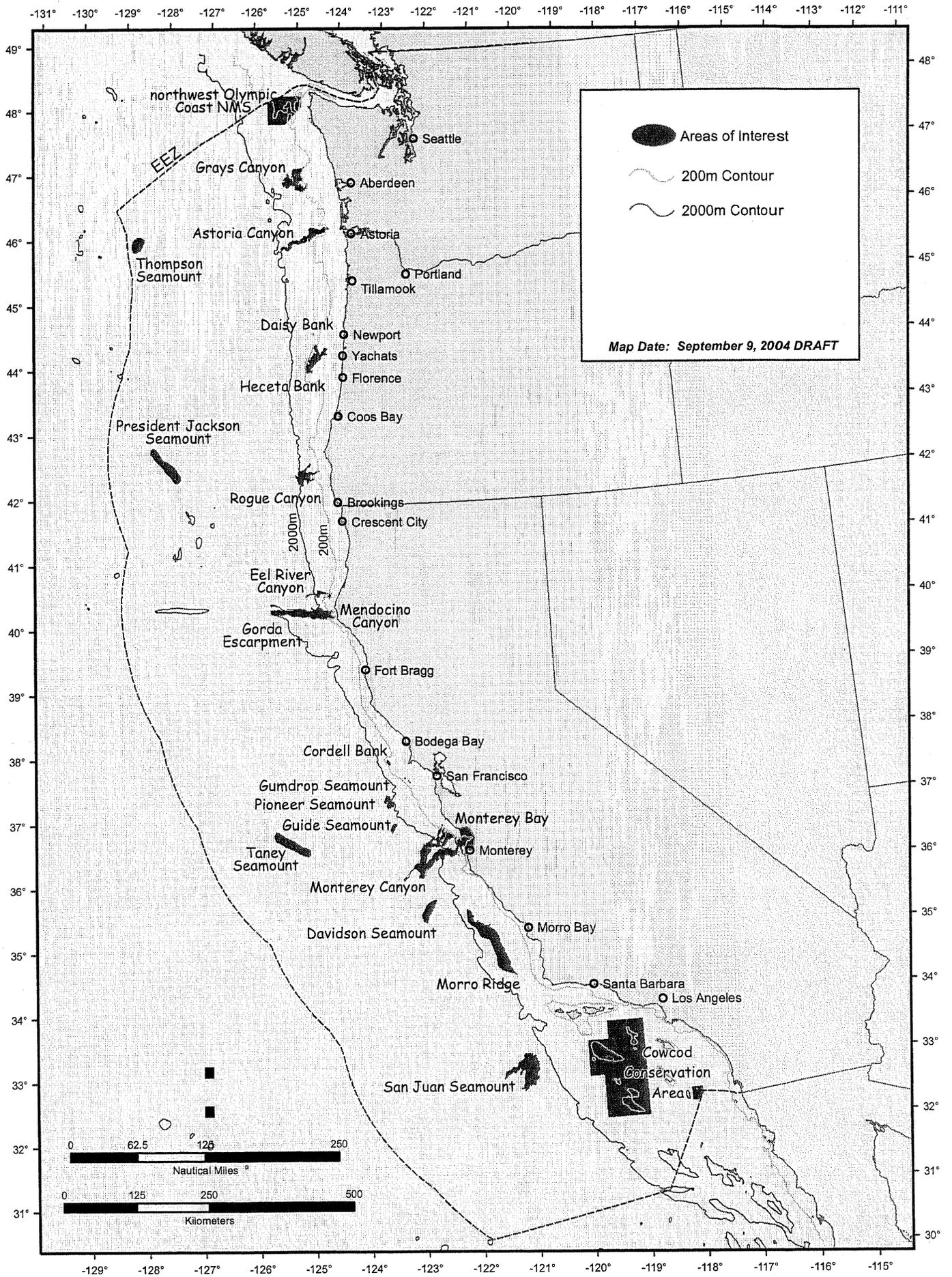
HAPC Alternative 4: Designate seagrass beds as HAPC.



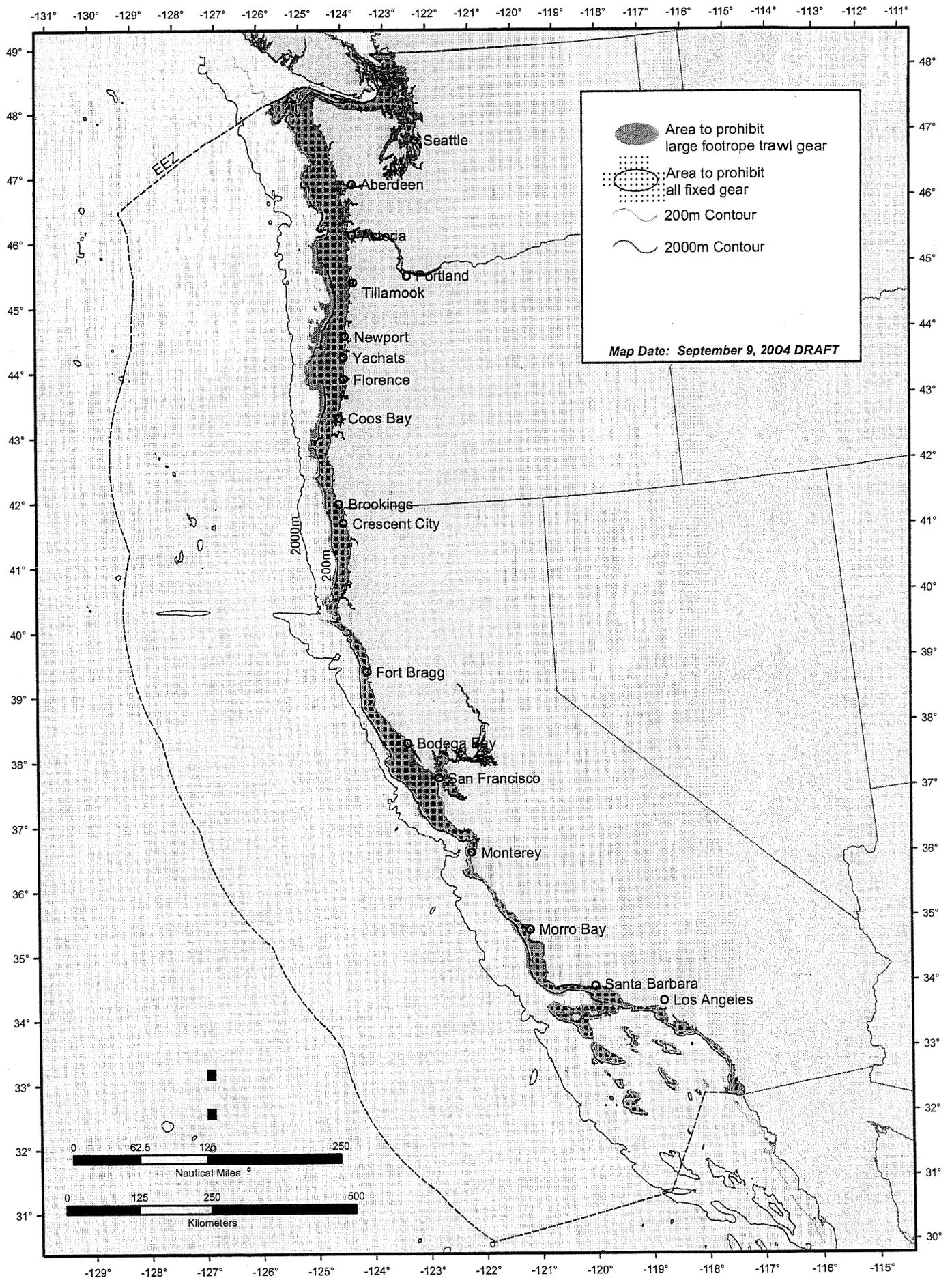
HAPC Alternative 5: Designate core habitat for juvenile and adult overfished and precautionary zone groundfish species as HAPC.



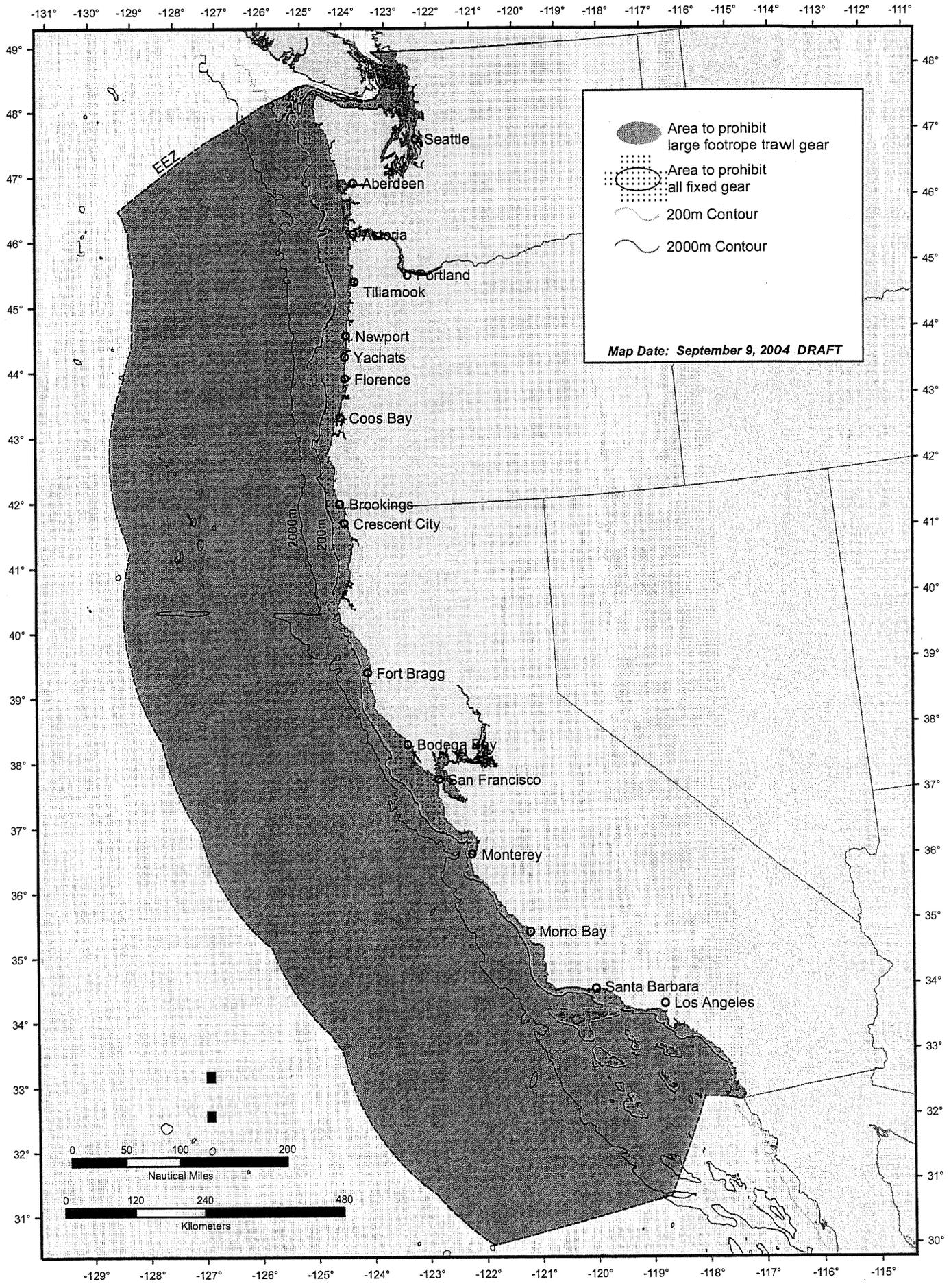
HAPC Alternative 6: Designate nearshore rocky reef areas HAPC



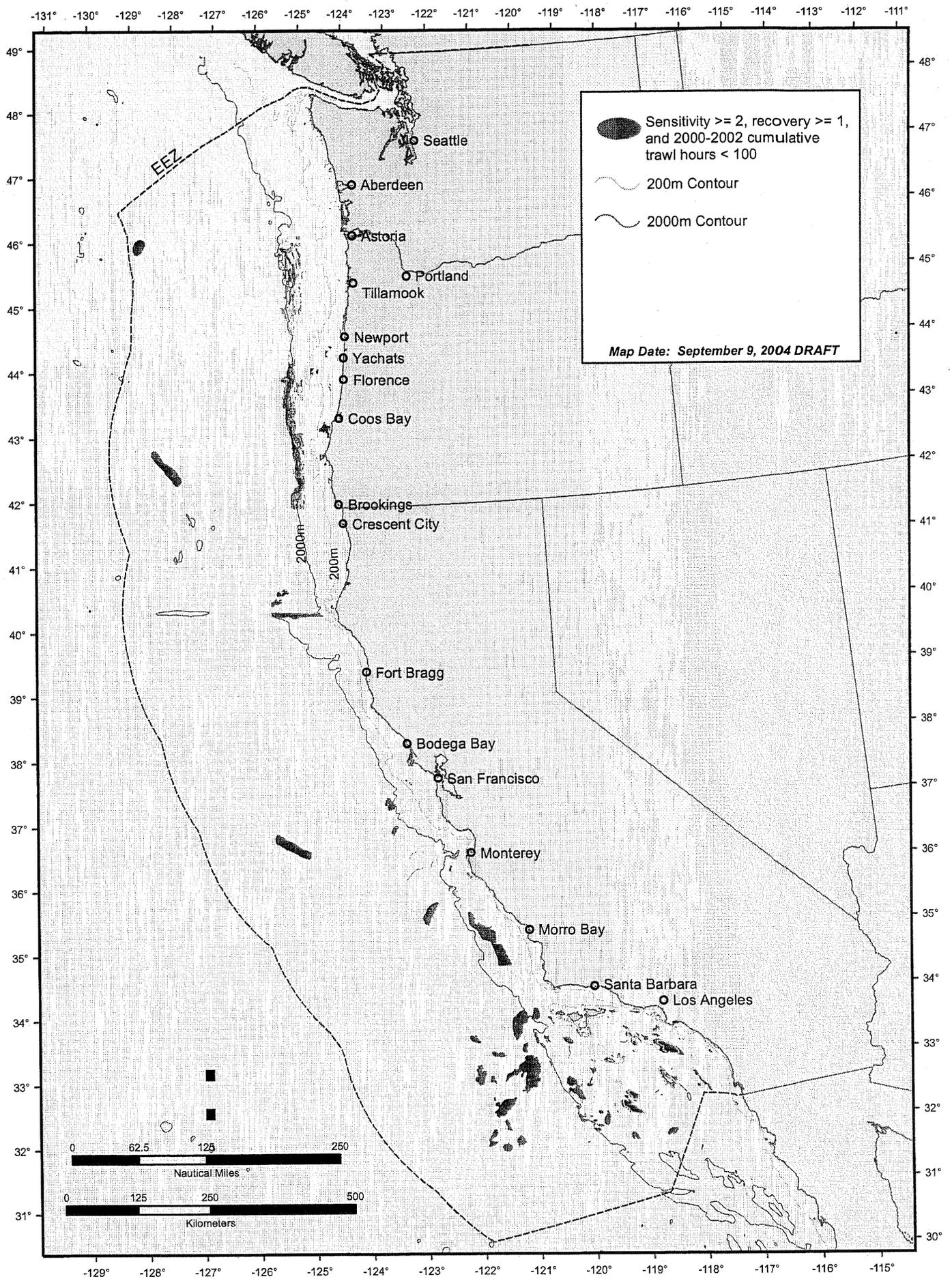
HAPC Alternative 7: Designate areas of interest HAPC.



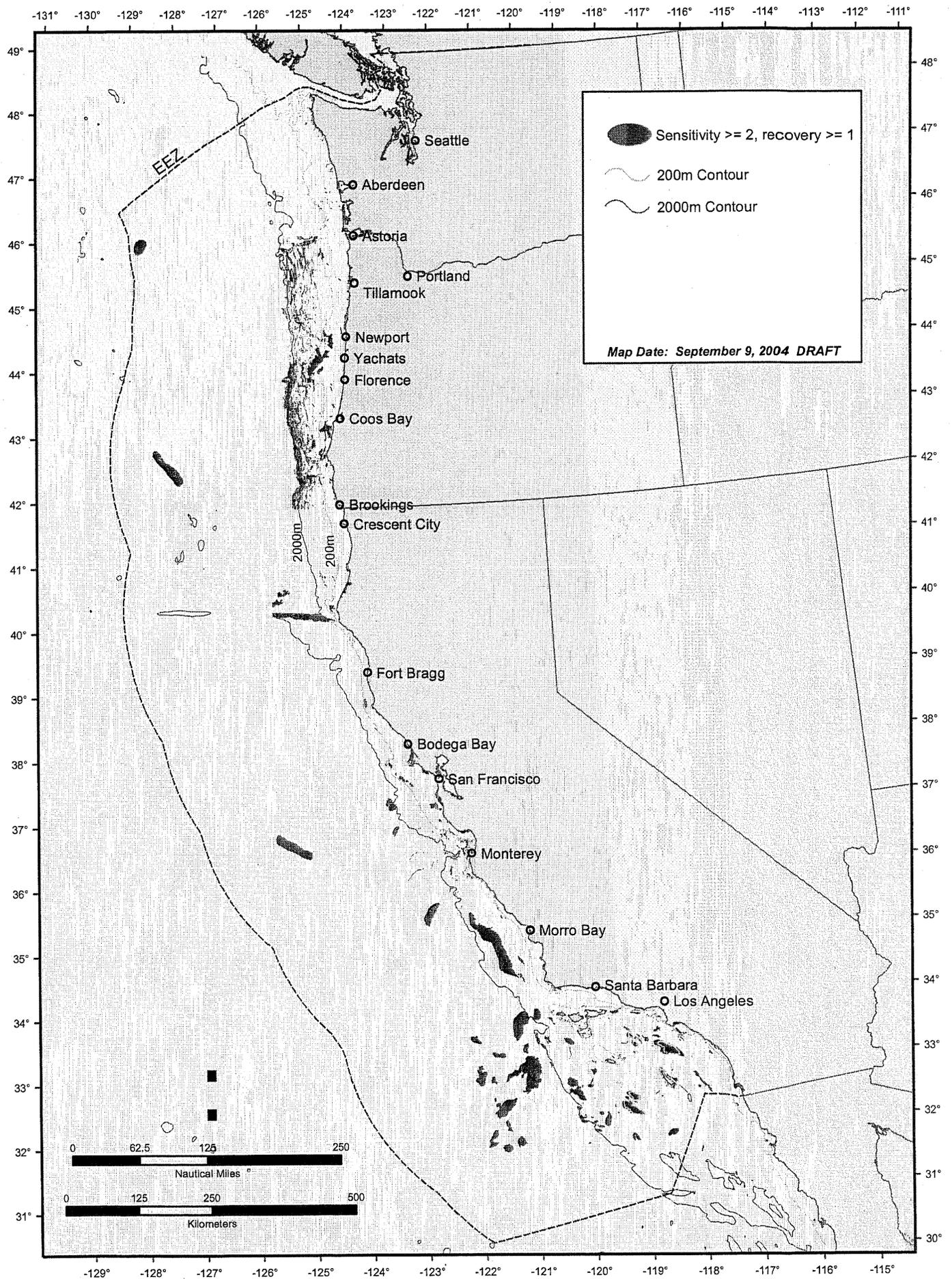
Minimize Impacts Alternative 2: Depth-based gear restrictions for large footrope trawl gear and fixed gear. Option 1



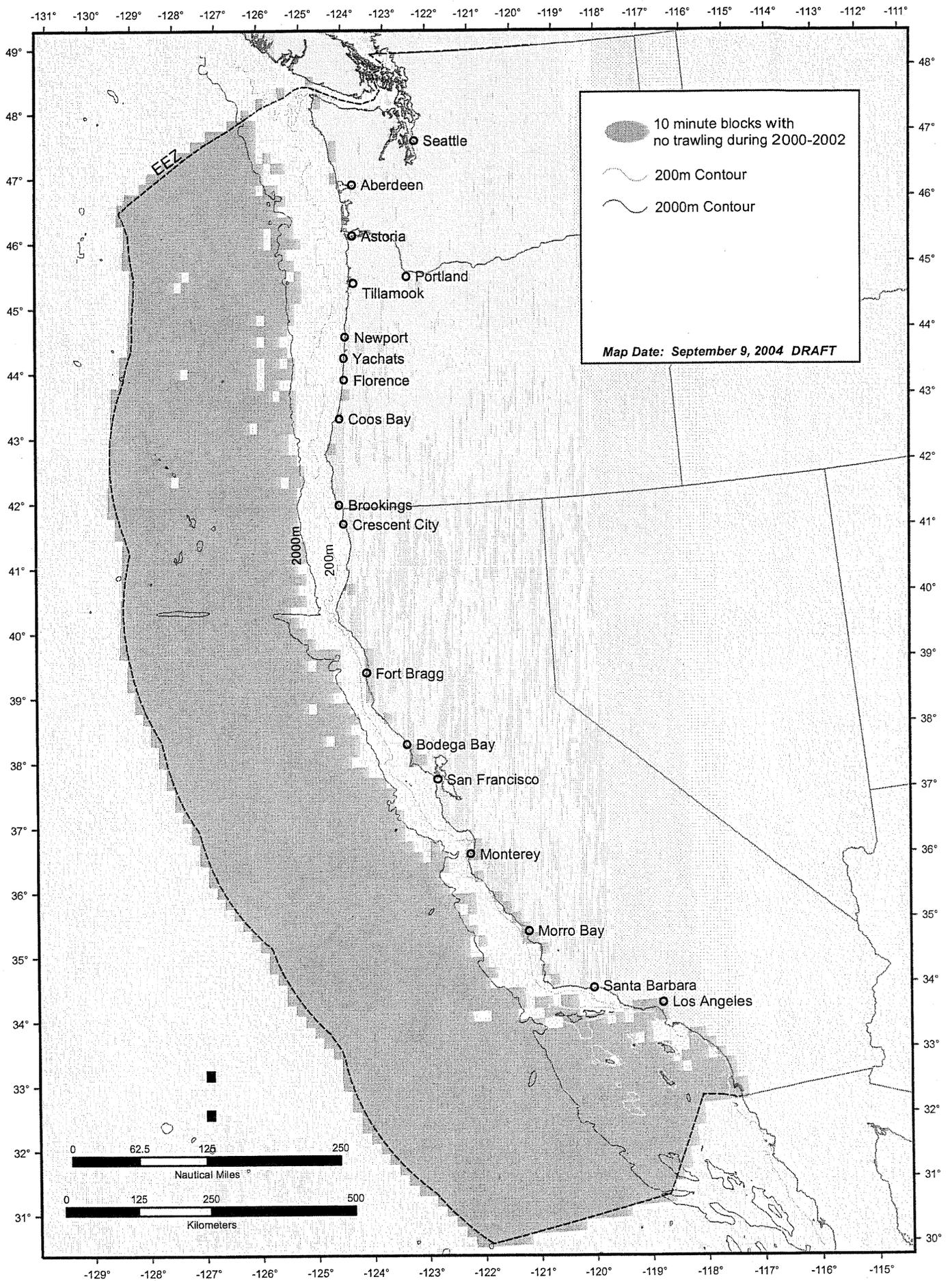
Minimize Impacts Alternative 2: Depth-based gear restrictions for large footrope trawl gear and fixed gear. Option 2

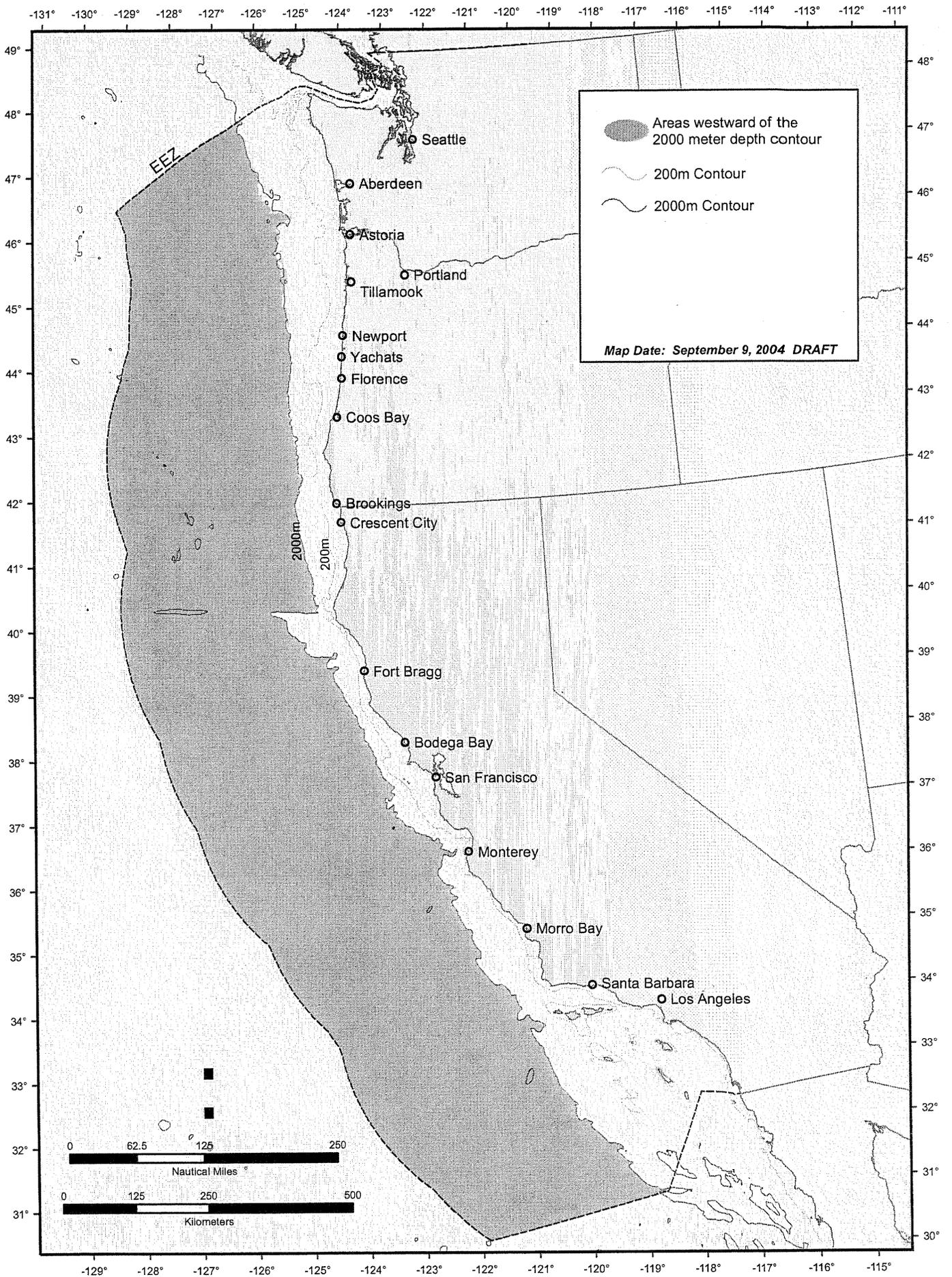


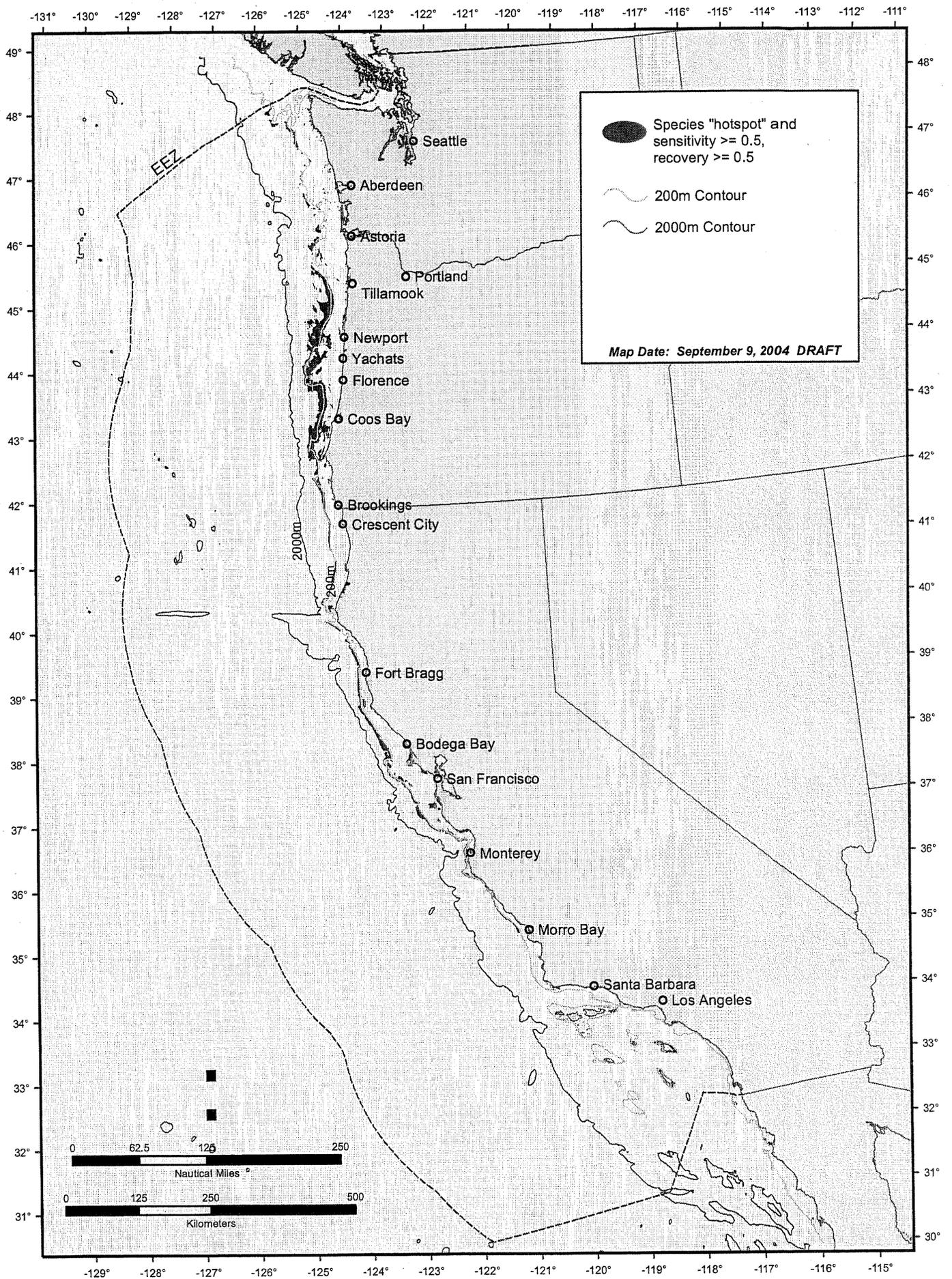
Minimize Impacts Alternative 3: Control-rule based area closures using habitat sensitivity index values. Option 1



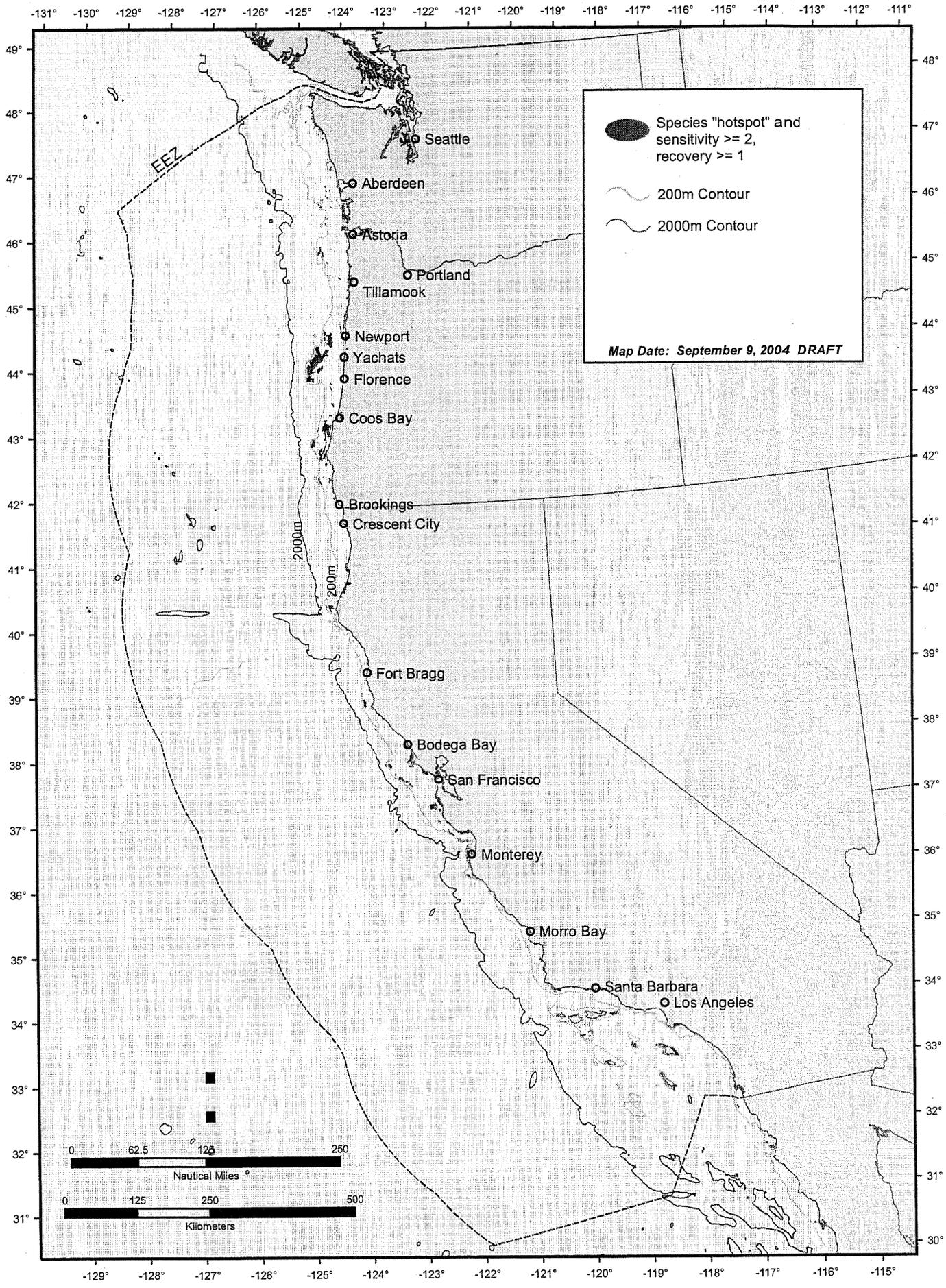
Minimize Impacts Alternative 3: Control-rule based area closures using habitat sensitivity index values. Option 2



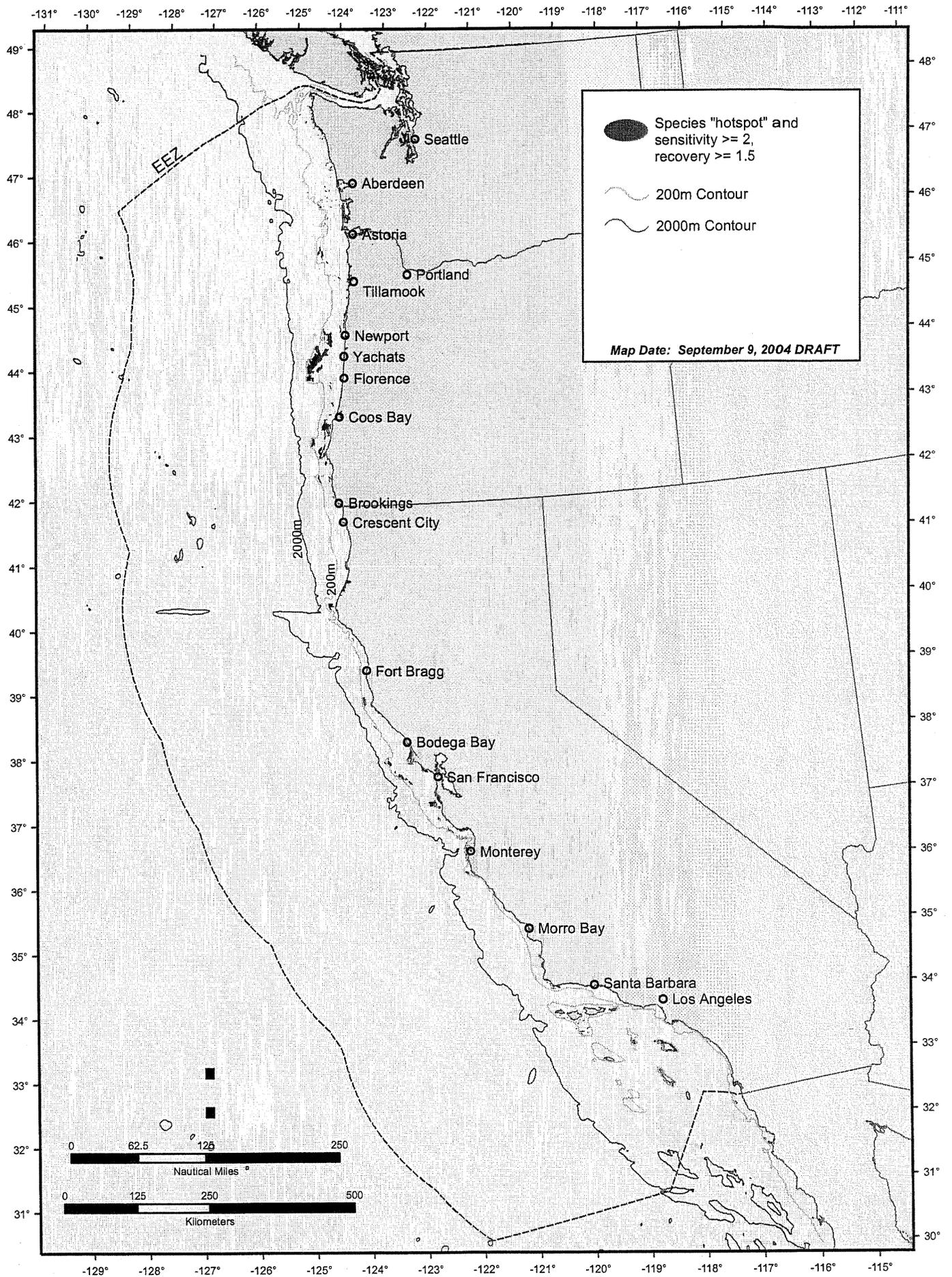




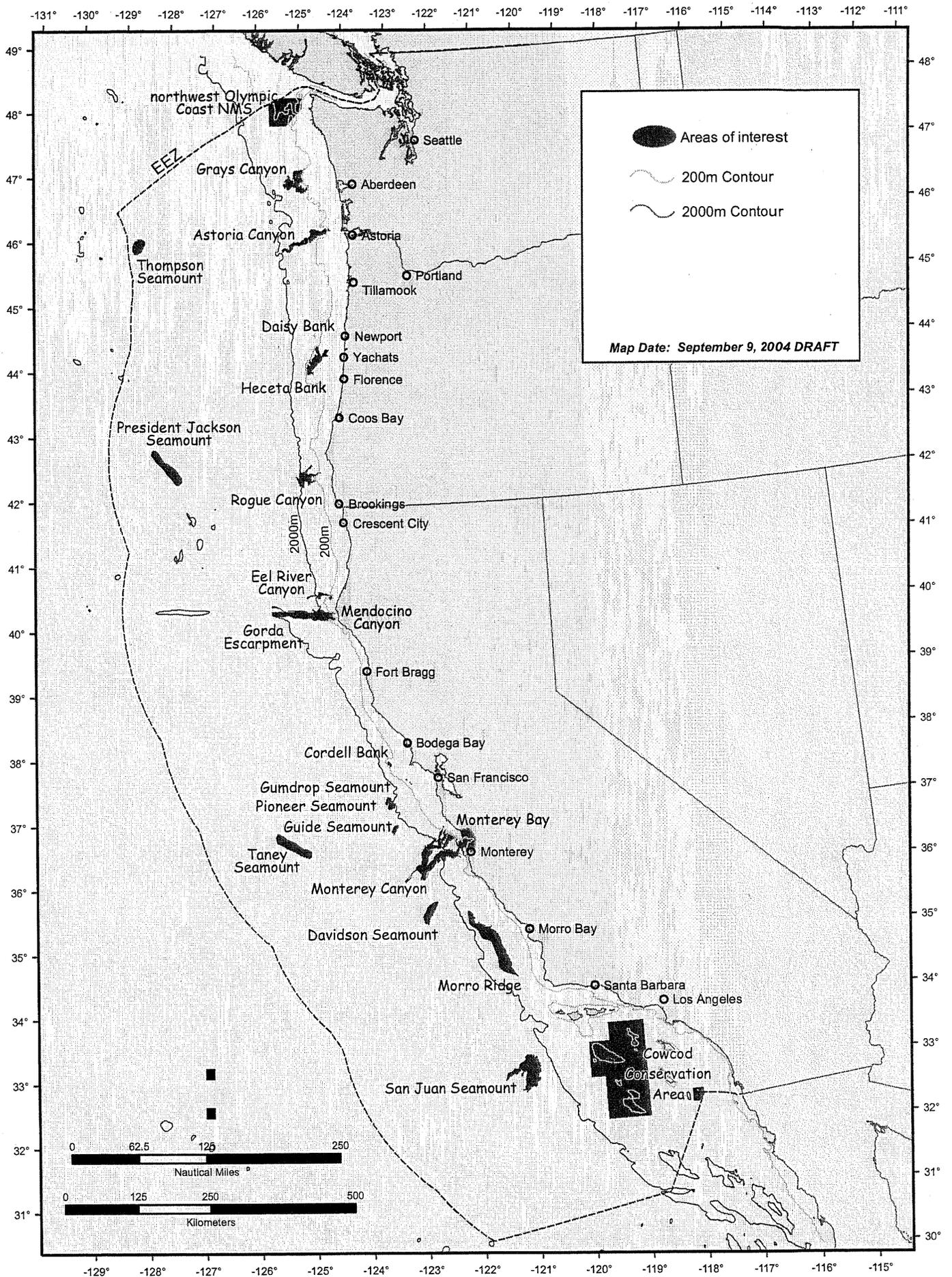
Minimize Impacts Alternative 7: Prohibit bottom trawling in "hotspot" areas that also coincide with areas with high sensitivity and recovery index values. Option 1



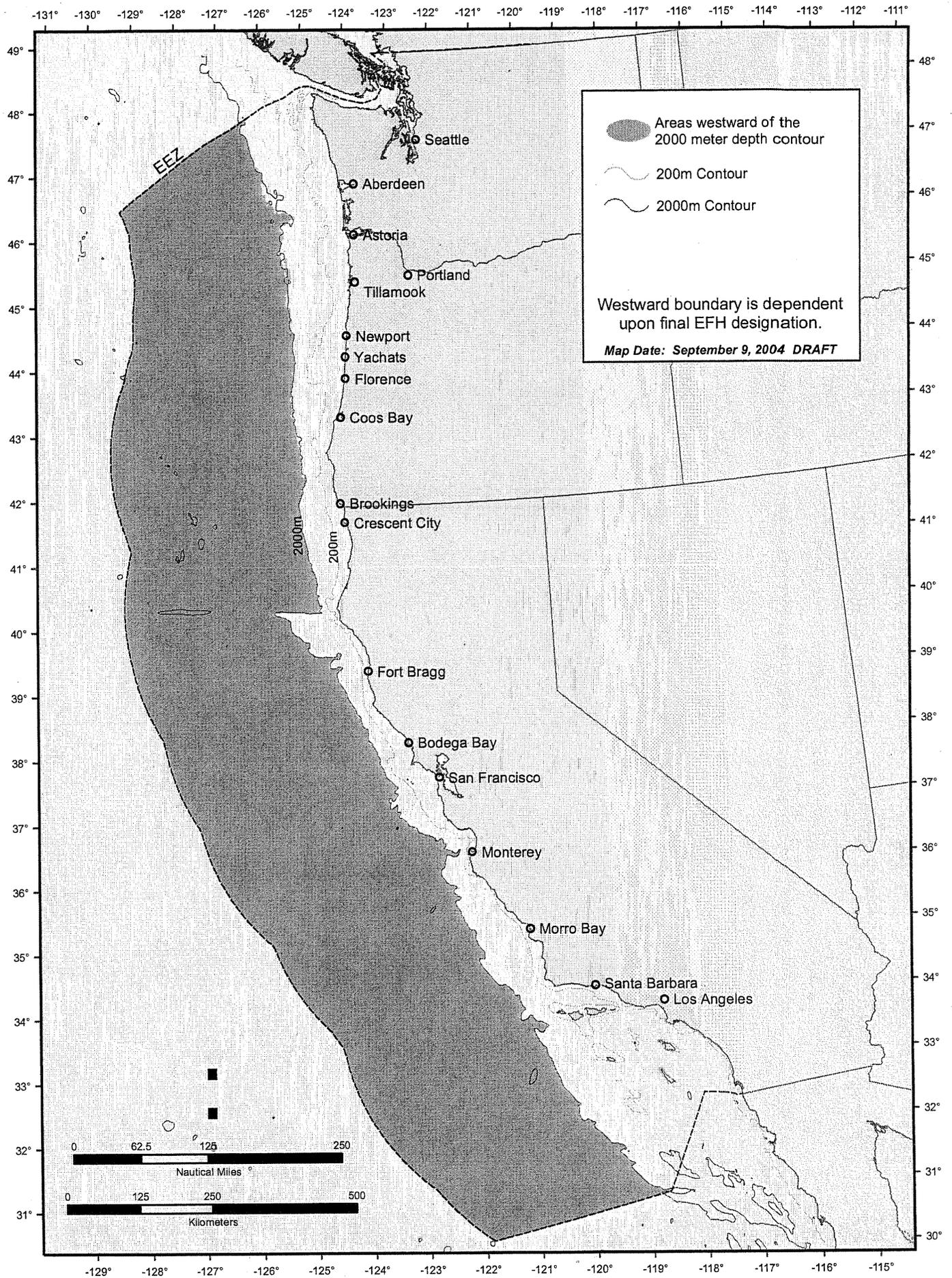
Minimize Impacts Alternative 7: Prohibit bottom trawling in "hotspot" areas that also coincide with areas with high sensitivity and recovery index values. Option 2



Minimize Impacts Alternative 7: Prohibit bottom trawling in "hotspot" area that also coincide with areas with high sensitivity and recovery index values. Option 3



Minimize Impacts Alternative 8: Limit fishing impacts in areas of interest.



Minimize Impacts Alternative 9: Zoning alternative.

Final Draft – July 22, 2004

Review of Fishing Impacts on Groundfish Essential Fish Habitat

**– A Report of the SSC Economics and Groundfish Subcommittees –
Based on a Meeting Held at the Alaska Fisheries
Science Center, May 24-25, 2004**

SSC Members Present:

Dr. Mike Dalton (Chair)
Mr. Steve Berkeley (Rapporteur #1)
Mr. Tom Jagielo (Rapporteur #2)
Dr. Martin Dorn
Dr. André Punt
Dr. Hans Radtke
Ms. Cindy Thomson

Introduction

The National Marine Fisheries Service (NMFS) has developed an analytical framework to evaluate effects of alternative management actions on Pacific coast groundfish Essential Fish Habitat (EFH). A schedule for the Pacific Fishery Management Council (PFMC) to designate EFH is mandated by court order and requires that a range of alternatives be available for consideration at the September 2004 Council meeting. Because of the scientific and technical issues involved, the Council requested a review of the EFH analytical framework by the Scientific and Statistical Committee (SSC) prior to formulation of management alternatives.

The SSC Groundfish Subcommittee met with members of the EFH Technical Review Committee (TRC), and the EFH Analytical Team to review the analytical framework on February 23-24, 2004 at the Alaska Fisheries Science Center in Seattle, Washington. The analytical framework is composed of an EFH identification tool, to assist in the designation of EFH, and a fishing impacts model to determine where adverse impacts from fishing occur.

The EFH identification component of the analytical framework was ready for review in February and was endorsed by the SSC in March. However, the structure of the EFH fishing impacts model was not complete in February, and only a partial review of the model was possible then. Given the tight schedule of court deadlines, the SSC made recommendations in February to prioritize work on the fishing impacts model during spring 2004, which are documented in the SSC report from February.

In March, the Council requested a follow up review of the EFH fishing impacts model by the SSC before the June Council meeting. For the follow up review, members of both the economics and groundfish subcommittees of the SSC met with members of the TRC, and the EFH Analytical Team on May 24-25, 2004 at the Alaska Fisheries Science Center. An overview of changes to the fishing impacts model and supporting data since February are described below. Strengths and weaknesses of the current version of the fishing impacts model and data are also described, and the SSC's assessment of the current version of the model, based on progress since February, is given.

Data on Gear Impacts

Data on gear impacts were collapsed into those for five generic gear types: dredge, bottom trawl, nets, pots and traps, and hook-and-line. Matrices of habitat sensitivities and recovery times were created using all fifty mapped habitat types. Many cells did not have data and were filled using expert judgment extrapolated from a limited number of empirical studies. The SSC has remaining questions about the decision rules used to assign data to different cells and recommends further documentation (e.g., a description of how values and variances were assigned to cells with little or no data).

The relationship between sensitivities and gear-type is not linear, so a doubling of the value of the sensitivity from one gear type to another does not imply twice the habitat impact. Only the bottom trawl category has an explicit unit of effort (trawl hours), emphasizing the difficulty in cross-gear-type comparisons (e.g., how many units of hook-and-line gear are equivalent to an

hour of bottom trawling?). Additional comments on the data on which the habitat sensitivity and recovery rate matrices are based are provided in the report from the SSC review in February.

Benchmarks for sensitivity and recovery rates are interpreted in the model as changes from a pristine state. However, the recovery time matrices are currently defined in terms of changes in habitat from a detectable impact to an undetectable one. Because the studies on which these results are based come from field observations (impacted areas compared to control areas) with low statistical power, failure to detect a difference is not the same as recovery to a pristine condition. In addition, recovery in the model is represented by a change from a damaged or impacted state to a pristine one, but this interpretation is not necessarily consistent with the baseline in studies from which the recovery times are taken.

Data on Fishing Effort

Trawl logbooks are the sole source of coastwide data on the spatial distribution of fishing effort. Consequently, an important restriction on the fishing impacts model is that only data on trawl gears are used to assess effects of fishing on EFH. However, other gear types probably have important effects. For example, a pilot project described by the EFH Analytical Team in February estimated the spatial extent of fishing effort with fixed gears off the Oregon Coast. In March, the SSC endorsed the approach taken in the pilot project, but time and budget constraints prevented using the approach for a coastwide assessment.

The SSC considers the current imbalance among gear types in the EFH fishing impacts model to be a major weakness, and addressing this gap in the data is among the most important tasks for future work. For a more representative distribution of impacts, the SSC recommends developing spatial data on fishing effort for fixed gear and recreational sectors of the groundfish fishery. In this regard, a logbook program for the fixed gear fleet, like that for trawlers, would be a valuable source of information.

Due to data constraints on the actual location of trawl tracks, data for fishing effort were assigned to 10-minute blocks of latitude and longitude, based on the starting points for tows recorded in trawl logbooks (page 22, Section 3.2.2, EFH Impacts Assessment, June 2004). Trawl effort data summaries include the total number of tows and total duration of tows in each block, by month for each year 1998-2002, and annual summaries for the years 1987-2002. The data summaries for each block exclude mid-water trawls. Spatial data on habitat sensitivity and recovery were used to calculate the proportion of each block occupied by each habitat type.

Structure of the Fishing Impacts Model

The EFH Model Development Team presented the most recent version of the fishing impacts model. Appendix 8 from the February meeting describes the general structure of the previous version of the fishing impacts model. In the previous version, as in the current version, habitat consists of a large number of individual sites, or patches, that are in either in a pristine or impacted state. The habitat impacts index takes values between zero and one. Effects of a unit of fishing effort on the habitat impact index depend on the gear type, and sensitivity of the habitat type to that gear, using the data on gear impacts described above.

The model's current documentation describes the index value as representing the fraction of impacted sites. According to the documentation, a value of zero represents a pristine habitat, and a value of one represents habitat that is "totally functionally destroyed" (page 23, Section 3.3, EFH Impacts Assessment, June 2004). In other words, the fishing impacts model is structured as an absolute measure of habitat damage. On the other hand, results with the fishing impacts model should be interpreted only as a relative measure of habitat damage (page 33, Section 4.2.1, EFH Impacts Assessment, June 2004). This discrepancy between absolute and relative interpretations is confusing, and creates problems for the model's results.

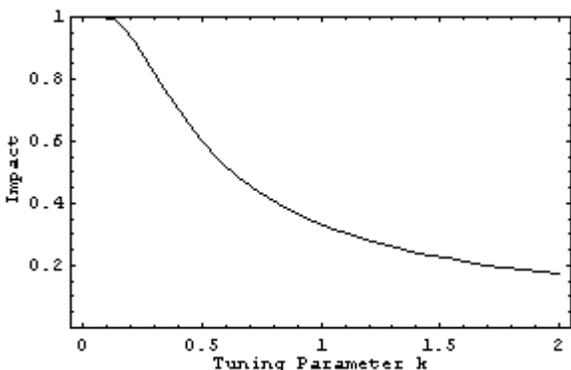
The version of the fishing impacts model in Appendix 8 from February consists of a recovery function, a damage function, and a dynamic relationship for the habitat impact index, with the percentage change in impacted habitat proportional to the current rate of recovery minus the current rate of impact. However, Appendix 8 does not contain a complete description of how the damage function in the fishing impacts model relates to the data for fishing effort.

In February, the SSC recommended (1) including logistic (S-shaped) recovery profiles, and (2) developing a spatially explicit model of gear effects to incorporate the notion of a gear footprint, such as area swept by trawls. These recommendations are described in the SSC report from the February meeting.

The SSC's first recommendation was incorporated into the fishing impacts model, although, in a way that raised important questions during the review about appropriate values for the model's tuning parameter k . The need for a tuning parameter is due to the current absence of a theoretical framework, and sound empirical basis, for relating fishing effort to habitat damage. Therefore, any current method for determining values of k will be ad-hoc.

One method of determining values for the tuning parameter k was discussed at the May meeting. This method works by choosing an arbitrary maximum value near the asymptote of the cumulative equivalent effort curve (page 25, Section 3.3.2, EFH Impacts Assessment, June 2004). Other procedures for choosing k are possible, but no alternatives were presented, and no criteria have been developed to evaluate the merits of different procedures. The current method for determining values of k does provide a starting point for analysis to make relative comparisons between areas. However, values of k are critical to the shape of the recovery curves and the implied impacts on habitat. The figure below demonstrates the sensitivity of the fishing impacts model to values of the tuning parameter.

Figure 1: Impact of a unit of fishing effort, measured in units of duration, for values of the tuning parameter k from 0.1 to 2.0 (MRAG recommended values), with a habitat sensitivity parameter of $s = 0.9$. Further information is provided in the appendix.



Preliminary runs of the model presented at the May meeting produced results showing that habitat in some blocks is close to the asymptotic value of one, and according to the model, these blocks have received maximum impacts. However, some of these areas are still trawled, and apparently remain productive. Different values of the tuning parameter k affect this result (e.g., Figure 8, EFH Impacts Assessment, June 2004, page 38). A more realistic interpretation of the asymptote is that a state has been reached where additional contact with trawl gear has negligible effects on the habitat's condition. However, the relationship between habitat condition and function is presently unknown. Values close to one indicate a reduction in fishing effort will likely have little effect on the impacts index, at least in the short-run.

Application of the Risk Assessment

The EFH analytical team outlined options and tools for developing policy alternatives. In general, fishing activity can be mitigated if it causes impacts that are more than minimal, and not temporary in nature. Possible elements in future risk assessments are listed below.

Examples of tools for impact assessment:

1. Fishing impact model for trawl gears.
2. Maps of habitat sensitivity and recovery to nontrawl gears.
3. Maps of habitat rarity.
4. Maps of intensity of habitat use.

Ways to identify areas for short-term mitigation:

1. Spatial patterns in impacts of trawl gears.
2. Location of the most sensitive habitats.
3. Time trends in the net impact of trawl gears.
4. Location of habitats with longest recovery times.
5. Areas with greatest damage to EFH for a species or group of species.

Potential management actions for short-term mitigation:

1. Closed areas.
2. Gear modifications.
3. Rotating closures.
4. Closed seasons.
5. Effort reduction.

Examples of problems for long-term mitigation:

1. Lack of spatially-explicit fishing effort data.
2. Lack of a common measure for impacts assessment.
3. Redistribution of fishing effort.
4. Relationships between habitat and stock status.

Potential management actions for long-term mitigation:

1. Collection of fishing effort data for nontrawl sectors through VMS, or logbooks (e.g., fixed-gear logbooks).
2. Development of an economics component to the impacts model (this work is proceeding).
3. Establish research reserves.

Assessment of the Fishing Impacts Model

The fishing impacts model could be used for a variety of purposes, including:

1. Evaluation of the future impacts of closures, changes in fishing effort, and modifications to gear characteristics in an absolute sense.
2. Evaluation of these impacts in a relative sense.
3. Evaluation of which areas are most impacted.

The SSC considered the utility of the model relative to each of these purposes.

The ability to make predictions in an absolute and, to a somewhat lesser extent, relative sense depends on resolving the issue of how to specify values for the tuning parameter k . Therefore, the development of a transparent method for determining values of k , based on observable data, will be necessary before the fishing impacts model is useful for policy analysis. Additional data are clearly needed to specify reliable, or even plausible, values for k , but agreement was not reached about what data could be used, or a suitable approach for constructing values.

Because of unresolved issues with the tuning parameter, the SSC questions whether the current structure of the fishing impacts model, which is quite specialized, is appropriate for identifying where adverse fishing impacts occur. For example the SSC's second recommendation from February, developing a spatially explicit model of gear effects, may resolve the need for a tuning parameter. However, this recommendation was not incorporated into the fishing impacts model because of data limitations and other constraints.

A serious spatial inconsistency exists between the resolution of the fishing impacts model, which is limited by the resolution of the fishing effort data to aggregated blocks, and the finer scale EFH polygons within each block. Summing effort for each block implicitly assumes that fishing effort is distributed uniformly within that block, but this assumption is generally false. For example, tows tend to stay on either soft or hard bottoms, depending on whether flatfish or rockfish are the target.

The spatial inconsistency between fishing impacts and habitat in the fishing impacts model is a serious concern. The SSC acknowledges the complexity of the issue and the importance of data gaps in limiting information about location of individual trawls. However, this inconsistency severely limits the ability to evaluate the areas most severely impacted. Further development of the model and additional data will be necessary before the SSC can endorse use of the fishing impacts model for the purpose of identifying where adverse fishing impacts occur.

Consequently, the SSC does not recommend use of the current EFH fishing impacts model for risk assessment or in the development and evaluation of management alternatives. In particular, the SSC does not recommend using the fishing impacts model for the risk assessment or to produce maps of intensity of habitat use (Items 1 and 4 listed above as tools for the impact assessment). The SSC also does not recommend using the fishing impacts model for estimating spatial patterns in impacts of trawl gears, time trends in the net impact of trawl gears, or for identifying areas with greatest damage to EFH for a species or group of species (Items 1, 3, and 5 listed above as ways of identifying areas for short-term mitigation in the risk assessment).

Recommendations for Using the Current Version of the Impacts Model and Data

Data used with the fishing impacts model are informative on their own. A useful set of maps based on these data could be developed to aid formulation and evaluation of EFH management alternatives. For example, polygons of the most sensitive habitat types could be overlaid with the trawl start coordinates to provide an index of potential fishing impacts. While coastwide spatial data on fishing effort are available only for trawlers, habitat sensitivity and recovery rates are available for all gear types. Maps that associate habitat type to sensitivity and recovery for different gears could be used to develop and evaluate mitigation options.

Recommendations for Further Development of the EFH Fishing Impacts Model and Data

The EFH Analytical Team confronted several obstacles, including critical data gaps, during development of the current version of the fishing impacts model. Further development of the EFH impacts model and data are needed before the model is ready for conclusive policy analysis. Priority areas for future work are:

1. Expanding the set of spatial data on fishing effort for use with the model to include fixed-gear and recreational sectors of the groundfish fishery.
2. Improving the spatial resolution of the fishing impacts model to resolve the spatial inconsistency between fishing impacts and habitat.

In February, the EFH Analytical Team presented results from a set of focus group meetings with knowledgeable fishermen to develop baseline effort maps for trawl, long-line, and groundfish pot fisheries for an area off the Oregon Coast. The focus group meetings for the EFH project were conducted under sound socioeconomic research protocols (Final Report, Pilot Project to Profile West Coast Fishing Effort). In its report from the February meeting, the SSC endorsed the use of these methods to collect primary data based on fishermen's knowledge and expertise. The SSC repeats its recommendation from February to continue this work of collecting primary data on fishing effort off the West Coast. These data would be used to develop baseline effort maps for nontrawl sectors and provide the best available scientific information to an ongoing EFH process.

To improve the spatial resolution of the fishing impacts model for the trawl sector, the SSC recommends returning to the formulation given in Appendix 8 of materials from the February meeting. In particular, equation (2) provides a reasonable starting point for relating habitat damage at a location to habitat sensitivity, vessel speed, gear width, duration of contact, and other factors. Citing data limitations, the EFH Analytical Team moved away from the spatially explicit formulation in equation (2), and adopted the 10-minute blocks for fishing effort described above.

However, assigning individual tows to the fishing blocks, based on start point and gear type, loses information. As noted above, individual tows tend to stay in the habitat type in which they start (e.g., soft or hard bottom). In this case, the start point of each tow provides important information about the habitat type in which most of the tow probably occurred. On the other hand, the current version of the fishing impacts model uses the proportion of each habitat type, in each block, to assign probabilities for impacts. The EFH Analytical Team has defended this method of assigning probabilities to impacts as standard and conservative, and interprets it as generalizing the more detailed data (habitat) to the same spatial resolution as the less detailed data (trawling).

For the less detailed data, the SSC notes the degree of resolution (i.e., 10-minute blocks), was somewhat arbitrary, chosen by the EFH Analytical Team with input from the TRC (page 22, Section 3.2.2, EFH Impacts Assessment, June 2004). In other words, the method of assigning probabilities may be sensitive to the size of the blocks, for example those blocks on the edge of

sensitive habitat. Therefore, the current method of assigning probabilities may not be conservative with respect to impacts on each habitat type. For example, rockfish tows on the edge of flatfish habitat are assigned to both habitat types because the impacts model generalizes habitat data to the scale of the fishing blocks.

Finally, trawl logbooks have information on the depth of each tow, and this information is available from other sources in the EFH framework. At the February meeting, the TRC noted that individual tows tend to follow the same depth contour, and a relationship exists between vessel speed during a tow and its depth. This information is not currently utilized in the EFH fishing impacts model. These relationships were discussed again at the March meeting. The SSC suggested then that focus groups, like those used to produce the baseline maps of fishing effort for the EFH project, or other socioeconomic research methods, could be used to collect data on relationships between tow depth, vessel speed, and other information. This information could be used to configure the spatial model of fishing effort in Appendix 8 from the February meeting.

Appendix: Derivation of Fig. 1

The derivation of SSC Figure. 1 is based on the fishing impacts model described in Section 3.3 of the EFH Impacts Assessment, June 2004.

Cumulative Equivalent Effort (CEE)

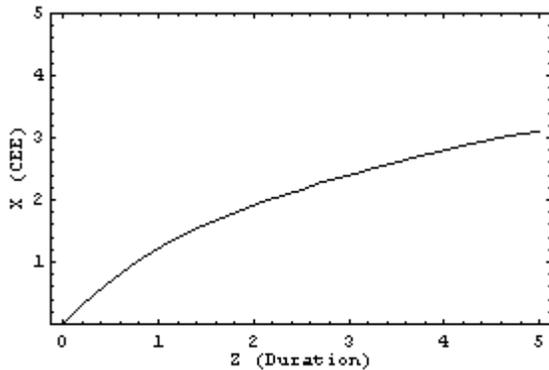
k = Tuning parameter

z = Duration in tow hours

x = CEE = $h(z, k)$

$$h(z, k) = \frac{1}{k} \text{Log}_{10}(z+1)$$

Plot of $h(z, k)$ with $k = 0.25$:

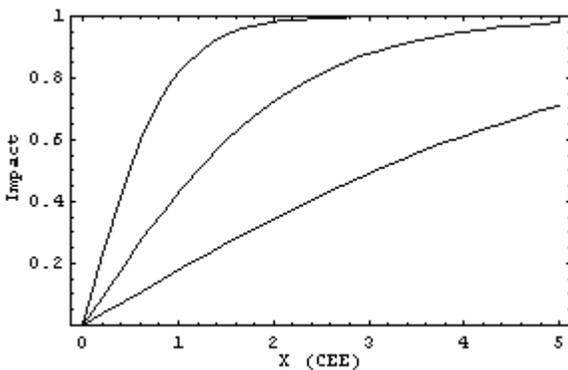


Impact Function

s = habitat sensitivity

$$f(x, s) = \frac{1 - (1 - s)^x}{1 + (1 - s)^x}$$

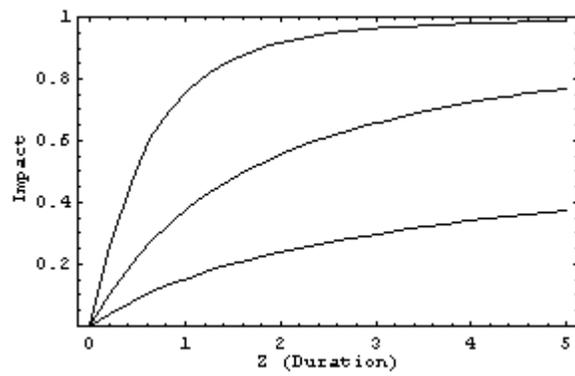
Plot of $f(x, s)$ with $k = 0.25$ and $s = 0.3, 0.6, 0.9$:



Composite CEE-Impact Function

$$g(z, k, s) = f(h(z, k), s)$$

Plot of $g(z, k, s)$ with duration z from 0 to 5, $k = 0.25$, and $s = 0.3, 0.6, 0.9$:



Agenda
Pacific Council Scientific and Statistical Committee
May 24-25, 2004

May 24

1:00 - 1:10

Call to Order (Chair)

- Review of committee business
- Review and adoption of the agenda

1:10 - 1:20

NMFS Report (Copps)

- Project status
- Revised timeline
- Planning and Oversight Process

1:20 - 1:30

Recap of decision-making framework and intro to risk assessment document (Parkes)

1:30 – 2:45

Data update

Updates to data on

- Fishing gear impacts: habitat sensitivity and recovery (Grizzle)
45min
- Indexing Spatial Data for Non-fishing Impacts? (Grizzle)
- GIS Summary (Bailey)
- Plans and status of making the database available over the internet

2:45 – 3:00

Break

3:00 – 4:00

Explanation of the Impacts Model (Burn)

- Effects of data on model specification
- The Impact Function
- The Bayesian Network Model for Impacts (Version 1)
- Discussion

4:00 - 4:30

Application of the Risk Assessment

- Example output for bottom trawls (Bailey/Burn)
- GIS Capabilities for Developing Alternatives
- Using the Model in the development and evaluation of Alternatives (Parkes/Burn/Bailey)
- Development of alternatives for non-trawl gears (CRA) (Parkes/Bailey)

4:30 - end

Public Comment and Committee Discussion

- Overnight tasking

May 25

9:00 – 10:00

Presentation of Overnight Tasks

10:00 – 10:30
Assessment

Discussion with Technical Team on Application of the Risk

10:30 – 10:45

Break

10:45 – 11:30

Assessment (continued)

Discussion with Technical Team on Application of the Risk

11:30 – 12:00

Remaining Issues

- Future development of the EFH and Impacts models (current proposals)

12:00 – 1:00

Lunch Break

1:00 – 1:30

Public Comment

1:30 – end

Committee Discussion

PFMC

08/30/04

GROUND FISH ADVISORY SUBPANEL STATEMENT ON
GROUND FISH ESSENTIAL FISH HABITAT ENVIRONMENTAL IMPACT STATEMENT-
PRELIMINARY ALTERNATIVES

The Groundfish Advisory Subpanel (GAP) spent several hours in a joint meeting and in advisory body discussions reviewing the essential fish habitat (EFH) preliminary alternatives. We appreciate the participation of Mr. Steve Copps of National Marine Fisheries Service (NMFS), who helped clarify some of the more complex issues.

In making recommendations, the GAP utilized the report of the Council's Ad Hoc EFH/Environmental Impact Statement (EIS) Oversight Committee, found in the briefing book as Agendum C.6.b - EFH EISOC Report 1. Before presenting our detailed recommendations, however, the GAP would like to make some general comments.

The GAP recognizes that NMFS is constrained by a court settlement and thus must follow a certain time schedule. Unfortunately, adherence to a rigid schedule results in a diminution in quantity and quality of the data used to prepare the EIS. Among the worst offenses are:

- lack of discussion of impacts on tribal fisheries;
- extrapolating from sparse data to assume fishery impacts;
- a bias against certain gear types;
- an assumption that degradation of certain fish habitats is the cause of stock decline; and
- * the application of EFH principles to predator-prey relationships and not just to water and substrate as specified by law.

With that background, our specific recommendations are as follows:

Alternatives for Designation - we recommend moving all of the alternatives forward for analysis, as they cover the complete range.

Alternatives to Designate Habitat Areas of Particular Concern (HAPC) - again, we recommend moving all alternatives forward because they cover the complete range.

Alternatives to Minimize Adverse Impacts - the GAP concentrated most of its time on this issue, as it more fully encompasses the expertise available among members of the GAP.

1. Alternative 2 - We recommend that in both options the analysis of fixed gear should be made shoreward of 60 fathoms. This better tracks traditional fixed gear fishing areas that were in place prior to the imposition of the Rockfish Conservation Area. In Option 1, we recommend that the analysis on trawl gear should involve the use of all trawl gear shoreward of 150 fathoms. Depending on the substrate include as EFH, small footrope trawl gear could cause larger impacts than large footrope trawl gear in some cases.

2. Alternative 4 - We recommend deleting the second sentence in the beginning paragraph as it is inconsistent with Option 2.
3. Alternative 6 - It was unclear whether or not this was an alternative recommended by the plaintiffs in the lawsuit which was required to be included. If not, we recommend that it be deleted as it is arbitrary and capricious. There is no scientific justification for any particular percentage of habitat to be closed to fishing.
4. Alternative 8 - An examination of the map delineating “areas of interest” showed considerable data problems relating to how those areas were chosen. We recommend rejecting this alternative until more complete data are available.
5. Alternative 9 - The numerous references to “bottom tending mobile gear” in the introductory paragraphs should be removed as they are inconsistent with Option 2.
6. Alternative 10
 - A) In the introductory language, add at the end of the second sentence “nor are they entirely inclusive.” in order to reflect the fact that other gear modifications might be better able to achieve the legal requirement of minimizing adverse impacts from fishing to the extent practicable.
 - B) Add a new Option 1A to prohibit roller gear larger than 24 inches; this is a more realistic standard.
 - C) Delete Option 6 as it will have no practical effect on minimizing impacts.
 - D) In Option 7, add “non-sablefish, non-halibut” before “longline groundline.” Requiring floats on sablefish groundline results in elimination of sablefish catch and is therefore not practicable.
 - E) Add new Options 12A and 12B that would prohibit set-gillnets in waters deeper than 60 fm and 80 fm respectively. Again, these are more realistic standards that recognize how fisheries are actually conducted.
 - F) Modify Option 13 to prohibit weights with hooks on the ocean bottom. This better encompasses the range of hook gear that might have an adverse impact on habitat.
 - G) In Options 4, 8, and 9, delete “analyze” and “assess” where those terms appear and substitute “phase in.” This Alternative is a non-inclusive list of particular gear modifications and prohibitions. We are presuming that all of the options on this list would be assessed or analyzed prior to their being included in regulations so these particular options should not be singled out for analysis.
7. Alternative 11 - This is an irrational and nonsensical request from a single special interest group that is discriminatory in nature and thus violates National Standard 4. It should be deleted.
8. Add a new Alternative 12 that would allow fish to be harvested by any legal gear without regard to gear endorsements in order to continue allowing harvests while minimizing impacts.

Research and Monitoring Alternatives - we recommend that all alternatives be moved forward with the exception that in Alternative 2 the words “commercial and charter” be deleted. This change will provide a more-encompassing range of alternatives.

Finally, given the controversies over marine protected areas (MPAs) and marine reserves, we should consider meshing the MPA and EFH processes, as we may find that protecting habitat is a sufficient means of conserving fish.

In conclusion, if it were not for the court deadline, we would recommend applying the Paperwork Reduction Act to most of the document.

PFMC
09/15/04

GROUND FISH MANAGEMENT TEAM REPORT ON
GROUND FISH ESSENTIAL FISH HABITAT ENVIRONMENTAL IMPACT STATEMENT -
PRELIMINARY ALTERNATIVES

The Groundfish Management Team attended the joint presentation on the EFH EIS on Monday and had a discussion with Steve Copps, NMFS, on the preliminary range of alternatives. The GMT reviewed the report of the ad hoc EFH EIS Oversight Committee and has the following comments and recommendations:

Alternatives for Designation of EFH

The GMT understands that designating EFH results in a definition of the area in which consultation requirements would apply (i.e., consultation on fishing and non-fishing activities which may adversely affect EFH), and that additional HAPC designation is not needed for purposes of consultation.

In reviewing the maps of the alternatives (Supplemental EFH EISOC Report 2), it appears that the result of Alternative 2 is similar to the result of Alternative 3, and Alternatives 4 and 5 are also similar. The GMT believes that, given the limited amount of time between this Council meeting and the November meeting, having thorough analyses of fewer alternatives which encompass the range is preferable to having multiple analyses of lower quality. To that end, the GMT recommends narrowing down the alternatives for designation of EFH to exclude Alternatives 2 and 5.

With regard to the analyses of these alternatives, the GMT suggests ordering them by degree of aerial coverage (such as highest-status quo-to lowest). The GMT also recommends that, in addition to describing the species and life stages which occur in the area resulting from the alternative, the analysis should include a full discussion of the trade-offs among the different alternatives. For example, if areas are covered in one alternative that are excluded by a subsequent alternative, a detailed description of the species and life stages that correspond to the excluded areas should be included.

Alternatives to Designate HAPC and Alternatives to Minimize Adverse Impacts to EFH

The GMT notes that an alternative which would link the designation of HAPCs to the alternatives to minimize adverse impacts is not included, with the exception of adverse impact Alternative 8 which is specifically linked to HAPC Alternative 7. The GMT believes that HAPC designation should be used as a management tool that is aligned with minimizing adverse impacts resulting from both fishing and non-fishing activities (i.e., HAPCs should be used to focus consideration of management measures on areas that are of “particular concern” to distinguish them from the broader definition of EFH). The GMT is aware of the apprehension by some that HAPCs would be used as “back door” approach to marine reserves and thinks that HAPCs should be a “front door” approach to minimizing adverse impacts, which may include fishing restrictions, such as gear requirements. Including a specific alternative that addresses

this link in a general way (not specifically tied to HAPC Alternative 7) would accomplish this. Again, the GMT recommends that the HAPC designation alternatives be listed in order of highest to lowest coverage. Additionally, the GMT recommends that a thorough discussion of fishing and non-fishing activities restricted in a designated HAPC vs. those same restrictions in areas outside HAPC designation should be included in the analysis. Also, the GMT notes that the EFH EIS covers a one-time HAPC designation and, as new stock assessments are completed, and changes in stock status occur, subsequent changes in HAPC designation may be warranted. As such, the GMT recommends that a process to develop criteria for future HAPC designation be identified.

Treaty Rights

The GMT notes that none of the alternatives include mention of treaty fishing and may in some cases directly conflict with the exercise of tribal treaty rights. The GMT recommends that the NMFS Northwest Regional staff consult with Washington coastal treaty tribes both in designating EFH and HAPCs within tribal U & As and developing measures to minimize fishing impacts within those areas.

GMT Recommendations

1. Reduce the number of alternatives for the designation of EFH to exclude alternatives with similar results to others (such as Alternatives 2 and 5), while keeping alternatives that encompass a full range.
2. List the alternatives for the designation of EFH and HAPCs in order from highest to lowest coverage.
3. In the analyses of EFH designation, describe the species and life stages which occur in the area resulting from the alternative as well as the trade-offs resulting from reduced coverage.
4. Include a general alternative for minimizing adverse impacts to EFH (fishing and non-fishing) in areas designated as HAPCs.
5. In the analysis of alternatives for minimizing adverse impacts, discuss the rationale for having fishing and non-fishing activities restricted in areas outside HAPC designation vs. having restrictions within HAPCs only.
6. Identify a process to develop criteria for future HAPC designation.
7. Request NMFS Northwest Region consult with Washington coastal treaty tribes regarding EFH and HAPC designation and measures to minimize fishing impacts within those areas.

HABITAT COMMITTEE COMMENTS ON
GROUND FISH ESSENTIAL FISH HABITAT ENVIRONMENTAL IMPACT STATEMENT -
PRELIMINARY ALTERNATIVES

The Habitat Committee (HC) discussed the proposed range of alternatives for designation of essential fish habitat (EFH), habitat areas of particular concern (HAPCs), Alternatives to minimize adverse impacts to EFH, and research and monitoring alternatives. In general, the HC thinks there is value in clarifying that the fundamental purpose and needs of this proposed action is to ensure that EFH is capable of sustaining groundfish stocks at levels that support vibrant fisheries and not simply to provide information.

EFH

The HC supports the concepts outlined in Alternatives 4, 5, and 6. These have a probabilistic approach to determining EFH that is reasonable, given data uncertainties. In addition, it includes all species. The alternatives 4, 5, and 6 appear to be ample to bracket a comprehensive range of alternatives.

Furthermore, Alternative 8 attempts to address data uncertainty in deep water areas. This alternative might be appropriately modified to be an option for addition to either alternatives 4, 5, or 6 that would add all areas beyond depths where data become particularly uncertain. The HC suspects this might be less than 3,500 meters. The HC supports inclusion of a deep water option to the alternatives.

The Council should also consider adding krill and other forage species for groundfish in the EFH alternatives.

Alternatives 2 and 3 each have an approach of dealing only with overfished species. The HC believes that this approach is not appropriate because it fails to address habitat needs of healthy managed stocks.

Alternative 7 is also inappropriate in that it only deals with assessed species and has the same flaws as alternatives 2 and 3.

HAPC

The purpose of HAPCs is to identify areas with important ecological functions for groundfish, that are sensitive or rare habitats for groundfish, or that are at risk of disturbance. The HC suggests that means be identified to evaluate whether or not an alternative meets one or more of these criteria. Current alternatives identify a menu of ideas for meeting criteria, but do not identify which criterion each addresses. Also, it is not possible to evaluate a range of effects for alternative HAPC identification.

Alternatives 2, 3, 4, and 6 approach HAPCs from habitat types. These alternatives are not mutually exclusive; however we suggest that differing proportions of each habitat type be evaluated for overall effects.

Alternative 6 may be reasonably modified to deal with all rocky reef areas instead of just nearshore areas.

Alternative 5 deals with overfished species, which may be an appropriate approach to assist with rebuilding these stocks.

Alternative 7 takes a geographic area approach that appears to represent specific sensitive or rare habitats. This alternative would benefit from clarification as to why these sites were selected and/or how each location meets one or more HAPC criteria. A different approach would be to use data-driven criteria to select certain habitat types; this would lead to more comprehensive protection for key habitats.

Alternative 8 deals with an artificial, temporary habitat type. The HC is not sure how this fits into HAPC designation. Following this criterion, other artificial habitats such as piers, wharves, jetties, pipelines, sewer outfalls and other manmade structures could be considered if the Council were to proceed with this alternative. The HC is doubtful of the benefits of including this alternative.

Finally, the HC suggests that any intent to analyze HAPC as an implementation avenue for marine protected areas should be specifically stated so that constituents are aware of it.

Alternatives for Minimizing Impacts on EFH

This is a large array of different alternatives and approaches. The HC believes it may be appropriate to include all of the alternatives, at least for now. With the initial analysis of the alternatives, it should be possible to determine which are most appropriate to consider further.

Research and Monitoring Alternatives

Alternatives 1 and 2 are designed to provide better data from existing fisheries, and are in general worthwhile for evaluation. This can potentially link habitat data to a system that was designed for enforcement and bycatch needs.

In general, the objective of doing research to better quantify fishing effects on habitat, as suggested in Alternative 3, is admirable and necessary. It is not possible at this time to evaluate this proposal because not enough details are provided.

PFMC
09/15/04

Mr. Chairman,

The tribes are concerned that the alternatives developed for analysis by the Ad Hoc EFH EIS Oversight Committee currently include no mention of treaty fishing rights, and many would in fact directly conflict with the exercise of treaty rights. It is important that NOAA meet its obligations to consult with the WA coastal treaty tribes, both in designating EFH and HAPC within their U&As, and to work with the tribes to design measures to minimize fishing impacts to designated areas. We look forward to working with Northwest Region Staff to develop appropriate alternatives.



August 23, 2004

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Chairman Hansen:

We would like to express our support for the designation of the oil and gas platforms offshore southern California as “Habitat Areas of Particular Concern” (HAPC) under the 1996 Magnuson-Stevens Fishery Conservation and Management Act.

The California Artificial Reef Enhancement (CARE) Program has been sponsoring research and conducting educational dives on the platforms since 1999. Our dive observations provide first-hand evidence that extensive marine life exists on and around the platform structures. Research conducted by the Marine Science Institute at UCSB and sponsored jointly by CARE, the Minerals Management Service and the United States Geological Survey provides quantitative data on fish populations on and around the platform structures.

A review of the HAPC criteria [50 C.F.R. § 600.815(a)(8)] as it applies to the severely depleted rockfish populations makes it highly appropriate to apply this designation to the platforms offshore California. The criteria with comments are as follows:

- (i) importance of the ecological function provided by the habitat;**
The importance of the platforms to regional rockfish production is described in: Love, M. S., Schroeder, D. M. & Nishimoto, M. M. *The ecological role of oil and gas production platforms and natural outcrops on fishes in southern and central California: a synthesis of information*. Minerals Management Service OCS Study MMS 2003-032 (2003). This research is ongoing, and recent findings indicate that the scope of impact of the platform habitat is greater than previously thought. These findings have been submitted for publication and should be available later this year. Please contact Dr. Love for more information.
- (ii) the extent to which the habitat is sensitive to human-induced environmental degradation;**
The platform habitats are at risk for elimination due to the expected obsolescence and subsequent decommissioning of the platforms as required by current regulations. These regulations require the complete removal of the

platforms, thereby destroying the habitats and killing all or most of the fish that live there

- (iii) **whether and to what extent development activities are, or will be, stressing the habitat type; and**

See (ii) above.

- (iv) **the rarity of the habitat type**

The platform habitats are unique in their size and proportions and in the fact that they provide relief through the entire water column. They also provide hard substrate that is rare in the vicinity of the platforms.

We appreciate the opportunity to comment on these recommendations. If we can provide you with additional information, please do not hesitate to contact us.

Sincerely,

A handwritten signature in cursive script that reads "George Steinbach". The signature is written in black ink and is positioned above the typed name and title.

George Steinbach
Executive Director
California Artificial Reef Enhancement Program

20 August 2004
Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Chairman Hansen:

I understand that the EFS EIS Oversight Committee has met and has designated a preliminary range of alternatives to designate Habitat Areas of Particular Concern. One of these proposals would include southern California offshore oil and gas platforms as HAPCs.

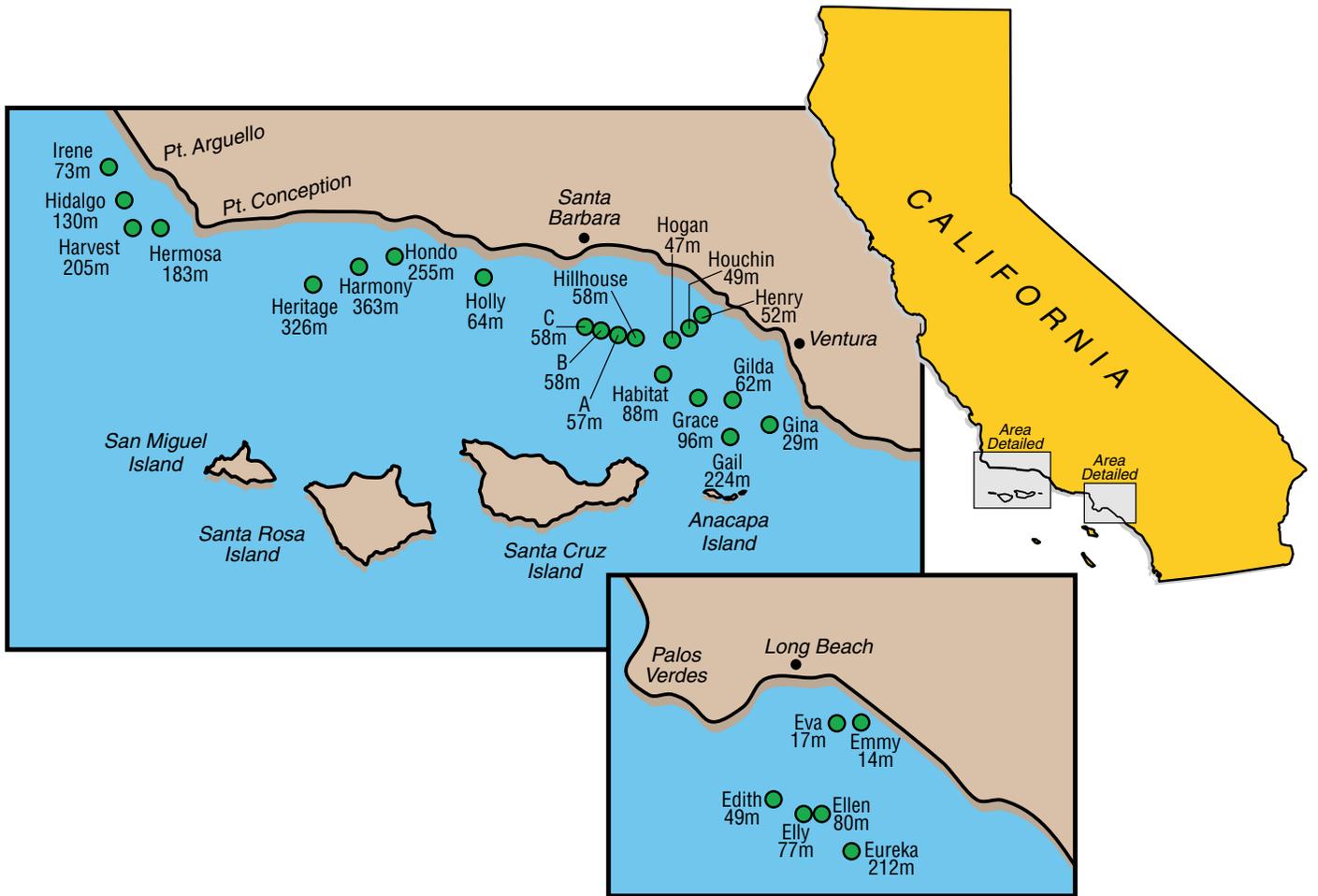
I heartily endorse such a designation. Over the 10 years that I have been studying the fish assemblages of California platforms and natural reefs, it has become clear that these structures form habitat that may be quite important to regional groundfish production. As an example, some of our most recent research clearly demonstrates that platforms may form exceptional habitat for young-of-the-year bocaccio (*Sebastes paucispinis*). Our estimates of abundance of young bocaccio at the platforms indicate that these fish may represent a considerable percentage of all young bocaccio on the entire Pacific Coast.

It seems clear that a number of platforms will become uneconomical to operate in the relatively near future and that decisions regarding decommissioning of these structures will have to be made. In light of our group's findings, I consider it essential that the role of platforms as important groundfish habitat be considered prior to decommissioning. Designating platforms as HAPCs would bring focus to the role of oil platforms in the ecology of those groundfish species that are managed by the Pacific Fishery Management Council and the National Marine Fisheries Service.

I have included a figure indicating the positions of oil and gas platforms off California and a photograph of the high densities of young-of-the-year bocaccio living around Platform Gilda (Santa Barbara Channel) in October 2003.

Sincerely Yours

Milton Love
Research Biologist
Marine Science Institute
University of California
Santa Barbara







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August 23, 2004

Mr. Donald K. Hansen
Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Dear Chairman Hansen:

During its August 16-18, 2004, meeting the Pacific Fisheries Management Council's Essential Fish Habitat (EFH) Environmental Impact Statement (EIS) Oversight Committee identified a preliminary range of alternatives, which the Council will consider adopting for public review and analysis in a draft EIS. Alternatives considered by the Oversight Committee cover the designation of EFH for groundfish species managed under the Pacific Groundfish FMP and mitigation of fishing impacts on this EFH, in order to promote recovery of the stocks.

One of the alternatives identified by the Oversight Committee is based on the "The Nature Conservancy / Environmental Defense" proposal described in the attached document. We feel it is important to point out that our proposed project area includes only the area from Point Conception to Davenport, California, and is a relatively small geographical portion [3-5%] of the EEZ for California, Oregon and Washington. Therefore, we request it to be considered as an alternative for a subregion within the larger groundfish management area.

We hope that the Council will include this proposal among the preliminary range of alternatives adopted at your September 13-17, 2004, meeting in San Diego, as well as included in the briefing book.

Many thanks for your consideration.

Sincerely,

Chuck Cook
Director, Coastal and Marine Program
The California Nature Conservancy
111 Topa Topa St.
Ojai, California 93023

cc: Kit Dahl, National Oceanic and Atmospheric Administration
Steve Copps, National Oceanic and Atmospheric Administration
Graham Chisholm, Executive Director, TNC of California

Mike Sweeney, Chief Operating Officer, TNC of California
Rod Fujita, Environmental Defense

Attachment: “A market oriented, incentive based approach to protecting Essential Fish Habitat in the Central Coast of California”. A proposal by The Nature Conservancy of California and Environmental Defense” dated August 16, 2004.

**A market oriented, incentive-based approach to protecting
Essential Fish Habitat in the Central Coast of California**

**A proposal by The Nature Conservancy of California and
Environmental Defense**

August 16, 2004



A market oriented, incentive-based approach to protecting Essential Fish Habitat in the Central Coast of California

**A proposal by The Nature Conservancy of California and Environmental Defense
August 16, 2004**

In July, 2003, The Nature Conservancy of California [TNC] and Environmental Defense [ED] initiated exploratory discussions with participants of the bottom trawling industry and fleet along the Central Coast of California. TNC and ED and many of the participants began to explore and understand how together we might protect benthic habitat for groundfish and move towards a more sustainable bottom trawl industry in federal marine waters extending from Point Conception to Sand Hill Bluff near Davenport, California (see Figure 1). While TNC's mission is the protection and conservation of biodiversity, we strive to employ innovative strategies that involve stakeholders and minimize conflicts with resources users.

Despite some differences of opinion concerning the validity of scientific issues that have guided or misguided past management protocols, the bottom trawling community, TNC and ED have moved forward in our discussions concerning a private sector purchase of numerous federal bottom trawling permits and vessels that would be contingent upon the permanent establishment of strategically placed no-trawl zones in the project area. Our judgment is that designation of no-trawl zones will both protect Essential Fish Habitat (EFH) for groundfish and move this fishery in the Central Coast of California towards sustainability. We request that our market-oriented approach to protecting EFH be seriously examined by the Pacific Fisheries Management Council (Council) during the Environmental Impact Statement (EIS) process.

Proposal Description

TNC and ED have a working list of fishers who we think regularly trawl the project area (about 23 permit holders) and we have met with all of those owners or their representatives. Most of the fishers home port in Morro Bay, Moss Landing, Monterey or Half Moon Bay. Our project approach would be to purchase a significant majority of the bottom trawling permits and vessels in this region in exchange for a significant portion of the project area designated as a no-trawl zone for bottom trawlers.

The following project components are being explored and discussed amongst the parties. The inclusion of these talking points does not imply that any agreements have been reached or decisions have been made by any of the parties.

➤ Protection of Essential Fish Habitat, Conservation of Biodiversity, and Scientific Research Objectives for the Project

The project aims to protect biodiversity and promote recovery of groundfish stocks through the establishment of large no-trawl zones in federal waters between Point Conception and Sand Hill Bluff. The no-trawl zones would include representative benthic habitats (hard, soft, and mixed substrates in several depth ranges) as well as important benthic features such as submarine canyons, sea-mounts, the shelf-slope break, and offshore reefs and banks that are important components of EFH for multiple species of groundfish. These no-trawl zones

should comprise a significant but yet-to-be-determined percentage of the project's geographical area. This proposal aims to protect representative seafloor habitats at sites yet to be bottom trawled and to allow previously trawled areas to recover.

Another important project objective is to be able to scientifically evaluate the ecosystem recovery process, if any, by monitoring, observing and documenting what happens to the benthic habitats, and the biodiversity they support, post-trawling. In discussions amongst industry participants and conservation groups, it is clear that both camps distrust the "science" of the other side and this sticking point has been a major impediment to moving forward on an acceptable management plan for groundfish. This proposal, if successful, will provide a unique "living laboratory" for scientific research opportunities aimed at objectively determining the impacts, if any, on dragging the seafloor in the Central Coast of California. Through careful siting and monitoring of replicated no-trawl zones, the scientific community and industry can address critical questions that need to be answered to guide adaptive management of marine resources.

➤ **TNC and ED Have Attempted to Identify the Fisher's Objectives for the Project**

While we clearly do not pretend to represent the trawling participants of the Central Coast, we have been informed about many of the fisher's concerns with our proposal. The most frequently heard concerns include:

1. For those fishers who wish to remain in the industry, protect their rights to trawl in their fishing grounds through the establishment of designated bottom trawl zones between Point Conception and Sand Hill Bluff. These areas should comprise a yet to be determined percentage of the project area and be located in areas that can financially sustain their business.
2. Strive to eliminate current and future contradictions and confusion between the Rockfish Closure Areas, potential Essential Fish Habitat designations, potential marine reserves and potential no-trawl zones. In other words, simplify the rules for bottom trawlers and remove some of the uncertainty going forward.
3. Determine an equitable formula for valuing the permits and vessels that can be agreed upon by buyer and sellers.
4. Allow for flexibility in the private acquisition process by giving consideration for allowing fishers to retain their vessels for future participation in NON-bottom trawl related fisheries, especially where they already own permits for different fisheries.

➤ **Mechanism of Transactions and Potential Council Actions; Projected Timelines**

There are many project components that need to be executed between the fishers and TNC and ED, as well as by the Council and NMFS, for this private buyout endeavor to be successful. Many of these actions are explicitly linked and will require extraordinary coordination and cooperation amongst the private and government parties. Our current thinking includes the following recommended sequence of actions:

Recommended Actions	Timeline
1. That the EIS oversight committee includes the TNC/ED proposal as one of the alternatives to be analyzed in the EFH –EIS	August 2004
2. The Council and NMFS work with TNC and ED and the fishers to establish a control date that helps identify the number of participants eligible for the private buyout. Only those fishers who have a bonafide history of trawling in the project area should be eligible.	August 2004
3. The Council and NMFS work with TNC and ED and the fishers to designate a geographical project boundary for our alternative	September 2004
4. TNC and ED and industry participants continue discussions and negotiations on key issues of valuation and attempt to reach agreement.	November, 2004
5. TNC and ED and industry participants identify and negotiate trawl and no- trawl zones and recommend their findings to NMFS and the Council	November, 2004
6. The Council approves the trawl and no-trawl zones contingent upon TNC and ED successfully negotiating an option to purchase or contract to purchase at least 50% of the eligible permits in the project area and TNC and ED has proven to establish a line of credit available to close those transactions. The contracts would be required to be consummated within a timely period of the no-trawl zones going into effect.	To be determined

➤ **Identification of Proposed No-Trawl Zones and Designated Trawl Zones**

TNC and ED desire to work with the trawlers and the agencies to jointly develop a benthic habitat map that includes the fisher's first hand knowledge of the seafloor and the best available information from relevant agencies and informed scientists. Constructing a map of this quality could be useful for all parties in determining EFH in the Central Coast of California. TNC has already developed a preliminary benthic habitat map based on depth, substrate type and topographic position (flats, ridges, canyons, slopes) and compiled a GIS database of important biodiversity targets in the project area for our ecoregional scale conservation planning. We would work with NOAA to incorporate information on habitat suitability for groundfish and other data and models developed through the EFH process. TNC and ED propose to use both a site-selection algorithm, such as MARXAN, and expert/fisher input to identify appropriate trawl and no-trawl zones.

Summary

TNC and ED propose to work with the bottom trawling industry and the Council to develop a private buy-out program that is contingent on the establishment of permanent no-trawl zones to protect EFH and other important biodiversity targets in the project area of Central California. This proposal fits well within the context of the groundfish EFH- EIS process and addresses these core components:

- **Designation and Protection of Essential Fish Habitat:** Identification of a large part of the shelf and slope as a no-trawl zone would provide protection for EFH for some life stages of multiple species. Identification of these no-trawl areas would be accomplished in conjunction with the Council and would be based on Habitat Suitability models for groundfish and other data compiled during the EIS, fisher knowledge, and other sources of information that TNC has compiled for our ecoregional planning.
- **Identification of Habitat Areas of Particular Concern (HAPCs):** TNC and ED have compiled data on representative benthic habitats, seamounts, structure-forming invertebrates, canyon heads, estuaries, kelp beds, and many other components of biodiversity and we will work with the Council and fishers to identify HAPCs as core components of the no-trawl zones.
- **Minimization of Economic Impacts:** TNC and ED will use private funds to compensate fishers in a permit and vessel buyout process and will work with the Council to identify trawlable zones that would promote economic sustainability for the remainder of the fleet.
- **Adaptive Management:** The identification of no-trawl zones in a replicated and scientific manner and the implementation of scientific studies and monitoring will provide much –needed data for adaptive management of the groundfish fishery.

Contact Information:

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The Nature Conservancy
111 West Topa Topa Street
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Figure 1



LOIS CAPPS
23RD DISTRICT, CALIFORNIA

1707 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0522
(202) 225-3601

COMMITTEE ON
ENERGY AND COMMERCE

COMMITTEE ON THE BUDGET



Congress of the United States

House of Representatives

September 12, 2004

Agendum C.6.d
Supplemental Public Comment
September 2004

DISTRICT OFFICES:

- 1411 MARSH STREET, SUITE 205
SAN LUIS OBISPO, CA 93401
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OXNARD, CA 93030
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Mr. Donald McIsaac
Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220

Dear Mr. McIsaac:

I am writing regarding the Pacific Council's pending decision to adopt a range of alternatives for the groundfish Essential Fish Habitat Environmental Impact Statement.

The Nature Conservancy of California and Environmental Defense recently had informal discussions with my staff concerning an innovative idea for a private sector purchase of numerous federal bottom-trawling permits and vessels. The acquisition of permits and vessels would be contingent upon the permanent establishment of strategically placed no-trawl zones in federal marine waters extending from Point Conception to Sand Hill Bluff near Davenport, California.

As one of the principal authors of legislation aimed at reducing capacity in the Pacific Coast limited entry groundfish fleet, I would appreciate the Council's analysis of the technical, economic, environmental, and political issues associated with this proposal, consistent with all relevant rules and regulations.

I hope to continue working with the Council to reduce the economic distress in the Pacific groundfish fishery. At the conclusion of the analysis, I would appreciate my staff being briefed on the results. Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in black ink that reads "Lois Capps". The signature is fluid and cursive, with the first letters of "Lois" and "Capps" being capitalized and prominent.

LOIS CAPPS
Member of Congress



**OREGON STATE
UNIVERSITY**

**Dr. Mark A. Hixon
Department of Zoology
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Corvallis, OR 97331-2914**

phone: 541-737-5364 fax: 541-737-0501 e-mail: hixonm@science.oregonstate.edu <http://www.onid.orst.edu/~hixonm/index.htm>

1 September 2004

Dr. Donald McIsaac, Executive Director
Pacific Fisheries Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

re: proposed consideration of Daisy Bank off the central Oregon coast for EFH-EIS

Dear Dr. McIsaac:

I understand that the Pacific Fisheries Management Council has authorized the Groundfish Environmental Impact Statement (EIS) Oversight Committee to develop alternatives for the Essential Fish Habitat (EFH) EIS. Based on my personal experience exploring Heceta, Coquille, Stonewall, and Daisy Banks in research submersibles, I am in a unique position to recommend sites worthy of EFH protection off the coast of Oregon. Although I believe that a substantial network of marine protected areas along the entire West Coast (especially in the vicinity of Heceta Bank) will ultimately be required to replenish and sustain our ground-fisheries (see Murray et al. 1999, Berkeley et al. 2004), my intent at this time is to propose only what I believe is *the* top priority site off Oregon: Daisy Bank (aka Nelson Island). In this letter, I summarize a description of this site, its EFH value, possible threats, and proposed level of protection, including caveats.

Site Description

Attached are charts, an echogram, an artist's image, and multibeam sonar images of Daisy Bank (Figures 1-6). Located on the continental slope 30mi due west of Newport, Oregon, Daisy Bank is a pair of flat-topped seamounts, each less than 5km in diameter. Shaped like a southwestern butte or mesa, the main seamount extends abruptly from the surrounding slope (several hundred meters deep) to within 125m of the sea surface. The steep slopes of the main seamount are rocky near the summit and muddy near the base, and the summit "caldera" is filled with large boulders (Hixon et al. 1991). (For general reviews of seamount ecology and fisheries, see Koslow 1997 and Rogers 1994.)

EFH Value of Daisy Bank

I suggest Daisy Bank as the top priority for EFH protection off Oregon for five reasons:

(1) it appears to be an important nursery habitat for rockfishes, (2) it supports (or at least, supported at one time) a high density of large lingcod, (3) it supports fields of exceptionally large deepsea sponges, (4) it comprises a valuable research site, and (5) it is small and well offshore, so its protection will presumably have relatively little impact on local fisheries.

(1) **Rockfish Nursery Habitat:** During 1987-1991, a group of scientists from Oregon State University and the Oregon Department of Fish and Wildlife used the manned submersibles *Mermaid* and *Delta* to run benthic transects at four major rocky banks off Oregon: Heceta (1987-1990), Coquille (1990), Stonewall (1991), and Daisy (1990) (Hixon et al. 1991, Hixon et al. 1992). Of these sites, Daisy supported the highest density of juvenile rockfish: >6,000 fish per hectare in 1990 (compared to the next highest density of about 200 fish per hectare at Heceta Bank that same year). We were unable to identify the juvenile rockfish to species because of their small size and our inability to capture specimens with the sub we used. The four dominant rockfishes we could identify to species were (in order of decreasing abundance): pygmy (*Sebastes wilsoni*), sharpchin (*S. zacentrus*), rosethorn (*S. helvomaculatus*), and greenstriped (*S. elongates*). Based on color and behavior, we believe that most of the juvenile rockfish we encountered were pygmies and sharpchins. Although these species are not commercially important, it is clear from past commercial catches that Daisy Bank had been highly productive of widow rockfish (*S. entomelas*) before the collapse of that stock. Widows and other midwater rockfishes were not detected in our bottom-oriented transects, so we have no data on the status of midwater species at this site (and no data on any species subsequent to our 1990 surveys). However, high density of juvenile rockfish in general suggests that Daisy Bank may provide an important nursery habitat for these species. It is also possible, yet untested, that there is local retention of larvae spawned from Daisy Bank, making the site self-replenishing.

(2) **Large and Abundant Lingcod:** At the time of our submersible surveys in 1990 (Hixon et al. 1991), Daisy Bank supported the highest density of lingcod compared to Heceta and Coquille Banks (4.83 fish per transect vs. 0.92 and 4.75 fish per transect, respectively). Perhaps more importantly from the standpoint of egg production, lingcod were significantly larger at Daisy Bank than at Heceta and Coquille Banks (mean TL = 0.8 meters vs. 0.7 and 0.6 meters, respectively). It appears that Daisy Bank offers high-quality habitat and prey abundance for lingcod, consistent with the untested possibility that this site serves as an "egg factory" that seeds the region with lingcod larvae.

(3) **Fields of Large Sponges:** Visually, Daisy Bank was the most spectacular of all four banks we surveyed because only at this site did we encounter fields of large white sponges, some over a meter high (Figure 7). Based only on photography (because it was impossible to gather specimens), we tentatively identified five taxa of sponges: a foliose sponge *Scypha* / *Iophon* (Calcarea), a vase sponge *Aprocallistes*-like (Hexactinellida), a barrel sponge *Staurocalyptus*-like (Hexactinellida), a shelf sponge Pachastrellidae-like (Demospongia), and an unknown white fenestrate sponge. Fishes were strongly associated with these sponge fields, which probably provided shelter from predation and perhaps habitat for invertebrates eaten by fish.

(4) **Research Value:** As a secondary value, Daisy Bank comprises a unique, largely unexplored, and relatively undisturbed seamount ecosystem lying a short distance from Oregon State University's Hatfield Marine Science Center and associated NOAA Fisheries lab. The opportunity for studying locally isolated fish populations, the ecology of deepsea sponges, and the natural history of seamounts in general is tremendous. Grant funds for basic research (vs. fisheries research per se) are often contingent on studying systems that undergo limited human impact. (Note that I have no plans to study Daisy Bank further, so there is no conflict of interest in this proposal.)

(5) **Presumably Low Fishery Impact of Protection:** A 10km × 10km square would easily include all of Daisy Bank. I understand that this site is seldom visited by recreational fishermen because it is 30mi offshore. My interviews with several commercial fishermen indicated that, following the collapse of the widow rockfish population at this site, Daisy Bank is currently fished to a limited extent by bottom long-liners targeting halibut and sablefish along the slopes of the bank. At this writing, I have not found those who presently fish at this site, so my conclusions regarding relatively low fishery impact are both tentative and presumptive.

Possible Threats to Daisy Bank

The sponge fields at the summit of Daisy Bank are potentially susceptible to damage from any gear that impacts the seafloor, including fishing gear and anchors (reviews by Auster and Langton 1999, Collie et al. 2000, see also Chuenpagdee et al. 2003). The close association of fishes and sponge fields suggests that the loss of the sponges would result in declines in the local fish populations that could potentially have adverse effects on regional fisheries.

Proposed Level of Protection

The minimum level of protection I recommend is the prohibition of bottom contact, including fishing gear and anchors. Given the small area comprising Daisy Bank, as well as probable linkages between the seafloor community and midwater rockfishes, full protection seems prudent.

Caveats

Because there are insufficient data to assess the regional fisheries value of Daisy Bank, there is no way at present to "prove" that protecting this site would replenish and sustain fisheries. Rather, I see Daisy Bank as Oregon's version of Alaska's Edgecombe Pinnacles, which are protected because the high local density of lingcod was seen as potentially important to replenishing regional populations and because the site could have been fished-down easily with concentrated effort (<http://www.cf.adfg.state.ak.us/region1/finfish/grndfish/pinnacles/pinnacles.php>). Aside from fisheries per se, from the perspective of natural heritage value and Habitat Areas of Particular Concern (HAPC), Daisy Bank is a unique geological structure that supports a unique ecosystem within our region. As such, I believe that this bank—indeed, all the few seamounts along the West Coast—deserve special consideration for EFH and HAPC protection.

Sincerely,



Mark Hixon
Professor

Literature Cited

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- Berkeley, S. A., M. A. Hixon, R. J. Larson, and M. S. Love. 2004. Fisheries sustainability via protection of age structure and spatial distribution of fish populations. *Fisheries* 29(8):23–32.
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- Collie, J. S., S. J. Hall, M. J. Kaiser, and I. R. Poiner. 2000. A quantitative analysis of fishing impacts on shelf-sea benthos. *Journal of Animal Ecology* 69:785-798.
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- Rogers, A. D. 1994. The biology of seamounts. *Advances in Marine Biology* 30:305–349.

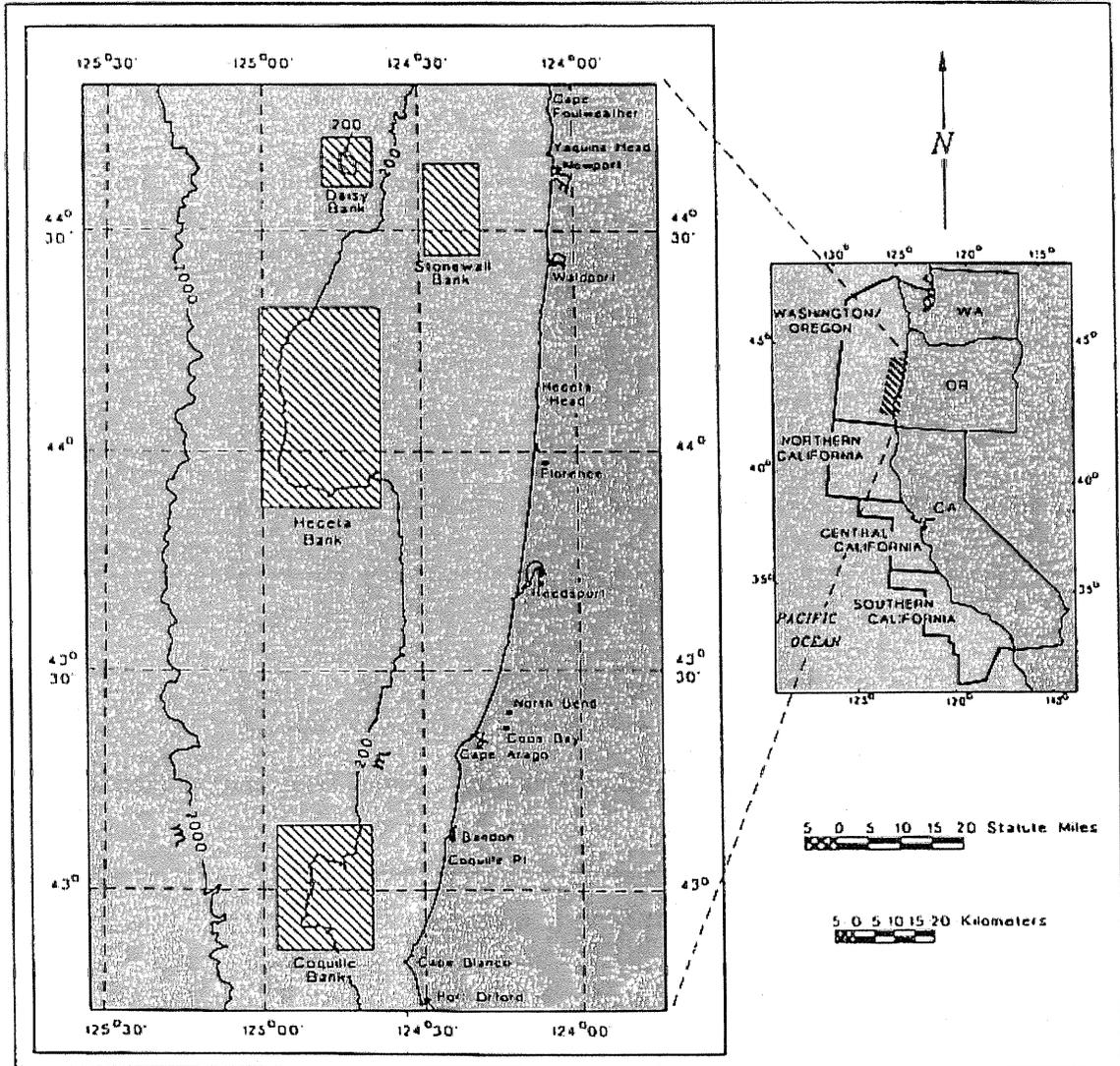


Figure 1. Four rocky banks off the central Oregon coast surveyed by manned submersibles from 1987 to 1991 (from Hixon et al. 1991).

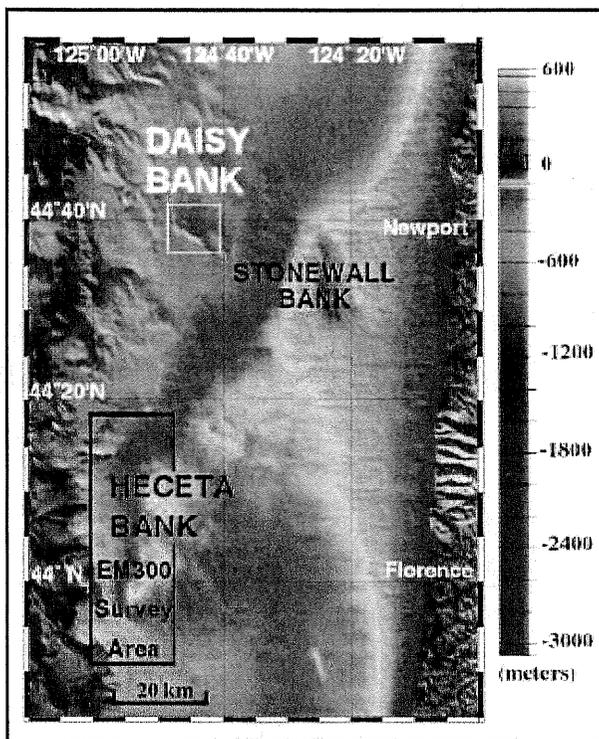


Figure 2. Bathymetry in the region of Daisy Bank off the central Oregon coast (courtesy of NOAA PMEL).

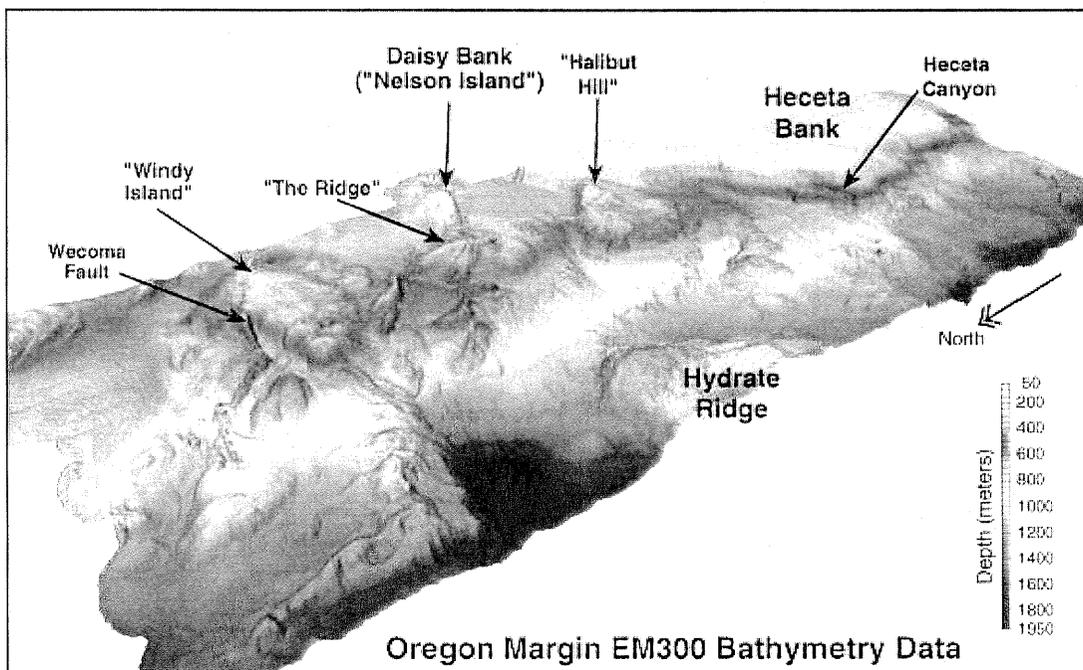


Figure 3. Multi-beam sonar image of the region of Daisy Bank (courtesy of NOAA Fisheries, NOAA Office of Ocean Exploration, NOAA PMEL).

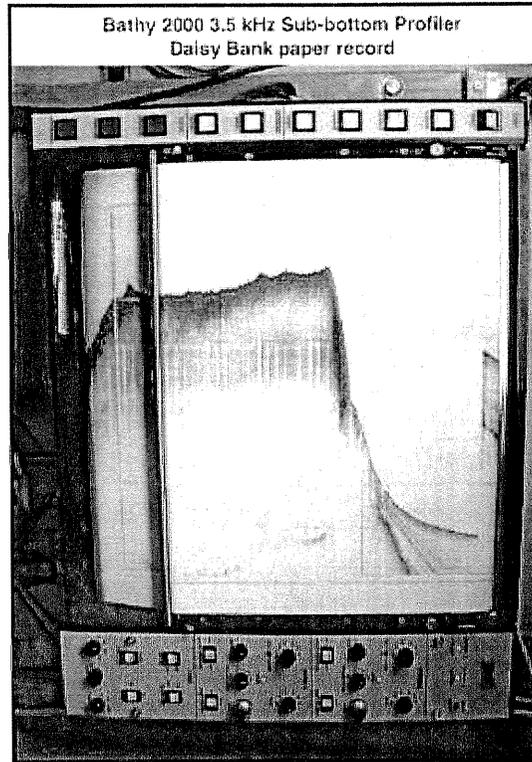
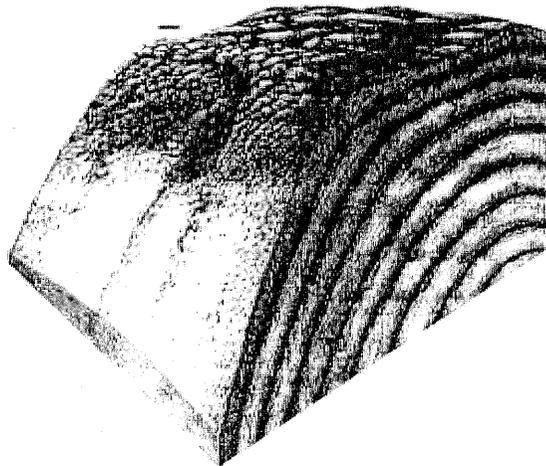


Figure 4. Echogram of main seamount at Daisy Bank (courtesy of NOAA Fisheries, NOAA Office of Ocean Exploration, NOAA PMEL, Oregon State University).



Daisy Bank

Figure 5. Artist's image of the edge of the summit of the main seamount at Daisy Bank, derived from videotape and still photos (from Hixon et al. 1991). Scale bar is 5m long (the length of the research submersible).

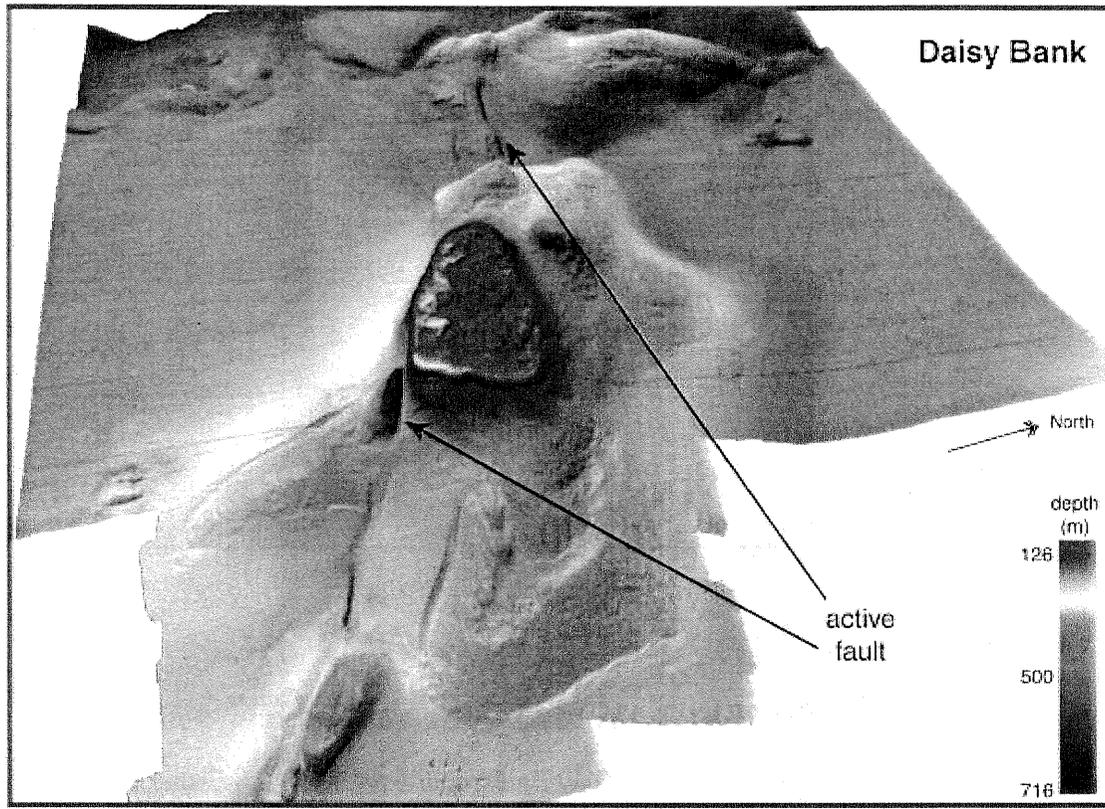


Figure 6. Multi-beam sonar image of Daisy Bank (courtesy of NOAA Fisheries, NOAA Office of Ocean Exploration, NOAA PMEL, Oregon State University).

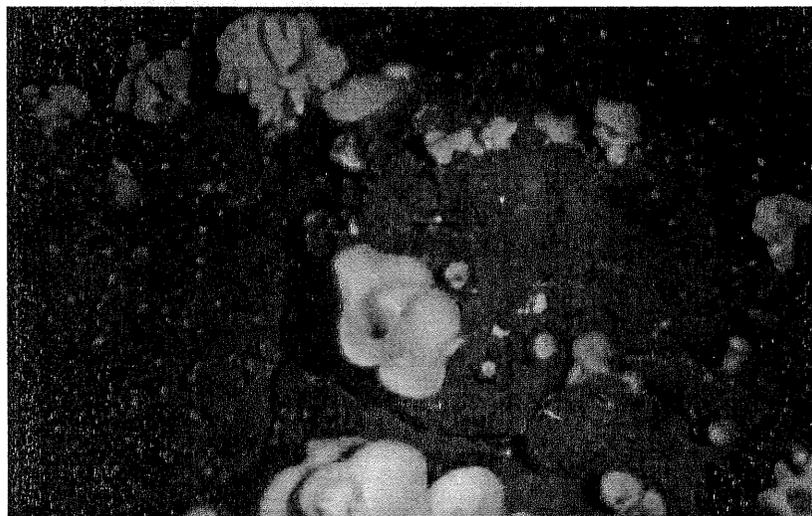


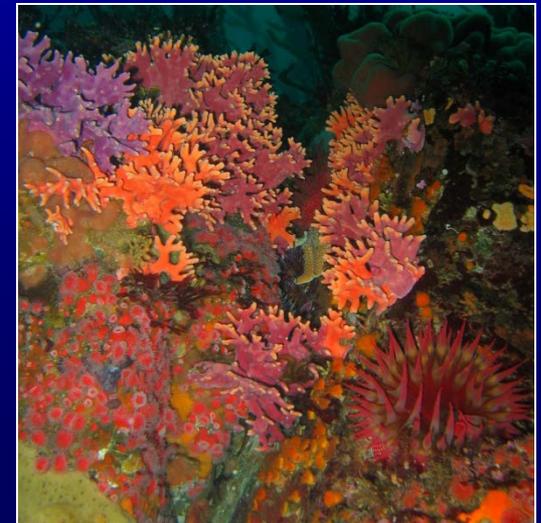
Figure 7. Large white sponges photographed at Daisy Bank in 1990.

Magnuson Stevens Act requires:

- Describe and identify essential fish habitat
- Minimize to the extent practicable adverse effects on essential fish habitat caused by fishing; and
- Identify other actions to encourage the conservation and enhancement of such habitat

EFH is defined as "waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity."

16 U.S.C. 1802(10)



Courtesy Geoff Shester

4 Criteria for Priority EFH

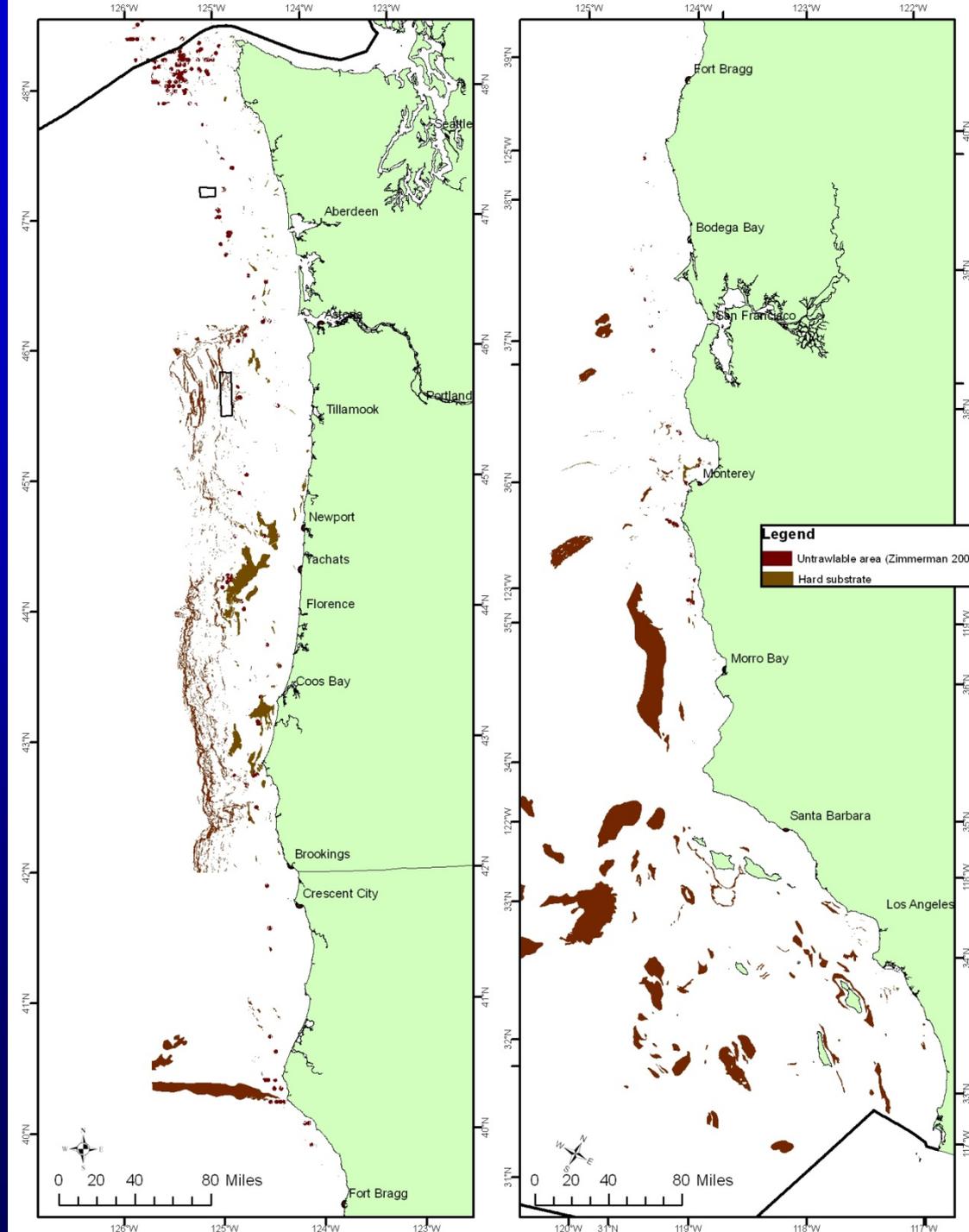
1. Hard substrate (NOAA Habitat Database)
2. Untrawlable areas (Zimmerman 2003)
3. 20% HSP for overfished groundfish
4. High density biogenic habitat

Identify high relief substrate and sensitive habitat

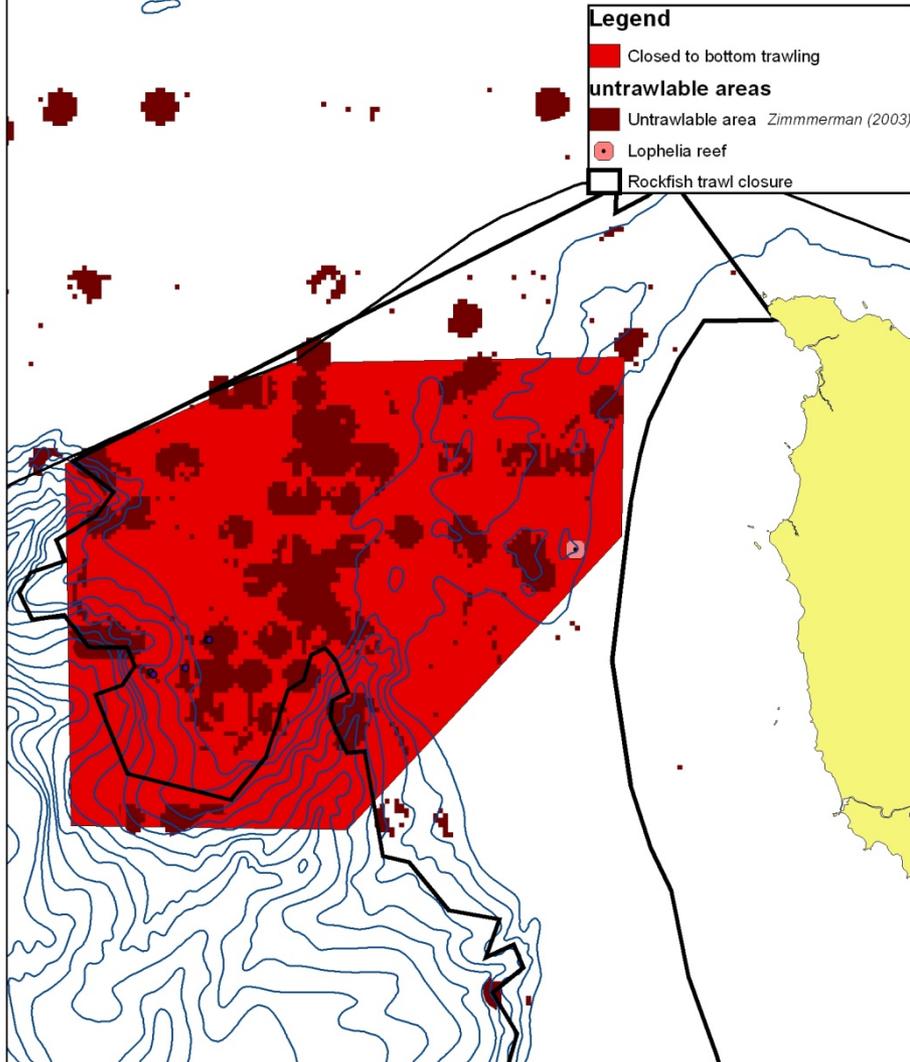
"Sensitive to fishing impacts"

- ▶ *NRC (2002) report*
- ▶ *EFH Habitat Sensitivity Matrix*

Source: NOAA Consolidated GIS Data Physical and Biological Habitat CD, Zimmerman (2003)



DRAFT Not for Distribution



Source: Zimmerman 2003

Identify Complex Hard Substrate- "Untrawlable Areas"

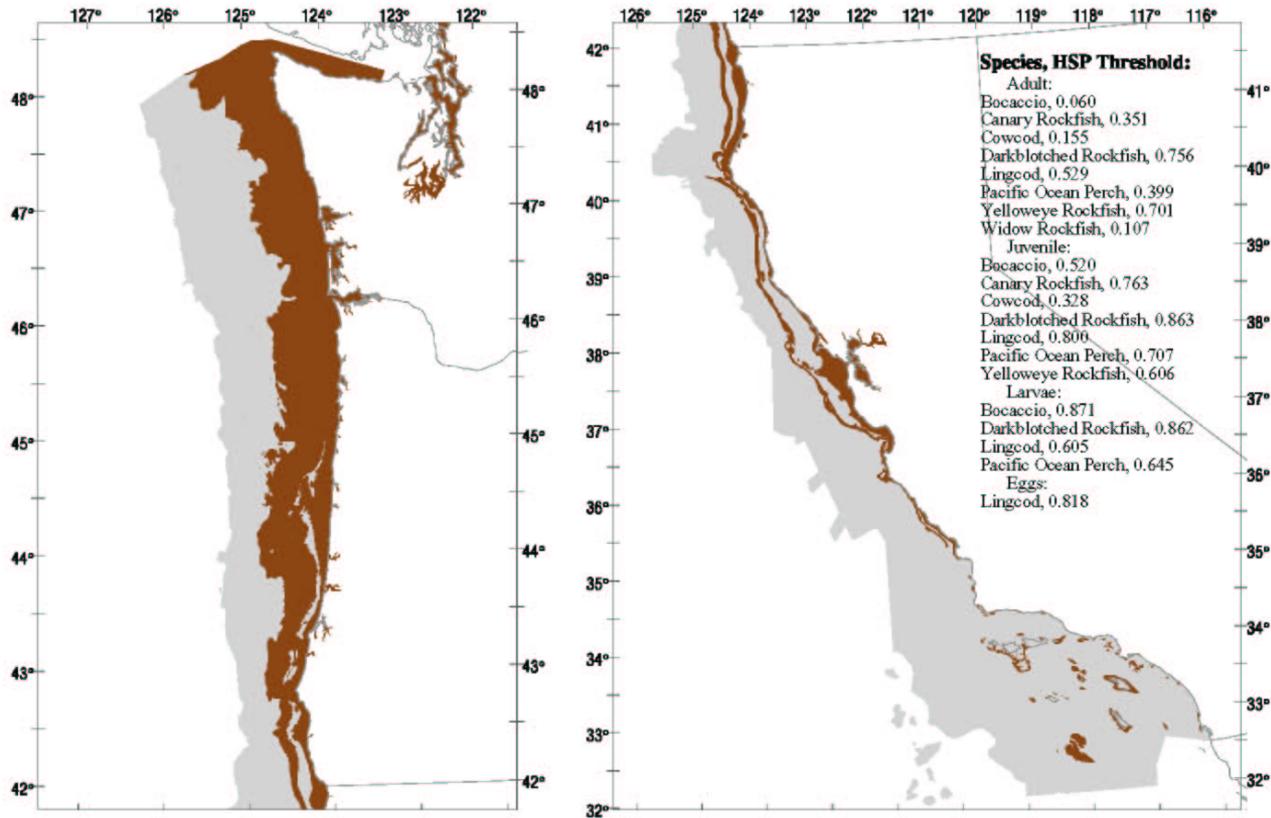


China rockfish (*Sebastes nebulosus*) are common nearshore fish that inhabit rocky reefs and kelp beds of the Sanctuary. (photo: Steve Fisher)

Identify EFH for Overfished Groundfish

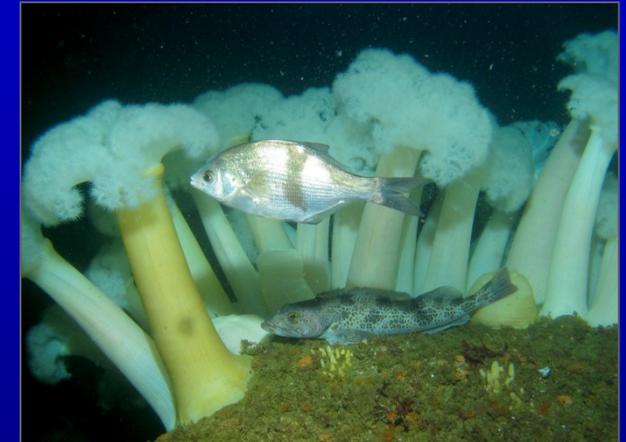
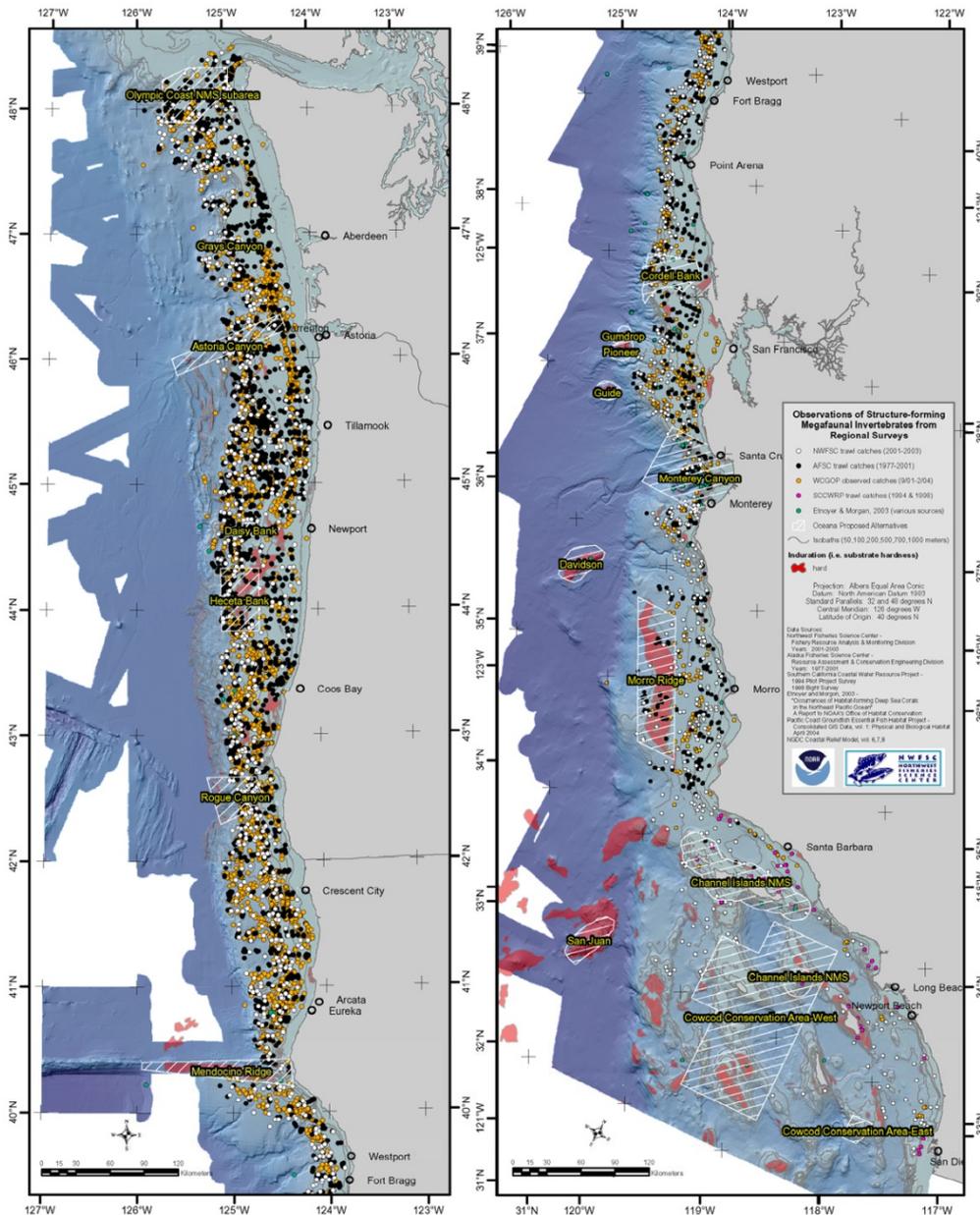
Example: 20% Highest Suitability Probability

Top 20% of HSP Area for Each Overfished Species, Combined - All Lifestages



Habitat Suitability Probability data output from MRAG/University of Reading EFH model. Cartography by Terralogic GIS, map date: August 03, 2004, DRAFT

Identify Representative High Density Clusters of Biogenic Habitat



Metridium field in Monterey Bay, Geoff Shester

- NMFS Trawl Survey Data
- West Coast Groundfish Observer Program
- MCBI Deep Sea Coral Records (Smithsonian, Univ.)
- Independent dives, etc.

Source: NOAA – Dr. Elizabeth Clark

Corals, sponges and other living seafloor substrates provide high quality habitat for a variety of species

- Rockfish
- Mackerel
- Crab
- Shrimp
- Cod
- Sea Stars
- Snails
- Sponges
- Anemones
- Octopus



Juvenile rockfish in bryozoan habitat, Monterey Bay

courtesy Geoff Shester

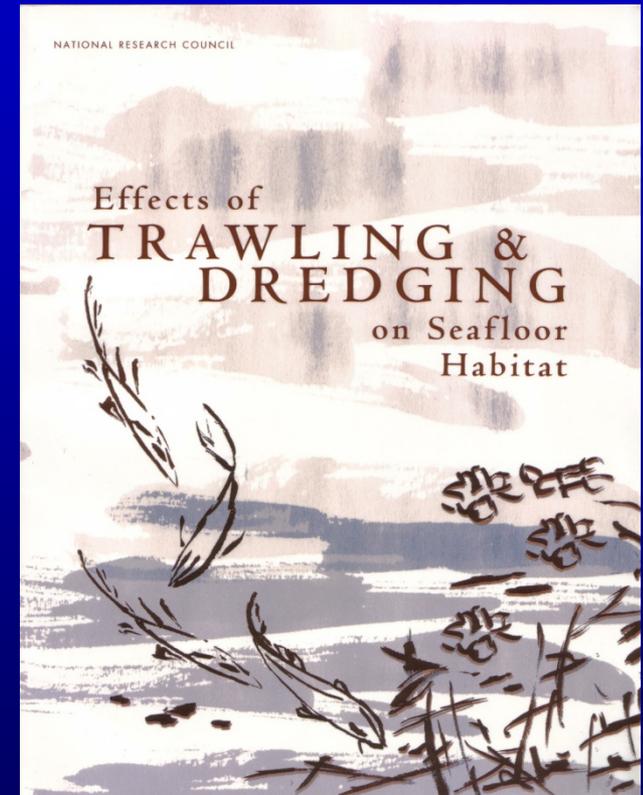
- Increased habitat complexity
- Shelter and security
- Protection from predators
- Nurseries for juveniles
- Feeding areas
- Spawning grounds

National Academy of Science Report

Trawling effects on the seafloor

National Research Council 2002

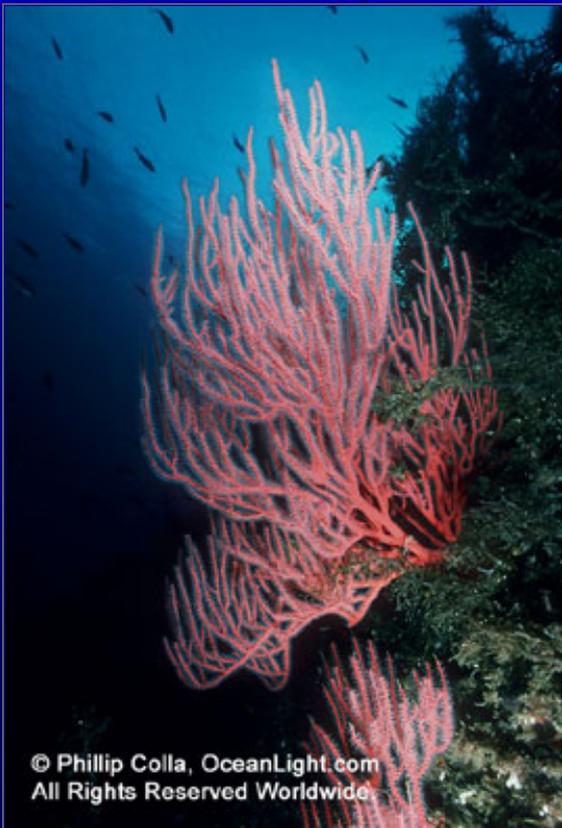
- **Bottom trawling reduces the complexity, productivity, and biodiversity of benthic habitats most severely in areas of coral and sponge.**
- **Three management recommendations**
 - **Effort Reduction**
 - **Closures**
 - **Gear Modifications**



International Scientist letter

February 2004

More than 1,100 Scientists from around the world recently signed a statement on Protecting the World's Deep-sea Coral and Sponge Ecosystems



“In short, based on current knowledge, deep-sea coral and sponge communities appear to be as important to the biodiversity of the oceans and the sustainability of fisheries as their analogues in shallow tropical seas.”

Center for Independent Experts

August 2004

“In regards to local habitats the destruction of corals and sponges with their long recovery times are of particular concern. In keeping with the precautionary approach, these should receive special consideration.”

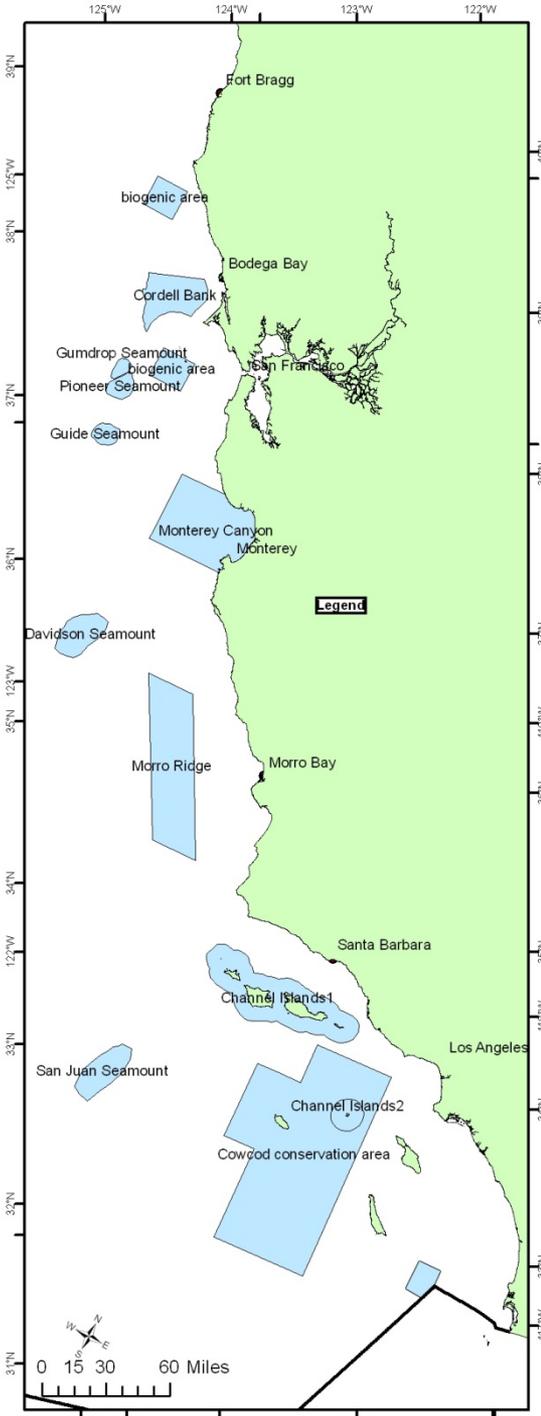
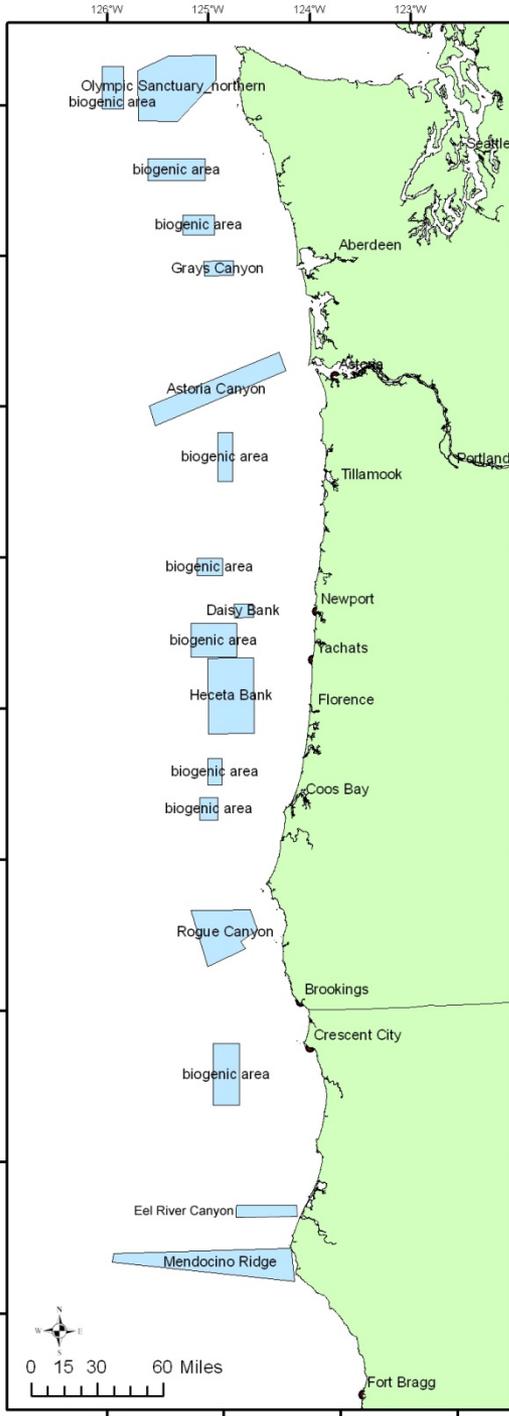
CIE Summary Report at 21.

Identify Specific Areas:

- Existing Designation
- Scientific Literature
- Overlaps of datasets



Cordell Bank Courtesy NOAA



A Comprehensive Approach

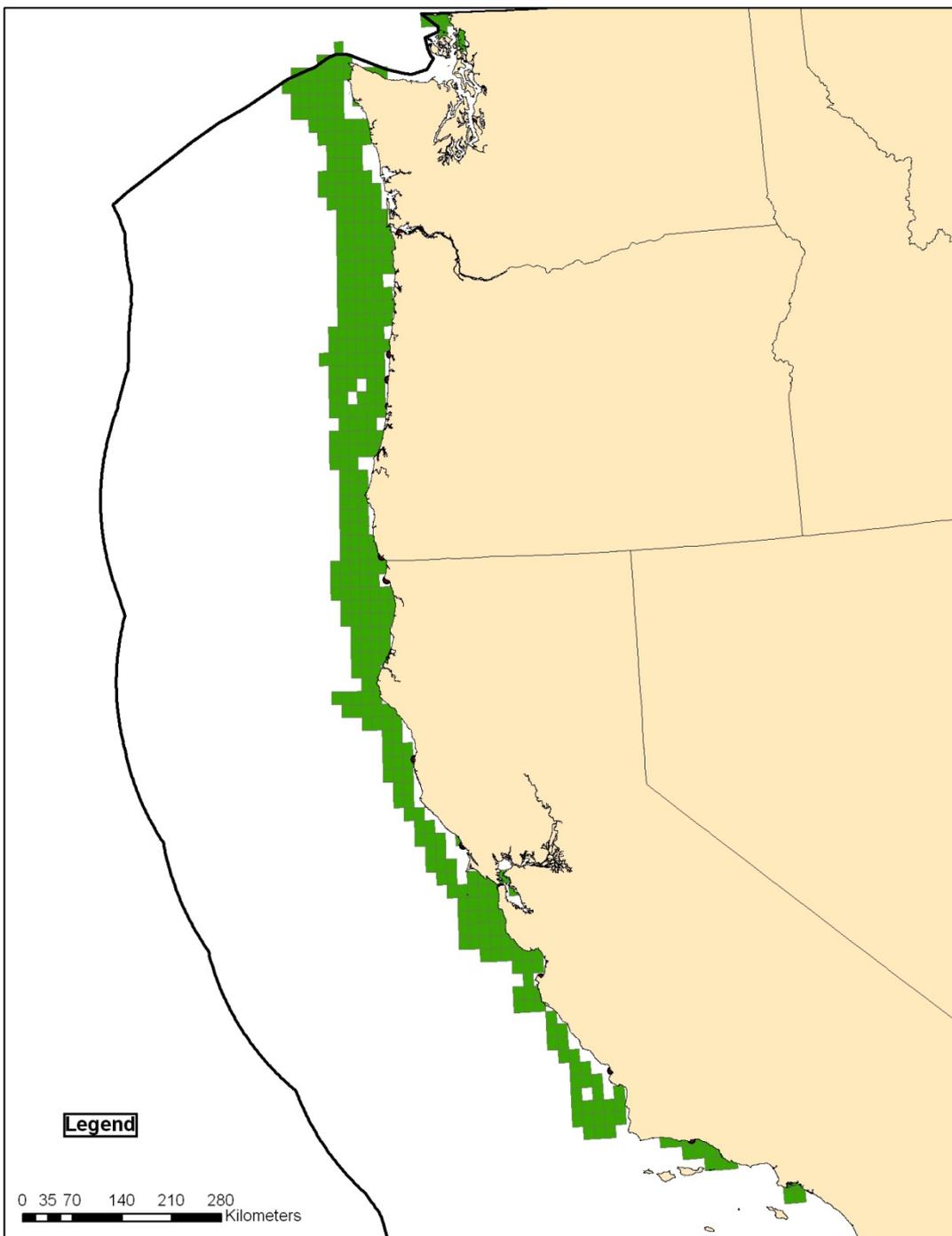
Goal: Protect habitat while maintaining vibrant fisheries

- Identify and “Freeze” bottom trawl footprint (i.e. top 95%)
- Prohibit bottom trawling where footprint overlaps with “priority areas”
 - Protect from bottom contact on seamounts
- Establish bycatch caps for habitat-forming megafauna
- Restrict trawl footrope
- Conduct comprehensive research
 - seafloor mapping
 - gear impacts research
 - ecological function, etc.
- Require comprehensive monitoring
 - onboard observers (invertebrate bycatch)
 - VMS
 - electronic logbooks
- Adaptive management by the Council



Trawl Footprint 2000-2003 408 blocks 100%

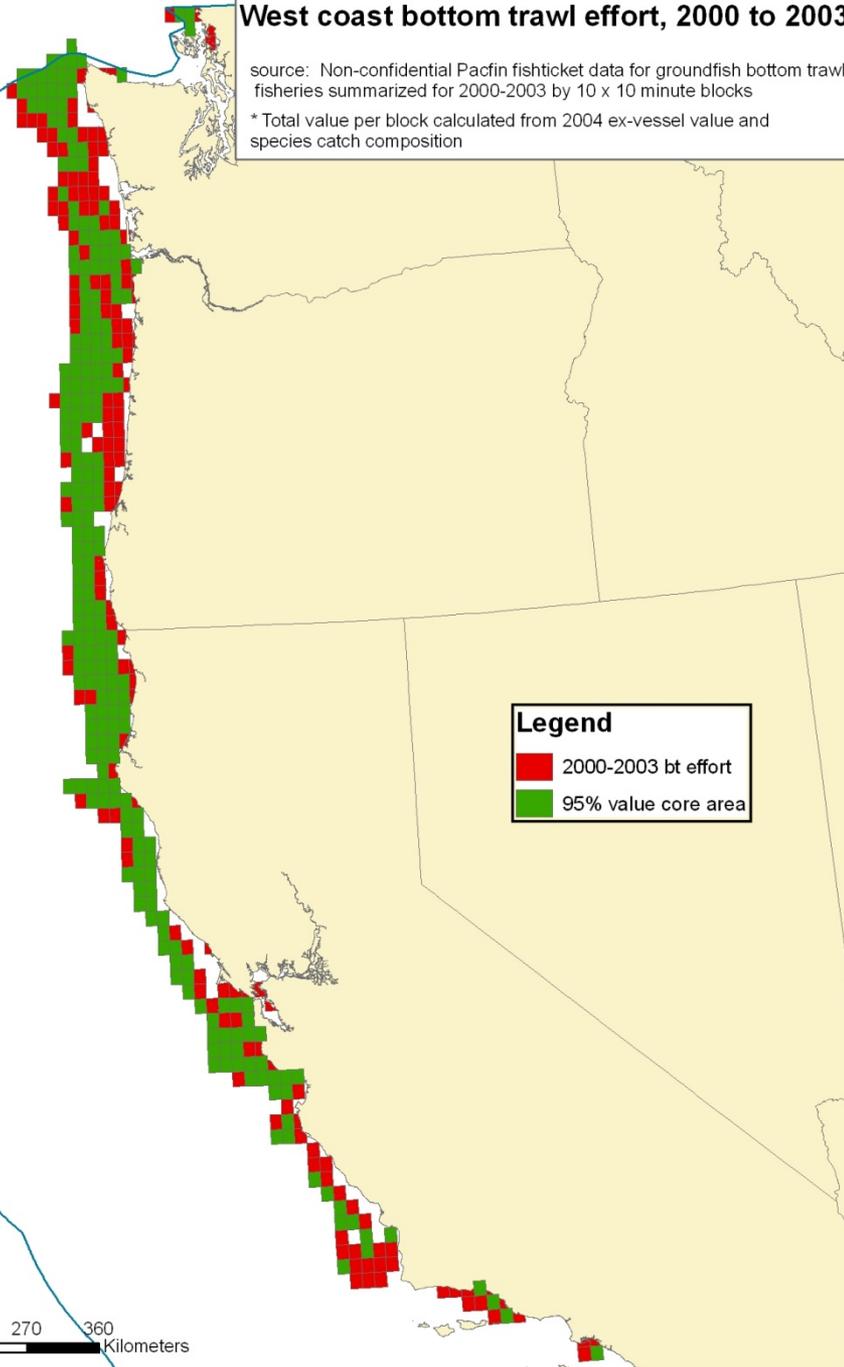
(Excluding confidential data)



West coast bottom trawl effort, 2000 to 2003

source: Non-confidential Pacfin fishticket data for groundfish bottom trawl fisheries summarized for 2000-2003 by 10 x 10 minute blocks

* Total value per block calculated from 2004 ex-vessel value and species catch composition



Trawl Footprint

2000-2003

240 blocks

95%

(Excluding confidential data)

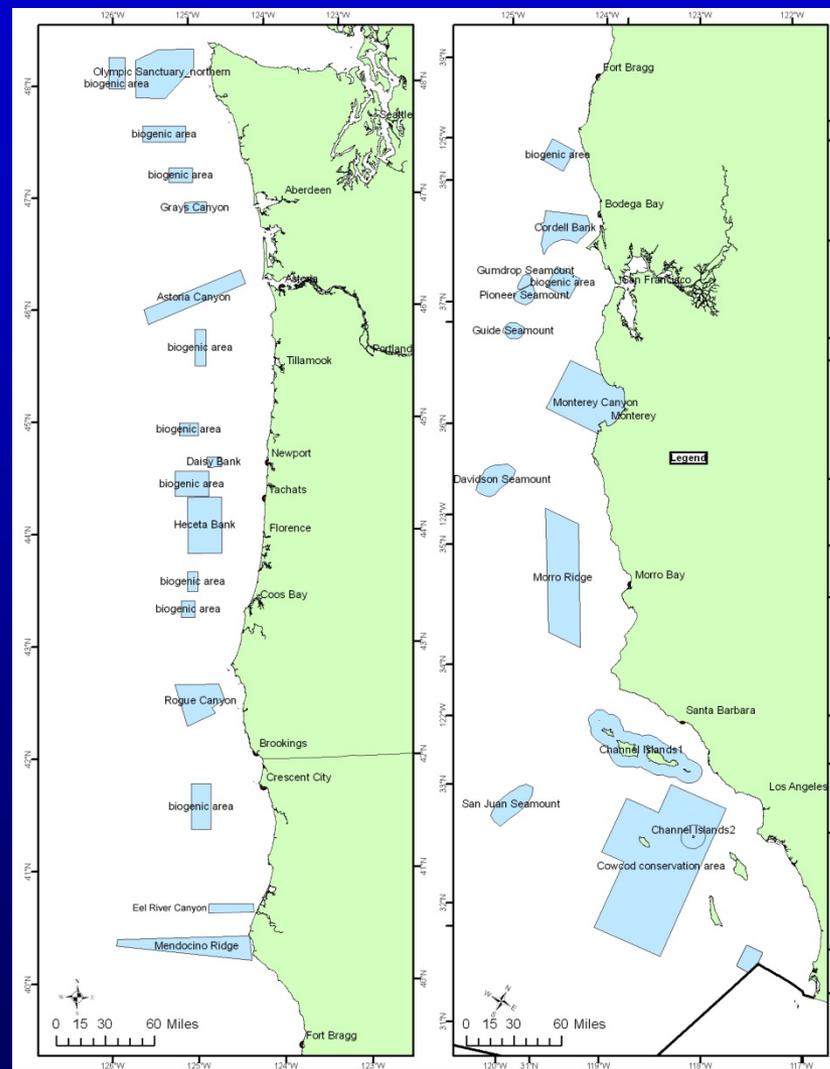
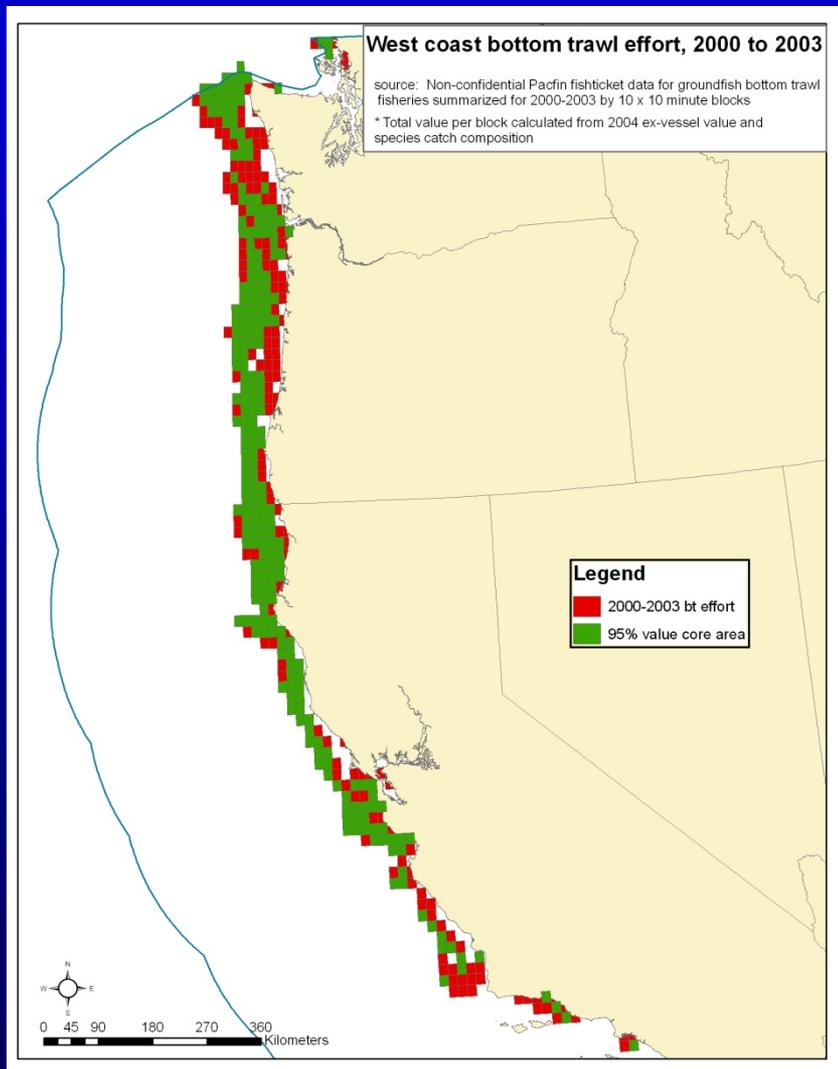
Objectives:

- ▶ Prevent expansion to new areas
- ▶ Protect untrawled areas
- ▶ Maintain vibrant fisheries, high value areas

Trawl Footprint

+

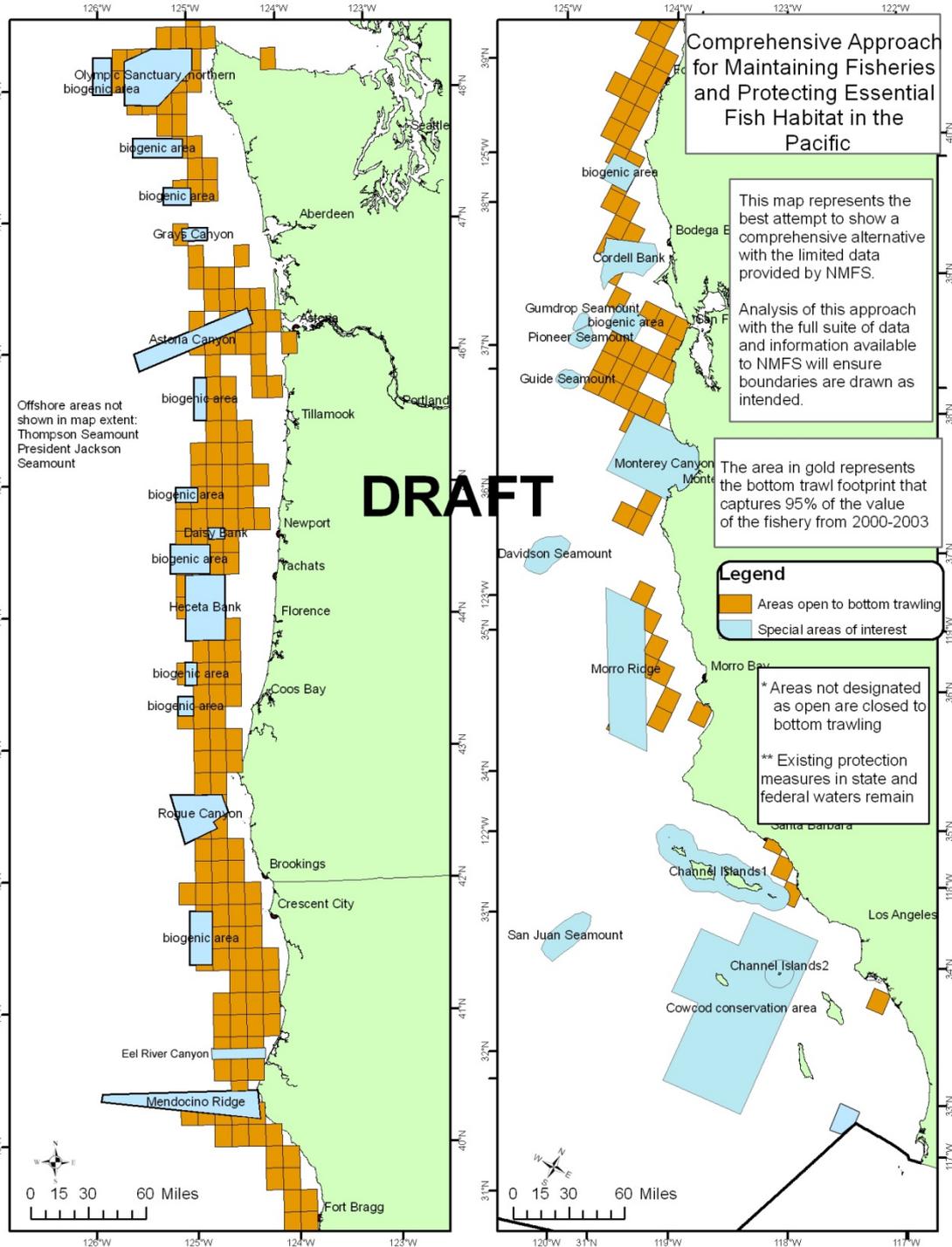
Priority EFH Areas



Preliminary Comprehensive Alternative

Areas in gold are open to bottom trawling, all other areas closed to bottom trawling

Source: Oceana



Making It Practicable

- Use confidential data to ensure boundaries are drawn as intended
 - Address any potential disproportionate localized impacts
- Analyze habitat types included in priority areas
- Assess socio-cultural-economic impacts
- Provide recommendations to improve practicability
 - Transition programs for bottom trawl fleet
 - Enforcement
- Explore economic analysis using catch values not trawl hours to the maximum extent possible

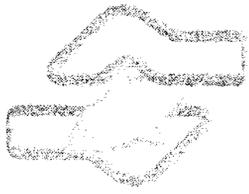
Request of Council

- **Advise NMFS to analyze this preliminary approach to develop a comprehensive, practicable alternative for inclusion in EFH DEIS**
- **Why?**
- **In order to have a reasonable basis for an informed decision**

Biogenic Habitat of Monterey Bay



Courtesy Geoff Shester



UNITED ANGLERS
of Southern California

5948 Warner Avenue
Huntington Beach, CA 92649
714 840-0227 TEL
714 840-3146 FAX

September 14 , 2004

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place
Portland, OR 97220

RE: Alternatives for Essential Fish Habitat for the Groundfish Fishery

Dear Dr. McIsaac:

United Anglers of Southern California is the state's largest association of recreational anglers. We represent approximately 50,000 affiliated sportfishermen throughout California dedicated to ensuring quality fishing today and tomorrow. We are strongly supportive of the council taking effective steps to ensure that essential fish habitat is adequately protected to ensure a high productivity fishery for the future.

UASC believes it is extremely important to ensure important micro-habitats are not destroyed as they provide the basis for the fisheries for the future. UASC fears that perhaps too great of a focus may be placed on large structural features and "representative habitats".

We recognize the importance of large vertical features and strongly support not allowing destructive fishing gear to destroy it, however, less vertical habitats are also important to the productivity of the groundfish fishery. Horizontal habitats provide important physical shelter for groundfish (some are commonly called "cottage cheese bottoms"). Horizontal bottoms provide areas of stable muds and exposures of hard substrate that support important biogenic lifeforms that provide important shelter for groundfish.

UASC is also concerned about bottom trawling over soft bottoms that contain loosely packed sediments, particularly when such trawling is conducted near important biogenic habitats such as kelp and other light dependent plant life and filter feeding animals. Water itself is important habitat and the council should ensure that steps are taken to ensure that water quality is adequate in essential fish habitat. This is especially a concern in areas near the coast where pollutants may have settled on the bottoms and the action of trawl gear continually resuspends large quantities of these pollutants greatly amplifying the impacts of such pollutants. Attached is a study and analysis by Dr. Dallas Weaver that estimates typical trawl gear with a 45' spread resuspends approximately 200 tons an hour of bottom sediments.

Groundfish is not only an important fishery, but many species of groundfish provide important forage for other predators, including groundfish. It is widely believed that many species of groundfish depend upon small to large structures for shelter from predation during certain lifestages, and later depend upon these same structures as camouflage for ambushing prey; therefore protecting essential fish habitat is crucial for groundfish fisheries to be as productive as they can be. Protection cannot be hit and miss and cover 25% of habitats as that

has the possibility of limiting the productivity of groundfish to 25% of its potential productivity. Instead habitats need to be protected to make as productive as possible all essential fish habitat or provide rationales why fisheries or the public will be better off with less.

Additionally, UASC is concerned about modifications to essential fish habitat that is temporary while area extensive. Some habitats may recover from bottom trawl activities in less than a year, however, if that habitat is only disturbed naturally to the same degree once a year, it is possible that the addition of one additional significant disturbance can cut the productivity of that area in half or more if the disturbance occurs during an important life cycle that like disturbances don't normally occur in.

UASC listens to the trawl fishermen that talk about the continued productivity of their fishery and say "exactly". When the science is actually consulted, groundfish fisheries, particularly sebastes fisheries, have demonstrated continued and persistent declines in abundance despite the best efforts of population biologists. Eventually, we believe that population biologists will be effective in stopping and perhaps slightly reversing some of the negative trends, however, we do not believe that fisheries for sebastes will be as productive as they can be until much better protection of all essential fish habitat is achieved.

UASC recognizes the socio-economic challenge of effective habitat management. We are supportive of the comprehensive approach conceptually laid out by NMFS's modelers. We believe a model of fish habitats and fishery impacts on a EFH wide scale represents by far a preferred approach to bandaid solutions of trawl closures of representative habitats as an end objective, though we recognize that some bandaids are very much needed now. Groundfish fisheries worldwide are economically suffering from a failure to provide widespread protection of habitat. Socio-economic pain is inevitable and hopefully it does not have to be permanent.

UASC supports the alternative presented by Oceana as a measure to protect what has been identified as the highest value habitats with one addition, a closure to trawls surrounding the Horseshoe Kelp area off the Port of Los Angeles. We also support the HAPC alternative for oil rigs presented by Dr. Milton Love. We also encourage the council to consider and support programs to phase out and/or reduce bottom trawling particularly in shelf and nearshore habitats and provide strong incentives for gear improvements and transitions to more sustainable gears.

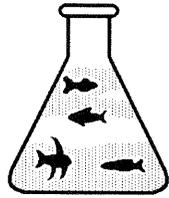
Sincerely,



Bob Osborn, Fishery Consultant United Anglers of Southern California



Tom Raftican
President, United Anglers of Southern California



Scientific Hatcheries

Draft – Evolving Document

5/9/04

Notes: On Remote Impacts of Soft Bottom Trawling on Kelp Forests

A REPORT For United Anglers of Southern California

The impact of bottom trawling on the structure and composition of bottom communities has been extensively studied and found to have major ecological impacts[1]. The extent of the impacts and rate of recovery depends upon the details of the bottom in question and the amount of natural disturbance experienced[2]. Areas which are highly disturbed by natural means recover rapidly from a trawling disturbance. However, areas with soft or mud bottoms in waters deep enough to be undisturbed by storm events would be expected to be slow to recover.

Many impacted species associated with soft bottoms and trawling by-catch are neither of commercial significance nor of great popular interest. Therefore, the decision to allow bottom trawling for taking commercially valuable marine species has met with little resistance. The lack of opposition to bottom trawling is due to the assumption of a low value for the natural bottom ecology. There is an implicit assumption that bottom trawling has no impact on other marine ecological systems that are considered high value habitats or essential marine habitats.

Along the California coast, there are extensive kelp forests, which are essential habitat for many species of fish, invertebrates, birds and mammals. These communities are considered extremely important socially and commercially and are of great conservation significance. However, they

have been declining in recent decades along some areas of the California coastline, but have been doing well the last few years in other areas. The question of whether commercial soft bottom trawling activities can have an impact on these coastal kelp forest communities is critically important and must be addressed.

Kelp forest communities consist of several species of macroalga (for example, *Macrocystis pyrifera*, and *Pteryogolphora californica*), which have a complex life history that may make them susceptible to impacts from bottom trawling. The giant kelp most commonly recognized by the general public (*Macrocystis pyrifera*), is one of the most important kelp forest species and has a complex reproductive cycle. This plant produces free-swimming microscopic sexual stages (gametophytes), which are released into the water column. These mate with other gametophytes and settle on the bottom to eventually form new adult plants. Both the microscopic sexual stages (gametophytes) and the early stages of the new macroscopic (embryonic Sporophyte) plant depend upon sunlight reaching the bottom for the energy supply to live and grow. Light limitations in bottom waters can prevent reproduction in these plants. These kelp live upwards of ten years. Therefore, impacts of reproductive failure may not be witnessed until a decade after the initial impact. Bottom trawling in muddy areas, even if these areas are remote from coastal kelp, could cause decreases in light levels sufficient to prevent reproduction of the major kelp species and could have profound impacts on the entire kelp forest community.

Bottom trawl fishing utilizes a large open mouth net, which is scraped along the bottom along with heavy chains that are designed to disturb the bottom and catch marine life in the nets. When a trawl passes over the bottom, it creates a resuspension plume. Some of the materials in this resuspension plume are small particles, like clays and organic materials, which do not immediately fall back to the bottom and take a very long time to resettle. This plume of fine suspended solids then drifts with the current and is dispersed both vertically and horizontally in the water column as it slowly moves and slowly settles. Similar types of disturbances have been examined in cases such as dredge disposal, where large masses of waste are dumped onto the bottom, releasing a similar plume. The difference, however, is profound. In the case of dredge dumping, the plume is released as a point source and disperses from a single locale. In the case of bottom trawling, however, the source of the plume is a line source where the plume disperses along a larger geographic distance. Those with experience in dispersion of

materials know that a line source (i.e. bottom trawling) can have impacts much further away than a point source, such as dredge disposal operation, due to the physics of dispersion. Therefore, it is predicted that plumes produced from bottom trawling can drift very long distances, possibly to coastal regions. The primary concern for kelp forest impact is light limitation on the bottom, which is impacted by the total number of particles suspended in the water column, not the vertical distribution of those particles. This means that the plume can be tracked on its horizontal path along the bottom to deduce its impact on bottom light levels in coastal waters.

The impact of turbidity on the reproduction of kelp was used to justify the very expensive mitigation required at the San Onofre Nuclear Generating Station. The discharge from the plant stirs up bottom sediment and creates turbidity from this stirring action. The Coastal Commission concluded that this turbidity negatively impacted the neighboring kelp forests.

Currents in soft bottom areas are very slow, because lack of strong current is what allows a soft bottom containing fine sediments to exist. However, there must be sufficient current to transport enough oxygen to the bottom sediment to maintain aerobic life, otherwise there would be no economically valuable life and nothing to be captured in trawling nets.

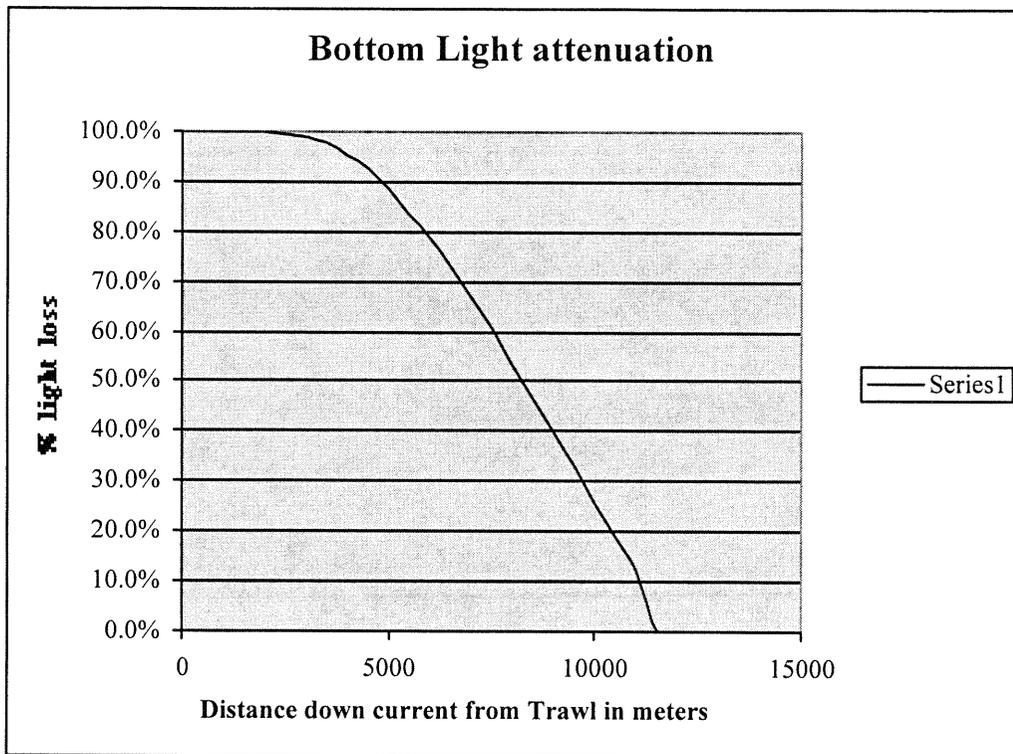
Along the California coast we often have situations of upwelling where the wind coming down the coast creates an outward moving surface current (interaction of wind, water and rotation of the earth) which creates a corresponding shoreward moving bottom current. This slow shoreward current could move the re-suspension plume from where the trawler created it to the kelp area.

The questions then become how far away from the trawler plume source would you see an impact on bottom light levels, and how significant would the impact be and for how long. The answers to those questions depend upon a number of factors: the specifics of the bottom, the amount of material that will stay in suspension, how fast the fine material settles, how much material becomes resuspended, how deep the initial plume is, the current velocity, the horizontal dispersion, impact of the plume on the light, etc. Therefore, it is best to make a mathematical model, where all these variables can be examined against one another to determine whether the above concern about the reproduction of kelp could be valid.

Such a model is attached as an Excel file to allow the reader to input specific conditions. This model is only for calculating the impact on light levels on the bottom from the resuspension plume as it moves away from the trawl line. The exclusion of vertical dispersion in the model means that the solids deposition calculations will overestimate the deposition near the plume and underestimate deposition a long way from the trawl line (The only impact vertical dispersion will have on the movement of sediment from the trawling site is to decrease the effective settling rate and increase the distance the solids will move and increase the time in the water column). This model estimates the impact of a single pass from a single trawler on a single day. This grossly underestimates the impact, as in reality each trawler makes hundreds of passes. In addition, approximately 200 trawlers operate off the California coast. .

In using the model, the yellow cells are variables that can be changed and all others are calculated values which are protected (the password for cell protection is left blank). We measured the settling rate of bentonite clay in 50% seawater to obtain settling rate data. Rough estimates on light extinction coefficients were obtained by adding clay to 1000 liter tanks.

Even using very conservative values for the variables, we calculate a considerable impact between 5 and 10 km from the trawl site. Even a decrease of less than 50% in the light levels at the bottom for a new kelp plant could make a life or death impact. Because these giant kelp plants form the cornerstone of the entire kelp forest community, even with very conservative values, we find that distant bottom trawling could impact light levels such that entire kelp communities could be profoundly effected.



It is possible that these long-range impacts of trawling activities on the early life stages of the kelp could account for some of the changes in kelp cover observed in the last several decades, by causing partial or complete reproductive failure in waters that would have normally supported kelp.

The above simple model assumes only two size classes of sediments, the fast settling majority and a slow settling clay. Some real sediments were obtained and tested and they showed a very rapid settling sand/course silt fraction (less than 15 minutes for about 75% of the material) with another fine silt like material settling in a few hours (another 15% of the material). The balance of material showed a variation in settling rate from rates similar to the clays used in this model to very slow settling which took over 24 hr for partial clearing. This very slow settling fraction of very small and possibly low density particles created far more turbidity (light adsorption/scattering) than the silt particles at the same concentration. This means that if we correct the model to include the variation of settling rates and for the changes in turbidity as a function of the size/settling rate fractions, the calculations of turbidity at a distance will show less material in the water column but more turbidity per unit concentration. Doing a correct settling rate calculation would increase the sedimentation rate near the trawl

line, but would show turbidity impacts even farther away from the very slow settling particles.

To validate the above model, we can compare the output of the model with published experimental values. The article by Palanques [3] describes experimental soft bottom trawl experiments in the northwestern Mediterranean, where they measured the amount of sediment resuspended and the settling time. They showed that the cut depth was between 2 and 3 cm, which translates to 3 to 6 kg of bottom solids being resuspended per square meter of bottom trawled (several tons per acre). The model presented in this discussion is very conservative and indicates that the material would settle out in 3 days. The Mediterranean study revealed that 10% of the original resuspended material was still impacting turbidity in the water column after 5 days. This discrepancy between the model and the real world experimental results is a result of the model not including vertical dispersion, which in the real world keeps the plume from settling as fast as calculated. As mentioned above, our model also didn't correctly include the very slow settling fraction by assuming a constant settling rate (that of clay). Therefore, our model will underestimate the impacts on turbidity at long times and large distances. A more complex model including vertical dispersion will give longer range impacts.

In the real world of bottom trawling, we are not dealing with one trawl on one day but hundreds to thousands of trawls per year in any given area. Each trawl creates a resuspension plume as described in the model. As each plume can reduce the light for several days, the cumulative impact on the light levels at the bottom can be very significant, even from trawling activity up to 10 kilometers away from the kelp area.

In addition to the impact of the physical effects of turbidity on the kelp area, nutrients in the resuspension plume could also cause increases in algae/diatom growth. This could also impact water clarity, but these effects were not considered in the model. Accounting for these factors would require a more complex model, including vertical dispersion. Furthermore, but not directly considered by the model, the physical deposition of sediment can both shade and cover the microscopic life stages of kelp (zoospores, gametophytes and embryonic sporophytes) which could kill them even if light level reduction would not have.

Another aspect of the turbidity impact of trawlers on kelp requires looking at the trawler impact relative to other sources of turbidity impact. Data is available on the suspended solids from sewerage treatment plants, runoff and rivers and dredge disposal in the coastal waters of Southern California from SCCWRP.org [4]. Considering the resuspension plume from a trawler traveling over soft bottom using the parameters from the Palanques [3] experiments, we conclude that the impact of a single bottom trawler on the suspended solids input into the environment is 20 times that of all the major sewerage plants in Southern California. The amount of total solids put into the water column by a trawler is 20 times the average amount per hr of all the dredge disposal operations in Southern California. Similar calculations using the SCCWRP estimates for all the runoff water and river discharges from Southern California, we find that one trawler creates 70 times as much solids pollution as all the runoff and rivers combined.

The above calculations show that bottom trawling activity is the largest source of man created suspended solids pollution in the marine waters of California. With trawling activity being shown to be the major source of suspended solids, people will ask the logical question of why we haven't observed this before. The lack of visible surface impacts from this activity is related to the fact that the plume is near the bottom and below the thermocline most of the time, which will prevent the turbidity plumes from reaching the surface. This is the same reason why we don't detect surface impacts from the massive sewerage plumes in Southern California. The turbidity plumes from runoff during storms is well known as these turbidity plumes are mixed with fresh rain water and stay on the surface where they are observed for several days after a storm.

Another series of calculations were done to look at area wide impacts of multiple trawls by multiple boats. If we just look at the % of the area covered per year by bottom trawls and use the parameters from the Mediterranean study, we find that we have an area wide flux rate on the order of 4.7 grams per meter square per day if only 10% of the resuspension plume is suspended solids and 50% trawl coverage. The turbidity from this activity would decrease the average light level on the bottom by 58% over the entire area. The flux rates of these fine solids settling back to the bottom is greater than any reasonable natural fluxes of organic solids to the bottom from the primary productivity of the micro-algae in the water column.

Given the potential impacts of bottom trawling on kelp forests many kilometers away, and that kelp forests are considered essential habitat for conservation efforts, it is clear that we must control or eliminate this impact. One method of controlling the impact would be to eliminate all bottom trawling activity within 10 km of kelp or possible kelp habitats.

In conclusion, concerns about the long-distance impacts of bottom trawling activity on kelp forest reproduction are real and justified. Almost any reasonable set of assumptions reveals an unacceptable impact at significant distances from trawl sites. Since the life span of a kelp plant can be on the order of a decade, something that impacts recruitment of new plants (bottom light levels) will only show an impact on a time scale measured in decades. It is essential that steps be taken immediately to protect this important component of our California ocean ecology.

Dallas Weaver, Ph.D.
Scientific Hatcheries
DEWeaver@surfcity.net

1. Thrush, S. and P. Dayton, *DISTURBANCE TO MARINE BENTHIC HABITATS BY TRAWLING AND DREDGING: Implications for Marine Biodiversity*. *Annu. Rev. Ecol. Syst.* 2002., 2002. **33**:: p. 449-73.
2. DERNIE, K.M., M.J. KAISER, and R.M. WARWICK, *Recovery rates of benthic communities following physical disturbance*. *Journal of Animal Ecology*, 2003. **72**: p. 1043-1056.
3. Palanques, A., J. Guillen, and P. Puig, *Impact of bottom trawling on water turbidity and muddy sediment of an unfished continental shelf*. *LIMNOLOGY AND OCEANOGRAPHY*, 2001. **46(5)(5)**: p. 1100-1110.
4. Weisberg, S.B., *Southern California Coastal Water Research Project Biennial Report 2001-2002*. 2003, Southern California Coastal Water Research Project Authority.

Additional Studies on Bottom Trawls:

PRANOVI F. (fpranovi@unive.it)*¹, S. RAICEVICH¹, F. DA PONTE¹, and O. GIOVANARDI²; ¹Dipartimento di Scienze Ambientali, Università Ca' Foscari, Venice, Italy, ²Istituto Centrale per la Ricerca scientifica Applicata la Mare (ICRAM), Venice, Italy. **Trawl fishing disturbance and medium-term recolonization dynamics: comparison between sandy and muddy habitats in the Adriatic Sea (Northern Mediterranean Sea).**

Demersal gears scrape or plough the seabed, suspend sediment, alter sediment and water biogeochemistry, change sediment texture, and destroy bedforms. All this affects the processes and dynamics of benthic communities, which are directly impacted by the fishing gear. Presently a great scientific attention is being paid to a functional approach to better understand the constraints that drive and force the recolonization of benthic fauna subjected to fishing disturbance. The Northern Adriatic Sea is a wide trawlable area, which is intensively exploited by means of hydraulic dredges, otter-trawl and 'rapido'. The latter is a sort of beam-trawl used to catch flatfish on muddy bottoms and pectinids on sandy ones. This allowed comparisons between the dynamics of two different benthic communities subjected to the same kind of disturbance. The two study sites, located near a wreck and off a 'long-line' mussel culture, were experimentally trawled by means of a commercial rapido. We studied the recolonization dynamics on a nine-month basis, in terms of macrobenthic community structure, trophic groups and production analysed by means of mean body size of each taxonomic group. After 270 days the recovery is not yet complete, as confirmed by the differences recorded between controls and treatments. The pattern recorded in the two communities were quite similar: a 'scavenger effect' is revealed within 30 days after trawling and the differences between treatments and controls increase up to 90 days and then decrease.

KUTTI, T. (oddb@imr.no)*¹, T. HØISÆTER¹, H.T. RAPP¹, O.B. HUMBORSTAD², S. LØKKEBORG², and L. NØTTESTAD²; ¹Institute of Fisheries and Marine Biology, University of Bergen, Norway, ²Fish Capture Division, Institute of Marine Research, Bergen, Norway. **Immediate effects of experimental otter trawling on the benthic assemblage of Bear Island (fishery protection zone), Barents Sea.**

The immediate effects of intensive experimental otter trawling on marine benthic fauna and assemblages was assessed in a gravelly arctic benthic ecosystem at ~100 m depth. The research site was located within the Fishery Protection Zone around Bear Island, Barents Sea. To quantify the effects of trawl-disturbance a BACI design (Before and After/Control and Impact) was adopted. Replicate samples were collected using a Sneli epibenthic sledge, equipped with video camera and ITI positioning system to enable estimation of the area sampled. The benthic assemblage was characterised by a small-scale patchy distribution of fauna. The samples were numerically dominated by ophiuroids, polychaetes, bivalves, cirripeds and echinoids while echinoids and cirripeds dominated the biomass of the assemblage. Trawling affected the benthic assemblage mainly through resuspension of surface sediment and through a relocation of shallow burrowing infaunal species to the surface of the seafloor. Immediately after trawling we found a significant increase in the abundance of a majority of the infaunal bivalves, some common burrowing gastropods and anthozoans. We also observed a significant increase in the biomass of ophiuroids that could be a result of scavenging behaviour. The total biomass (mainly cirripeds) was reduced whereas diversity, based on biomass data, was significantly higher after trawling. Due to a large inter sample variance, effects of trawling were difficult to assess on individual species. However, a significant decline in the number of some amphipods, mysids and euphausiids was observed. Multivariate analyses further indicated that trawling had a homogenising effect on the benthic assemblage.

GODINEZ-DOMINGUEZ, E. (egodinez@mail2.udc.es)*^{1,2}, J. FREIRE², G. GONZÁLEZ-SANSÓN³; ¹Centro de Ecología Costera, Universidad de Guadalajara, Jalisco. México, ²Departamento de Biología Animal, Biología Vegetal y Ecología, Universidad de A Coruña, A

Coruña, España, ³Centro de Investigaciones Marinas, Universidad de la Habana, La Habana, Cuba. **Fishing and environmental disturbance indicators in a shrimp fishing ground at the Mexican central Pacific.**

This paper examines the concurrent effects induced by trawl shrimp fisheries, natural seasonal dynamics and interannual processes as ENSO events on a soft bottom macroinvertebrate community. Short-term effects were evaluated during an initial period of two years when five trawl cruises were carried out in successive closed and open fishing seasons coinciding with the main hydroclimatic periods. In each cruise seven sites along 100 km of coastline were selected and four depths were sampled (20, 40, 60 and 80 m). A series of community structural descriptors used frequently to determine the ecological effects of fishing disturbances were employed: ABC curves, W-statistic, normalized species size distribution as biomass spectra, spatial segregation index, Shannon diversity index, species richness and biomass. Inter-annual effects were analysed with data from semi-monthly cruises in 2 sites and the same four depths from 1995 to 1998. Theoretical predictions of the effects of fishing in the behaviour of the statistical indices used were tested. Results show a strong evidence that fishing has produced a state of chronic disturbance in the macroinvertebrate community. Short-term fishing effects could be masked by natural seasonal and interannual environmental changes. Results of short-term effects are not in agreement with the fishing disturbance theories. The trends found could evidence interannual effects associated to El Niño and La Niña events. The complexity of the sources of variability in a exploited community forces managers to adopt a more widely adaptive approach which should be focused on understanding the community structural process through temporal and spatial gradients, and to use several structural indices to evaluate critically their performance as indicators of fishing disturbance.

MCCONNAUGHEY, R.A. (bob.mcconnaughey@noaa.gov)*, S.E. SYRJALA and C.B. DEW; National Marine Fisheries Service, Alaska Fisheries Science Center, Seattle, WA. **Effects of chronic bottom trawling on the size structure of soft-bottom benthic invertebrates.**

Chronic bottom trawling commonly reduces benthic biomass, but it is generally unknown whether this represents a decrease in the mean size and/or the numbers of individuals. Because this distinction provides insight into the mechanism of disturbance and also influences subsequent recovery dynamics, we investigate the matter here. Using comprehensive historical effort data, adjacent untrawled (UT) and heavily trawled (HT) areas were identified along the boundary of a long-standing no-trawl zone in Bristol Bay, a naturally disturbed offshore area of the eastern Bering Sea. The study site is relatively shallow (44-52 m) with a sand substrate, ubiquitous bottom ripples, and strong tidal currents. A modified research trawl was used to collect 42 HT-UT paired samples of benthic infauna and epifauna. These data were used to compare mean sizes (kg) of 16 species of sessile, mobile and infaunal invertebrates. 15 of these taxa were smaller in the HT area, while in one case (red king crab) mean size was greater in the HT area. Length-frequency data indicate the red king crab populations are bimodal, and that substantially fewer smaller-sized crab (rather than more larger individuals) occur in the HT area. Since active fishing in the HT area occurred 3 or more years before our field sampling program, our findings reflect conditions associated with an intermediate stage of recovery. Finally, we compare the observed differences in mean size (attributed to heavy trawling) with natural size variability in the study area based on annual NMFS surveys.

PERCIVAL, P. (philip.percival@ncl.ac.uk)*, C.L.J. FRID, R.C. UPSTILL-GODDARD; University of Newcastle, Dove Marine Laboratory, Department of Marine Science & Coastal Management, United Kingdom. **The impact of bottom fishing on early diagenetic transformations and benthic nutrient exchange.**

Trawl disturbances to the seabed potentially cause a wide range of impacts that can modify remineralisation rates and alter sediment-water exchange of inorganic nutrients. Penetration of trawl gear, extending down to 15cm in soft sediments, is likely to have immediate impacts on nutrient exchange greater than those of bioturbation alone. Alterations in the redox status combined with additional organic matter, in the form of offal and discards in highly fished areas, are likely to have effects on benthic regeneration. However, the contribution of regenerated

sources of nutrients from benthic systems is poorly understood. This study describes the impact of bottom fishing on early diagenetic transformations and benthic nutrient exchange. Replicate mesocosm systems containing sediment and fauna from a trawled area of the North Sea were allowed to stabilise. Following stabilisation three treatments were carried out. These included; 1, Trawl simulated disturbance at high intensity (disturbance on successive days). 2, Trawl simulated disturbance at lower intensity (disturbance on alternate days). 3, Control systems without any simulated disturbance. Nutrient concentrations were measured periodically within the overlying water of each system over a four-day period. These data were used to parameterise a model in order to estimate the flux of nutrients to the North Sea derived from trawling activity. The implications of the findings for direct nutrient exchange through direct trawl impact, bioturbation contribution and other biogeochemical implications are discussed and evaluated.

SIMPSON, A. W. (anne.simpson@umit.maine.edu)* and L. WATLING; University of Maine, Darling Marine Center, Walpole, ME. **Physical and biological effects of shrimp trawling on soft sediment habitats in the Gulf of Maine.**

Mobile gear fisheries are a pervasive source of disturbance in marine habitats that can directly alter both the physical and biological structure of the benthic environment. In the Gulf of Maine, muddy bottoms are intensively trawled for northern shrimp during a seasonal winter fishery. We collected sediment samples from trawled and untrawled areas every 80 to 120 days over an 18-month period. Detailed bulk density measurements from sediment x-radiographs reveal that shrimp trawling may alter the sedimentary 'landscape'. Our findings suggest that in areas where biogenic disturbance is high due to the activities of large burrowing megafauna such as fish and crustaceans, discerning impacts of shrimp trawling on the structure of infaunal communities is difficult; however, trawling appears to reduce the overall density of large burrows.

WATLING, L. (watling@maine.edu)* and C. Skinder; Darling Marine Center, University of Maine, Walpole, ME. **Why fishing gear impact studies don't tell us what we need to know.**

The late 1990s saw several comprehensive reviews of the impact of mobile fishing gear on benthic communities published in the scientific literature. In particular, the review of Auster and Langton offered several tables detailing the results of individual studies. We have updated this review and examined the studies for their predictive value. That is, we ask, can the studies that have been done be used in very different geographic areas, or in unexamined habitats, to assess potential impacts of mobile fishing gear? We suggest that most of the studies conducted to date are very good at telling us what has happened, but will give limited or inaccurate information about what will happen, or perhaps has happened in an unstudied area. The lack of predictive capability of most studies results from the fact that they have relied on an examination of spatial patterns rather than understanding the underlying processes which result in the benthic community structure observed. In some studies it has been concluded that fishing gear will have no measurable impact in some habitats. In this paper we take a first principles approach and argue that were certain variables measured, such as sediment food quality, and were the studies done at the appropriate scale, impacts that were missed would have been seen. Changing the way trawling studies are conducted will offer greater potential for predictive capability.

CRYER, M. (m.cryer@niwa.cri.nz)*, B. HARTILL, and S. O'SHEA; National Institute of Water and Atmospheric Research, Auckland, New Zealand. **Deepwater trawl fisheries modify benthic community structure in similar ways to fisheries in coastal systems.**

Off north-eastern New Zealand, the Bay of Plenty continental slope supports bottom trawl fisheries for gemfish (*Rexea solandri*), hoki (*Macruronus novaezelandiae*), tarakihi (*Nemadactylus macropterus*), and, most recently scampi (a burrowing, deep-water lobster, *Metanephrops challenger*). Excellent information has been collected since 1988 on the distribution of trawling effort in these fisheries, including the start and finish location of each trawl tow with a precision of 1 minute of latitude and longitude. Using a GIS, we linked these data to information on the invertebrate bycatch of 66 research trawls, and explored the extent to which the composition of our bycatch (as one index of benthic community structure) could be explained by the frequency of trawling at

a given site. Using multivariate ordination techniques, we explained up to 65% of variation in the distribution of species among samples, more than half of which was attributable to our indices of trawling (mainly for scampi and gemfish). Qualitatively, the inferred effects of deep-water trawling were similar to those of coastal fisheries; increasing fishing activity was associated with reductions in species richness, diversity, and the abundance of large or fragile taxa. The gross quality of information on fishing effort has hitherto been a major constraint on our understanding of the effects of fishing. This study is one example of the way good quality information at the right (fine) scale can further that understanding, but comprehensive information on the distribution of fishing effort may also allow extrapolation of experimental studies to the wider scale of fisheries management.

Gilkinson, K.D. (gilkinsonk@dfo-mpo.gc.ca)*¹, D.C. Gordon Jr.², G.B. Fader³, D.L. McKeown², E.L.R Kenchington², D. Roddick², C. Bourbonnais², K. MacIsaac², and W.P. Vass²; ¹ Department of Fisheries and Oceans, Northwest Atlantic Fisheries Centre, St. John's, Newfoundland, Canada, ² Department of Fisheries and Oceans, Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada, ³ Natural Resources Canada, Bedford Institute of Oceanography, Dartmouth, Nova Scotia, Canada. **Impacts of hydraulic clam dredging on benthic macrofaunal communities and physical habitat on Banquereau, a fishing bank off Nova Scotia.**

Although hydraulic clam dredging has been conducted in eastern Canadian offshore waters since the mid-1980's little is known about the associated environmental impacts. In 1998, a joint clamming industry-government dredging impact experiment was initiated on a sandy seabed on Banquereau (Scotian Shelf) at water depths of 70-80 m. Incorporated into the experimental design were commercial fishing practices including pulse dredging followed by a fallow period. Both immediate and longer-term physical and biological impacts were examined using a variety of acoustic, video/still photography, and direct sampling gears. Seabed topography, which was dramatically altered by dredging, returned to near normal conditions two years after dredging, although dredge tracks remained visible in sidescan sonograms. There was evidence that large increases in numbers of brittlestars over the two-year post-dredging period may represent active dredging-induced immigration and retention over large areas. Dredging significantly reduced the abundance and biomass of a large number of species, although most polychaetes and amphipods had returned to or exceeded pre-dredging levels one year after dredging. Biomass of the target bivalve species, Arctic surfclam (*Mactromeris polynyma*) and northern propellerclam (*Cyrtodaria siliqua*), was greatly reduced (by approximately 50%) and recovery is not expected for at least 10 years. The ecological significance of changes in abundance and biomass of the macrofaunal community (270 taxa), particularly large ecosystem engineers which through their burrow structures and empty shells shape habitat structure, is a key area of research in this fishery which, by its nature, removes benthic biomass while attracting re-colonization by opportunists.

KOULOURI, P. (yo172@imbc.gr)*¹, C. DOUNAS¹, and A. ELEFThERIOU²; ¹Institute of Marine Biology of Crete, ²University of Crete. **Preliminary results on the effect of otter trawling on hyperbenthic communities in Heraklion Bay (Eastern Mediterranean, Cretan Sea).**

Although the fauna occupying the water layer adjacent to the ocean floor has been focused for commercial exploitation, little attention has been paid to the study of the small invertebrates inhabiting the same biotope referred to as the hyperbenthos. Recently, there has been an increased interest in this faunal group as many demersal fish and epibenthic crustaceans are found to feed on it, for at least part of their life. Otter trawls, the most common gear used for demersal fishing, result in significant disturbance of the sediment-water interface. Consequently, animals that are disturbed due to the passage of a trawl may become sources of food for predators and scavengers. The impacts of towed fishing gears and especially of otter trawling on hyperbenthos have not been studied at all. In order to study the effect of otter trawling on hyperbenthos in the continental shelf of Heraklion Bay, a method simulating otter trawl groundrope conduct with the seabed was applied. A modified three-level hyperbenthic sledge was used for collecting disturbed (groundrope present) and undisturbed (without groundrope) macrofaunal samples at a towing speed normally used by the commercial vessels. Comparison of the results from both disturbed and undisturbed samples revealed significant differences indicating that the

groundrope disturbs the hyperbenthic community in such a severe degree that it probably increases the vulnerability of these animals to their predators. This potential impact could lead to additional changes in habitat complexity and community structure of the shelf ecosystem.

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¹National Undersea Research Center at the University of Connecticut, Groton, CT, ²NOAA's
Stellwagen Bank National Marine Sanctuary, Scituate, MA, ³US Geological Survey, Woods
Hole, MA. **A comparison of habitat structure in fished and un-fished, mobile and
immobile sand habitats on Georges Bank (Northwest Atlantic).**

Fishing has been described as the dominant anthropogenic impact to marine ecosystems worldwide. One subset of impacts is caused by fishing with mobile bottom-contact gear (e.g., scallop dredges, bottom trawls) on seafloor habitat and associated taxa. Mobile fishing gear reduces seafloor habitat complexity through the removal of emergent fauna that provide structure (e.g., erect sponges), the removal of structure-building megafauna that produce pits and burrows (e.g., crabs, fish), and the smoothing of bedforms (e.g., sand waves). In this study we compared the relative abundance of microhabitat features (the scale at which individual fish associate with seafloor habitat) inside and outside of a large closed area on Georges Bank (closed in December 1994 and sampled in June 1999). A total of 32 stations were selected in a paired sampling design inside and outside of the closed area in sand habitats. Video and still photographic transects were conducted at each station using the Seabed Observation and Sampling System. Seven common (i.e., flat sand, rippled sand, sand with emergent fauna, bare gravel, gravel with emergent fauna, shell, shell fragment) and two 'rare' (sponges, biogenic depressions) microhabitat types were compared separately. Analyses were conducted for 'mobile sand' habitats (< 60 meters water depth) and for 'immobile sand' habitats (> 60 meters). Results showed no significant differences in the relative abundance of the common microhabitat types between fished and unfished areas in mobile or immobile sand habitats. However, in immobile sand habitats sponges and biogenic depressions were numerically more abundant inside the closed area.

NORSE, E. (elliott@mcbi.org); Marine Conservation Biology Institute, Redmond, WA.
Destructive fishing practices and evolution of the new fishery management paradigm.

Since 1980, terrestrial natural resource managers around the world have increasingly focused on protecting, restoring and sustainably using biological diversity, the diversity of genes, species and ecosystems. In doing so, they have increasingly taken an 'ecosystem approach' that focuses on conserving habitats of certain species and the ecosystems of which they are components for a variety of purposes ranging from use to preservation. In contrast, natural resource managers in the sea have been and continue to focus mainly on producing meat. They have largely overlooked the importance of biological diversity, the ecological connections among species, the importance of habitat in species conservation, and the need to protect and restore intact ecosystems as integral components of resource management. While the effects of forest clearcutting are now seen as so harmful that it has been sharply reduced in many countries, its closest marine analogues, bottom trawling and dredging, continue unabated. There is strong suggestion that the failure to curtail destructive fishing practices has had a wide variety of adverse effects. The period in which fishery managers have resisted modern understanding has seen sharp declines in diversity and abundance of all but the weediest, most disturbance-tolerant species. Serial depletion of targeted species, population crashes of non-targeted species, increasingly convoluted and inconsistent command-and-control regulation of fish 'stocks' and perpetual crisis in fishing communities are all signs that the prevailing fishery management paradigm is not working. Fortunately, there are alternative ways of managing the marine realm, and the challenge the fishery management community faces is getting past its own denial and embracing new paradigms that are based on protecting, restoring and sustainably using marine biodiversity, while there is still a chance to do so.

WILLIAMS, A. (alan.williams@csiro.au)*, B. BARKER, R.J. KLOSER, N.J. BAX and A.J.
BUTLER; CSIRO Marine Research, Hobart, Tasmania, Australia. **Structure and use of a
continental slope seascape: insights for the fishing industry and marine resource
managers.**

Benthic habitats of the upper continental slope seabed (~300-700 m depth) off SE Australia are being surveyed for the first time in response to the needs of regional, ecosystem-based, marine management plans being developed under Australia's Oceans Policy, and increased commercial fishery reliance on fishes that inhabit the slope seascape. We developed substratum maps of the Big Horseshoe Canyon - one of the region's prime fishing grounds - using multi-beam acoustic backscatter data, and target-sampled with video cameras and a range of physical samplers. In upper-slope depths, a patchy mosaic of habitats is formed of sloping terraces of muddy substrata and rubble patches that support a sparse benthic epifauna, together with low-relief rocky ridges formed by outcropping claystones and limestones that support communities of erect epifauna dominated by sponges. Many sedentary adult individuals of two key commercial species (pink ling and ocean perch) shelter in a range of microhabitats provided only by the rocky habitats. Video shows that bottom trawls 'hook-up' on rocky substratum, turning and moving loose pieces - an observation acknowledged by commercial fishermen who also report that boulders and 'slabs' are removed and redistributed. This is evidence of a fishing impact that is, at least in part, irreversible. The question then is, *how much* impact will adversely affect long-term fishery productivity and conservation values? We discuss this question with respect to managers needs for both the detailed understanding and fine-scale mapping of habitats provided by scientific survey, and the fishing industry's knowledge of broad-scale habitat distributions that enables extrapolation to a regional fishery scale.

STONER, A.W. (al.stoner@noaa.gov)*¹, C.L. RYER¹, and R.A. McCONNAUGHEY²;
¹Alaska Fisheries Science Center, NOAA National Marine Fisheries Service, Hatfield Marine Science Center, Newport, OR, ²Alaska Fisheries Science Center, NOAA National Marine Fisheries Service, Seattle, WA. **Ecological consequences of lost habitat structure for commercially significant flatfishes: habitat choice and vulnerability to predators.**

Numerous field studies, both descriptive and experimental, have shown that fishing gear can have a negative impact on the structural complexity of benthic environment. Impacts in high-relief habitats such as coral reefs, hard-bottom, seagrasses, and cobble are well documented. Soft-bottom habitat can also contain physical structure created by different bedforms, sessile invertebrates such as sponges, anemones, soft corals, and bryozoans, and the empty shells of molluscs. Recent laboratory experiments with Alaska flatfishes show that age-0 and age-1 fish have a strong behavioral affinity for sediments structured with sand waves, sponges, bryozoans, and bivalve shells. Responses were stronger in juvenile Pacific halibut than rock sole. The presence of structured habitat also affected the survivorship of age-0 fishes in the presence of a piscivorous predator, but habitat-mediated predator-prey interactions varied with prey species. Comparisons of trawled and untrawled locations in the Gulf of Alaska and the Bering Sea reveal that densities and biomass of sponges, anemones, bryozoans, gastropod shells, soft corals, and other biota providing structure for small fishes decrease with fishing activity. It follows that loss of structured habitat in low-relief shelf environment can have both direct and indirect impacts on the function of habitat for demersal fishes, particularly during their first year of life. We need a better understanding of how structural complexity in soft-bottom environment influences abundance and recruitment of fishes and invertebrates, and better characterization of habitat features is probably required.

OFF-YEAR SCIENCE IMPROVEMENTS REPORT

The combination of the new biennial management cycle in the groundfish management process and improvements in groundfish scientific capabilities has spawned an ambitious plan to assess about one-quarter of all the stocks in the Groundfish Fishery Management Plan. In preparation for assessing 23 groundfish stocks next year, the Council and the National Marine Fisheries Service Northwest Fisheries Science Center (NWFSC) have co-sponsored a number of workshops this year to resolve data and modeling issues. Dr. Elizabeth Clarke, director of the Fishery Resource Analysis and Monitoring Division of the NWFSC, will brief the Council on these workshops and improvements made in this “off-year” for conducting stock assessments and other important groundfish science initiatives. The Council task is to provide guidance to the NWFSC regarding the off-year science improvement process.

Council Task:

Provide guidance to the NWFSC regarding the off-year science improvement process.

Reference Materials:

None.

Agenda Order:

- a. Agendum Overview
- b. Northwest Science Center Report
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Discussion and Guidance

John DeVore
Elizabeth Clarke

PFMC
08/25/04

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
OFF-YEAR SCIENCE IMPROVEMENTS REPORT

Dr. Elizabeth Clarke (National Marine Fisheries Service Northwest Fisheries Science Center) gave an oral report on science improvement activities organized and/or sponsored by the Northwest Fisheries Science Center, which so far this year have included the Recreational Catch Per Unit Effort (CPUE) Workshop held in June 2004 and the Groundfish Stock Assessment Data Workshop held in July 2004. The Scientific and Statistical Committee (SSC) anticipates receiving at the November Council meeting a final report on the Recreational CPUE Workshop and a draft report of the Groundfish Data Workshop.

The third and final science improvement activity planned for 2004 is a Stock Assessment Modeling Workshop, which will occur during the last week of October 2004. The SSC worked with Dr. Clarke to revise the draft agenda for the Modeling Workshop. The revised agenda includes the following topics: Terms of Reference for stock assessment teams, methods for developing biomass indices from surveys, review of methods for model tuning, evaluation of model diagnostics, and methods for making catch and biomass projections and expressing uncertainty.

It is unlikely a written report about the Modeling Workshop will be available for the November 2004 Council meeting. The Council and its advisory committees may wish to formally review the off-year science activities at some future meeting and provide guidance concerning the process for planning such activities in the future.

PFMC
09/14/04

TERMS OF REFERENCE FOR GROUND FISH REBUILDING PLAN REVIEW
AND STOCK ASSESSMENT REVIEW PANELS

The Council has annually considered updates to the Scientific and Statical Committee's (SSC's) Terms of Reference for developing and reviewing groundfish stock assessments. Now, with the multi-year management process in place, stock assessments will be conducted every other year. In 2005, 22 groundfish stock assessments are planned, which will require a significant overhaul of the Terms of Reference for the Groundfish Stock Assessment and Review (STAR) Process (Agendum C.8.b, Attachment 1). Additionally, the Groundfish Management Team and the National Marine Fisheries Service Northwest Regional staff have requested complete estimation and reporting of all necessary management parameters and reference points in groundfish stock assessments. The SSC Groundfish Subcommittee has begun considering modifications to the Terms of Reference for the Groundfish STAR Process. The Council should consider recommended changes to this Terms of Reference and provide guidance to the SSC for finalizing this document.

The SSC's Terms of Reference for Groundfish Rebuilding Analyses was developed by the SSC in 2001 and adopted by the Council in April 2001 (Agendum C.8.b, Attachment 2). This Terms of Reference has guided authors of groundfish rebuilding analyses, which are critical for developing rebuilding plans for overfished groundfish stocks. Groundfish Fishery Management Plan Amendment 16-1, which set the process and standards by which the Council specifies rebuilding plans for overfished groundfish stocks, provided for the development of species-specific standards for determining when progress has been adequate for each rebuilding plan. The SSC, other advisors, and the Council should consider modifications to the SSC Terms of Reference for Groundfish Rebuilding Analyses to incorporate species-specific standards for rebuilding plan reviews. The Council task is to provide guidance to the SSC for finalizing this Terms of Reference.

Both Terms of Reference are scheduled for final Council adoption at the November 2004 meeting. Council guidance at this meeting will be an important step in developing complete Terms of Reference which will guide the development of scientific elements necessary for accomplishing Council groundfish management objectives.

Council Task:

- 1. Provide guidance on finalizing the Groundfish Stock Assessment and Review Process Terms of Reference.**
- 2. Provide guidance on finalizing the SSC Terms of Reference for Groundfish Rebuilding Analyses.**

Reference Materials:

1. Agendum C.8.b, Attachment 1: Groundfish Stock Assessment and Review Process for 2005-2006.
2. Agendum C.8.b, Attachment 2: SSC Terms of Reference for Groundfish Rebuilding Analyses.
3. Agendum C.8.d, Public Comment.

Agenda Order:

- a. Agendum Overview
- b. Scientific and Statistical Committee Report
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Guidance on Finalizing Terms of Reference

John DeVore
Kevin Hill

PFMC
08/26/04

GROUND FISH STOCK ASSESSMENT AND REVIEW PROCESS FOR 2005-2006

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Introduction

The purpose of this document is to help the Council family and others understand the groundfish stock assessment review process (STAR). Parties involved are the National Marine Fisheries Service (NMFS); state agencies; the Council and its advisors, including the Scientific and Statistical Committee (SSC), Groundfish Management Team (GMT), Groundfish Advisory Subpanel (GAP), Council staff; and interested persons. The STAR process is a key element in an overall process designed to make timely use of new fishery and survey data, to analyze and understand these data as completely as possible, to provide opportunity for public comment, and to assure that the results are as accurate and error-free as possible. The STAR process is designed to assist in balancing these somewhat conflicting goals of timeliness, completeness and openness.

STAR Goals and Objectives

The goals and objectives for the groundfish assessment and review process[†] are:

- a) Ensure that groundfish stock assessments provide the kinds and quality of information required by all members of the Council family.
- b) Satisfy the Magnuson-Stevens Sustainable Fisheries Act (SFA) and other legal requirements.
- c) Provide a well-defined, Council oriented process that helps make groundfish stock assessments the "best available" scientific information and facilitates use of the information by the Council. In this context, "well-defined" means with a detailed calendar, explicit responsibilities for all participants, and specified outcomes and reports.
- d) Emphasize external, independent review of groundfish stock assessment work.
- e) Increase understanding and acceptance of groundfish stock assessment and review work by all members of the Council family.
- f) Identify research needed to improve assessments, reviews, and fishery management in the future.
- g) Use assessment and review resources effectively and efficiently.

Shared Responsibilities

All parties have a stake in assuring adequate technical review of stock assessments. NMFS must determine that the best scientific advice has been used when it approves fishery management recommendations made by the Council. The Council uses advice from the SSC to determine whether the information on which it will base its recommendation is the "best available" scientific advice. Fishery managers and scientists providing technical documents to the Council for use in management need to assure that the work is technically correct. Program reviews, in-depth external reviews, and peer-reviewed scientific publications are used by federal and state agencies to provide quality assurance for the basic scientific methods used to produce stock assessments. However, the time-frame for this sort of review is not suited to the routine examination of assessments that are, generally, the primary basis for a harvest recommendation.

The review of current stock assessments requires a routine, dedicated effort that simultaneously meets the needs of NMFS, the Council, and others. Leadership, in the context of the stock assessment review process for groundfish, means consulting with all interested parties to plan, prepare terms of reference, and develop a calendar of events and a list of deliverables. Coordination means organizing and carrying out review meetings, distributing documents in a

[†] In this document, the term "stock assessment" includes activities, analyses, and management recommendations, beginning with data collection and continuing through to the development of management recommendations by the Groundfish Management Team and information presented to the Council as a basis for management decisions.

timely fashion, and making sure that assessments and reviews are completed according to plan. Leadership and coordination involve costs, both monetary and time, which have not been calculated, but are likely substantial.

The Council and NMFS share primary responsibility to create and foster a successful STAR process. The Council will sponsor the process and involve its standing advisory committees, especially the Scientific and Statistical Committee. NMFS will provide a coordinator to oversee and facilitate the process. Together they will consult with all interested parties to plan, prepare terms of reference, and develop a calendar of events and a list of deliverables. NMFS and the Council will share fiscal and logistical responsibilities.

The STAR process is sponsored by the Council because the Federal Advisory Committee Act (FACA) limits the ability of NMFS to establish advisory committees. FACA specifies a procedure for convening advisory committees that provide consensus recommendations to the federal government. The intent of FACA was to limit the number of advisory committees, ensure that advisory committees fairly represent affected parties, and ensure that advisory committee meetings, discussions, and reports are carried out and prepared in full public view. Under FACA, advisory committees must be chartered by the Department of Commerce through a rather cumbersome process. However, the SFA exempts the Council from FACA *per se*, but requires public notice and open meetings similar to those under FACA.

NMFS Responsibilities

NMFS will work with the Council, other agencies, groups, or interested persons that carry out assessment work to organize Stock Assessment Teams (STAT Teams) and STAR Panels, and make sure that work is carried out in a timely fashion according to the calendar and terms of reference. NMFS will provide a senior scientist to coordinate these tasks with assistance from Council staff. To initiate the assessment cycle, NMFS will convene data and modeling workshops so that STAT teams and interested parties (e.g., the GMT) can discuss upcoming stock assessments, external reviews, data sources, and modeling approaches. To promote consistency, representatives from each STAT team are expected to attend both the data and modeling workshops.

The Stock Assessment coordinator, in consultation with the SSC, will select STAR Panel chairs, and will coordinate the selection of external reviewers following criteria for reviewer qualifications, nomination, and selection. The public is welcome to nominate qualified reviewers. Following any modifications to the stock assessments resulting from STAR panel reviews and prior to distribution of the stock assessment documents and STAR panel reports to GMT, the coordinator will review the stock assessments and panel reports for consistency with the terms of reference, especially completeness of the stock assessment Executive Summary. Inconsistencies will be identified and the authors requested to make appropriate revisions in time for the GMT meeting at which ABC and OY recommendations are developed.

Individuals (employed by NMFS, state agencies, or other entities) that conduct assessments or technical work in connection with groundfish stock assessments are responsible for ensuring their work is technically sound and complete. The Council's review process is the principal means for review of complete stock assessments, although additional in-depth technical review of methods and data is desirable. Stock assessments conducted by NMFS, State agencies, or other entities must be completed and reviewed in full accordance with the Terms of Reference (Appendices B and C) at the times specified in the calendar (Appendix A).

GMT Responsibilities

The GMT is responsible for identifying and evaluating potential management actions based on the best available scientific information. In particular, the GMT makes ABC and OY recommendations to the Council based on estimated stock status, uncertainty about stock status, and socioeconomic and ecological factors. The GMT will use stock assessments, STAR Panel reports, and other information in making their recommendations. The GMT's preliminary ABC recommendation will be developed at a meeting that includes representatives from the SSC, STAT Teams, STAR Panels, and GAP. A representative(s) of the GMT will serve as a liaison to each STAR Panel, but will not serve as a member of the Panel. The GMT will not seek revision or additional review of the stock assessments after they have been reviewed by the STAR Panel. The GMT chair will communicate any unresolved issues to the SSC for consideration. Successful separation of scientific (i.e., STAT Team and STAR Panels) from

management (i.e., GMT) work depends on stock assessment documents and STAR reviews being completed by the time the GMT meets to discuss preliminary ABC and OY levels. However, the GMT can request additional model projections, based on reviewed model scenarios, in order to develop a full evaluation of potential management actions.

GAP Responsibilities

The chair of the GAP will appoint a representative to track each stock assessment and attend the STAR Panel meeting. The GAP representative will participate in review discussions as an advisor to the STAR Panel, in the same capacity as the GMT advisor.

The GAP representative, along with STAT and SSC representatives, will attend the GMT meeting at which ABC recommendations are made. The GAP representative will also attend subsequent GMT, Council, and other necessary meetings where the assessment is discussed.

The GAP representative will provide appropriate data and advice to the STAR Panel and GMT and will report to the GAP on STAR Panel and GMT meeting proceedings.

SSC Responsibilities

The Scientific and Statistical Committee (SSC) will participate in the stock assessment review process and provide the GMT and Council with technical advice related to the stock assessments and the review process. The SSC will assign one member from its Groundfish Subcommittee to each STAR Panel. This member is expected to attend the assigned STAR Panel meeting, the GMT meeting at which ABC recommendations are made, and the Council meetings when groundfish stock assessment agenda items are discussed (see calendar in Appendix A). The SSC representative on the STAR Panel will present the STAR Panel report at GMT, SSC, and at Council meetings. The SSC representative will communicate SSC comments or questions to the GMT and STAR Panel chair. It is the SSC's responsibility to review and endorse any additional analytical work requested by the GMT after the stock assessments have been reviewed by the STAR Panels. In addition, the SSC will review and advise the GMT and Council on projected ABCs and OYs.

The SSC, during their normally scheduled meetings, will serve as arbitrator to resolve disagreements between the STAT Team, STAR Panel, or GMT. The STAT Team and the STAR Panel may disagree on technical issues regarding an assessment. In this case, a complete stock assessment must include a point-by-point response by the STAT Team to each of the STAR Panel recommendations.

Council Staff Responsibilities

Council Staff will prepare meeting notices and distribute stock assessment documents, stock summaries, meeting minutes, and other appropriate documents. Council Staff will help NMFS and the state agencies in coordinating stock assessment meetings and events. Staff will also publish or maintain file copies of reports from each STAR Panel (containing items specified in the STAR Panel's term of reference), the outline for groundfish stock assessment documents, comments from external reviewers, SSC, GMT, and GAP, letters from the public, and any other relevant information. At a minimum, the stock assessments (STAT Team reports, STAR Panel reports, and stock summaries) should be published and distributed in the Council's annual SAFE document.

Stock Assessment Priorities

Stock assessments for West Coast groundfish are conducted periodically to assess abundance, trends, and appropriate harvest levels for these species. Assessments use statistical population models to analyze and integrate a variety of survey, fishery and biological data. Due to the large number of groundfish species that have never been assessed, it is the goal of the Council to increase substantially the number of assessed stocks. A constraint on reaching that objective, however, is that a multi-year management regime has recently been adopted, which limits

assessment activities to odd years only (e.g., 2005). Nonetheless, for the upcoming assessment cycle an ambitious list of 23 stocks will be evaluated, including at least five species that have never been assessed.

In establishing stock assessment priorities an number of factors are considered, including:

1. Assessments should take advantage of new information, especially indices of abundance from fishery-independent surveys.
2. Overfished stocks that are under rebuilding plans should be evaluated to ensure that progress towards achieving stock recovery is adequate.
3. ~~Generally, no more than 2 assessments will be reviewed by a STAR Panel when these assessments involve new types of data or assessment methods.~~ (THIS POINT OF REVISION IS OF CONCERN TO SOME MEMBERS OF THE SSC. HOWEVER THE SCHEDULE FOR 2005 ALREADY HAS STAR PANELS ASSIGNED WITH UP TO 4 STOCK ASSESSMENTS. THE SSC WILL NEED TO ARRIVE AT A CONSENSUS ON THIS ISSUE)
4. The SSC encourages attempts to study previously un-assessed stocks, but recognizes that often such efforts will not produce a comprehensive understanding of population dynamics. Even so, updates or reports that fall short of a full assessment are still desirable, in order to summarize whatever information exists that may be useful to the Council in making management decisions.
5. Any stock assessment that is considered for use in management should be submitted through normal Council channels and reviewed at STAR Panel meetings.
6. The proposed stocks for assessment should be discussed by the Council at least a year in advance to allow sufficient time for assembly of relevant assessment data and for arrangement of STAR panels.

Terms of Reference for STAR Panels and Their Meetings

The principal responsibility of the STAR Panel is to carry out these terms of reference according to the calendar for groundfish assessments. Most groundfish stocks are assessed infrequently and each assessment and review should result in useful advice to the Council. The STAR Panel's work includes:

1. reviewing draft stock assessment documents and any other pertinent information (e.g.; previous assessments and STAR Panel reports, if available);
2. working with STAT Teams to ensure assessments are reviewed as needed;
3. documenting meeting discussions; and
4. reviewing summaries of stock status (prepared by STAT Teams) for inclusion in the SAFE document.

STAR Panels normally include a chairman, at least one "external" member (i.e., outside of the Council family and not involved in management or assessment of West Coast groundfish), and one SSC member. The total number of STAR members should be at least "n+2" where n is the number of stock assessments and "2" counts the chair and external reviewer. In addition to Panel members, STAR meetings will include GMT and GAP advisory representatives with responsibilities laid out in their terms of reference. STAR Panels normally meet for one week. (DISCUSSION POINT: IS THE "N+2" RULE STILL DESIRABLE?)

~~The number of assessments reviewed per Panel should not exceed two. (SEE ITEM #3 ABOVE)~~

The STAR Panel is responsible for determining if a stock assessment document is sufficiently complete according to Appendix B: Outline for Groundfish Stock Assessments. It is the Panel's responsibility to identify assessments that cannot be reviewed or completed for any reason. The Panel's decision that an assessment is complete should be made by consensus. If a Panel cannot reach agreement, then the nature of the disagreement must be described in the Panel's report.

For some species the data will be insufficient to calculate reliable estimates of F_{msy} (or its proxy), B_{msy} (or its proxy), ending biomass or unfished biomass, etc. Results of these data-poor assessments typically will not meet the requirements of a full assessment and, in those instances, each STAR Panel should consider what inferences can be drawn from the analysis presented by the STAT Team. The panel should review the reliability and appropriateness of any methods used to draw conclusions about stock status and exploitation potential and either recommend or reject the analysis on the basis of its ability to introduce useful information into the management process.

The STAR Panel's terms of reference solely concern technical aspects of the stock assessment. It is therefore important that the panel should strive for a risk neutral perspective in its reports and deliberations. Assessment results based on model scenarios that have a flawed technical basis, or are implausible on other grounds, should be identified by the panel and excluded from the set upon which management advice is to be developed. It is recognized that some of these implausible results may need to be reported in the STAT Team document in order to better define the scope of the accepted model results. The STAR panel should comment on the degree to which the accepted model scenarios describe and quantify the major sources of uncertainty, and the degree to which the probabilities associated with these scenarios are technically sound. The STAR panel may also provide qualitative comments on the probability of various model results, especially if the panel does not believe that the probability distributions calculated by the STAT capture all major sources of uncertainty.

Recommendations and requests to the STAT Team for additional or revised analyses must be clear, explicit and in writing. A written summary of discussion on significant technical points and lists of all STAR Panel recommendations and requests to the STAT Team are required in the STAR Panel's report. This should be completed (at least in draft form) prior to the end of the meeting. It is the chair and Panel's responsibility to carry out any follow-up review work that is required.

The primary goal of the STAR Panel is to complete a detailed evaluation of the results of a stock assessment, which puts the Panel in a good position to advance the best available scientific information to the Council. Under ideal circumstances, the STAT Team and STAR Panel should strive to reach a mutual consensus on a single base model, but it is essential that uncertainty in the analysis be captured and transmitted to managers. A useful way of accomplishing this objective is to bracket the base model along what is deemed to be the dominant dimension of uncertainty (e.g., spawner-recruit steepness, natural mortality rate, survey catchability, year-class strength, etc.).

Once a base model has been bracketed on either side by alternative model scenarios, which capture the overall degree of uncertainty in the assessment, a 2-way decision table analysis (states-of-nature versus management action) is the preferred way to present the repercussions of uncertainty to management. Bracketing of assessment results could be accomplished in a variety of ways, including ambiguity in the data, statistical precision, or model specification uncertainty, but as a matter of practice the STAR Panel should strive to identify a single preferred model when possible, so that averaging of extremes doesn't become the *de facto* choice of management.

To the extent possible additional analyses required in the stock assessment should be completed during the STAR Panel meeting. It is the obligation of the STAR Panel chairperson, in consultation with other Panel members, to prioritize requests for additional STAT Team analysis. If follow-up work by the STAT Team is required after the review meeting, then it is the Panel's responsibility to track STAT Team progress. In particular, the chair is responsible for communicating with all Panel members (by phone, e-mail, or any convenient means) to determine if the revised stock assessment and documents are complete and ready to be used by managers in the Council family. If stock assessments and reviews are not complete at the end of the STAR Panel meeting, then the work must be completed prior to the GMT meeting where the assessments and preliminary ABC levels are discussed.

(DISCUSSION POINT: HOW DO WE HANDLE PROGRESS TOWARDS REBUILDING?)

The STAR Panel, STAT Team, and all interested parties are legitimate meeting participants that must be accommodated in discussions. It is the STAR Panel chair's responsibility to manage discussions and public comment so that work can be completed.

STAT Teams and STAR Panels are likely to disagree on certain technical issues. If the STAR Panel and STAT Team disagree, the STAR Panel must document the areas of disagreement in its report. The STAR Panel may also request additional analysis based on an alternative approach. However, the STAR Panel's primary duty is to conduct a peer review of the assessment that is presented. In the course of this review, the Panel may ask for a reasonable number of sensitivity runs, additional details of existing assessments, or similar items from the STAT team. However, the STAR Panel is not authorized to conduct an alternative assessment representing its own views that are distinct from those of the STAT Team, nor can it impose an alternative assessment on the Team. Rather, if the Panel finds that an assessment is inadequate, it should document and report that opinion and, in addition, suggest remedial measures that could be taken by the STAT team to rectify whatever perceived shortcomings may exist. Where fundamental differences of opinion remain between the STAR Panel and STAT Team, which cannot be resolved by mutual discussion, the SSC will review the dispute and will issue its own recommendation.

The SSC representative on the STAR Panel is expected to attend GMT and Council meetings where stock assessments and harvest projections are discussed to explain the reviews and provide other technical information and advice. The chair is responsible for providing Council staff with a camera ready and suitable electronic version of the Panel's report for inclusion in the annual SAFE report.

Suggested Template for STAR Panel Report

1. Minutes of the STAR Panel meeting containing
 - A. Name and affiliation of STAR Panel members; and
 - B. List of analyses requested by the STAR Panel.
2. Comments on the technical merits and/or deficiencies in the assessment and recommendations for remedies.
3. Explanation of areas of disagreement regarding STAR Panel recommendations:
 - A. among STAR Panel members (majority and minority reports), and
 - B. between the STAR Panel and STAT Team
4. Unresolved problems and major uncertainties, e.g.; any special issues that complicate scientific assessment, questions about the best model scenario.
5. Prioritized recommendations for future research and data collection

Terms of Reference for Groundfish STAT Teams

The STAT Team will carry out its work according to these terms of reference and the calendar for groundfish stock assessments.

Each STAT Team will appoint a representative who will attend any data and modeling workshops. STAT Teams are encouraged to also organize independent meetings with industry and interested parties to discuss issues, questions, and data.

Each STAT Team will appoint a representative to coordinate work with the STAR Panel and attend the STAR Panel meeting.

Each STAT Team will appoint a representative who will attend the GMT meeting and Council meeting where preliminary acceptable biological catch (ABC) and optimum yield (OY) levels are discussed. In addition, a representative of the STAT Team should attend the GMT and Council meeting where final ABC and OY levels are discussed, if requested or necessary. At these meetings, the STAT Team member shall be available to answer questions about the STAT Team report.

The STAT Team is responsible for preparing three versions of the stock assessment document: 1) a “draft” for discussion at the stock assessment review meeting; 2) a revised “complete draft” for distribution to the GMT, SSC, GAP, and Council for discussions about preliminary ABC and OY levels; 3) a “final” version published in the SAFE report. Other than authorized changes, only editorial and other minor changes should be made between the “complete draft” and “final” versions. The STAT Team will distribute “draft” assessment documents to the STAR Panel, Council, and GMT and GAP representatives at least two weeks prior to the STAR Panel meeting. (DISCUSSION POINT: WILL 2 WEEKS BE SUFFICIENT IF A PANEL REVIEWS 3-4 ASSESSMENTS?)

The STAT Team is responsible for bringing computerized data and working assessment models to the review meeting in a form that can be analyzed on site. STAT Teams should take the initiative in building and selecting candidate models and should have several complete models ready to present to the STAR Panel and be prepared to discuss the merits of each.

The STAT Team is responsible for producing a complete draft of the assessment by the end of the STAR Panel meeting. In the event that a complete draft is not completed, the Team is responsible for completing the work to the satisfaction of the STAR Panel as soon as possible, but within at least one week before the GMT meets to discuss the results of the assessment.

The STAT Team and the STAR Panel may disagree on technical issues regarding an assessment, but a complete stock assessment must include a point-by-point response by the STAT Team to each of the STAR Panel’s recommendations. Estimates and projections representing all sides of the disagreement need to be presented, reviewed, and commented on by the SSC.

For stocks which are projected to fall below overfished thresholds, the STAT Team must complete a rebuilding analysis according to the SSC’s Terms of Reference for Groundfish Rebuilding Analyses². It is recommended that this analysis be conducted using the rebuilding software developed by Dr. Andre Punt (aepunt@u.washington.edu). However, authors are also encouraged to present alternative approaches (where appropriate), along with clear justification for why the alternative may be an improvement over the approach described in the SSC’s Terms of Reference. The STAT Team is also responsible for preparing a document that summarizes the results of the rebuilding analysis. .

Electronic versions of final assessment documents, rebuilding analyses, parameter files, data files, and key output files will be sent to the Stock Assessment Coordinator for inclusion in a stock assessment archive.

²SSC Terms of Reference for Groundfish Rebuilding Analyses (Final Draft). Exhibit F.7, Supplemental SSC Terms of Reference, April 2001. Available from the PFMC, 7700 NE Ambassador Place, Suite 200, Portland, OR, 97220-1384, (503) 820-2280.

Appendix A: 2005-2006 Stock Assessment Review Calendar

July 26-30, 2004	Data Workshop (AFSC, Seattle)
Oct. 25-29, 2004	Modeling Workshop (NWFSC, Seattle)
Nov. 1-5, 2004	PFMC adoption of Stock Assessment Terms of Reference (Portland)
April 18-22, 2005	STAR Panel #1: cowcod, English sole, petrale sole, starry flounder
May 2-6, 2005	STAR Panel #2: cabezon, California scorpionfish, gopher rockfish, kelp greenling
May 16-20, 2005	STAR Panel #3: Pacific ocean perch, darkblotched rockfish, blackgill rockfish
June 20-24, 2005	STAR Panel #4: sablefish, Dover sole, longspine thornyhead, shortspine thornyhead
Aug. 1-5, 2005	STAR Panel #5: canary rockfish, bocaccio, vermilion rockfish
Aug. 15-19, 2005	STAR Panel #6: lingcod, widow rockfish, yelloweye rockfish, yellowtail rockfish
Sept.-Oct., 2005	Mop-up STAR Panel (if needed)
Sept., 2005	GMT meeting
Sept. 18-23, 2005	PFMC preliminary adoption of ABCs and OYs (Portland)
Nov. 1-4, 2005	PFMC continued adoption of ABCs and OYs (San Diego)
April 3-7, 2006	PFMC preliminary adoption of management measures for 2007-2008 (California)
June 12-16, 2006	PFMC final adoption of management measures for 2007-2008 (????)

Appendix B: Outline for Groundfish Stock Assessment Documents

This is an outline of items that should be included in stock assessment reports for groundfish managed by the Pacific Fishery Management Council. The outline is a working document meant to provide assessment authors with flexible guidelines about how to organize and communicate their work. All items listed in the outline may not be appropriate or available for each assessment. In the interest of clarity and uniformity of presentation, stock assessment authors and reviewers are encouraged (but not required) to use the same organization and section names as in the outline. It is important that time trends of catch, abundance, harvest rates, recruitment and other key quantities be presented in tabular form to facilitate full understanding and followup work.

- a. Title page and list of preparers – the names and affiliations of the stock assessment team (STAT) either alphabetically or as first and secondary authors
- b. Executive Summary (see attached template and example in Appendices C and D). This also serves as the STAT summary included in the SAFE.
- c. Introduction
 1. Scientific name, distribution, stock structure, management units
 2. Important features of life history that affect management (e.g., migration, sexual dimorphism, bathymetric demography)
 3. Important features of current fishery and relevant history of fishery
 4. Management history (e.g., changes in mesh sizes, trip limits, optimum yields)
 5. Management performance – a table or tables comparing acceptable biological catches, optimum yields, landings, and catch (i.e., landings plus discard) for each area and year
- d. Assessment
 1. Data
 - a. Landings by year and fishery, historical catch estimates, discards (generally specified as a percentage of total catch in weight and in units of mt), catch-at-age, weight-at-age, abundance indices (typically survey and CPUE data), data used to estimate biological parameters (e.g.; growth rates, maturity schedules, and natural mortality) with coefficients of variation (CVs) or variances if available. Include complete tables and figures.
 - b. Sample size information for length and age composition data by area, year, gear, market category, etc., including both the number of trips and fish sampled.
 2. History of modeling approaches used for this stock – changes between current and previous assessment models
 3. Model description
 - a. Complete description of any new modeling approaches.
 - b. Assessment program with last revision date (i.e., date executable program file was compiled).
 - c. List and description of all likelihood components in the model.
 - d. Constraints on parameters, selectivity assumptions, natural mortality, assumed level of age reader agreement or assumed ageing error (if applicable), and other assumed parameters.
 - e. Description of stock-recruitment constraints or components.
 - f. Description of how the first year that is included in the model was selected and how the population state at the time is defined (e.g., B_0 , stable age structure, etc.).
 - g. Critical assumptions and consequences of assumption failures.
 4. Model selection and evaluation
 - a. Evidence of search for balance between model realism and parsimony.
 - b. Use nested models where possible (e.g.; asymptotic vs. domed selectivities, constant vs. time varying selectivities).
 - c. Do parameter estimates make sense, are they credible?
 - d. Residual analysis (e.g.; residual plots, time series plots of observed and predicted values, or other approach).
 - e. Convergence status and convergence criteria for the base-run model.
 - f. Randomization run results or other evidence of search for global best estimates.

5. Base-run(s) results
 - a. Table listing all parameters in the stock assessment model used for base runs, their purpose (e.g.; recruitment parameter, selectivity parameter) and whether or not the parameter was actually estimated in the stock assessment model.
 - b. Population numbers at age \times year.
 - c. Time-series of total and spawning biomass, depletion relative to B_0 , recruitment and fishing mortality or exploitation rate estimates (table and figures).
 - d. Selectivity estimates (if not included elsewhere).
 - e. Stock-recruitment relationship.
6. Uncertainty and sensitivity analyses. The best approach for describing uncertainty and the range of probable biomass estimates in groundfish assessments may depend on the situation. Important factors to consider include:
 - a. Parameter uncertainty (variance estimation conditioned on a given model, estimation framework, data set choice, and weighting scheme), including likelihood profiles of important assessment parameters (e.g., natural mortality). This also includes expressing uncertainty in derived outputs of the model and estimating CVs by an appropriate methods (e.g., bootstrap, Bayesian approaches, or MCMC).
 - b. Sensitivity to data set choice and weighting schemes (e.g., emphasis or λ factors), which may also include a consideration of recent patterns in recruitment.
 - c. Sensitivity to assumptions about model structure, i.e., model specification uncertainty.
 - d. Retrospective analysis.
 - e. Historical analysis (plot of actual estimates from current and previous assessments).
 - f. Decision table analysis.
 - g. Subjective appraisal of the magnitude and sources of uncertainty.
 - h. If a range of model runs is used to characterize uncertainty it is important to provide some qualitative or quantitative information about relative probability of each.
 - i. If possible, ranges depicting uncertainty should include at least three runs: (a) one judged most probable; (b) at least one that depicts the range of uncertainty in the direction of lower current biomass levels; and (c) one that depicts the range of uncertainty in the direction of higher current biomass levels. The entire range of uncertainty should be carried through stock projections and decision table analyses.
- e. Rebuilding parameters –
 1. Determine B_0 as the product of spawners per recruit (SPR) in unfished state multiplied by the average recruitment expected while the stock is unfished. This typically is estimated as the average recruitment during early years of fishery. According to the 1999 SAFE report (PFMC 1999, p. 24)³, the values for spawners are preferably measured as total population egg production, but female spawning biomass is a common proxy.
 2. $B_{msy} = 0.4 B_0$;
 3. Mean generation time; and
 4. Forward projection using a Monte Carlo re-sampling of recruitments expected to occur as the stock rebuilds, where future recruitments typically are taken from the recent time series of estimated recruitments or recruits per spawner. Alternatively, if a credible stock-recruitment relationship can be estimated, it could be used to project population growth. Either approach can be conducted using the Punt rebuilding software (see above).
- f. Reference Points (biomass and exploitation rate)
- g. Harvest projections and decision tables

³Pacific Fishery Management Council. 1999. Status of the Pacific Coast Groundfish Fishery Through 1998 and Recommended Biological Catches for 2000: Stock Assessment and Fishery Evaluation. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 2130 SW Fifth Avenue, Suite, 224, Portland, Oregon 97201.

- a. Harvest projections and decision tables (i.e., a matrix of states of nature versus management action) should cover the plausible range of uncertainty about current biomass and the full range of candidate fishing mortality targets used for the stock or requested by the GMT. These should at least include calculation of the ABC based on F_{msy} (or its proxy) and the OY that is implied under the Council's 40:10 harvest policy. Ideally, the alternatives described in the decision table will be drawn from a probability distribution which describes the pattern of uncertainty regarding the status of the stock and the consequences of alternative future management actions. Where alternatives are not formally associated with a probability distribution, the document needs to present sufficient information to guide assignment of approximate probabilities to each alternative.
 - b. Information presented should include biomass and yield projections of ABC and OY for ten years into the future, beginning with the first year for which management action could be based upon the assessment.
8. Research needs (prioritized).
 9. Acknowledgments-include STAR Panel members and affiliations as well as names and affiliations of persons who contributed data, advice or information but were not part of the assessment team.
 10. Literature cited.
 11. Complete parameter and data in the native code of the stock assessment.

DRAFT

Appendix C: Template for Executive Summary Prepared by STAT Teams

Stock: species/area

Catches: trends and current levels-include table for last ten years and graph with long term data

Data and assessment: date of last assessment, type of assessment model, data available, new information, and information lacking

Unresolved problems and major uncertainties: any special issues that complicate scientific assessment, questions about the best model scenario, etc.

Reference points: management targets and definition of overfishing

Stock biomass: trends and current levels relative to virgin or historic levels, description of uncertainty-include table for last 10 years and graph with long term estimates

Recruitment: trends and current levels relative to virgin or historic levels-include table for last 10 years and graph with long term estimates

Exploitation status: exploitation rates (i.e., total catch divided by exploitable biomass) – include table for last 10 years and graph with long term estimates.

Management performance: catches in comparison to ABC and OY values for the most recent 10 years (when available), overfishing levels, actual catch and discard

Forecasts: ten forecasts of catch, biomass, and depletion

Decision table:

Research and data needs:

Rebuilding Projections: principal results from rebuilding analysis if the stock is overfished

Appendix D: Example a Complete Stock Assessment Executive Summary

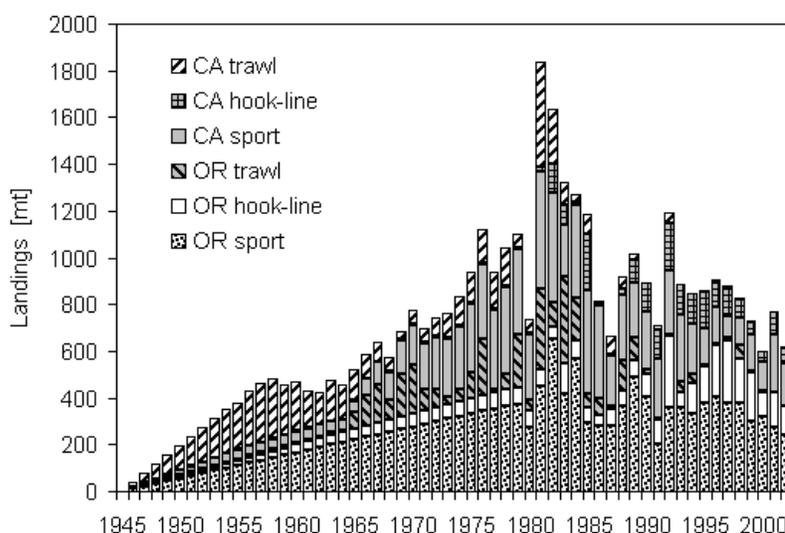
Executive Summary

Stock: This assessment pertains to the black rockfish (*Sebastes melanops*) population resident in waters located off northern California and Oregon, including the region between Cape Falcon and the Columbia River. Genetic information is presented that indicates black rockfish within that area represent a single homogeneous unit. A separate analysis of black rockfish off the coast of Washington and Oregon north of Cape Falcon was conducted by Wallace *et al.* (1999).

Catches: Catches of black rockfish from Oregon and California were classified into 6 distinct fisheries, i.e., the recreational, commercial hook-and-line, and trawl sectors from each State. Since 1978, when consistent catch reporting systems began, landings have ranged from 602–1,836 mt. From 1978-2002 recreational catches have been reasonably consistent and have predominated. Concurrently, hook-and-line landings have increased as trawl landings have decreased. For this assessment, catches from 1945-77 were estimated from fragmented data and were ramped up by linear interpolation to known values in 1978. Discard rates of black rockfish are thought to be negligible, so the catch was assumed equal to the landings.

Recent black rockfish catch statistics [mt] by fishery

Year	Oregon			California			Total
	Sport	Hook	Trawl	Sport	Hook	Trawl	
1993	360.8	65.7	43.7	284.0	129.1	2.2	885.5
1994	330.0	131.2	43.4	210.0	130.9	1.1	846.6
1995	377.4	158.5	4.3	158.0	156.9	2.7	857.8
1996	401.3	225.6	7.7	154.0	103.4	10.5	902.5
1997	375.9	267.6	17.1	91.0	112.8	14.1	878.5
1998	375.2	191.6	58.6	117.0	78.6	6.3	827.3
1999	301.6	207.7	2.3	162.0	49.0	3.9	726.5
2000	320.7	105.6	0.6	129.0	43.7	2.3	601.9
2001	275.4	146.2	0.2	248.0	96.6	2.1	768.5
2002	241.6	125.2	1.2	179.7	67.0	2.0	616.7



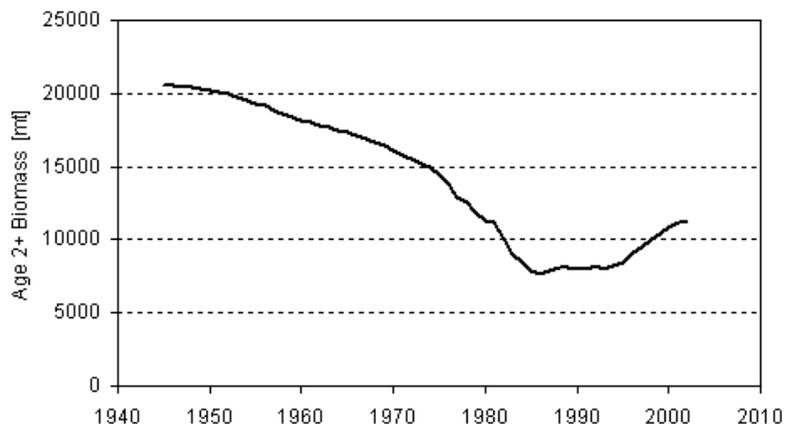
Data and Assessment: A variety of data sources was used in this assessment including: (1) recreational landings, age, and size composition data from the Oregon Department of Fish and Wildlife (ODF&W), (2) recreational landings (all California and Oregon shore-based modes) from the RECFIN data base, (3) Oregon commercial landings (trawl and hook-and-line) from the PACFIN data base, (4) size compositions for the commercial fisheries in Oregon from ODF&W, (5) California commercial landings and length compositions from

the CALCOM database, (6) a recreational catch-per-unit-effort (CPUE) statistic developed from information provided by ODF&W, (7) recreational CPUE statistics for each State derived from the RECFIN data base, and (8) a recreational CPUE statistic developed from the CDF&G central California CPFV data base. These multiple data sources were combined in a maximum likelihood statistical setting using the length-based version of the Stock Synthesis Model (Methot 1990, 2000).

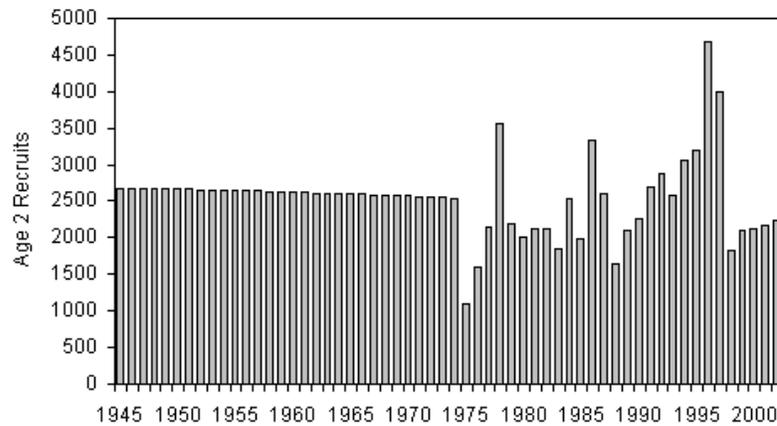
Unresolved Problems and Major Uncertainties: The major sources of uncertainty in this stock assessment include: (1) the amount of historical landings that occurred prior to the 1978, (2) the assumed natural mortality rate, and (3) the steepness of the spawner-recruit curve.

Reference Points: Based on the Pacific Fishery Management Council's current default harvest rate policy for *Sebastes*, the target harvest rate for black rockfish is $F_{50\%}$. Given the life history of the species, and the prevailing mix of fisheries in 2002 (predominately recreational with some commercial hook-and-line catches), this corresponds to an exploitation rate of about 7.7%. Moreover, the Council's current target biomass level for exploited groundfish stocks is $B_{40\%}$, i.e., the spawning output of the stock is reduced to 40% of that expected in the absence of fishing. For black rockfish that corresponds to spawning output of 1.258×10^9 larvae.

Stock Biomass: The biomass of age 2+ black rockfish underwent a significant decline from a high of 20,510 mt in 1945 to a low of 7,702 mt in 1986, representing a 62% decline. Since that time, however, the stock has increased and is currently estimated to be 11,232 mt. Most of the population's growth occurred after 1995, due to several large recruitment events, including especially the 1994 and 1995 year-classes.

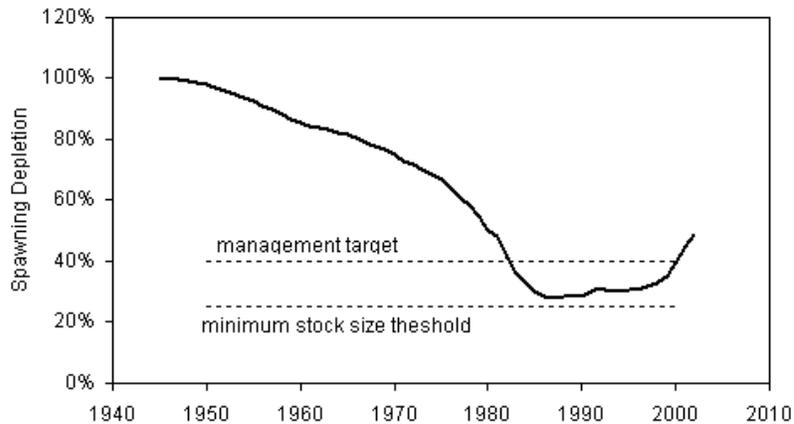


Recruitment: In the assessment recruitment was treated as a blend of deterministic values (i.e., 1945-1974 & 1999-2002) and stochastic values (i.e., 1975-1998). The Beverton-Holt steepness parameter (h) was fixed at a value of 0.65, based upon on a profile of goodness-of-fit and results from a prior meta-analysis of rockfish productivity. During the 1975-1998 period there was a significant increasing trend in recruitment, even as spawning output declined. That trend culminated with the recruitment of the 1994 and 1995 year-classes, which were about twice as large as expected, based on the predicted value from the spawner-recruit curve.



Exploitation Status: The northern California-Oregon stock of black rockfish is in healthy condition, with 2002 spawning output estimated to be 49% of the unexploited spawning level. This places the stock well above the management target level of $B_{40\%}$. Likewise, age 2+ biomass in 2002 is estimated to be 11,232 mt, which is 55% of that expected in the absence of fishing.

Management Performance: Black rockfish in the southern area (Eureka & Monterey INPFC areas) have historically been managed as part of the “Other Rockfish” category, with no explicit ABC or OY designated. For 2001 the ABC of all species within that group was 2,702 mt. In contrast, in the northern area (Vancouver & Columbia INPFC areas) black rockfish is managed within the “Remaining Rockfish” category, with a designated 2001 ABC of 1,115 mt.



Forecasts: A forecast of stock abundance and yield was developed under the base model. In this projection there was no 40:10 reduction in OY from the calculated ABC because the stock is estimated to be above the management target ($B_{40\%}$) and annual yields were calculated using an $F_{50\%}$ exploitation rate (see above). Results are shown in the following table:

Year	Age 2+ Biomass	Spawning Output	Recruits	ABC Exploitation		Yield [mt]	
				Rate	ABC	=	OY
2003	11,342	1.63E+09	2,307	7.60%	802	=	802
2004	11,217	1.66E+09	2,353	7.45%	775	=	775
2005	11,082	1.65E+09	2,386	7.34%	753	=	753
2006	10,938	1.62E+09	2,394	7.29%	736	=	736
2007	10,802	1.57E+09	2,392	7.28%	725	=	725
2008	10,700	1.53E+09	2,381	7.29%	719	=	719
2009	10,621	1.50E+09	2,366	7.30%	715	=	715
2010	10558	1.48E+09	2,354	7.32%	713	=	713
2011	10505	1.47E+09	2,343	7.34%	711	=	711
2012	10459	1.46E+09	2,335	7.35%	708	=	708

Decision Table: The amount of historical catch prior to 1978 was considered a major source of uncertainty in this assessment. Although some catch estimates were available prior to that time, which were not inconsequential, no continuous time series of catches from the sport and trawl fisheries in Oregon and California could be identified. Therefore, the catch record was assumed to begin in 1945, with no historical catches prior to that year. Catches were then made to ramp up to 1978, using whatever external data were available and linear interpolations to fill missing values. To bracket uncertainty in these catches and their effect on the management system: (1) high and low catch scenarios were created, (2) the base assessment model was refitted to each series, and (3) 10-year yield projections run. Results show that if historical catches were lower than in the base model the calculated OY (= ABC) is reduced. Conversely, if historical catches were higher than modeled the OY would be higher. For purposes of comparison, total catches for 2000, 2001, and 2002 were 602, 768, and 617 mt, respectively.

Year	Low Catch Scenario		Base Model		High Catch Scenario	
	OY [mt]	Depletion	OY [mt]	Depletion	OY [mt]	Depletion
2003	757	54.2%	802	51.9%	886	48.1%
2004	729	54.9%	775	52.7%	861	49.0%
2005	706	54.5%	753	52.5%	842	48.9%
2006	688	53.3%	736	51.4%	828	48.2%
2007	676	51.7%	725	50.0%	820	47.1%
2008	668	50.3%	719	48.8%	817	46.2%
2009	663	49.2%	715	47.9%	816	45.6%
2010	660	48.3%	713	47.2%	816	45.1%
2011	657	47.7%	711	46.7%	816	44.9%
2012	654	47.2%	708	46.3%	816	44.7%

Research and Data Needs: The black rockfish review panel identified certain gaps in the available information that hindered the stock assessment. These were: (1) a fishery-independent survey should be developed to monitor changes in black rockfish population abundance, (2) the California CPFV data set should be more thoroughly investigated to ascertain whether or not serial depletion of fishing sites has artificially kept catch rates high [see Appendix 1], (3) a standard approach to historical catch reconstructions should be developed, (4) the possibility of time-varying growth should be investigated, and (5) the calculation of the RECFIN catch-per-unit-effort statistic should be more thoroughly analyzed and verified.

Rebuilding Projections: The assessment indicates that black rockfish is well above the limit overfished threshold ($B_{25\%}$). Therefore, no rebuilding calculations were conducted.

Appendix E: History of STAR process

In 1995 and earlier years, stock assessments were examined at a very early stage during *ad hoc* stock assessment review meetings (one per year). SSC and GMT members often participated in these meetings and provided additional review of completed stock assessments during regular Council meetings. There were no terms of reference or meeting reports from the *ad hoc* meetings. NMFS provided leadership and coordination by setting up meetings. Each agency or Council paid their own travel costs. Council staff distributed meeting announcements and some background documents. The Council paid for publication of assessments as appendices to the annual Stock Assessment and Fishery Evaluation (SAFE) document.

A key event occurred in July 1995 when NMFS convened an independent, external review of West Coast groundfish assessments.¹ The report concluded that: 1) uncertainties associated with assessment advice were understated; 2) technical review of groundfish assessments should be more structured and involve more outside peers; and 3) the distinction between scientific advice and management decisions was blurred. Work to develop a process to review groundfish stock assessments was aimed at resolving these problems.

For 1996, the groundfish stock assessment review process was expanded to include: 1) terms of reference for the review meeting; 2) an outline for the contents of stock assessments; 3) external anonymous reviews of previous assessments; and 4) a review meeting report.² Plans were developed during March and April Council meetings and NMFS convened a week long review meeting in Newport, Oregon where preliminary groundfish stock assessments were discussed. The expanded process itself was reviewed by the Council family at an evaluation meeting at the end of the year. Leadership and planning responsibilities were shared by the SSC Groundfish Subcommittee, NMFS, GMT, GAP, and persons who participated in planning discussions during the March and April Council meetings. There was no formal coordination except for the review meeting terms of reference, organization of the review meeting by NMFS, and as provided by Council staff for publication of documents. Costs were shared as in previous years.

The review process for 1997 was further expanded based on a planning meeting in December 1996.³ It was agreed that agencies (including NMFS and state agencies) conducting stock assessments were responsible for making sure assessments were technically sound and adequately reviewed. A Council-oriented review process was developed that included agencies, the GMT, GAP, and other interested members of the Council family. The process was jointly funded by the Council and NMFS, with NMFS hosting the Stock Assessment Review (STAR) Panel meetings and paying the travel expenses of the external reviewers, and the Council paying for travel expenses of the GAP representative and non-federal GMT and SSC members.

The process for 1997 included: 1) goals and objectives; 2) three STAR Panels, including external membership; 3) terms of reference for STAR Panels; 4) terms of reference for Stock Assessment (STAT) Teams; 5) a refined outline for stock assessments; 6) external anonymous reviews; 7) a clearer distinction between science and management; and 8) a calendar of events with clear deliverables, dates and well defined responsibilities. For the first time, STAR Panels and STAT Teams were asked to provide “decision table” analyses of the effects of uncertain management actions and to provide information required by the GMT in choosing harvest strategies. In addition, STAR Panels were asked to prepare “Stock Summaries” that described the essential elements of stock assessment results in a concise, simple format.

¹Anon. 1995. West coast groundfish assessments review, August 4, 1995. Pacific Fishery Management Council. Portland, OR.

²Brodziak, J., R. Conser, L. Jacobson, T. Jagielo, and G. Sylvia. 1996. Groundfish stock assessment review meeting - June 3-7, 1996 in Newport, Oregon. *In*: Status of the Pacific coast groundfish fishery through 1996 and recommended acceptable biological catches for 1997. Pacific Fisheries Management Council. Portland, OR.

³Meeting Report, Proposals and Plans for Groundfish Stock Assessment and Reviews During 1997 (May 8, 1997). Pacific Fishery Management Council, 2130 SW Fifth Avenue, Suite 224, Portland, OR 97201.

At the end of 1997, participants met to discuss events and make recommendations for 1998.⁴ Participants concluded that objectives were, to varying degrees, achieved during 1997. A notable shortfall was in “increasing acceptance and understanding by all members of the Council family.” The most significant issues seemed to be the nature of the STAR Panels’ responsibilities, communicating uncertainty to decision makers, workload, and inexperience in conducting the review process.

In retrospect, there was no formal coordination and leadership except for the terms of reference and the calendar. As in previous years, Council staff coordinated distribution of meeting announcements and distribution of documents. Costs increased substantially due to travel for external experts, increased number of review meetings (three instead of one), and distribution of larger and additional reports. NMFS paid travel and other costs for external members of STAR Panels. Other costs were distributed as in 1996. It was not possible for the Council to copy and distribute all of the stock assessments because of limited funds.

In 1998, the stock assessment process was similar to that in 1997, including the 8 elements listed above. In November, a joint session of the SSC, GMT, and GAP was held to review events in 1998 and make recommendations for 1999. Several topics were discussed, including policy issues related to the 1998 terms of reference and operational issues related to how the terms of reference were implemented in 1998. This meeting produced a list of recommended changes for 1999, including:

- increasing the SSC's involvement in the process;
- clarify/modify the participant roles;
- limit the number of assessments, especially the difficulty caused by the late addition of assessments (e.g., sablefish and shortspine thornyhead in 1998);
- increase the involvement of external participants;
- timeliness in completing and submitting assessments; and
- duration of STAR Panel meetings, and the time required to adequately reviewing assessments.

Accordingly, the terms of reference were amended to include a cut-off date of November by which anyone proposing to present an assessment for review in the following year must notify the stock assessment coordinator. This change will ensure there is adequate time for formation and planning of STAR Panel meetings. The terms of reference were also changed to clarify the SSC’s role in the process as "editor" and "arbiter;" the SSC will hear reports from all STAR Panels at its September meeting and will be involved in any unresolved issues between the STAT Teams, STAR Panels, or the GMT. Other issues were raised that had no quick solutions, such as how to incorporate socioeconomic information into the process, and how to present the decision tables to GMT and Council members.

Other than the changes noted above, the 1999 STAR process was similar to 1997 and 1998. As in previous years, a joint meeting of the SSC, GAP, and GMT was convened to review and evaluate the stock assessment process and to recommend modifications for 2000. There were relatively few concerns about the process in 1999, and they centered mainly around the difficulty of recruiting sufficient (external and internal) reviewers. Participants did not recommend departing from the current terms of reference regarding STAR panel composition, although they seemed to regard it more as a goal than a strict requirement. A notable continuing concern was the timeliness of STAT team reports prior to the STAR panel meetings.

Requirements for stock rebuilding analyses and monitoring of rebuilding progress and their relationship to the STAR process were also discussed. The group agreed that the terms of reference should be modified to require additional values (e.g., B_{msy}) be tabulated and included in STAT Team report related to an overfished species. There was general agreement that the STAR process should be used to review assessments of overfished species, which are still likely to be on a 3-year cycle. However, the STAR process is not the appropriate process for the "monitoring" reports (required every 2 years), when they are out of phase with the assessment cycle.

⁴Jacobson, L.D. (ed.). 1997. Comments, issues and suggestions arising from the groundfish stock assessment and review process during 1997. Report to the Pacific Fishery Management Council (Revised Supplemental Attachment B.9.b, November 1997).

Additionally, it was agreed that certain additional values should be consistently tabulated in the STAT team report in order to build a long-term computerized database of key parameters. The group noted that this would not impose additional work for the STAT team, but would simply require these values to be reported consistently.

The 2000 STAR process was reviewed during a joint meeting of the GAP, GMT, and SSC at the November 2000 meeting. There were relatively few recommendations for improvement to the terms of reference for 2001, although concerns about the long-term future for the STAR process were raised. It was agreed that the future of the STAR process would be evaluated during 2001, but the STAR process in 2001 would proceed similarly to past years. For the 2001 STAR process, participants at the review meeting recommended that greater efforts be made to produce and distribute documents in a timely manner and to assure their completeness and consistency with the terms of reference. In addition, the SSC agreed that its groundfish subcommittee would meet in concert with the GMT during the August 2001 meeting to identify issues, if any, with the assessments or STAR panel reviews that may require additional consideration by the SSC.

At the March 2001 PFMC meeting, the SSC provided recommendations for integrating rebuilding analyses and reviews into the STAR process for 2001.

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Appendix F: Terms of Reference for Expedited Stock Assessment Updates

While the ordinary STAR process is designed to provide a general framework for obtaining a comprehensive, independent review of a stock assessment, in other situations a less rigorous review of assessment results is desirable. This is especially true in situations where a “model” has already been critically examined and the objective is to simply update the model by incorporating the most recent data. In this context a model refers not only to the population dynamics model *per se*, but to the particular data sources that are used as inputs to the model, the statistical framework for fitting the data, and the analytical treatment of model outputs used in providing management advice, including reference points, the allowable biological catch (ABC) and optimum yield (OY). When this type of situation occurs, it is an inefficient use of scarce personnel resources to assemble a full STAR Panel for a whole week to evaluate an accepted modeling framework. These terms of reference establish a procedure that can accommodate an abbreviated form of review for stock assessment models that fall into this latter category. However, it is recognized that what in theory may seem to be a simple update, may in practice result in a situation that is impossible to resolve in an abbreviated process. In these cases, it may not be possible to update the assessment – rather the assessment may need to be revised in the next full assessment review cycle.

Qualification

The Scientific and Statistical Committee (SSC) will determine when a stock assessment qualifies for an expedited update under these terms of reference. To qualify, a stock assessment must carry forward its fundamental structure from a model that was previously reviewed and endorsed by a full STAR panel. In practice this means similarity in: (a) the particular sources of data used, (b) the analytical methods used to summarize data prior to input to the model, (c) the software used in programming the assessment, (d) the assumptions and structure of the population dynamics model underlying the stock assessment, (e) the statistical framework for fitting the model to the data and determining goodness of fit, (f) the procedure for weighting of the various data components, and (g) the analytical treatment of model outputs in determining management reference points, including F_{msy} , B_{msy} , and B_0 . It is the SSC’s intention to employ an expedited stock assessment update in situations where no significant change in these 7 factors has occurred, other than extending time series of data elements within particular data components used by the model, e.g., adding information from a recently completed survey with an update of landings. In practice there will always be valid reasons for altering a model, as defined in this broad context, although, in the interests of stability, such changes should be resisted when possible. Instead, significant alterations should be addressed in the next subsequent full assessment and review. In principle, an expedited update is reserved for stock assessments that maintain fidelity to an accepted modeling framework, but the SSC does not wish to prescribe in advance what particular changes may or may not be implemented. Such a determination will need to be made on a case by case basis.

Composition of the Review Panel

The groundfish subcommittee of the SSC will conduct the review of an expedited stock assessment update. A review panel chairman will be designated by the chairman of the groundfish subcommittee from among its membership and it will be the panel chairman’s responsibility to ensure the review is completed properly and that a written report of the proceedings is produced. Other members of the subcommittee will participate in the review to the extent possible, i.e., input from all members will not be required to finalize a report. In addition, the groundfish management team (GMT) and the groundfish advisory panel (GAP) will designate one person each to participate in the review, although the GMT and GAP panelists will serve in an advisory capacity only.

Review Format

Typically, a physical meeting will not be required to complete an expedited review of an updated stock assessment, but usually one would be the most efficient way to conduct the review. Rather, if a meeting is not held, materials can be distributed electronically. STAT and panel representatives will largely be expected to interact by email and telephone. A conference call will be held to facilitate public participation in the review.

The review process will be as follows. Initially, the STAT team that is preparing the stock assessment update will distribute to the review panelists a document that summarizes the team’s findings. In addition, Council staff will provide panelists with a copy of the last stock assessment reviewed under the full STAR process, as well as the previous STAR panel report. Each panelist will carefully review the materials provided. A conference call will be

arranged by the panel chairman, which will provide an opportunity to discuss and clarify issues arising during the review, as well as provide for public participation. Notice of the conference call and a list of public listening stations will be published in the *Federal Register* (generally, 23 days in advance of the conference call) and a Meeting Notice will be distributed (generally, 14 days in advance). A dialogue will ensue among the panelists and the STAT team over a period of time that generally should not exceed one week. Interested members of the public may request access to the discussions (typically email), which would be facilitated of Council staff. Upon completion of the interactive phase of the review, the panel chairman may, if necessary, convene a second conference call to reach a consensus among panel members and will draft a report of the panel's findings regarding the updated assessment. The whole process should be scheduled to occur within a two week period and the STAT team and panelists should be prepared to complete their work within that time frame. It will be the chairman's responsibility to insure that the review is completed in a timely manner.

STAT Team Deliverables

It is the STAT team's responsibility to provide a description of the updated stock assessment to the panel at the beginning of the review. To streamline the process, the team can reference whatever material it chooses, which was presented in the previous stock assessment (e.g., a description of methods, data sources, stock structure, etc.). However, it is essential that any new information being incorporated into the assessment be presented in enough detail, so that the review panel can determine whether the update satisfactorily meets the Council's requirement to use the best available scientific information. Of particular importance will be a retrospective analysis showing the performance of the model with and without the updated data streams. Likewise, a decision table that highlights the consequences of mis-management under alternative states of nature would be useful to the Council in adopting annual specifications. Similarly, if any minor changes to the "model" structure are adopted, above and beyond updating specific data streams, a sensitivity analysis to those changes may be required.

In addition to documenting changes in the performance of the model, the STAT team will be required to present key assessment outputs in tabular form. Specifically, the STAT team's final update document should include the following:

- Title page and list of preparers
- Executive Summary (see Appendix C)
- Introduction
- Documentation of updated data sources
- Short description of overall model structure
- Base-run results (largely tabular and graphical)
- Uncertainty analysis, including retrospective analysis, decision table, etc.
- 10 year harvest projections under the default harvest policy

Review Panel Report

The expedited stock assessment review panel will issue a report that will include the following items:

- Name and affiliation of panelists
- Comments on the technical merits and/or deficiencies of the update
- Explanation of areas of disagreement among panelists and between the panel and STAT team
- Recommendation regarding the adequacy of the updated assessment for use in management

SSC Terms of Reference for Groundfish Rebuilding Analyses

Final Draft
April 2001

Introduction

Amendment 11 to the Groundfish Fishery Management Plan (FMP) established a harvest control rule for determining optimum yields (OY). The 40:10 policy was designed to prevent stocks from falling into an overfished condition. Part of the amendment established a default overfished threshold equal to 25% of the unexploited population size¹ (B_0). By definition, groundfish stocks falling below that level are overfished ($B_{25\%} = 0.25 \times B_0$). To prevent stocks from deteriorating to that point, the policy also specifies a precautionary threshold equivalent to 40% of B_0 . At stock sizes less than $B_{40\%}$ the policy requires that OY, when expressed as a fraction of the allowable biological catch (ABC), be progressively reduced. Because of this linkage, $B_{40\%}$ has sometimes been interpreted to be a proxy measure of B_{MSY} , i.e., the stock biomass that results when a stock is fished at F_{MSY} . In fact, theoretical results support the view that a robust biomass-based harvesting strategy would be to simply maintain stock size at about 40% of the unfished level (Clark 1991, In review). In the absence of a credible estimate of B_{MSY} , which can be very difficult to estimate (MacCall and Ralston, In review), $B_{40\%}$ is a suitable proxy to use as a rebuilding target.

There are a number of ways that one could proceed in modeling stock rebuilding, but they fundamentally reduce to two basic kinds of approaches. These are: (1) an empirical evaluation of spawner-recruit estimates and (2) fitting spawner-recruit estimates to a theoretical model of stock productivity (e.g., the Beverton-Holt or Ricker curves). To date, however, rebuilding plans have largely been based on analyses of the former type (e.g., bocaccio, lingcod, POP#1, canary rockfish). Similarly, the cowcod rebuilding analysis involved an empirical evaluation of annual estimates of surplus production. Thus far, the only rebuilding analysis that has been based on the fit of spawner-recruit data to a theoretical model is the analysis presented in the last stock assessment of Pacific ocean perch (POP#2; Ianelli *et al.* 2000).

Presented here are guidelines for conducting a basic groundfish rebuilding analysis that meets the minimum requirements that have been established by the Council's Scientific and Statistical Committee (SSC). These basic calculations are required of all rebuilding analyses in order to provide a standard set of base case computations, which can then be used to compare and standardize rebuilding analyses among stocks. However, the SSC also encourages rebuilding analysts to explore alternative calculations and projections that may more accurately capture uncertainties in stock rebuilding, and which may better represent stock-specific concerns. In the event of a discrepancy between the generic calculations presented here and a stock-specific result developed by an individual analyst, the SSC groundfish subcommittee will review the issue and recommend which projections to use.

¹ The absolute abundance of the mature portion of a stock is loosely referred to here in a variety of ways, including: population size, stock biomass, stock size, spawning stock size, spawning biomass, spawning output; i.e., the language used in this document is sometimes inconsistent and/or imprecise. However, the best fundamental measure of population abundance to use in establishing a relationship with recruitment is spawning output, defined as the total annual output of eggs (or larvae in the case of live-bearing species). Although spawning biomass is often used as a surrogate measure of spawning output, for a variety of reasons a non-linear relationship often exists between these two quantities (Rothschild and Fogarty 1989; Marshall *et al.* 1998). Spawning output should, therefore, be used to measure the size of the mature stock when possible.

Estimation of B_0

For the purpose of estimating B_0 empirically, analysts have selected a sequence of years, wherein recruitment is believed to be reasonably representative of the natality from an unfished stock. These recruitments, in association with growth, maturity, fecundity, and natural mortality estimates, can then be used to calculate equilibrium unfished spawning output. In selecting the appropriate temporal sequence of recruitments to use, investigators have generally utilized years in which stock size was relatively large, in recognition of the paradigm that groundfish recruitment is positively related to spawning stock size (Myers and Barrowman 1996). Moreover, due to the temporal history of exploitation in the west coast groundfish fishery (see Williams, In review), this has typically led to a consideration of the early years from an assessment model time series². Thus, for example, in the case of bocaccio the time period within which recruitments were selected was 1970-79 and for canary rockfish it was 1967-77.

An alternative view of the recruitment process is that it depends to a much greater degree on the environment than on adult stock size. For example, the decadal-scale regime shift that occurred in 1977 (Trenberth and Hurrell 1994) is known to have strongly affected ecosystem productivity and function in both the California Current and the northeast Pacific Ocean (Roemmich and McGowan 1995; MacCall 1996; Francis *et al.* 1998; Hare *et al.* 1999). With the warming that ensued, west coast rockfish recruitment was probably affected adversely (Ainley *et al.* 1993; Ralston and Howard 1995). Thus, if recruitment was environmentally forced, it would be more sensible to use the full time series of recruitments from the stock assessment model to estimate B_0 . Given that these two explanatory factors are highly confounded, i.e., generally high biomass/favorable conditions prior to 1980 and low biomass/unfavorable conditions thereafter, using all recruitments to estimate B_0 will usually result in a lower reference point than the situation where an abbreviated series taken from early in the time series is utilized.

At this time there is no incontrovertible information with which to distinguish between these two alternatives. If oceanic conditions along the west coast have shifted to a productive cold regime following the La Niña event of 1999, we may soon have observations of recruitment produced during a favorable environmental period from groundfish stocks at low spawning biomass. If the environmental and density-dependent effects are additive, it would then be possible to determine the relative importance of each of the two factors (e.g., Jacobson and MacCall 1995). In the interim, however, it would be prudent to favor calculations of B_0 that are based on an abbreviated time series of recruitments taken from a period when the stock was at a relatively high biomass and to favor the density-dependent hypothesis. Both theoretical and observational considerations support the belief that groundfish recruitment will decline as stock size dwindles (e.g., Myers and Barrowman 1996; Brodziak *et al.* 2001). Still, it would be informative to contrast the density-dependent/stock size based reference point with an estimate of

² Individual recruitments estimated from age-structured stock assessment models do not all exhibit the same precision or accuracy. Recruitments estimated at the very beginning of the modeled time period may suffer from mis-specification of the initial condition of the population (e.g., an assumed equilibrium age structure). Likewise, recruitments estimated at the end of the sequence may be imprecise due to partial recruitment of recent year-classes. Thus it may be advisable to trim the beginning and/or ending years classes to address this problem.

B_0 based on the entire time series of recruitments (i.e., the environmental hypothesis). This was, in fact, discussed as a possible alternative in the Panel Report produced by the West Coast Groundfish Harvest Rate Policy Workshop sponsored by the SSC in March, 2000. With both numbers available it would be possible to evaluate the implication of each hypothesis on the calculation of stock reference points. As a refinement, for each of these two methods the actual distribution of B_0 can be approximated by re-sampling recruitments, from which the probability of observing any particular stock biomass can be examined under each hypothesis. This approach was taken in the original bocaccio rebuilding analysis, where it was concluded that the first year biomass was unlikely to have occurred if the entire sequence of recruitments were used to determine B_0 .

It is also possible to estimate B_0 by fitting spawner-recruit models to the full time series of spawner-recruit data (see Ianelli *et al.* 2000; Ianelli, In review). However, this approach is subject to the criticism that stock productivity is constrained to behave in a pre-specified manner according to the particular model chosen and there are different models to choose from, including the Beverton-Holt and Ricker. These two models can produce strongly contrasting management reference points (e.g., B_{msy} and SPR_{msy}) but are seldom distinguishable statistically. Moreover, there are statistical reasons to be suspect of resulting parameter estimates, including time series bias (Walters 1985), the “errors in variables” problem (Walters and Ludwig 1981), and non-homogeneous variance and small sample bias (MacCall and Ralston, In review). Consequently, analyses that derive stock management reference points by estimating a spawner-recruitment relationship shoulder a greater burden of proof. Thus, any such an analysis should attempt a balanced comparison of alternative spawner-recruit models, with explicit consideration of the estimation problems highlighted above. Moreover, in situations where a spawner-recruit meta-analysis is available (e.g., Dorn, In review), those results should be evaluated and considered. Ideally, reference points obtained by fitting a spawner-recruitment model (e.g., B_0 , B_{MSY} , and F_{MSY}) should also be compared with values obtained by empirical analysis of the data, similar to that suggested above. Such a comparison would help delineate the overall degree of uncertainty in these quantities.

Population Projections During Rebuilding

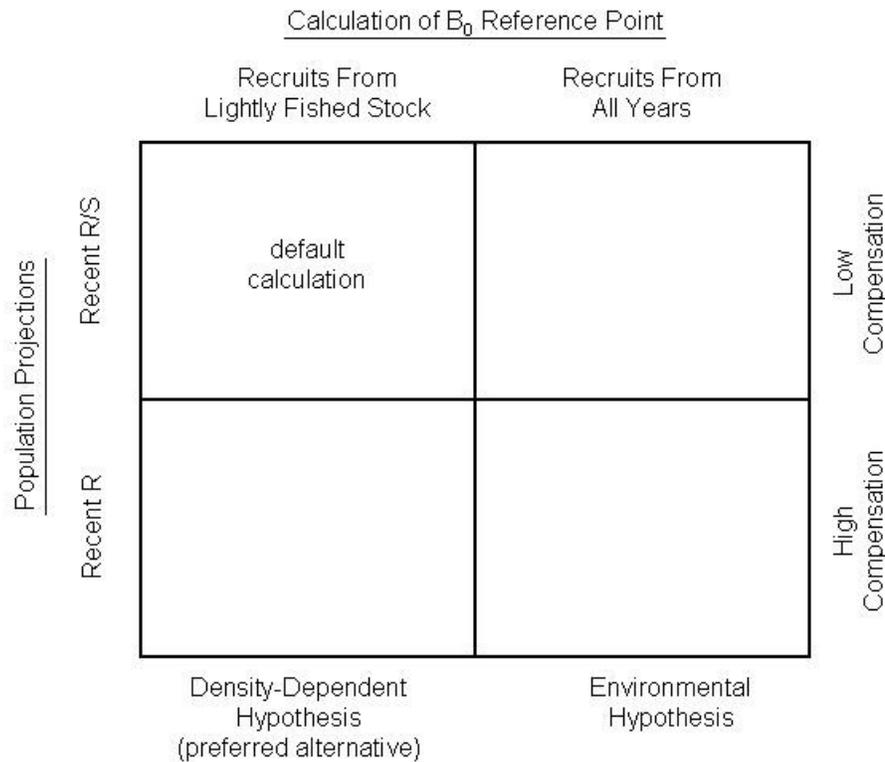
Given the population initial conditions from the last stock assessment (terminal year estimates of numbers at age and their variances) and the rebuilding target ($B_{40\%}$), one can project the population forward once renewal has been specified. For most rebuilding calculations that have been conducted thus far, two different approaches have been taken, both of which utilize contemporary recruitment estimates at the tail end of the time series (i.e., the most recent figures). For bocaccio, canary rockfish, and POP#1, recent recruitment was standardized to the size of the adult population (recruits per spawner = R/S_i), which was then randomly resampled to determine annual reproductive success. Annual R/S_i is then multiplied by S_i to obtain year-specific stochastic estimates of R_i . The population is then projected forward in time, with no fishing mortality, until S_i hits the rebuilding target. The process is repeated many times, until a distribution of the times to rebuild in the absence of fishing is obtained. Note that use of R/S_i as the basis for projecting the population forward ties recruitment values in a directly proportional manner to stock size; if stock size doubles, resulting recruitment will double, all other things

being equal. As the stock rebuilds this becomes an increasingly untenable assumption because there is no reduction in reproductive success at very high stock sizes, which is to say there is no compensation (i.e., steepness = 0.20)³.

Another way of projecting the population forward is to use recent recruitments, rather than recruits per spawner, as was done in the lingcod analysis. This approach, however, errs in the opposite direction. Namely, recruitment does not increase as stock size increases, as would be expected of most rebuilding stocks. This type of calculation effectively implies perfect compensation (spawner-recruit steepness = 1.00). Thus, these two ways of projecting the population forward, by using re-sampled R_i or re-sampled R/S_i , includes a range of alternatives that is likely to encompass the real world.

Because stocks that have declined into an overfished condition are more likely to be unproductive (i.e., low spawner-recruit steepness), in the absence of any other information, rebuilding projections based on re-sampling recruits-per-spawner are generally to be favored over projections based on absolute recruitment. Note that the implied lack of compensation in rebuilding projections using this method is not likely to be a serious liability over the long term because it is based on re-sampling contemporary recruits-per spawner. As progress toward rebuilding is evaluated in the future, the set of R/S_i will be revised based on a new set of recent recruitments obtained from the latest stock assessment. If the stock actually demonstrates a compensatory response during the course of rebuilding the R/S_i series will tend to a lower mean value. Although projections based on R/S_i represent a standard default way of proceeding, projections that use absolute recruitments (R_i) would be quite useful in establishing the overall uncertainty in the rebuilding analysis by providing an alternative model specification scenario. Moreover, a credible argument that a stock is relatively productive, as evidenced perhaps by observed high recruitment at low spawning biomass, may serve as a basis for favoring projections that utilize recent absolute recruitments (see figure).

³The “steepness” of a spawner-recruit curve is related to the slope at the origin and is a measure of a stock’s productive capacity. It typically is expressed as the proportion of virgin recruitment that remains when a stock has been reduced to $B_{20\%}$.



Once the median time to rebuild in the absence of fishing is determined (τ_0), whether using the R/S_i or the R_i , the total allowable rebuilding time frame is fixed (τ_{max}). Namely, if τ_0 is less than 10 years then $\tau_{max} = 10$ years. On the other hand, if $\tau_0 \geq 10$ years then $\tau_{max} = \tau_0 + \text{one mean generation time}$. Mean generation time has been calculated as the mean age of the net maternity function.

Harvest During Rebuilding

Of course it will be the Council's prerogative to establish yields during the rebuilding period, as long as the stock recovers to the target ($B_{40\%} \approx B_{msy}$) within the specified time period (τ_{max}). Nonetheless, the simplest rebuilding harvest policy to simulate and implement is a constant harvest rate or fixed F policy. All rebuilding analyses should, therefore, calculate the maximum fixed fishing mortality rate during the rebuilding time period that will achieve the target biomass, with a 0.50 probability of success ($F_{0.50}$). In addition, calculations representing a profile of different fixed F values that are incrementally less than $F_{0.50}$ (e.g., $F_{0.60}$, $F_{0.70}$, and $F_{0.80}$) are needed for the Council to implement a precautionary reduction in the $F_{0.50}$ value to increase the probability of rebuilding success. Note that selecting a probability greater than 0.50 for successful rebuilding within τ_{max} is equivalent to electing to rebuild sooner than τ_{max} with probability equal to 0.50. In addition, based on its interpretation of Amendment 12 to the groundfish FMP, the National Marine Fisheries Service requires the expected time course of yield during recovery as a formal part of all rebuilding calculations.

Many other harvest policies could be implemented by the Council, based on whatever circumstances may mitigate against a constant harvest rate approach. For example, the canary rockfish rebuilding plan calls for a constant fixed yield over the entire period of rebuilding. Thus, as the stock rebuilds, the exploitation rate must decline, which makes bycatch avoidance a serious concern. For this reason the SSC recommends that the Council generally favor constant harvest rate policies over constant catch policies for all groundfish rebuilding plans. This would alleviate the problem of accelerating bycatch producing accelerated discard, an undesirable attribute of constant catch policies. Similarly, the Council may wish to implement some other form of variable rate harvest policy, e.g., a 40:10 adjustment similar to the default policy currently in use. Consequently, researchers conducting rebuilding analyses should be prepared to respond to requests by the Council for stock-specific projections on an individual case-by-case basis.

Documentation

It is important for analysts to document their work so that any rebuilding analysis can be repeated by an independent investigator at some point in the future. Therefore, all stock assessments and rebuilding analyses should include tables containing specific data elements that are needed to adequately document the analysis. Namely, information is needed on: (1) the time course of population spawning output and recruitment, (2) biological data on life history characteristics, and (3) initial values for projecting the stock into the future under exploitation. Therefore, two tables should include:

Table 1. Stock Population Trajectory

1. Year
2. Summary/Exploitable Biomass
3. Spawning Output
4. Recruits
5. Catch
6. Landings
7. Total Exploitation Rate

For each year in this table, entries 2 through 7 should include the expected value, a measure of uncertainty, and the appropriate units. The latter may require development of a standard electronic format for the simulation results that characterize the uncertainty, e.g., the results of each Monte Carlo replication from the stochastic population projection.

Table 2. Age-specific Population Characteristics.

1. Age
2. Natural mortality rate (φ and σ)
3. Individual weight (φ and σ)
4. Maturity (φ only)
5. Fecundity (φ only)
6. Terminal year (or other) composite selectivity (φ and σ)
7. Population numbers in terminal year (φ and σ)

In a similar manner, for each age in the table, entries 2 through 7 should ideally include measures of uncertainty. Uncertainty in table entry 7 (population numbers in terminal year), in particular, should be available from most age-structured assessment models.

In addition, all linkages with the most recent stock assessment document should be clearly delineated. This is important because assessments often present multiple scenarios that usually have important implications with respect to stock rebuilding. In such instances, a decision table analysis would be a useful way to express the implications of uncertainty in model specification. In addition, one scenario may be preferred by the assessment authors, while another may be preferred by the STAR Panel. Clear specification of the exact assessment scenario(s) used as the basis for rebuilding analysis is essential. Further, all post-assessment analyses needed to produce the inputs for rebuilding analyses must be fully documented, e.g., the choice of selectivity estimates used for projections that are based on some composite of historical selectivities from the assessment.

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GROUND FISH MANAGEMENT TEAM REPORT ON
TERMS OF REFERENCE FOR GROUND FISH REBUILDING PLAN REVIEW AND STOCK
ASSESSMENT REVIEW PANELS

Under the Terms of Reference, “the Groundfish Management Team (GMT) is responsible for identifying and evaluating potential management actions based on the best available scientific information.” To that end, the GMT endorses the request from the Washington Department of Fish and Wildlife and the Northwest Indian Fisheries Commission to include in the Terms of Reference direction to evaluate regional stock differences or identify the information needed to make such an evaluation. The GMT believes that carrying forward through the assessment process any regional biological differences in stocks where they might exist could assist us in crafting appropriate management measures.

The assessment should include a precise summary of the key elements of the assessment and all of the required management parameters in the executive summary. This would not only greatly facilitate the work of the GMT, but could also reduce the need to have members of the Scientific and Statistical Committee (SSC) or stock assessment review (STAR) panels walk the GMT through stock assessments in which this information is either obscure or missing. Given the number of stock assessments that are to be dealt with in this cycle, a clear summary is crucial in order to be effective and successful. At a minimum, this summary should include:

- Acceptable biological catch (ABC) and optimum yield (OY) projections for ten years.
- Projections of spawning biomass and exploitable biomass for the same time frame.
- Estimates of appropriate F rates.
- Past management performance.
- For rebuilding species:
 - Estimates of P_{MAX} at $F=0$.
 - F rate and P_{MAX} at T_{TARGET} .
 - Projections of management specifications (i.e., ABC, OY), and estimates of the F rate, T_{MAX} , and T_{MIN} under rebuilding likelihoods ranging from $P_{MAX} = 50\%$ to the P_{MAX} under $F=0$.
 - Progress toward rebuilding.

Since a number of data sources are undergoing revision, the date of data extraction should be included with data tables.

The GMT feels that the STAR panel process, in which the full suite of data for a species is being considered by analysts, reviewers, industry and management advisors, is the most reasonable forum to identify the preferred model describing the status of a stock. However, if that is not possible, then the Terms of Reference should require that decision tables and sensitivity analyses be forwarded for all models that are considered plausible.

PFMC
09/15/04

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON
TERMS OF REFERENCE FOR GROUND FISH REBUILDING PLAN REVIEW AND
STOCK ASSESSMENT REVIEW PANELS

The Scientific and Statistical Committee (SSC) discussed the Terms of Reference for stock assessment review (STAR) panels and groundfish rebuilding plan review. The SSC recognizes that 2005 will clearly be an exceptional year, due to the much higher workload than usual, due to the implementation of the new biennial (multi-year) stock assessment and management process. Thus, some of the historical terms of reference may be impracticable; in particular, those that concern the number of stock assessment reviewers and the thoroughness of the stock assessment reviews. The SSC recommends the Terms of Reference be revisited after completion of the first multi-year management cycle.

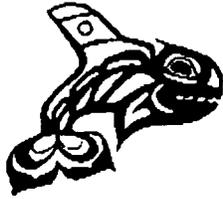
Regarding the STAR panel process, the SSC suggested that: (1) for reasons of continuity and efficiency, it may be useful if the SSC representatives on STAR panels would also typically serve as STAR panel chairs, (2) SSC representatives on STAR panels should continue to convey STAR panel findings to the Council, but should attend the post-STAR panel meeting only if requested.

Regarding the Terms of Reference for groundfish rebuilding plan review, the SSC recognizes the Council has been requested by the National Marine Fisheries Service to establish a process to monitor and respond to rebuilding progress. The SSC will work with the Council to develop a set of guidelines and tools to evaluate rebuilding status. Such guidelines should be in place by April 2005, so they could be used for the 2005 stock assessment cycle.

PFMC
09/15/04

Talking Points on Terms of Reference for STAR Panels

- I would like to voice my support for the WDFW/NWIFC letter included in the Briefing Book as Agendum C.8.d.
- For a number of years the tribes have urged the Council to move toward a regional management approach.
- Regional management makes sense biologically if there are stock structure, productivity, genetic, or abundance differences for a given species within its range along the West Coast.
- This approach also makes sense for the Council as we face numerous conservation concerns, especially where fisheries may be constrained by coastwide rebuilding plans (e.g. lingcod).
- As the Council is aware, the WA coastal tribes have treaty secured rights to a share of the harvest of fish in their U&As as well as a role in the management of those resources. Because treaty fisheries are restricted to specific usual and accustomed areas, a regional approach to marine resource management makes it easier for the Council and NOAA to meet their obligations toward the tribes and for the tribes to be more effective as co-managers.
- I urge the Council to direct the SSC to include examination of regional stock differences in their Terms of Reference for stock assessments and rebuilding analyses to facilitate a regional management approach.



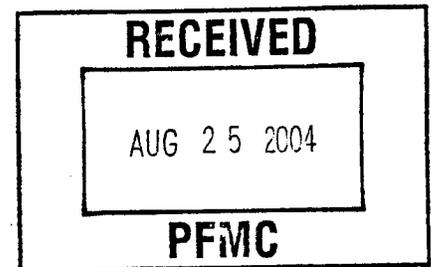
N.W. Indian Fisheries Commission
6730 Martin Way East
Olympia, WA 98516
(360) 438-1180



State of Washington
Department of Fish and Wildlife
600 North Capitol Way
Olympia, Washington 98511
(360) 902-2200

August 25, 2004

Mr. Don Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384



Dear Mr. Hansen:

The Washington Department of Fish and Wildlife and the Northwest Indian Fisheries Commission on behalf of its member tribes are writing to urge the Pacific Fishery Management Council to direct stock assessment teams to incorporate regional differences in stock abundance, distribution, and genetics as appropriate during the upcoming stock assessment cycle. The tribes and the state believe that identifying and managing for regional differences are required for us to meet our obligations as co-managers of the fisheries resources within the tribes usual and accustomed fishing grounds and stations and to fulfill the tribes treaty rights.

The PFMC has implemented regional management for certain selected species based on results of stock assessments that indicated a biological difference between stocks or portions of coastwise stocks. In the case of black rockfish, genetic differences have been noted between northern and southern stocks. Lingcod in the north and south have demonstrated differing responses to rebuilding efforts as well as displaying differences in key biological parameters such as size at age and maturity schedules. For both of these species, the Council has developed management regimes that delineate two separate regions. The rationale for managing these stocks on a regional basis is to allow differences in management measures, contingent upon the abundance or health of the stock within each respective region, that achieve utilization to the degree possible while meeting conservation and rebuilding goals. We understand that there are data for other species that would provide the needed information to manage other groundfish stocks in a similar manner, and we are encouraging that information to be incorporated in future stock assessments if it is available.

We are specifically requesting that the Council have its Scientific and Statistical Committee add a consideration of regional management to the Terms of Reference for Stock Assessments and STAR Panel reviews. As such, each stock assessment author would be asked to evaluate, based on the available data, whether a biological or

Page 2
August 25, 2004
Letter

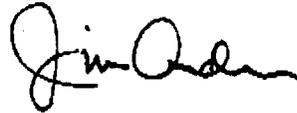
ecological rationale exists to manage the stock on a regional basis, make regional boundary recommendations, as appropriate, or, if there is insufficient information to evaluate regional management for the species, identify the data gaps and/or research needed to facilitate a regional management approach.

We appreciate the Council's consideration of our proposal. We understand that the Terms of Reference will be reviewed at the September Council meeting with final approval taking place at the November meeting. We will come prepared to discuss our proposal further at the September meeting.

Sincerely,



Phil Anderson
Special Assistant
Washington Department of Fisheries



Jim Anderson
Executive Director
Northwest Indian Fisheries Commission

cc: NWIFC Member Tribes

FINAL CONSIDERATION OF 2004 INSEASON ADJUSTMENTS

The Council set optimum yield (OY) levels and various management measures for the 2004 groundfish management season with the understanding these management measures will likely need to be adjusted periodically through the year in order to attain, but not exceed, the OYs.

The Groundfish Management Team (GMT) and the Groundfish Advisory Subpanel (GAP) may pose key policy questions and receive Council guidance on inseason actions under agendum C.2. Under this agendum, the Council is to consider advice from Council advisory bodies and the public on the status of ongoing fisheries and recommended inseason adjustments prior to adopting final changes as necessary.

Council Action:

- 1. Consider information on the status of ongoing fisheries.**
- 2. Consider and adopt inseason adjustments as necessary.**

Reference Materials:

None.

Agenda Order:

- a. Agendum Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. **Council Action:** Approve Inseason Adjustments in the 2004 Groundfish Fishery

Mike Burner

PFMC
08/26/04

GROUND FISH ADVISORY SUBPANEL STATEMENT ON
FINAL CONSIDERATION OF 2004 INSEASON ADJUSTMENTS

The Groundfish Advisory Subpanel (GAP) has been meeting with the Groundfish Management Team (GMT) to examine potential inseason adjustments.

Based on current landings and projections of discards, there is no doubt that we will shortly be at or over the optimum yield (OY) on two species and that corrective action will need to be taken. The GMT has presented some possible alternatives for action which have been discussed with the GAP. Like the GMT, we are not making any specific recommendations, other than that - if the Council decides to take action - we try to keep as many people fishing as possible in order to minimize economic impacts on fishermen, processors, and coastal communities.

In looking at how we got here, it is obvious there was a breakdown in the system. Early in the year, we increased cumulative limits, and fishermen responded by doing what they do - they went fishing. Unfortunately, either due to monitoring of catches not occurring, or catch projections not being made, or both, we let the higher rate of fishing go on too long. In hindsight, if catch projections had been made and communicated - not only among managers, but also to the industry - we might have been able to slow the fishery down by a combination of voluntary action on the part of the industry and an appropriate inseason adjustment in June. None of this happened, and so we are faced with difficult decisions today.

The GAP is not trying to find fault, cast blame, or point fingers. All of us - fishermen, processors, and managers - have a mutual interest in having accurate, up-to-date data that can be used to manage our fisheries. We need to figure out how to solve the problem, so it does not recur.

We cannot determine how monitoring can best be accomplished or who should do it - state agencies, NMFS, Council staff, or some other entity. We do think that corrective action can more easily be taken, if information is communicated to the industry as it becomes available, and to the GAP at our meetings. For example, several GAP members have suggested that having catch projections, as modified by the bycatch/discard model available to the GAP at the start of our meetings, would help us better interact with the GMT and smooth out the inseason consideration agenda. Regardless of how it is done, we think that communication flow between management agencies and the industry will help us all to avoid future problems.

Finally, we recommend that the darkblotched rockfish discard rate applied to the 2004 non-whiting trawl fishery be examined. The rate currently being used is based on the 2003 fishery, when slope rockfish was not available as a major target. That situation did not exist in 2004.

Again, the GAP wants to help fix problems that have occurred. We stand ready to work with our colleagues in other advisory bodies to create solutions

PFMC
09/16/04

GROUND FISH MANAGEMENT TEAM REPORT ON FINAL CONSIDERATION OF INSEASON ADJUSTMENTS

As mentioned previously, there are significantly higher than anticipated catches of darkblotched rockfish and canary rockfish and, based on the Council guidance provided earlier this week, the GMT has developed options to address them. Trawl management measures implemented in May introduced factors into the fishery that had the potential to drive the darkblotched discard rate in two directions. If all else remained the same, the increased cumulative limit (from 4,000 to 8,000 lbs per 2 months north of 40°10'N. lat.) would be expected to have the effect of allowing some of the fish that were previously above the limit to be landed, thus lowering the discard rate.

However, the trawl RCA boundary was also moved from 200 fathoms into 150 fathoms which would increase the darkblotched encounter rate and potentially the discard rate.

Additionally, the GMT received comments from industry that targeting on slope rockfish has also increased since the May inseason action which may also have had the effect of increasing darkblotched discard. There is also a size-related market discard factor for small darkblotched rockfish that is somewhat independent of trip limit size.

The GMT has no quantitative information to evaluate the net effects of these factors. The only quantitative information currently available to the team relative to darkblotched rockfish is the PacFIN quota species monitoring (QSM) data on landed catch and, for non-whiting trawl, a discard of 33% of the total catch as measured by information collected by the West Coast Observer Program from the 2003 fishery when the slope rockfish limit was 1,800 pounds per 2-months. In order for the darkblotched total catch to remain within the ABC, this discard rate would have to have been less than 22% (with the assumed trawl catch through September). A rate of 21% or less would accommodate the whiting catcher processor quota while remaining within the darkblotched ABC (240 mt). An assumed discard rate of 20% would be required to accommodate any continued harvest of the whiting mothership sector.

The GMT is applying the preliminary estimated discard proportion from 2003 to estimate the total commercial catch of canary and darkblotched rockfish because the landed catches of both of these species currently exceeds what the bycatch model is predicting for total commercial catch. Based on the landed catch through August, and applying the discard proportion, and projecting catches through the end of the year, the GMT revised the bycatch scorecard (see Attachment 1) with the estimated impacts from all fisheries prior to any inseason action. The GMT will update the scorecard following Council action with a final tally of estimated impacts.

Darkblotched Rockfish

Through the end of August, the landed commercial catch of darkblotched rockfish is 159.6 mt (161 mt landed catch - 0.7 mt shoreside whiting fishery catch - 0.7 mt EFP catch). Using a discard proportion (33%) based on the amount of landings and estimated discard in 2003, 159.6 mt of landings would correspond to a total non-whiting commercial catch of 238.2 mt. When combined with all other fisheries, the total darkblotched mortality is estimated to be 374 mt which is 134 mt over the ABC by the end of the year.

Actions to Address Darkblotched Rockfish

Limited Entry Trawl Whiting Fishery

Through the end of August, the total darkblotched rockfish catch in the whiting fisheries is 8.1 mt. The sector specific catches of darkblotched are:

Catcher/Processor	Mothership	Tribal	Shoreside
4.36	3.02	0	0.7

The shoreside fishery, which is closed, harvested 0.2 mt of darkblotched above the preseason estimate and the mothership sector, which is currently open but not fishing, harvested 2.0 mt above the preseason estimate. If the catcher-processor and mothership fisheries were closed, effective October 1, there is expected to be an additional 1.4 mt of darkblotched harvested by the catcher-processor sector, which is based on applying the 2004 bycatch rate to an estimated harvest of 55,000 mt of whiting. This would bring the total darkblotched catch in the whiting fishery to 9.5 mt. This is the same amount of darkblotched that had been estimated to be taken in all whiting fisheries preseason (cumulative scorecard amount for whiting fisheries). If the catcher-processor fishery remained open until its full allocation of whiting were taken, and the 2004 bycatch rate continued, then the total darkblotched catch in the whiting fishery would be 10.8 mt.

Limited Entry Trawl Non-Whiting Fishery

Through the end of September, the total darkblotched rockfish catch in the limited entry trawl non-whiting fishery is estimated to be 268.1 mt (an additional 29.9 mt). Beginning October 1, to reduce the darkblotched catches to zero, the seaward trawl RCA boundary would have to be moved from 150 fms to 250 fms, north of 38°N. lat. and from 150 fms to 200 fms between 38°N. lat. and 36°N. lat., and would remain at 150 fms for the remainder of the year south of 36°N. lat. The trip limits would also be adjusted as follows (see Attachment 2):

N. of 40°10'

Sablefish

- Oct 1 - Increase trip limit from 15,000 lbs/2 mo. to 17,000 lbs/2 mo.
- Period 6 - Increase trip limit from 11,000 lbs/2 mo. to 17,000 lbs/2 mo.

Shortspine

- Oct 1 - Increase trip limit from 4,100 lbs/2 mo. to 5,100 lbs/2 mo. for rest of the year

Dover Sole

- Oct 1 - Increase trip limit from 31,000 lbs/2 mo. to 40,000 lbs/2 mo. for rest of the year

Petrale Sole

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo combined with other flatfish and rex

sole.

Arrowtooth Flounder

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo.

Slope Rockfish

- Period 6 - Change from 8,000 lbs/2 mo. to 1800 lbs/2 mo. (with no retention of darkblotched)

Between 40°10' and 38°

Sablefish

- Oct 1 - Increase trip limit from 13,000 lbs/2 mo. to 17,000 lbs/2 mo. for rest of the year

Shortspine

- Oct 1 - Increase trip limit from 4,100 lbs/2 mo. to 5,100 lbs/2 mo. for rest of the year

Dover Sole

- Period 6 - Reduce trip limit from 49,000 lbs/2 mo. to 48,000 lbs/2 mo.

Petrale Sole

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo. (which is a sublimit of the “other flatfish, rex sole and petrale” limit of 120,000 lbs/2 mo.)

Arrowtooth Flounder

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo.

Slope Rockfish

- Period 6 - Reduce from 50,000 lbs/2 mo. to 10,000 lbs/2 mo. (with no retention of darkblotched)

Splitnose

- Period 6 - Reduce from 50,000 lbs/2 mo. to 10,000 lbs/2 mo.

South of 38°

Sablefish

- Oct 1 - Increase trip limit from 13,000 lbs/2 mo. to 17,000 lbs/2 mo. for rest of the year

Shortspine

- Oct 1 - Increase trip limit from 4,100 lbs/2 mo. to 5,100 lbs/2 mo. for rest of the year

Dover Sole

- Period 6 - Reduce trip limit from 49,000 lbs/2 mo. to 48,000 lbs/2 mo.

Petrale Sole

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo. (which is a sublimit of the “other flatfish, rex sole and petrale” limit of 120,000 lbs/2 mo.)

Arrowtooth Flounder

- Period 6 - Change from “no limit” to 100,000 lbs/2 mo.

Slope Rockfish

- Period 6 - Keep limit at 50,000 lbs/2 mo. (with no retention of darkblotched)

Splitnose

- Period 6 - Keep limit at 50,000 lbs/2 mo.

Total Estimated Darkblotched Impacts

Total Darkblotched Mortality by Sector and Option

Option	LE Trawl	Whiting	Other Fisheries	Total
Thru Aug	238.2	8.1	4.9	251.2
Proj. Thru Sept	268.1	9.5	4.9	282.5
1	268.1	14.3	4.9	287.3
2	268.1	10.8	4.9	283.8
3	268.1	9.5	4.9	282.5

Option 1

Limited entry trawl non-whiting close from seaward boundary to shore; CP and Motherships take full allocation of whiting; all other fisheries as prescribed through December

Option 2

Limited entry trawl non-whiting close from seaward boundary to shore; CP takes full allocation of whiting and Motherships stop fishing; all other fisheries as prescribed through December

Option 3

Limited entry trawl non-whiting close from seaward boundary to shore; CP and Mothership stop fishing beginning October 1; all other fisheries as prescribed through December

Canary Rockfish

Through the end of August, the GMT estimates that the total non-whiting commercial canary catch is 16.3 mt, based on the amount of landings and the discard proportion estimated for 2003 (60%) applied to the limited entry trawl non-whiting fishery combined with the estimated catches for limited entry fixed gear and open access fisheries (through December). Without inseason action, the total canary rockfish for all fisheries combined is estimated to be 54.7 mt (which is 7.4 mt above the OY of 47.3 mt).

Actions to Address Canary Rockfish (Minimize Commercial Impacts)

Limited Entry Trawl Whiting

Through the end of August, the total canary rockfish catch in the whiting fisheries is 5.9 mt. If the catcher-processor and mothership sectors were closed for darkblotched rockfish protection beginning October 1 and the 2004 bycatch rates remain the same, the total canary rockfish catch in the whiting fisheries would be 6.0 mt through September. If both catcher-processor and mothership sectors caught their respective allocations of whiting, the fisheries would be constrained to the 7.3 mt canary bycatch cap in place for all whiting fisheries combined.

Limited Entry Trawl Non-Whiting

As mentioned above, the GMT is applying a discard proportion from 2003 to estimate the 2004 limited entry trawl non-whiting canary catch. Using this method, the total canary rockfish catches for limited entry trawl non-whiting through September is estimated to be 17.5 mt. In order to avoid additional trawl canary impacts, beginning October 1, the trawl RCA would extend to the shoreline from the seaward boundary coastwide. As such, differential trip limits (large and small footrope) in the north would no longer need to apply. Therefore, the trip limit adjustments described above would apply regardless of gear fished and small footrope limits would change to the large footrope limits beginning October 1.

Total Estimated Canary Impacts

Total Canary Mortality by Sector and Option (OY=47.3 mt)

Option	LE Trawl	Whiting	Other Fisheries	Total
Thru Aug	15.5	5.9	23.9	45.3
Proj. Thru Sept	17.5	6	23.9	47.4
1	17.5	6.7	23.9	48.1
2	17.5	7.3	23.9	52.8

Option 1

LE trawl non-whiting close from seaward boundary to shore; Catcher/Processor sector take full whiting allocation and mothership stop fishing.

Option 2

LE trawl non-whiting close from seaward boundary to shore; Catcher/Processor sector and mothership sectors take respective whiting allocations.

California Recreational

Through an inseason action at the April 2004 meeting, California’s season and depth structure for groundfish management was modified to bring the projected recreational take of canary to 9.3 mt and to keep black rockfish within California’s harvest target. These modifications were based upon an inseason model developed by CDFG and reviewed by the GMT at the April 2004 meeting. Following GMT review in May, a decay model was used to develop the 2005-2006 management structure. Using this improved model, a revised projection of recreational take of canary for the current 2004 management structure was calculated. The results of this model including the statewide projection of 8.5 mt are provided in Attachment 3.

Oregon Recreational

On August 18, the Oregon Department of Fish and Wildlife prohibited retention of cabezon in

the Oregon recreational bottomfish fisheries. This was followed by action to prohibit retention for lingcod, all rockfishes, and all greenlings on September 3. As a result of these actions, the revised Oregon recreational canary catch estimate through September 5 is 3.5 mt. With the recreational fishing opportunities that are currently scheduled in Oregon, in combination with new retention and depth restrictions, the estimated total canary catch would be 4.3 mt through December (see Attachment 1, footnote e/).

Pink Shrimp Trawl

The GMT updated the estimated catch of canary rockfish in the pink shrimp fishery based on new information (see Attachment 4).

Open Access Trawl Exemption

The canary impacts in the current “scorecard” attribute no canary impacts to the sea cucumber, ridgeback prawn, and California halibut fisheries. As with several other non-groundfish open access fisheries, there is a paucity of actual data to make this determination. However, this proposal does not increase the canary mortality beyond current assumptions. The GMT notes that the proposal would result in the need to monitor an RCA line different than that in place for the groundfish trawl fleet and that exempted open access trawl vessels are not required to possess VMS. Further, if the Council adopts this proposal, the GMT recommends prohibition of rockfish in the California halibut trawl fishery to eliminate incentives to target “mixed nearshore” species since this strategy has been shown to have resulted in the minor canary rockfish take that has occurred in the fishery. As there is not a provision to prohibit targeting on “mixed nearshore” species currently, the GMT updated the scorecard to include a 0.1 mt estimate of canary rockfish in the California halibut trawl fishery. All three fisheries take place in waters sufficiently shallow to avoid darkblotched rockfish concerns.

Regulatory changes to accommodate these open access trawl fisheries while minimizing impacts to canary rockfish and darkblotched rockfish would be:

40°10' N. lat. to 34°27'N. lat.

Allow OA trawl fishing for California halibut and sea cucumber to 30 fm; prohibit retention of rockfish. This depth further safeguards against incidental encounter with canary and darkblotched rockfish by restricting the access to only depths of low canary and darkblotched abundance.

34°27' N. lat to U.S./Mexico border

Allow OA trawl fishing for California halibut, sea cucumber and ridgeback prawn fisheries to continue out to the current shoreward trawl RCA boundary of 75 fm (status quo); prohibit retention of rockfish. Canary rockfish and darkblotched rockfish distribution is limited in this area.

Additional Trip Limit Corrections/Changes

Coastwide - All Commercial Non-Whiting Fisheries

Beginning October 1, no retention of darkblotched rockfish and no retention of canary rockfish

Between 40°10' and 38° - Limited Entry Fixed Gear

Beginning Period 6, reduce slope rockfish limit from 50,000 lbs/2 mo. to 10,000 lbs/2 mo.

Beginning Period 6, reduce splitnose limit from 50,000 lbs/2 mo. to 10,000 lbs/2 mo.

S. of 38° - Limited Entry Fixed Gear

Beginning Period 6, keep slope rockfish limit at 50,000 lbs/2 mo.

Beginning Period 6, keep splitnose limit at 50,000 lbs/2 mo.

Between 40°10' and 34°27' - Limited Entry Fixed Gear and Open Access

In Period 5, correct California Deeper Nearshore trip limit to 400 lbs/2 mo. (from 400 lbs/mo.)

N. of 40°10' - Limited Entry Fixed Gear

In Period 6, change shortspine trip limit from 2100 lbs/2 mo. to 2000 lbs/2 mo.

GMT Recommendations

1. Adopt inseason adjustments to address darkblotched rockfish impacts.
2. Adopt inseason adjustments to address canary rockfish impacts.
3. Provide exemptions for sea cucumber, ridgeback prawn, and California halibut fisheries as described above.
4. Adopt additional trip limit corrections and changes.

Attachment 1. Estimated Impacts Prior to Inseason Adjustments at the September Council Meeting

9/16/2004 15:26

Fishery	Bocaccio a/	Canary	Cowcod	Dkbl	Lingcod	POP	Widow	Yelloweye
Limited Entry Groundfish								
Trawl- Non-whiting	47.4	24.3	0.4	358.3	104.7	95.0	2.5	0.2
Fixed Gear	13.4		0.1		20.0	0.3	0.5	2.5
Open Access: Groundfish directed	10.6		0.1		70.0	0.1		0.6
Whiting								
At-sea whiting motherships		7.3		3.0	0.8	0.1	11.4	0.0
At-sea whiting cat-proc				7.1	0.4	10.1	84.6	0.4
Shoreside whiting				0.7	0.7	0.7	28.6	0.0
Tribal whiting				0.0	0.0	0.2	1.6	0.0
Open Access								
CA Halibut	0.1	0.1		0.0	2.0	0.0		
CA Gillnet b/	0.5			0.0		0.0	0.0	
CA Sheephead b/				0.0		0.0	0.0	0.0
CPS- wetfish b/	0.3							
CPS- squid c/								
Dungeness crab b/	0.0		0.0	0.0		0.0		
HMS b/		0.0	0.0	0.0				
Pacific Halibut b/	0.0		0.0	0.0		0.0	0.0	0.5
Pink shrimp	0.1	0.1	0.0	0.0	0.5	0.0	0.1	0.1
Ridgeback prawn	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon troll	0.2	1.6	0.0	0.0	0.3	0.0	0.0	0.2
Sea Cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot Prawn (trap)								
Tribal								
Midwater Trawl		1.3		0.0	0.1	0.0	40.0	0.0
Bottom Trawl		0.5		0.0	9.0	0.0	0.0	0.0
Troll		0.5		0.0	1.0	0.0		0.0
Fixed gear		0.3		0.0	15.0	0.0	0.0	2.3
Recreational Groundfish								
WA		1.7			71.7			3.4
OR /e		4.3			109.7		1.4	3.2
CA	62.8	8.5	1.8		268.9		8.2	3.7
Research: Based on 2 most recent NMFS trawl shelf and slope surveys, the IPHC halibut survey, and LOAs with expanded estimates for south of Pt. Conception.								
	2.0	3.1		4.0	3.0	3.0	0.5	1.0
Non-EFP Total	137.5	53.6	2.4	373.1	677.8	109.5	179.4	18.1
EFPs d/								
CA: NS FF trawl	10.0	0.1	0.5		20.0			0.5
OR: DTS		0.0		0.2		0.6		0.0
WA: AT trawl		1.0		0.7	0.8	4.0	0.0	0.0
WA: dogfish LL		0.0		0.0	0.5	0.0	0.0	0.0
WA: pollock		0.0					0.0	0.0
EFP Subtotal	10.0	1.1	0.5	0.9	21.3	4.6	0.0	0.5
TOTAL	147.5	54.7	2.9	374.0	699.1	114.1	179.4	18.6
2004 OY	250	47.3	4.8	240	735	444	284	22
Difference	102.5	-7.4	1.9	-134.0	35.9	329.9	104.6	3.4
Percent of OY	59.0%	115.7%	60.4%	155.9%	95.1%	25.7%	63.2%	84.7%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data sources.							

a/ South of 40°10' N. lat.

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

c/ 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). In 2001, out of 84,000 mt total landings 1 mt was groundfish. This suggests that total bocaccio was caught in trace amounts.

d/ Values are proposed EFP bycatch caps, not estimates of total mortality. The EFP is terminated inseason if the cap is projected to be attained early.

e/ Canary rockfish impacts through September 5 in all Oregon recreational fisheries (3.5 mt), plus impacts from remaining halibut fishery dates in Sept. and Oct. (0.4 mt), plus impacts from fishery shoreward of 40 fm through December (0.1 mt), plus fishery seaward of 40 fm in October with yellowtail rockfish retention (0.4 mt).

Attachment 2. Bimonthly Limit and RCA Configurations Under Proposed Inseason Adjustments

SUBAREA	PERIOD	INLINE	OUTLINE	Petrale							
				Sablefish	Longspine	Shortspine	Dover	Other Flat	sublimit	Arrowtooth	Slope
N 40 10(a)	1	75	200	9,300	15,000	3,150	67,500	100,000	No Limit	No Limit	4,000
	2	60	200	9,300	15,000	3,150	67,500	100,000	100,000	150,000	4,000
	3	60	150	16,000	18,000	4,500	32,000	100,000	100,000	150,000	8,000
	4	75	150	15,000	18,000	4,100	31,000	100,000	30,000	150,000	8,000
	5*	0	250	17,000	18,000	5,100	40,000	100,000	30,000	150,000	8,000
	6	0	250	17,000	18,000	5,100	40,000	100,000	100,000	100,000	1,800
38 - 40 10	1	75	150	11,250	15,000	3,000	39,000	100,000	No Limit	No Limit	7,000
	2	75	150	11,250	15,000	3,000	39,000	100,000	20,000	10,000	7,000
	3	100	150	14,500	18,000	4,500	49,000	120,000	20,000	10,000	50,000
	4	100	150	13,000	18,000	4,100	48,000	120,000	20,000	10,000	50,000
	5*	0	250	17,000	18,000	5,100	48,000	120,000	20,000	10,000	50,000
	6	0	250	17,000	18,000	5,100	48,000	120,000	100,000	100,000	10,000
S 38	1	75	150	11,250	15,000	3,000	39,000	100,000	No Limit	No Limit	40,000
	2	75	150	11,250	15,000	3,000	39,000	100,000	20,000	10,000	40,000
	3	100	150	14,500	18,000	4,500	49,000	120,000	20,000	10,000	50,000
	4	100	150	13,000	18,000	4,100	48,000	120,000	20,000	10,000	50,000
	5*	0	200	17,000	18,000	5,100	48,000	120,000	20,000	10,000	50,000
	6	0	200	17,000	18,000	5,100	48,000	120,000	100,000	100,000	50,000

(a) the north small / large footrope delineation would be eliminated

*RCA and trip limit adjustments will likely go in effect October 1. Current configurations likely to remain in place through September

Lopez Point)	11-20	0.10	0.10	0.20	0.20	0.24	0.24	0.28	0.28	0.28	0.28	0.28	0.13	0.13	0.13	0.13
	21-30	0.14	0.14	0.28	0.28	0.33	0.33	0.39	0.39	0.39	0.39	0.39	0.18	0.18	0.18	0.18
		0.24	0.24					0.29	0.29	0.29	0.29	0.29				
Council adopted	Total*depth adj.	0.30	0.30					0.40	0.40	0.40	0.40	0.40				1.79
With shore exemp		0.30	0.30	0.00	0.00	0.00	0.00	0.40	0.40	0.40	0.40	0.40	0.00	0.00	0.00	1.80
Morro Bay S-Central	DepthStratum															Total
(Lopez Point to	0-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Point Conception)	11-20	0.03	0.03	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.04	0.04	0.04	
	21-30	0.05	0.05	0.09	0.09	0.11	0.11	0.13	0.13	0.13	0.13	0.13	0.06	0.06	0.06	
	31-40	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	
		0.08	0.08			0.08	0.08			0.10	0.10	0.10	0.04	0.04	0.04	
Council adopted	Total*depth adj.	0.10	0.10			0.11	0.11			0.13	0.13	0.13	0.06	0.06	0.06	0.95
With shore exemp		0.10	0.10	0.00	0.00	0.11	0.11	0.00	0.00	0.13	0.13	0.13	0.06	0.06	0.06	0.95
South	DepthStratum															Total
	0-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	11-20	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	
	21-30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	31-40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	41-50	0.09	0.09	0.18	0.18	0.02	0.02	0.18	0.18	0.18	0.37	0.37	0.09	0.09	0.09	
	51-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Council adopted	Total*depth adj.			0.19	0.19	0.02	0.02	0.19	0.19	0.19	0.02	0.02	0.10	0.10	0.10	1.02
With shore exemp		0.00	0.00	0.19	0.19	0.02	0.02	0.19	0.19	0.19	0.03	0.03	0.10	0.10	0.10	1.02
CA																
Council adopted		0.91	0.91	0.32	0.32	0.19	0.19	0.30	0.30	1.83	1.58	1.58	0.16	0.16	0.16	8.45
With shore exemp		0.91	0.91	0.32	0.32	0.20	0.20	0.31	0.31	1.83	1.58	1.58	0.16	0.16	0.16	8.49

Groundfish Management Team (GMT)
Review of Pink Shrimp Fishery Canary Rockfish Mortality.

During the 2000 and 2001 pink shrimp fishery seasons Oregon Department of Fish and Wildlife was actively working with the industry to develop effective groundfish bycatch reduction devices (BRDs). The work involved examining the performance of five different devices ranging from soft mesh panels to rigid excluders (e.g. Nordmore grate). The industry was also allowed to design and test additional devices. During the 2001 season the canary bycatch mortality was estimated to be 1.5 mt based on the research data (0.5 mt) and additional mortality (1.0) that occurred while continuing to test various BRD designs under an Exempted Fishing Permit (EFP).

Beginning with the 2002 season, research validated BRDs were required and the option to experiment with additional industry designs was eliminated. The original research validated 0.5 mt coastwide canary mortality estimate was used by the GMT for the 2002 – 2004 seasons.

Changes in BRD technology, acceptance of more effective designs, the spread of BRD requirements for all three states, and changes in the success (target pink shrimp pounds landed) for the pink shrimp fishery have not been evaluated since early 2002.

Five factors support the GMT estimate that bycatch in the pink shrimp fishery should now be considered to minimal (0.1 mt or less). These factors are:

- The "fisheye" BRD, which was demonstrated to be much less effective at eliminating bycatch, has been eliminated as a legal BRD.
- The use of hard excluder devices for the Oregon fishery has increased from 25% during 2002, to over 80% during 2004.
- Research shows that hard excluders are nearly 100% effective at eliminating canary rockfish from shrimp trawls.
- A soon to be available ODFW Information Report demonstrates that water flow through the excluder devices is associated with the likelihood of gilling rockfish. Hard excluder devices facilitate much better water flow and as a result the number of gilled fish is reduced dramatically.
- It is estimated that the 2004 Oregon Pink shrimp fishery will be about 18 million pounds – a reduction of over 50% from the 40 million pounds landed during 2002.

For the above reasons the GMT will update the scorecard to show an anticipated canary rockfish bycatch mortality of 0.1 mt for the 2004 season which ends October 31.

Table 3 (North). 2004 Trip Limits and Gear Requirements^{1/} for Limited Entry Trawl Gear North of 40°10' N. Latitude^{2/}
 Other Limits and Requirements Apply – Read Sections IV. A. and B. NMFS Actions before using this table

092004

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC					
Rockfish Conservation Area^{3/} (RCA):											
North of 40°10' N. lat.	75 fm - modified 200 fm ^{11/}	60 fm - 200 fm	60 fm - 150 fm	75 fm - 150 fm	shoreline - 250 fm						
Small footrope or midwater trawl gear is required shoreward of the RCA; all trawl gear (large footrope, midwater trawl, and small footrope gear) is permitted seaward of the RCA.											
A vessel may have more than one type of limited entry bottom trawl gear on board, but the most restrictive trip limit associated with the gear on board applies for that trip and will count toward the cumulative trip limit for that gear. A vessel that is trawling within the RCA (or other closed area) with trawl gear authorized for use within the RCA (or other closed area) may not have any other type of trawl gear on board. North of 40°10' N. lat., midwater trawl gear is permissible only for vessels participating in the primary whiting season. On non-whiting trips, vessels with both large footrope and midwater trawl gear on board during a trip may land the large footrope limits while fishing with large footrope gear seaward of the RCA. Crossover provisions apply. See IV.A.(14)(b)(v) and IV.B.(3)(c) for details.											
Beginning October 1, 2004, retention of darkblotched and canary rockfish prohibited.											
1 Minor slope rockfish ^{2/}	4,000 lb/ 2 months		8,000 lb/ 2 months		1,800 lb/ 2 months						
2 Pacific ocean perch	3,000 lb/ 2 months										
3 DTS complex	Providing only large footrope gear is used to land any groundfish species during the entire limit period, then large footrope trawl trip limits apply. If small footrope gear ^{7/} is used at any time north of 40°10' N. lat. (shoreward or seaward of RCA) during the entire limit period, then small footrope trawl limits apply.										
4 Sablefish	17,000 lb/ 2 months										
5 large footrope gear							9,300 lb/ 2 months	16,000 lb/ 2 months	15,000 lb/ 2 months		
6 small footrope gear ^{7/}							2,000 lb/ 2 months	10,000 lb/ 2 months			
7 Longspine thornyhead	18,000 lb/ 2 months										
8 large footrope gear							15,000 lb/ 2 months	18,000 lb/ 2 months			
9 small footrope gear ^{7/}	1,000 lb/ 2 months										
10 Shortspine thornyhead											
11 large footrope gear	3,150 lb/ 2 months	4,500 lb/ 2 months	4,100 lb/ 2 months	5,100 lb/ 2 months							
12 small footrope gear ^{7/}	1,000 lb/ 2 months	3,000 lb/ 2 months									
13 Dover sole											
14 large footrope gear	67,500 lb/ 2 months	32,000 lb/ 2 months	31,000 lb/ 2 months	40,000 lb/ 2 months							
15 small footrope gear ^{7/}	10,000 lb/ 2 months	27,000 lb/ 2 months									
16 Flatfish	Providing only large footrope gear is used to land any groundfish species during the entire limit period, then large footrope trawl trip limits apply. If small footrope gear ^{7/} is used at any time north of 40°10' N. lat. (shoreward or seaward of RCA) during the entire limit period, then small footrope trawl limits apply.										
17 All other flatfish, Petrale sole, & Rex sole											
18 large footrope gear for All other flatfish ^{4/} & Rex sole	100,000 lb/ 2 months		All other flatfish, rex sole, and petrale sole: 100,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole.		All other flatfish, rex sole, and petrale sole: 100,000 lb/ 2 months						
19 large footrope gear for Petrale sole	Not limited	100,000 lb/ 2 months									
20 small footrope gear ^{7/}	30,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole.		80,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole.	80,000 lb/ 2 months, no more than 26,000 lb/ 2 months of which may be petrale sole.							
21 Arrowtooth flounder											
22 large footrope gear	Not limited	150,000 lb/ 2 months				100,000 lb/ 2 months					
23 small footrope gear ^{7/}	4,000 lb/ 2 months	11,000 lb/ 2 months									
<i>Table 3 (North). Continued</i>											
24 Whiting ^{5/}	Before the primary whiting season: 20,000 lb/trip -- During the primary season: mid-water trawl permitted in the RCA. See IV.B.(3)(b) for season and trip limit details. -- After the primary whiting season: 10,000 lb/trip										
25 Minor shelf rockfish ^{6/} & Widow rockfish											
26 large footrope trawl	CLOSED ^{6/}		300 lb/ 2 months		CLOSED ^{6/}						
27 midwater trawl for Widow rockfish	Before the primary whiting season: CLOSED ^{6/} -- 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 IV.B.(3)(b) for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED ^{6/}										
28 small footrope trawl ^{7/} for minor shelf & widow	300 lb/ month	1,000 lb/ month, no more than 200 lb/ month of which may be yelloweye rockfish			CLOSED ^{6/}						
29 Canary rockfish											
30 large footrope trawl	CLOSED ^{6/}										
31 small footrope trawl ^{7/}	100 lb/ month	300 lb/ month		100 lb/ month	CLOSED ^{6/}						
32 Yellowtail											
33 large footrope trawl	CLOSED ^{6/}										
34 midwater trawl	Before the primary whiting season: CLOSED ^{6/} -- 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 IV.B.(3)(b) for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED ^{6/}										
35 small footrope trawl ^{7/}	In landings without flatfish, 1,000 lb/ month. As flatfish bycatch, per trip limit is the sum of 33% (by weight) of all flatfish except arrowtooth flounder, plus 10% (by weight) of arrowtooth flounder. Total yellowtail landings not to exceed 10,000 lb/ 2 months, no more than 1,000 lb/ month of which may be landed without flatfish.				CLOSED ^{6/}						
36 Minor nearshore rockfish											
37 large footrope trawl	CLOSED ^{6/}										
38 small footrope trawl ^{7/}	300 lb/ month				CLOSED ^{6/}						
39 Lingcod ^{8/}											
40 large footrope trawl	CLOSED ^{6/}		500 lb/ 2 months		500 lb/ 2 months						
41 small footrope trawl ^{7/}	800 lb/ 2 months	1,000 lb/ 2 months		800 lb/ 2 months							
42 Other Fish ^{9/}	Not limited										

Table 3 (South). 2004 Trip Limits and Gear Requirements¹ for Limited Entry Trawl Gear South of 40°10' N. Latitude²

Other Limits and Requirements Apply - Read Sections IV. A. and B. NMFS Actions before using this table

092004

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area¹⁰ (RCA):						
40°10' - 38° N. lat.	75 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)	100 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)	75 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)	shoreline - 250 fm		
38° - 36° N. lat.				shoreline - 200 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)		
36° - 34°27' N. lat.				shoreline - 150 fm along mainland coast and around islands		
South of 34°27' N. lat.	75 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands	100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands	75 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands	shoreline - 150 fm along mainland coast and around islands		

Small footrope gear is required shoreward of the RCA; all trawl gear (large footrope, midwater trawl, and small footrope gear) is permitted seaward of the RCA.

A vessel may have more than one type of limited entry bottom trawl gear on board, but the most restrictive trip limit associated with the gear on board applies for that trip. For vessels using more than one type of trawl gear during a cumulative limit period, limits are additive up to the largest limit for the type of gear used during that period. See ¹¹ for example. A vessel that is trawling within the RCA (or other closed area) with trawl gear authorized for use within the RCA (or other closed area) may not have any other type of trawl gear on board. Crossover provisions apply. See IV.A.(14)(b)(iv) and IV.B.(3)(c) for details.

Beginning October 1, 2004, retention of darkblotched and canary rockfish prohibited.

¹ Minor slope rockfish ¹¹	40°10' - 38° N. lat.	7,000 lb/ 2 months	50,000 lb/ 2 months			10,000 lb/ 2 months
³ Splitnose	South of 38° N. lat.	40,000 lb/ 2 months	50,000 lb/ 2 months			50,000 lb/ 2 months
⁴ Sablefish	40°10' - 38° N. lat.	7,000 lb/ 2 months	50,000 lb/ 2 months			10,000 lb/ 2 months
⁵ Longspine thornyhead	South of 38° N. lat.	40,000 lb/ 2 months	50,000 lb/ 2 months			50,000 lb/ 2 months
⁷ DTS complex	If fishing north of 40°10' N. lat. at any time with small footrope gear during the cumulative limit period, differential trip limits based on footrope size will apply during the entire limit period. See Table 3 (North) and Section A. (12) for more details					
⁸ Shortspine thornyhead		11,250 lb/ 2 months	14,500 lb/ 2 months	13,000 lb/ 2 months	17,000 lb/ 2 months	
⁹ Dover sole		15,000 lb / 2 months	18,000 lb / 2 months			
¹⁰ Petrale sole		3,000 lb/ 2 months	4,500 lb/ 2 months	4,100 lb/ 2 months	5,100 lb/ 2 months	
¹¹ Arrowtooth flounder		39,000 lb/ 2 months	49,000 lb/ 2 months	48,000 lb/ 2 months		
¹² Flatfish	If fishing north of 40°10' N. lat. at any time with small footrope gear during the cumulative limit period, differential trip limits based on footrope size will apply during the entire limit period. See Table 3 (North) and Section A. (12) for more details					
¹³ All other flatfish ¹² & Rex sole		100,000 lb/ 2 months	All other flatfish plus petrale & rex sole: 100,000 lb/ 2 months, no more than 20,000 lb/ 2 months of which may be petrale sole	All other flatfish plus petrale & rex sole: 120,000 lb/ 2 months, no more than 20,000 lb/ 2 months of which may be petrale sole		All other flatfish plus petrale & rex sole: 120,000 lb/ 2 months, no more than 100,000 lb/ 2 months of which may be petrale sole
¹⁴ Petrale sole		No limit	10,000 lb/ 2 months			100,000 lb/ 2 months
¹⁵ Arrowtooth flounder		No limit	10,000 lb/ 2 months			100,000 lb/ 2 months
¹⁶ Whiting ¹³	Before the primary whiting season: 20,000 lb/trip - During the primary whiting season: mid-water trawl permitted in the RCA. See IV.B.(3)(b) for season and trip limit details. - After the primary whiting season: 10,000 lb/trip					
¹⁷ Minor shelf rockfish, Widow, and Chillpepper rockfish ¹⁴						
¹⁸ large footrope or midwater trawl for Minor shelf rockfish	300 lb/ month					
¹⁹ large footrope or midwater trawl for Chillpepper rockfish	2,000 lb/ 2 months	12,000 lb/ 2 months		8,000 lb/ 2 months		
²⁰ large footrope or midwater trawl for Widow rockfish	CLOSED ¹⁵					
²¹ small footrope trawl ¹⁶ for minor shelf	300 lb/ month		1,000 lb/ month, no more than 200 lb/month of which may be minor shelf and widow rockfish		Combined small footrope, midwater, and large footrope limit. See large footrope limit for minor shelf.	
²² small footrope trawl ¹⁷ for chillpepper	300 lb/ month		1,000 lb/ month, no more than 200 lb/month of which may be minor shelf and widow rockfish		Combined small footrope, midwater, and large footrope limit. See large footrope limit for chillpepper.	
²³ small footrope trawl ¹⁸ for widow	CLOSED ¹⁵					
²⁴ Bocaccio						
²⁵ large footrope or midwater trawl	100 lb/ month	300 lb/ 2 months		300 lb/ 2 months		
²⁶ small footrope trawl ¹⁹	CLOSED ¹⁵					
²⁷ Canary rockfish	CLOSED ¹⁵					
²⁸ large footrope or midwater trawl	CLOSED ¹⁵					
²⁹ small footrope trawl ²⁰	100 lb/ month	300 lb/ month	100 lb/ month	CLOSED ¹⁵		
³⁰ Cowcod	CLOSED ¹⁵					
³¹ Minor nearshore rockfish	CLOSED ¹⁵					
³² large footrope or midwater trawl	CLOSED ¹⁵					
³³ small footrope trawl ²¹	300 lb/ month				CLOSED ¹⁵	
³⁴ Lingcod ²²	CLOSED ¹⁵					
³⁵ large footrope or midwater trawl	CLOSED ¹⁵		500 lb/ 2 months		500 lb/ 2 months	
³⁶ small footrope trawl ²²	800 lb/ 2 months	1,000 lb/ 2 months	800 lb/ 2 months		800 lb/ 2 months	
³⁷ Other Fish ²³	Not limited					

Table 3 (South). Continued

Table 4 (North). 2004 Trip Limits for Limited Entry Fixed Gear North of 40°10' N. Latitude^{1'}

092004

Other Limits and Requirements Apply – Read Sections IV. A. and B. NMFS Actions before using this table

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area^{8'} (RCA):						
North of 46°16' N. lat.	shoreline - 100 fm					
46°16' N. lat. - 40°10' N. lat.	30 fm - 100 fm					
Beginning October 1, 2004, retention of darkblotched rockfish prohibited.						
1 Minor slope rockfish ^{4'}	4,000 lb/ 2 months					
2 Pacific ocean perch	1,800 lb/ 2 months					
3 Sablefish	300 lb/ day, or 1 landing per week of up to 900 lb, not to exceed 3,600 lb/ 2 months					
4 Longspine thornyhead	10,000 lb/ 2 months					
5 Shortspine thornyhead	2,100 lb/ 2 months					2,000 lb/ 2 months
6 Dover sole	DRAFT					
7 Arrowtooth flounder						
8 Petrale sole						
9 Rex sole						
10 All other flatfish ^{2'}	5,000 lb/ month					
11 Whiting ^{3'}	10,000 lb/ trip					
12 Minor shelf rockfish, widow, and yellowtail rockfish ^{4'}	200 lb/ month					
13 Canary rockfish	CLOSED ^{5'}					
14 Yelloweye rockfish	CLOSED ^{5'}					
15 Minor nearshore rockfish	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{6'}					
16 Lingcod ^{7'}	CLOSED ^{5'}		400 lb/ month			CLOSED ^{5'}
17 Other fish ^{9'}	Not limited					

Table 4 (South). 2004 Trip Limits for Limited Entry Fixed Gear South of 40°10' N. Latitude^{1/}

Other Limits and Requirements Apply – Read Sections IV. A. and B. NMFS Actions before using this table

092004

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area^{7/} (RCA):						
40°10' - 34°27' N. lat.	30 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)		20 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)		30 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)	
South of 34°27' N. lat.	60 fm - 150 fm (also applies around islands)					
Beginning October 1, 2004, retention of darkblotched rockfish prohibited.						
1 Minor slope rockfish^{4/}						10,000 lb/ 2 months
2 40°10' - 38° N. lat.	7,000 lb/ 2 months		50,000 lb/ 2 months			50,000 lb/ 2 months
3 South of 38° N. lat.	40,000 lb/ 2 months					
4 Splitnose						
5 40°10' - 38° N. lat.	7,000 lb/ 2 months		50,000 lb/ 2 months			10,000 lb/ 2 months
6 South of 38° N. lat.	40,000 lb/ 2 months					50,000 lb/ 2 months
7 Sablefish						
8 40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 900 lb, not to exceed 3,600 lb/ 2 months					
9 South of 36° N. lat.	350 lb/ day, or 1 landing per week of up to 1,050 lb					
10 Longspine thornyhead			10,000 lb/ 2 months			
11 Shortspine thornyhead			2,000 lb/ 2 months			
12 Dover sole			5,000 lb/ month			
13 Arrowtooth flounder	When fishing for Pacific sanddabs, 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 1 lb (0.45 kg) of weight per line are not subject to the RCAs.					
14 Petrale sole						
15 Rex sole						
16 All other flatfish^{2/}						
17 Whiting^{3/}			10,000 lb/ trip			
18 Minor shelf rockfish, widow, and yellowtail rockfish^{4/}						
19 40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED ^{5/}	200 lb/ 2 months	300 lb/ 2 months		
20 South of 34°27' N. lat.	CLOSED ^{5/}	2,000 lb/ 2 months				
21 Chilipepper rockfish	2,000 lb/ 2 months, this opportunity only available seaward of the nontrawl RCA					
22 Canary rockfish	CLOSED ^{5/}					
23 Yelloweye rockfish	CLOSED ^{5/}					
24 Cowcod	CLOSED ^{5/}					
25 Bocaccio						
26 40°10' - 34°27' N. lat.	200 lb/ 2 months	CLOSED ^{5/}	100 lb/ 2 months	300 lb/ 2 months		
27 South of 34°27' N. lat.	CLOSED ^{5/}	300 lb/ 2 months				
28 Minor nearshore rockfish						
29 Shallow nearshore						
30 40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED ^{5/}	500 lb/ 2 months	600 lb/ 2 months	500 lb/ 2 months	300 lb/ 2 months
31 South of 34°27' N. lat.	CLOSED ^{5/}	300 lb/ 2 months				
32 Deeper nearshore						
33 40°10' - 34°27' N. lat.	500 lb/ 2 months	CLOSED ^{5/}	500 lb/ 2 months	400 lb/ 2 months		500 lb/ 2 months
34 South of 34°27' N. lat.	CLOSED ^{5/}	500 lb/ 2 months	600 lb/ 2 months			400 lb/ 2 months
35 California scorpionfish	CLOSED ^{5/}	300 lb/ 2 months		400 lb/ 2 months		300 lb/ 2 months

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Table 4 (South). Continued

36 Lingcod^{6/}	CLOSED ^{5/}		400 lb/ month, when nearshore open			CLOSED ^{5/}
37 Other fish^{5/}	Not limited					

Table 5 (North). 2004 Trip Limits for Open Access Gears North of 40°10' N. Latitude^{1/}

Other Limits and Requirements Apply -- Read Sections IV. A. and C. NMFS Actions before using this table

092004

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area^{6/} (RCA):							
North of 46°16' N. lat.		shoreline - 100 fm					
46°16' N. lat. - 40°10' N. lat.		30 fm - 100 fm					
Beginning October 1, 2004, retention of darkblotched rockfish prohibited.							
1	Minor slope rockfish ^{2/}	Per trip, no more than 25% of weight of the sablefish landed					
2	Pacific ocean perch	100 lb/ month					
3	Sablefish	300 lb/ day, or 1 landing per week of up to 900 lb, not to exceed 3,600 lb/ 2 months					
4	Thornyheads	CLOSED ^{5/}					
5	Dover sole	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs.					
6	Arrowtooth flounder						
7	Petrale sole						
8	Rex sole						
9	All other flatfish ^{3/}						
10	Whiting	300 lb/ month					
11	Minor shelf rockfish, widow and yellowtail rockfish ^{2/}	200 lb/ month					
12	Canary rockfish	CLOSED ^{5/}					
13	Yelloweye rockfish	CLOSED ^{5/}					
14	Minor nearshore rockfish	300 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{6/}					
15	Lingcod ^{6/}	CLOSED ^{5/}		300 lb/ month		CLOSED ^{5/}	
16	Other Fish ^{7/}	Not limited					
17	PINK SHRIMP EXEMPTED TRAWL (not subject to RCAs)						
18	North	<p>Effective April 1 - October 31, 2004: 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 species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.</p>					
19	SALMON TROLL						
20	North	<p>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 restrictions listed in the table above.</p>					

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Table 5 (South). 2004 Trip Limits for Open Access Gears South of 40°10' N. Latitude^{1/}

Other Limits and Requirements Apply – Read Sections IV. A. and C. NMFS Actions before using this table

092004

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area^{7/} (RCA):							
40°10' - 34°27' N. lat.		30 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)		20 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)		30 fm - 150 fm (also applies around islands, there is an additional closure between the shoreline and 10 fm around the Farallon Islands)	
South of 34°27' N. lat.		60 fm - 150 fm (also applies around islands)					
Beginning October 1, 2004, retention of darkblotched rockfish prohibited.							
1	Minor slope rockfish ^{2/}	Per trip, no more than 25% of weight of the sablefish landed					
2	40°10' - 38° N. lat.	10,000 lb/ 2 months					
3	South of 38° N. lat.	200 lb/ month					
4	Splitnose	300 lb/ day, or 1 landing per week of up to 900 lb, not to exceed 3,600 lb/ 2 months					
5	Sablefish	350 lb/ day, or 1 landing per week of up to 1,050 lb					
6	40°10' - 36° N. lat.	CLOSED ^{5/}					
7	South of 36° N. lat.	50 lb/ day, no more than 1,000 lb/ 2 months					
8	Thornyheads	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. When fishing for Pacific sanddabs, 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 1 lb of weight per line are not subject to the RCAs.					
9	40°10' - 34°27' N. lat.						
10	South of 34°27' N. lat.						
11	Dover sole						
12	Arrowtooth flounder						
13	Petrable sole	300 lb/ month					
14	Rex sole	DRAFT					
15	All other flatfish ^{3/}						
16	Whiting	300 lb/ 2 months					
17	Minor shelf rockfish, widow and chilipepper rockfish ^{2/}	CLOSED ^{5/}					
18	40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED ^{5/}	200 lb/ 2 months	300 lb/ 2 months		
19	South of 34°27' N. lat.	CLOSED ^{5/}	500 lb/ 2 months				
20	Canary rockfish	CLOSED ^{5/}					
21	Yelloweye rockfish	CLOSED ^{5/}					
22	Cowcod	CLOSED ^{5/}					
23	Bocaccio						
24	40°10' - 34°27' N. lat.	200 lb/ 2 months	CLOSED ^{5/}	100 lb/ 2 months	200 lb/ 2 months		
25	South of 34°27' N. lat.	CLOSED ^{5/}	100 lb/ 2 months				
26	Minor nearshore rockfish						
27	Shallow nearshore						
28	40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED ^{5/}	500 lb/ 2 months	600 lb/ 2 months	500 lb/ 2 months	300 lb/ 2 months
29	South of 34°27' N. lat.	CLOSED ^{5/}	300 lb/ 2 months				
30	Deeper nearshore						
31	40°10' - 34°27' N. lat.	500 lb/ 2 months	CLOSED ^{5/}	500 lb/ 2 months	400 lb/ 2 months		500 lb/ 2 months
32	South of 34°27' N. lat.	CLOSED ^{5/}	500 lb/ 2 months	600 lb/ 2 months			400 lb/ 2 months
33	California scorpionfish	CLOSED ^{5/}	300 lb/ 2 months		400 lb/ 2 months		300 lb/ 2 months

Table 5 (South). Continued

34	Lingcod ^{4f}	CLOSED ^{5f}	300 lb/ month, when nearshore open	CLOSED ^{5f}
35	Other Fish ^{6f}		Not limited	
36	PINK SHRIMP EXEMPTED TRAWL GEAR (not subject to RCAs)			
37	South	<p>Effective April 1 - October 31, 2004: 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. Beginning October 1, retention of darkblotched rockfish 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 species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.</p>		
38	PRAWN AND, SOUTH OF 38°57'30" N. LAT., CALIFORNIA HALIBUT AND SEA CUCUMBER EXEMPTED TRAWL			
39	EXEMPTED TRAWL Rockfish Conservation Area ^{7f} (RCA):			
40	40°10' - 38° N. lat.	75 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)	100 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)	75 fm - 150 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)
41	38° - 36° N. lat.			shoreline - 250 fm
42	36° - 34°27' N. lat.			shoreline - 200 fm (additional closure between the shoreline and 10 fm around the Farallon Islands)
43	South of 34°27' N. lat.	75 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands	100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands	75 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands
44	<p>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°57'30" 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 sanddabs, sand sole, starry flounder, rock sole, curlfin sole, or California scorpionfish (California scorpionfish is also subject to the trip limits and closures in line 33).</p>			

GROUND FISH MANAGEMENT TEAM REPORT ON FINAL CONSIDERATION OF 2004 INSEASON ADJUSTMENTS

Updated Bycatch Scorecard

The Groundfish Management Team (GMT) updated the bycatch scorecard to reflect total mortality estimates for canary and darkblotched rockfish as a result of Council inseason action (see Attachment 1). The action taken by the Council is expected to reduce the estimated impacts to other overfished stocks, however, the GMT did not have all of the information available to adjust those estimates at this time. The GMT plans to update the bycatch scorecard for all species at the November Council meeting.

Inseason Tracking Mechanism

The GMT held a discussion concerning modifications to the inseason tracking mechanism in order to make it more responsive to providing real-time signals on where we are with respect to our management targets. The GMT tasked Mr. Brian Culver of Washington Department of Fish and Wildlife and Mr. Merrick Burden of National Marine Fisheries Service (NMFS) to work with Mr. William Daspit at the Pacific Fisheries Information Network (PacFIN) office to modify the current Quota Species Monitoring Report (QSM). Currently the QSM tracks landings of key species based upon hard fishticket data supplemented by soft data (landing data provided in advance of the associated fishticket data being entered into the system). New fields will be added to the QSM that provide monthly targets as contained in the bycatch model and where current total catch is with respect to those targets. With respect to nearshore species, the GMT feels that much of the tracking responsibility should remain with the states, since information on commercial and recreational management strategies and current trends are only available at the state level.

With respect to recreational monitoring, the GMT is in the process of developing a recreational QSM which incorporates estimates from state sampling programs with catch projections to provide estimates on a monthly basis. Mr. Merrick Burden developed a format to receive this information from the states, organized according to the management priority of the species involved. Currently the states of Oregon and Washington are able to provide data feeds to the Recreational QSM (RQSM), and as the California Recreational Fisheries Survey (CRFS) comes online, information from California will be incorporated as well. Ultimately, the function of the RQSM could be replaced by the information in the Recreational Fisheries Information Network (RecFIN), but until RecFIN information becomes sufficiently real-time, the GMT will continue to employ the RQSM.

The GMT will communicate on a monthly basis to review commercial and recreational catches produced by the above processes to determine whether management action is warranted. The GMT is especially concerned about deviations from harvest targets that might occur between the June and November Council meetings. If there are any "red flags" that are identified between Council meetings via email discussion, then the GMT will have a conference call work session to share data and communicate issues to Council staff. Council staff can then inform Council members of these issues to determine if there are recommendations for state and/or federal action.

The Council could also implement a mechanism for NMFS to take management action during this

interval if information reviewed by the GMT indicates that catches are tracking too far from anticipated targets.

PFMC
09/17/04

Attachment 1. Estimated Impacts After Inseason Adjustments at the September Council Meeting

9/17/2004 9:59

Fishery	Bocaccio a/	Canary	Cowcod	Dkbl	Lingcod	POP	Widow	Yelloweye
Limited Entry Groundfish								
Trawl- Non-whiting	47.4	18.3	0.4	268.1	104.7	95.0	2.5	0.2
Fixed Gear	13.4		0.1		20.0	0.3	0.5	2.5
Open Access: Groundfish directed	10.6		0.1		70.0	0.1		0.6
Whiting								
At-sea whiting motherships		6.2		3.0	0.8	0.1	11.4	0.0
At-sea whiting cat-proc			5.8	0.4	10.1	84.6	0.4	
Shoreside whiting			0.7	0.7	0.7	28.6	0.0	
Tribal whiting			0.0	0.0	0.2	1.6	0.0	
Open Access								
CA Halibut	0.1	0.1		0.0	2.0	0.0		
CA Gillnet b/	0.5			0.0		0.0	0.0	
CA Sheephead b/				0.0		0.0	0.0	0.0
CPS- wetfish b/	0.3							
CPS- squid c/								
Dungeness crab b/	0.0		0.0	0.0		0.0		
HMS b/		0.0	0.0	0.0				
Pacific Halibut b/	0.0		0.0	0.0		0.0	0.0	0.5
Pink shrimp	0.1	0.1	0.0	0.0	0.5	0.0	0.1	0.1
Ridgeback prawn	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salmon troll	0.2	1.6	0.0	0.0	0.3	0.0	0.0	0.2
Sea Cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot Prawn (trap)								
Tribal								
Midwater Trawl		1.3		0.0	0.1	0.0	40.0	0.0
Bottom Trawl		0.5		0.0	9.0	0.0	0.0	0.0
Troll		0.5		0.0	1.0	0.0		0.0
Fixed gear		0.3		0.0	15.0	0.0	0.0	2.3
Recreational Groundfish								
WA		1.7			71.7			3.4
OR /e		4.3			109.7		1.4	3.2
CA	62.8	8.5	1.8		268.9		8.2	3.7
Research: Based on 2 most recent NMFS trawl shelf and slope surveys, the IPHC halibut survey, and LOAs with expanded estimates for south of Pt. Conception.								
	2.0	3.1		4.0	3.0	3.0	0.5	1.0
Non-EFP Total	137.5	46.5	2.4	281.6	677.8	109.5	179.4	18.1
EFPs d/								
CA: NS FF trawl	10.0	0.1	0.5		20.0			0.5
OR: DTS		0.0		0.2		0.6		0.0
WA: AT trawl		1.0		0.7	0.8	4.0	0.0	0.0
WA: dogfish LL		0.0		0.0	0.5	0.0	0.0	0.0
WA: pollock		0.0					0.0	0.0
EFP Subtotal	10.0	1.1	0.5	0.9	21.3	4.6	0.0	0.5
TOTAL	147.5	47.6	2.9	282.5	699.1	114.1	179.4	18.6
2004 OY	250	47.3	4.8	240	735	444	284	22
Difference	102.5	-0.3	1.9	-42.5	35.9	329.9	104.6	3.4
Percent of OY	59.0%	100.7%	60.4%	117.7%	95.1%	25.7%	63.2%	84.7%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data sources.							

a/ South of 40°10' N. lat.

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

c/ 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). In 2001, out of 84,000 mt total landings 1 mt was groundfish. This suggests that total bocaccio was caught in trace amounts.

d/ Values are proposed EFP bycatch caps, not estimates of total mortality. The EFP is terminated inseason if the cap is projected to be attained early.

e/ Canary rockfish impacts through September 5 in all Oregon recreational fisheries (3.5 mt), plus impacts from remaining halibut fishery dates in Sept. and Oct. plus 2-fish bag (0.4 mt), plus impacts from fishery shoreward of 40 fm through December (0.1 mt), plus fishery seaward of 40 fm in October with yellowtail rockfish retention (0.4 mt).

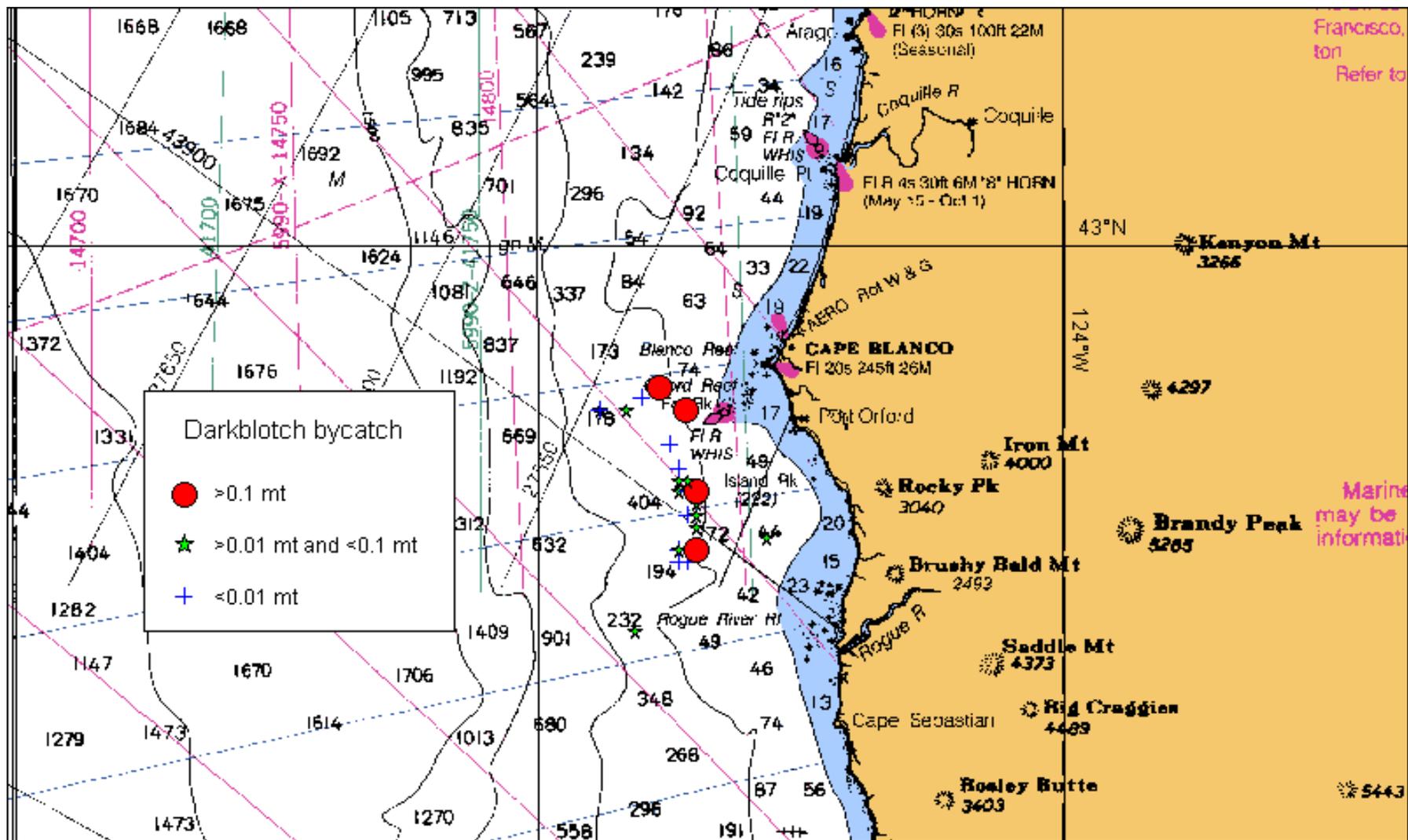
Sea State, Inc

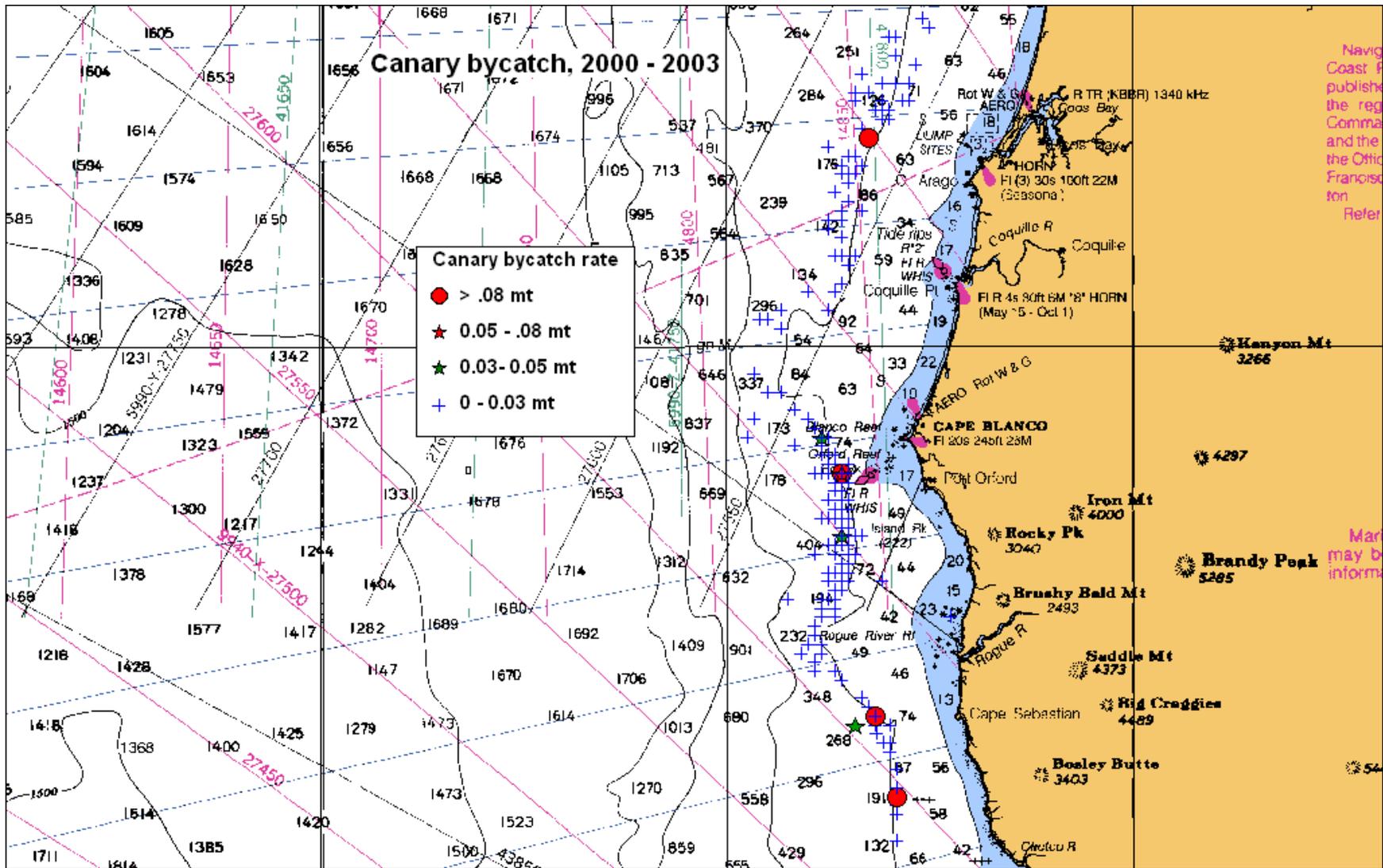
Agendum C.9.c
Supplemental Public Comment
September 2004

- **Works with pollock and flatfish trawl industry in Bering Sea, GOA, and whiting fleet in Pacific NW to manage coop harvests and monitor and reduce bycatch**
- **Designated as an agent for receipt of observer data from trawl vessels in these fisheries**
- **All whiting C/Ps utilize flow scales for accurate catch monitoring and carry two observers for catch sampling**
- **Data is sent to Ak groundfish observer program office at least daily (depends on observer schedules)**
- **Data automatically available to Sea State 20 minutes after transmission from vessels at NMFS protected web site**
- **Data downloaded at Sea State several times per day**
VMS installed on all whiting C/Ps. Sea State also designated by companies as an agent for receipt of VMS information (also checked several times daily if necessary).

Recent catch and bycatch in non-tribal whiting

Date	Whiting (mt)	Yellowtail (mt)	Widow (mt)	Canary (mt)	Chinook (N) - observed	Yellowtail Rate (kg/mt)	Widow Rate (kg/mt)	Canary Rate (kg/mt)	Chinook Rate (N/mt)
6/26/04	274	0.00	0.00	0.00	1	0.00	0.02	0.00	0.005
6/27/04	253	0.00	0.00	0.00	0	0.02	0.00	0.00	0.000
6/28/04	245	0.00	0.00	0.00	0	0.00	0.01	0.00	0.000
6/29/04	165	0.00	0.00	0.00	0	0.00	0.00	0.00	0.000
6/30/04	289	0.00	0.01	0.00	0	0.00	0.04	0.00	0.000
7/1/04	139	0.00	0.00	0.00	0	0.00	0.03	0.00	0.000
7/4/04	77	0.00	0.00	0.00	0	0.00	0.00	0.00	0.000
7/5/04	328	0.00	0.03	0.00	0	0.00	0.09	0.00	0.000
7/7/04	343	0.00	0.03	0.01	0	0.01	0.08	0.02	0.000
7/8/04	19	0.00	0.00	0.00	0	0.00	0.00	0.00	0.000
To date	26,261	1.53	7.19	0.12	363	0.06	0.27	0.00	0.014

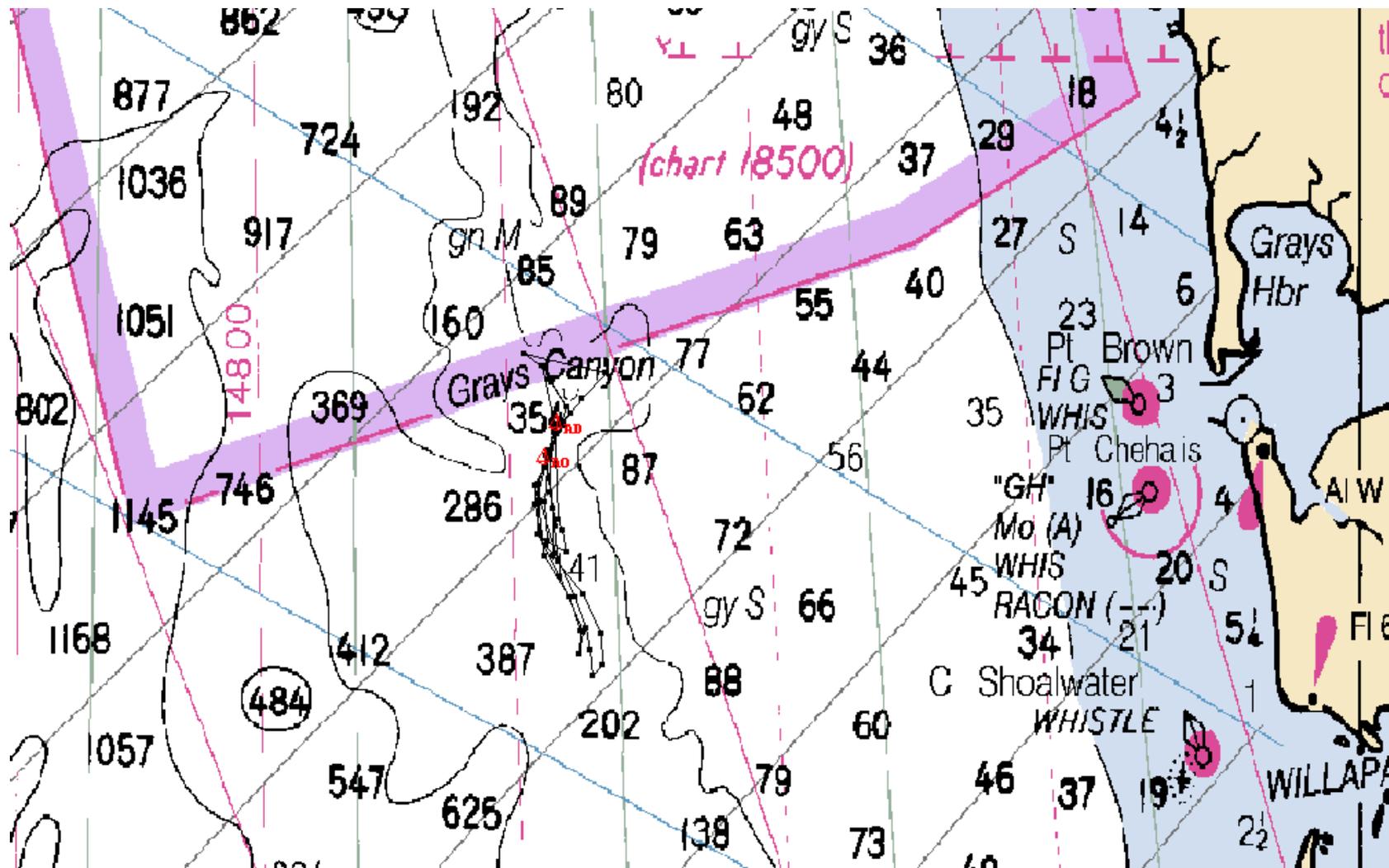




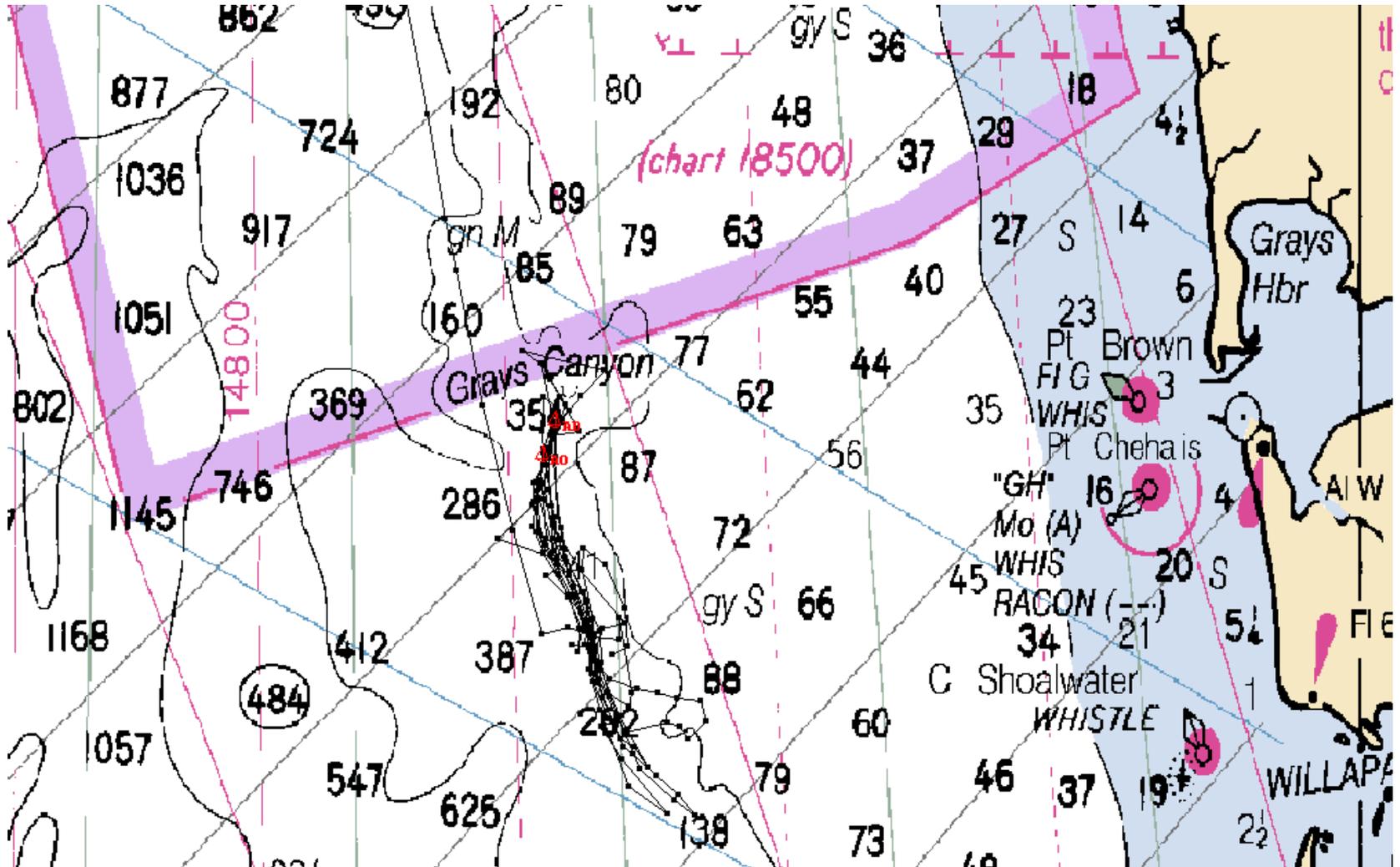
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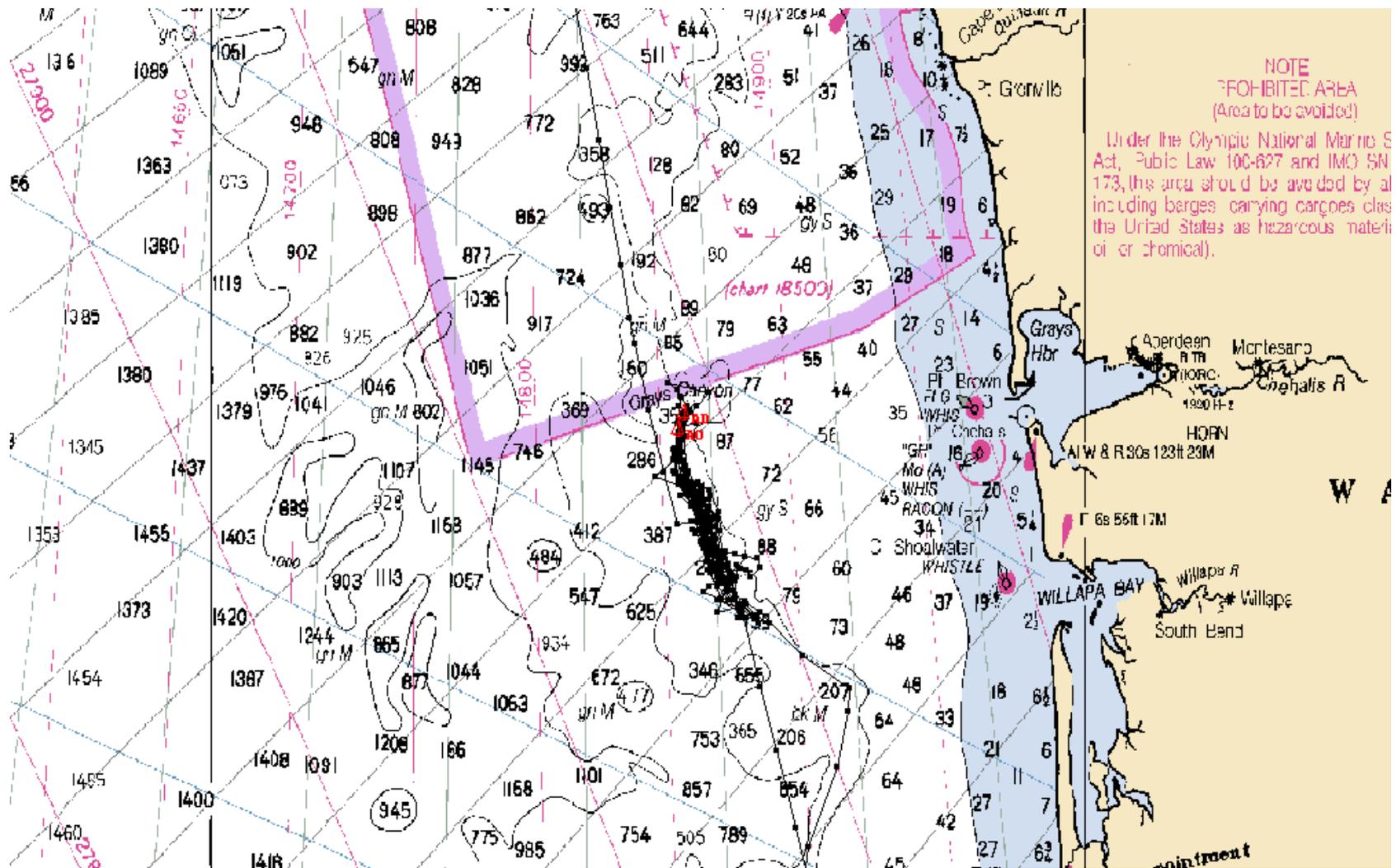
VMS - last six hours (taken 9/16, 1000 hrs)



VMS - last 1 day (taken 9/16, 1000 hrs)



VMS - last 2 days (taken 9/16, 1000 hrs)



EXPANSION OF THE VESSEL MONITORING SYSTEM

A Vessel Monitoring System (VMS) is a shoreside tracking system that allows shoreside personnel to remotely track vessel locations. Depth-based restrictions are a fundamental aspect of the current groundfish management regime, but fathom contours and management lines can be erratic in shape and difficult to follow and enforce, particularly in deep water. Therefore, the Council formed the Ad Hoc VMS Committee (VMSC) in 2002 and implemented a pilot program for limited entry vessels in 2004 to explore the use of this new tool in enforcing West Coast groundfish fishery regulations.

The VMSC met October 7, 2003 and discussed criteria and priorities for potential expansion of the VMS program to groundfish fishery sectors other than the limited entry trawl and limited entry fixed gear sectors. Following the VMSC presentation at the November 2003 Council meeting, the Council opted to postpone a decision on expanding the monitoring program until the pilot program in 2004 was implemented. At the June Council meeting, the National Marine Fisheries Service (NMFS) reported successful implementation of the VMS program and the associated telephone declaration system. At that time, 270 VMS units had been activated generating more than 700,000 position reports in conjunction with 540 declaration reports. NMFS will present a draft Environmental Assessment that builds on the existing program and includes a preliminary range of alternatives for VMS program expansion.

The Council is to hear reports from NMFS, as well as receive advice from the Council advisory bodies and the public, on the expansion alternatives for VMS in groundfish fisheries and consider adopting a range of alternatives for public review. The VMSC is scheduled to meet October 7, 2004 in Portland, Oregon to review and comment on Council recommendations from the September Council meeting. The Council is scheduled to adopt a preferred alternative for VMS expansion at the November 2004 Council meeting in Portland, Oregon.

Council Action:

Adopt alternatives for public review.

Reference Materials:

1. Agendum C.10.b, Attachment 1: Draft Environmental Assessment/Regulatory Impact Review/Regulatory Flexibility Analysis for Expanded Coverage of the Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery, NMFS, Northwest Region.
2. Agendum C.10.d, Public Comment.

Agenda Order:

- a. Agendum Overview
- b. NMFS Report
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. **Council Action:** Adopt Program Expansion Alternatives for Public Review

Mike Burner
NMFS Staff

PFMC
08/25/04

DRAFT

Environmental Assessment/Regulatory Impact Review/Regulatory Flexibility Analysis

For

Expanded Coverage of the Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery

(Tiered from "The Program to Monitor Time-Area Closures in the
Pacific Coast Groundfish Fishery" - July 2003)

**Prepared by
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August 2004

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1.0 INTRODUCTION

The groundfish fishery in the Exclusive Economic Zone (EEZ), 3 to 200 nautical miles off of the Washington-Oregon-California (WOC) coast is managed under the Pacific Coast Groundfish Fishery Management Plan (FMP). The Pacific Coast Groundfish FMP was prepared by the Pacific Fishery Management Council (Council) under the authority of the Magnuson Fishery Conservation and Management Act (subsequently amended and renamed the Magnuson-Stevens Fishery Conservation and Management Act). The Pacific Coast Groundfish FMP was approved by the Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration, on January 4, 1982 and became effective on September 30, 1982.

Actions taken to amend FMPs or to implement regulations to govern the groundfish fishery must meet the requirements of several federal laws, regulations, and executive orders. In addition to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), these federal laws, regulations, and executive orders include: National Environmental Policy Act (NEPA), Regulatory Flexibility Act (RFA), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Coastal Zone Management Act (CZMA), Paperwork Reduction Act (PRA), Executive Orders (E.O.) 12866, 12898, 13132, and 13175, and Migratory Bird Treaty Act.

The regulations that implement NEPA permit NEPA documents to be combined with other agency documents to reduce duplication and paperwork (40 CFR §§1506.4). NEPA, E.O. 12866 and the RFA require a description of the purpose and need for the proposed action as well as a description of alternative actions that may address the problem. The purpose and need for this action and general background materials are included in Section 1 of this document. Section 2 describes a reasonable range of alternative management actions that may be taken under the proposed action. In accordance with NEPA requirements, Section 3 contains a description of the physical, biological and socio-economic characteristics of the affected environment. Section 4 examines the physical, biological and socio-economic impacts of the management options as required by NEPA, E.O. 12866 and the RFA. Section 5 addresses the consistency of the proposed actions with the FMP, Magnuson-Stevens Act, ESA, MPA, CZMA, PRA, E.O. 12866, E.O. 13175 and the Migratory Bird Treaty Act. The Regulatory Impact Review required by E.O. 12866 to address the economic significance of the action, and the Regulatory Flexibility Analysis required by the RFA to address the impacts of the proposed actions on small businesses are found in Section 6. Section 7 presents a list of individuals who assisted in preparing the EA and Section 8 is the list of references. The NEPA conclusions are in a memorandum that accompanies this document.

1.1 Proposed Action

The proposed action is to require vessels using specific open access gears fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters to carry and use mobile Vessel Monitoring System (VMS) transceiver units while fishing in state and federal waters off the coasts of Washington, Oregon and California and to identify their intent to fish within a conservation area, in a manner that is consistent with federal conservation area requirements. This action will enhance monitoring of compliance with large-scale depth-based restrictions for fishing across much of the continental shelf and is intended to further the conservation goals and objectives of the Pacific Coast Groundfish Fishery Management Plan (FMP) by allowing fishing to continue in areas and with gears that can harvest healthy stocks with little incidental catch of low abundance species (overfished species).

1.2 Background

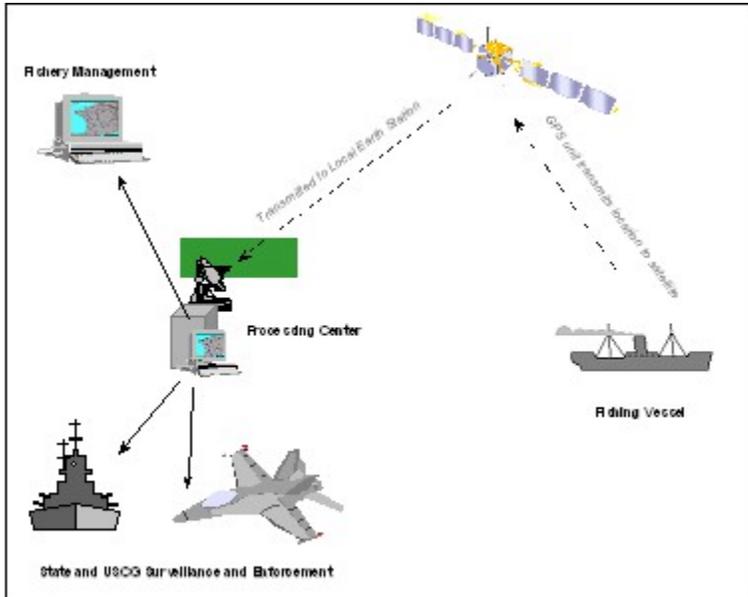


Figure 1.1 Example VMS Scenario

VMS is a tool that is commonly used to monitor vessel activity in relationship to geographically defined management areas where fishing activity is restricted. VMS transceivers installed aboard vessels automatically determine the vessel's location and transmit that position to a processing center via a communication satellite. At the processing center, the information is validated and analyzed before being disseminated for fisheries management, surveillance, and enforcement purposes. VMS transceivers document the vessel's position using Global Positioning System (GPS) satellites. Depending on the defined need, position transmissions can be made on a predetermined schedule or upon request from the processing center. VMS transceivers are designed to be tamper resistant. The vessel operator is unable to alter the signal or the time of transmission and in most cases the vessel operator is unaware of exactly when the unit is transmitting the vessel's position. Figure 1.1 illustrates the flow of information from a VMS system.

Amendment 13 to the Pacific Coast Groundfish FMP recognized the value of VMS in enforcing closed areas that are established to reduce bycatch of overfished species. Amendment 13 also identified VMS as a technological tool that could be used to improve bycatch management by providing fishing location [data that can be used in conjunction with observer data collections](#).

NMFS requires that VMS systems meet defined standards (September 23, 1993, 58 FR 49285; March 31, 1994, 59 FR 151180) to assure compatibility with the national monitoring center, while recognizing the need to promulgate regulations and approve systems on a fishery-by-fishery basis. All approved units must be consistent with the basic features identified and endorsed by NMFS; however, additional features may be added to better meet the specific needs of a particular fishery. VMS transceiver units approved by NMFS are referred to as type-approved models.

To monitor compliance with large-scale depth-based restrictions, the Council recommended at its November 2002 meeting that NMFS, in consultation with the ad hoc VMS Committee, prepare a rule for a pilot VMS program for implementation in 2003. The Council chose the alternative to require a basic VMS system with one-way communications and declaration reports. The recommendation was considered to be a pilot program because initial coverage would only be for vessels registered to limited entry permits. Based on the Council's recommendation, a proposed rule requiring vessels registered to Pacific Coast groundfish fishery limited entry permits to carry and use VMS transceiver units while fishing off the coasts of Washington, Oregon and California was published on May 22, 2003 (FR 86 27972), followed by a final rule on November 4, 2003 (68 FR 62374). In addition to the VMS requirements, the rule required operators of any vessel registered to a limited entry permit and any other commercial or tribal vessel using trawl gear, (including exempted gear used to take pink shrimp, spot and ridgeback prawns, California halibut and sea cucumber) to declare their intent to fish within a conservation area specific to their gear type and in a manner consistent with conservation area requirements. This program, which was intended to further the conservation goals and objectives of the FMP by allowing fishing to continue in areas and

with gears that can harvest healthy stocks with little incidental catch of low abundance species, became effective on January 1, 2004.

On November 17, 2003 (68 FR 64860,) NMFS published an additional notice identifying VMS transceiver units and providers that qualified as type approved for the Pacific Coast groundfish fishery.

1.3 Purpose and need for action

Large-scale depth-based restricted areas, referred to as groundfish conservation areas (GCAs), have been used since 2002 to prohibit or restrict commercial and recreational fishing on much of the continental shelf. The GCAs are bounded by depth ranges where overfished rockfish species are commonly found and where certain fishing activities are restricted or prohibited. The boundaries used to define the conservation areas can be complex, involving hundreds of points of latitude and longitude to delineate fathom curves. The Rockfish Conservation Areas (RCAs), which were designed to protect overfished rockfish species, are gear specific areas that are vast and extend along the entire West Coast from Canada to Mexico.

Deep-water fisheries on the slope and nearshore fisheries have been permitted in areas seaward or shoreward of the RCAs. Vessels intending to fish in deep-water and slope fisheries seaward of the westernmost boundary of an RCA are allowed to transit through the areas providing the gear is properly stowed. In addition, some fishing, such as midwater trawling for pelagic species, shrimp trawling with finfish excluders and various state-managed fisheries, have been allowed to occur in the RCAs because of the relatively low catch rates of overfished species in these fisheries.

To ensure the integrity of the RCAs and other conservation areas, a pilot monitoring program was implemented on January 1, 2004 that requires vessels registered to Pacific Coast groundfish fishery limited entry permits to carry and use VMS transceiver units while fishing off the coasts of Washington, Oregon and California. Using traditional enforcement methods (such as aerial surveillance, boarding at sea via patrol boats, landing inspections and documentary investigation) are especially difficult when the closed areas are large-scale and the lines defining the areas are irregular. Furthermore, when management measures allow some gear types and target fishing in all or a portion of the conservation area, while other fishing activities are prohibited, it is difficult and costly to effectively enforce closures using traditional methods. Scarce state and Federal resources also limit the use of traditional enforcement methods.

This action is intended to expand the coverage of the initial VMS monitoring program to the open access fisheries to promote compliance with regulations that prohibit some fishing activities in RCAs and other groundfish conservation areas while allowing legal fishing activity that occurs within conservation areas to be effectively monitored. The purpose of this Environmental Assessment (EA) is to analyze a range of VMS program coverage levels for vessels using open access gear that catch (either directly or incidentally) and land groundfish in the open access sector.

1.4 Scoping Process

The purpose of the scoping process is to determine the range of issues that the NEPA document (in this case the EA) needs to address. Scoping is intended to ensure that problems are identified early and properly reviewed, that issues of little significance do not consume time and effort and that the draft NEPA document is thorough and balanced. The scoping process should identify the public and agency concerns; clearly define the environmental issues and alternatives to be examined in the NEPA document including the elimination of nonsignificant issues; identify related issues; and identify state and local agency

requirements that must be addressed. An effective scoping process can help reduce unnecessary paperwork and time delays in preparing and processing the NEPA document.

This EA tiers off the original VMS EA, titled “The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery” and therefore presents scoping activities that have occurred since November 2003.

The ad hoc VMS committee held a public meeting in October 2003 to consider expansion of the VMS program beyond the limited entry fisheries. The committee discussed criteria that would be used to prioritize the expansion of the VMS program into the open access and recreational sectors of the groundfish fishery. These criteria included: potential impacts to overfished species in the RCA; the ability to define the fleet if participants are directly fishing for groundfish (targeting); vessels using commercial gears that look like those used by the limited entry fleet that targets groundfish, such as fixed gear/longline (these vessels complicate enforcement of the RCAs because they look like LE vessels). Using this criteria, the committee determined that commercial vessels (non-charter) operating in the EEZ at any time during the year and that land groundfish should be considered for the next phase of the VMS program. The following open access gears were listed in order of priority: longline, groundfish pot, trawl (excluding shrimp), and line(excluding salmon). The committee also considered expansion to the charter and private sectors of the recreational fishery, but determined that an area-by-area evaluation of the groundfish impacts by these participants was necessary before a final recommendation could be made.

At the Council’s November 2003 meeting the ad hoc VMS committee presented its report to the Council (Exhibit D. 10b, Supplemental Attachment 2, November 2003). Following public testimony and consideration of the committee report, the Council indicated that they would like further information on the **success of the initial phase of the program in the limited entry fleet.**

1.5 Other NEPA documents this EA relies on.

This is a tiered EA that expands on information presented in the July 2003 EA, titled “The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery”. This original VMS EA considered three primary issues: the monitoring system, coverage levels, and the payment structure. This EA expands on the original VMS EA by considering alternatives with different coverage levels for the open access fisheries.

Since November 2003, environmental impact statements for the 2004 and the 2005-2006 fishery specifications and management measures have been prepared by the Pacific Fishery Management Council. These documents describe the affected environment, including: the geographical location in which the groundfish fisheries occur; various species that groundfish vessels harvest and interact with; the fish buyers and processors that are dependent on the fishery; the suppliers and services; and ultimately the fishing-dependent communities where vessels dock and fishing families live who are dependent on these fisheries. Relevant information in these NEPA documents is summarized within this document, but not presented in its entirety. Readers who are interested in more detailed descriptions are encouraged to read these earlier NEPA documents.

2.0 ALTERNATIVE MANAGEMENT ACTIONS

2.1 Alternatives considered for monitoring time-area closures in previous EA

Three primary issues relevant to the development of a program for monitoring the time-area closures and maintaining the integrity of the RCAs and other conservation areas were examined in the original EA for implementing a West Coast VMS program. These issues included: the monitoring system, coverage levels, and the payment structure. Alternative management actions were considered for each of the **issues**.

The alternative monitoring systems that were considered included: declaration reports from limited entry trawl and fixed gear vessels, and all other commercial and tribal trawl vessels including exempted trawl gears that intend to fish within a conservation area defined for their gear type; a basic VMS system with 1-way communications and declaration reports; an upgraded VMS system with 2-way communications and declaration reports; and fishery observers (1 per vessel) with declaration reports. The primary difference between the two approaches to VMS was that the upgraded system uses two-way communications between the vessel and shore such that full or compressed data messages could be transmitted and received by the vessel, while the basic VMS system only transmits positions to a shore station.

At its November 2002 meeting, the Council recommended that NMFS move forward with a rulemaking to implement a VMS program. The Council's preferred monitoring system was to require the basic VMS system for vessels registered to limited entry permits. The Council additionally recommended declaration reports for any vessel registered to a limited entry permit, and any commercial or tribal vessel using trawl gear, including exempted gear used to take pink shrimp, spot and ridgeback prawns, California halibut, and sea cucumber. With declaration reports, vessels are required to declare their intent to fish within a conservation area specific to their gear type, providing the activity is consistent with the RCA restrictions. The Council indicated that it considered a basic VMS system, which was more costly than declaration reports and less costly than the upgraded VMS system or observers, to be adequate for maintaining the integrity of the closed areas.

Five coverage alternatives were considered. Each of the coverage alternatives defined sectors of the commercial and recreational groundfish fleets that would be required to carry either VMS or an observer. The coverage alternatives included: all vessels registered to a limited entry permits; all limited entry vessels that fish in EEZ at any time during the year; all active limited entry, open access, and recreational charter vessels that fish in conservation areas; and all limited entry, open access, and recreational charter vessels regardless of where fishing occurs. The Council recommended that vessels registered to limited entry permits fishing in the EEZ off the Washington, Oregon, and California coasts be required to have and use VMS transceiver units whenever they fish. This coverage level would allow enforcement to effectively monitor limited entry trawl vessels for unlawful incursions into conservation areas while allowing legal incursions, such as midwater trawling, for Pacific whiting, yellowtail and widow rockfish and non-groundfish target fisheries, to occur. A notable number of limited entry vessels also participate in non-groundfish fisheries, such as shrimp and prawn trawl fisheries, troll albacore and troll salmon fisheries, and the pot fisheries for crab. These fisheries would continue to be allowed to occur in the conservation areas. However, vessels registered to limited entry permits would be required to have either an operable VMS unit on board whenever the vessel was fishing in state or federal waters off the states of Washington, Oregon or California. This level of coverage was intended to be a pilot program that began with the sector of the fishery that is allocated the majority of the groundfish resources.

Payment structure alternatives defined the cost responsibilities for purchasing, installing, and maintaining the VMS transceiver units, as well as the responsibilities for transmitting of reports and data. These alternatives included: the vessel pays all costs associated with purchasing, installing and maintaining the VMS transceiver unit, as well as the costs associated with the transmission of reports and data; the vessel pays only for the VMS transceiver and NMFS pays all other costs; NMFS pays for the

initial transceiver, but all other associated expenses including installation, maintenance and replacement would be paid for by the vessel; and NMFS pays for everything related to VMS. Although the Council recommended that NMFS fully fund a VMS monitoring program, to date it this has not been possible because neither state nor federal funding is available for purchasing, installing, or maintaining VMS transceiver units, nor is funding available for data transmission. Because of the critical need to monitor the integrity of conservation areas that protect overfished stocks while allowing for the harvest of healthy stocks, NMFS moved forward with the rulemaking. However, if funds are available in the future, NMFS is not precluded from reimbursing participants for all or a portion of the costs associated with the VMS monitoring program.

2.2 Alternatives being considered in this EA

This EA tiers off of the original VMS EA, titled “The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery”. The intent of the EA is to expand the coverage of the initial VMS monitoring program to the open access fisheries to promote compliance with regulations that prohibit some fishing activities in RCAs and other groundfish conservation areas while allowing legal fishing activity that occurs within conservation areas to be effectively monitored. The purpose of this EA is to analyze a range of VMS program coverage levels for vessels using open access gear that catch (either directly or incidentally) and land groundfish in the open access sector.

The monitoring mechanism and payment structure presented in the previous EA and implemented through the final rule published on November 4, 2003 (68 FR 62374) will not be affected by the proposed action. However, it must be noted that moving this rulemaking forward at this time will require open access fishery participants to bear the cost of purchasing, installing, and maintaining VMS transceiver units, VMS data transmissions, and reporting costs associated with declaration requirements, because neither state nor Federal funding is available at this time. If money becomes available in the future, fishery participants may be reimbursed for all or a portion of their VMS expenses.

Open access coverage alternatives

The coverage alternatives for expanding VMS into the open access sectors of the groundfish fishery are based on the recommendations of the ad hoc VMS Committee. In October 2003, the committee discussed criteria that would be used to prioritize the expansion of the VMS program into the open access and recreational sectors. These criteria included: potential impacts to overfished species in the RCA; the ability to define the fleet if participants are directly fishing for groundfish (targeting); vessels using commercial gears that look like the limited entry fleet that targets groundfish, such as fixed gear/longline (these vessel complicate enforcement of the RCAs because they look like LE vessels). Using this criteria, the committee determined that commercial vessels (non-charter) operating in the EEZ at any time during the year that land groundfish in the open access fisheries should be considered for the next phase of the VMS program. For expansion of the VMS program, the committee identified the following open access gear groups in order of priority: longline, groundfish pot, trawl (excluding shrimp), and line (excluding salmon). Therefore, the coverage levels identified in following alternatives are based on different combinations of the open access gear groups .

Table 2.0.1 Summary of Alternative Management Actions for Expanding Coverage of the Monitoring System for Time-area Closures in the Pacific Coast Groundfish Fishery for the Open Access Fisheries

Coverage	<p>Alternative 1 Status quo: Declaration reports would continue to be required from all vessels using trawl gear including open access exempted trawl gears that intend to fish within a trawl RCA or conservation area defined for their gear type</p>	<p>Alternative 2 Vessels using <u>longline gear</u>: In addition to status quo, require all vessels that use longline gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters to carry and use VMS transceiver units and to provide declaration reports</p>	<p>Alternative 3 Vessels using <u>longline or pot gear</u>: In addition to Alternative 2, require all vessels that use longline or pot gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters to carry and use VMS transceiver units and to provide declaration reports</p>	<p>Alternative 4 Vessels using <u>longline, pot or trawl gear</u>: In addition to Alternatives 2 and 3, require all vessels that use longline, pot or trawl gear, excluding pink shrimp trawl gear, to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters to carry and use VMS transceiver units and to provide declaration reports</p>	<p>Alternative 5 Vessels using <u>longline, pot, trawl or line gear</u>: In addition, to Alternatives 2 - 4, require all vessels that use longline, pot, trawl ,excluding pink shrimp, or line gear (hook & line and mobile trawl), excluding salmon troll gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters to carry and use VMS transceiver units and to provide declaration reports</p>
<p>OA trawl continue to be required to send declaration reports before fishing in a trawl RCA</p>	<p>OA Groundfish vessels using longline gear - Between 2000-2003 an average of 114 vessels per year landed groundfish with an exvessel value > \$2,500 taken with longline gear. Overfished species taken in the fishery include bocaccio, canary, cowcod, darkblotched, lingcod, pop and yelloweye. Gear specific overfished species catch projections were not available.</p> <p>Pacific halibut - On average, 275 directed fishery permits were issued 2000-2003, of these, an average of 10 vessels fished south of Point Chehalis and <u>did not</u> also land directed OA groundfish with a exvessel value > \$2,500. Overfished species impacts whole fishery = yelloweye 0.5 mt.</p> <p><i>HMS longline using longline gear – No overfished species catch projected for 2005.</i></p>	<p>Longline gear - Same as Alt. 2</p> <p>Groundfish vessels using pot gear- Between 2000-2003 an average of 35 vessels per year landed groundfish with an exvessel value > than 20% of all West Coast revenue. Overfished species taken in the fishery include bocaccio, canary, cowcod, darkblotched, lingcod, pop and yelloweye. Gear specific overfished species catch projections were not available.</p> <p><i>Dungeness crab vessels using pot gear - On average, 733 vessels fished between 2000-2003, of these, an average of 65 vessels land OA groundfish. No overfished species catch projected for 2005.</i></p> <p><i>Prawn vessels using pot gear - On average, 40 vessels between 2000-2003, of these, an average of 9 vessels land OA groundfish. No overfished species catch projected for 2005.</i></p> <p><i>California Sheephead vessels using pot gear - On average, 37 vessels between 2000-2003, of these, all 37 of the vessels landed OA groundfish annual. No overfished species catch projected for 2005.</i></p>	<p>Longline gear - Same as Alt. 2</p> <p>Pot gear- Same as Alt. 3</p> <p>Prawn vessels using trawl gear - of approximately 26 vessels, no vessels have landed groundfish land groundfish since 2000. 2005 projected overfished species catch - bocaccio 0.1 mt</p> <p><i>Sea cucumber vessels using trawl gear - On average, 14 vessels fished between 2000-2003, of these, an average of 7 vessels land OA groundfish. No overfished species catch projected for 2005.</i></p> <p>California halibut vessels using trawl gear - On average, 34 vessels fished between 2000-2003, of these, an average of 23 vessels land OA groundfish. Gear specific overfished species catch projections were not available.</p>	<p>Longline gear - Same as Alt. 2</p> <p>Pot gear- Same as Alt. 3</p> <p>Trawl gear - Same as Alt. 4</p> <p>Groundfish vessels using line gear - Between 2000-2003 an average of 969 vessels per year landed groundfish. Overfished species taken in the fishery include bocaccio, canary, cowcod, darkblotched, lingcod, pop and yelloweye. Gear specific overfished species catch projections were not available.</p> <p>California halibut vessels using line gear - On average, 71 vessels fished between 2000-2003, all of these vessels land OA groundfish. Gear specific overfished species catch projections were not available.</p> <p><i>HMS vessels using line gear (troll pole and line) - No overfished species catch projected for 2005.</i></p>	

Alternative 1: Status quo. Do not specify mandatory VMS program coverage requirements for vessels used to land fish in the open access sectors of the groundfish fishery.

Discussion: Vessels without limited entry permits that land groundfish are categorized as open access because no federal groundfish permit is required for their activities, although some may have non-groundfish state or federal permits. Under the existing regulations, open access vessels would not be required to carry and use VMS transceiver units. Vessels could elect to voluntarily carry a VMS transceiver unit and provide position reports to NMFS if they choose. Vessels registered to limited entry permits that land fish in the open access sector, would continue to be required to carry and use a VMS transceiver and provide declaration reports. Declaration reporting requirements for vessels using exempted trawl gear would continue.

Alternative 2: Vessels using longline gear. Beginning in 2005, require all vessels that use longline gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery to carry and use VMS transceiver units and provide declaration reports. Prior to leaving port on a trip in which a vessel is used to take, retain, possess, or land groundfish taken in federal waters with open access longline gear, the vessel would be required to activate a VMS transceiver unit and to continuously operate the unit (24 hours a day) throughout the remainder of the calendar year, unless the vessel is exempted under the VMS exemption regulations at 660.312 (d)(4). A declaration report would be required prior to leaving port on a trip in which the vessel is used to fish in a groundfish conservation area in a manner that is consistent with the requirements of the conservation area. VMS requirements defined at 660.312 and prohibitions defined at 660.306 would apply to these vessels as would the reporting requirements defined at 660.303 for vessels fishing in conservation areas.

Discussion: Between 2000-2003, an average of 114 vessels per year use longline gear for directed harvest of groundfish in federal waters. Target species included sablefish, lingcod, and rockfish. For the purpose of this analysis, directed vessels were assumed to be those with an annual exvessel landings value of groundfish that exceeded \$2,500. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$5,838. Overfished species interactions are projected to include bocaccio, canary rockfish, cowcod, darkblotched rockfish, lingcod, POP and yelloweye rockfish. However, gear specific overfished species catch projections were not available.

In addition to the directed groundfish vessels, an annual average of 275 directed Pacific halibut fishery permits were issued between 2000 and 2003. Out of the total number of permits issued, only 10 vessels (4% of those permitted) did not land groundfish with an exvessel value in excess of \$2,500. Overfished species impacts from the entire directed halibut fishery is projected to be 0.5 mt of yelloweye rockfish for 2005.

Longline gear is also used within federal waters by vessels harvesting Highly Migratory Species (HMS) species. No overfished species catch was projected for the HMS longline fishery for 2005.

This alternative would allow enforcement to monitor vessels using longline gear in the open access fisheries for unlawful incursions into conservation areas. Vessels would be required to operate their VMS units continuously from the point at which a vessel leaves port on a trip in which the vessel is used in the open access fishery in federal waters. VMS position data is thus expected to be available to enforcement and fishery managers on other state and federal fisheries that these vessels participate in as well as well when other open access gears are being used.

Alternative 3: Vessels using longline or pot gear. In addition to those vessels identified under Alternative 2, beginning in 2005, require all vessels that use longline or pot gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery to carry and use VMS transceiver units and provide declaration reports. Prior to leaving port on a trip in which a vessel is used to take, retain, possess or land groundfish taken in federal waters with open access longline or pot gear, the vessel would be required to activate a VMS transceiver unit and to continuously operate the unit (24 hours a day) throughout the remainder of the calendar year, unless the vessel is exempted under the VMS exemption regulations at 660.312 (d)(4). A declaration report would be required prior to leaving port on a trip in which the vessel is used

to fish in a groundfish conservation area in a manner that is consistent with the requirements of the conservation area. VMS requirements defined at 660.312 and prohibitions defined at 660.306 would apply to these vessels as would the reporting requirements defined at 660.303 for vessels fishing in conservation areas.

Discussion: The vessels identified under this alternative are in addition to those vessels identified under Alternative 2. Between 2000-2003, an average of 35 vessels per year used pot gear for directed harvest of groundfish in federal waters. Target species included sablefish, lingcod, and rockfish. For the purpose of this analysis, directed vessels were assumed to be those with an exvessel value of groundfish that exceeded 20% of all West Coast fisheries revenue for the vessel. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$21,498. Overfished species interactions are projected to include bocaccio, canary rockfish, cowcod, darkblotched rockfish, lingcod, POP and yelloweye rockfish. However, gear specific overfished species catch projections were not available.

Other fisheries in which pot gear is used and where incidentally caught groundfish were landed between 2000 and 2003, include: Dungeness crab, prawn, and California sheephead. On average, 733 vessels used pot gear to catch Dungeness crab fished between 2000-2003. Of these, an average of 65 vessels landed OA groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$2,382. No overfished species catch was projected for the Dungeness crab pot fishery for 2005. On average, 40 used pot gear to catch prawns vessels between 2000-2003. Of these, an average of 9 vessels landed OA groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$1,846. No overfished species catch was projected for the prawn pot vessels for 2005. On average, 37 vessels used pot gear to catch California sheephead between 2000-2003. All of these vessels landed OA groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$989. No overfished species catch was projected for the California sheephead fishery for 2005.

This alternative would allow enforcement to monitor vessels using longline and pot gear in the open access fisheries for unlawful incursions into conservation areas. Vessels would be required to operate their VMS units continuously from the point at which a vessel leaves port on a trip in which the vessel is used to participate in the open access fishery in federal waters. VMS position data is thus expected to be available to enforcement and fishery managers on other state and federal fisheries that these vessels participate in as well as well when other open access gears are being used.

Alternative 4: Vessels using longline gear, pot or trawl gear, excluding pink shrimp trawl gear. In addition to those vessels identified under Alternatives 2 and 3, beginning in 2005, require all vessels that use longline gear, pot or trawl gear, excluding pink shrimp trawl gear to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery, to carry and use VMS transceiver units and provide declaration reports. Prior to leaving port on a trip in which a vessel is used to take, retain, possess or land groundfish taken in federal waters with open access longline or pot gear, the vessel would be required to activate a VMS transceiver unit and to continuously operate the unit (24 hours a day) throughout the remainder of the calendar year, unless such vessel is exempted under the VMS exemption regulations at 660.312 (d)(4). A declaration report would be required prior to leaving port on a trip in which the vessel is used to fish in a groundfish conservation area in a manner that is consistent with the requirements of the conservation area. VMS requirements defined at 660.312 and prohibitions defined at 660.306 would apply to these vessels, as would the reporting requirements defined at 660.303 for vessels fishing in conservation areas.

Discussion: The vessels identified under this alternative are in addition to those vessels identified under Alternative 2 and 3. The only open access fisheries in which trawl gear is used are the exempted trawl fisheries for pink shrimp, prawns, sea cucumber and California halibut. Pink shrimp vessels are allowed to fish within the trawl RCA providing a declaration report is sent prior to leaving port on a trip in which the vessel is used to fish within the RCA with shrimp trawl gear. In addition, state requirements include the use of approved finfish excluders. On average, 26 vessels used trawl gear to catch prawns between 2000-2003. Of these, no vessels have landed OA groundfish after 2000. The 2005 projected overfished species catch was 0.1 mt of bocaccio. On average, 14 vessels used trawl gear to catch sea cucumbers between 2000-2003. Of these, an

average of 7 vessels landed OA groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$177. No overfished species catch was projected for the sea cucumber trawl fishery for 2005. On average, 35 vessels used trawl gear to catch California halibut between 2000-2003, of these, an average of 23 vessels landed OA groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$752. Gear specific overfished species catch projections were not available for the California halibut trawl fishery.

This alternative would allow enforcement to monitor vessels using longline, pot or trawl gear (excluding pink shrimp trawl gear), in the open access fisheries for unlawful incursions into conservation areas. Vessels would be required to operate the VMS unit continuously from the point at which a vessel leaves port on a trip in which the vessel is used to participate in the open access fishery in federal waters. VMS position data is thus expected to be available to enforcement and fishery managers on other state and federal fisheries that these vessels participate in as well as well when other open access gears are being used.

Alternative 5: Vessels using longline gear, pot, trawl (excluding pink shrimp gear) or line gear (excluding salmon troll gear). In addition to those vessels identified under Alternatives 2-4, beginning in 2005, require all vessels that use longline gear, pot, trawl (excluding pink shrimp trawl) or line gear (excluding salmon troll gear) to fish pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery, to carry and use VMS transceiver units and provide declaration reports. Prior to leaving port on a trip in which a vessel is used to take, retain, possess and groundfish taken in federal waters with open access longline or pot gear, the vessel would be required to activate a VMS transceiver unit and to continuously operate the unit (24 hours a day) throughout the remainder of the calendar year, unless such vessel is exempted under the VMS exemption regulations at 660.312 (d)(4). A declaration report would be required prior to leaving port on a trip in which the vessel is used to fish in a groundfish conservation area in a manner that is consistent with the requirements of the conservation area. VMS requirements defined at 660.312 and prohibitions defined at 660.306 would apply to these vessels as would the reporting requirements defined at 660.303 for vessels fishing in conservation areas.

Discussion: The vessels identified under this alternative are in addition to those vessels identified under Alternative 2, 3 and 4. Between 2000-2003, an average of 969 vessels per year used line gear (excluding salmon troll) to harvest groundfish in the open access fishery. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$2,133. Overfished species projections include bocaccio, canary, cowcod, darkblotched rockfish, lingcod, POP and yelloweye rockfish. However, gear specific overfished species catch projections were not available.

Other fisheries in which line gear is used and where incidentally caught groundfish are landed include vessels California halibut, HMS and salmon troll vessels. The salmon troll fisheries are allowed to fish within the fixed gear RCA and are allowed to retain some groundfish. Because VMS cannot be used to determine where a particular species was caught, it is not considered to be an effective enforcement tool for monitoring open access trip limit compliance by salmon troll vessels. Between 2000-2003, an average of 263 vessels per year used line gear in the California halibut fishery and landed groundfish. All of these vessels landed open access groundfish. The average annual groundfish exvessel revenue for these vessels for the 2000-2003 period was \$129. Gear specific overfished species catch projections were not available .

Line gear is also used within federal waters by vessels harvesting HMS species. No overfished species catch was projected for the HMS line gear fisheries for 2005.

This alternative would allow enforcement to monitor vessels using longline, pot, trawl gear (excluding pink shrimp trawl gear), or line gear (excluding salmon troll gear) in the open access fisheries for unlawful incursions into conservation areas. Vessels would be required to operate their VMS units continuously from the point at which a vessel leaves port on a trip in which the vessel is used to participate in the open access fishery in federal waters. VMS position data is thus expected to be available to enforcement and fishery managers on other state and federal fisheries these vessels participate in as well as well when other open access gears are used.

2.3 Alternatives rejected for analysis in this EA

VMS coverage of the recreational fisheries is not being considered at this time. At its October 2003 meeting, the ad hoc VMS Committee considered expansion of the VMS program, including expansion into the charter and private sectors of the recreational fishery. After considerable discussion, the committee recommended that an area-by-area evaluation of the groundfish impacts by these participants was necessary before a final recommendation could be made.

The pink shrimp fisheries have not been included in the alternatives for VMS coverage. Pink shrimp vessels are allowed to fish within the trawl RCA providing a declaration report has been sent prior to leaving port on a trip in which the vessels is used to fish within the RCA.. Pink shrimp trawl vessels were excluded in the coverage alternatives because they are required to use finfish excluders, which dramatically reduce their catch of overfished species, primarily canary rockfish.

The salmon troll fisheries are allowed to fish within the fixed gear RCA and are allowed to retain some groundfish. Because VMS cannot be used to determine where a particular species was caught it is not considered to be an effective enforcement tool for monitoring open access trip limit compliance by salmon troll vessels.

State and federal fisheries in which groundfish are incidentally taken but not landed were not included in the analysis because fisheries where groundfish catch is not landed are not considered to be open access fishery. These vessels include: the those targeting Coastal Pelagic Species (CPS) with round haul gear; those targeting HMS with purse seine gear, and those targeting the gillnet complex (California halibut, white sea bass, sharks, and white croaker) with driftnet.

XXXXX Set net gear—should it get included in the alternatives or rejected- do they land groundfish in the open access fisheries XXXXX

3.0 AFFECTED ENVIRONMENT

The purpose of this EA is to analyze a range of alternatives for expanding the VMS program coverage into the OA commercial groundfish fisheries off the coasts of Washington, Oregon, and California. The affected environment includes: the geographical location in which these fisheries occur; the groundfish and other species these vessels harvest and interact with; the fish buyers and processors that are dependent on the fishery; the suppliers and services; and ultimately, the fishing-dependent communities where vessels dock and fishing families live are who are dependent on these fisheries. The following section of this document, section 3, describes the physical, biological, and socio-economic characteristics of the affected environment.

3.1 Physical Environment

Essential Fish Habitat (EFH) for Pacific Coast groundfish is defined as the aquatic habitat necessary to allow for groundfish production to support long-term sustainable fisheries for groundfish and for groundfish contributions to a healthy ecosystem. When these EFHs for all groundfish species are taken together, the groundfish fishery EFH includes all waters from the mean higher high water line, and the upriver extent of saltwater intrusion in river mouths seaward to the boundary of the U.S. EEZ.

This is a tiered EA that expands on information presented in the July 2003 EA titled, "The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery". Section 3.1 of the original EA, "Physical Environment" contained detailed information on the marine ecosystem where groundfish are found. Readers who are interested in further information on the physical environment are referred to Section 3.0 of the August 2004 Draft Environmental Impact Statement (DEIS), prepared by the Pacific Fishery Management Council, for the Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish Fishery.

3.2 Biological Environment

3.2.1 Groundfish Resources

The Pacific Coast groundfish FMP manages over 80 species, which are divided into the following groups: roundfish, flatfish, rockfish, sharks, skates, rattfish, morids, and grenadiers. These species occur throughout the EEZ and occupy diverse habitats at all stages in their life history. Information on the interactions between the various groundfish species and between groundfish and non-groundfish species varies in completeness. While a few species have been intensely studied, there is relatively little information on most groundfish species.

Each fishing year, the Council uses the best available stock assessment data to evaluate the biological condition of the Pacific Coast groundfish fishery and to develop estimates of allowable biological catch (ABC) levels for major groundfish stocks. The ABCs are biologically based estimates of the amount of fish that may be harvested from the fishery each year without jeopardizing the resource. The ABC may be modified to incorporate biological safety factors and risk assessment due to uncertainty.

Harvest levels or optimum yields (OYs) are also established for the species or species groups that the Council proposes to manage. Groundfish species and species groups with OYs include bocaccio, black rockfish, cabezon, canary rockfish, chilipepper rockfish, cowcod, darkblotched rockfish, Dover sole, lingcod, longspine thornyhead, the minor rockfish complexes (the unassessed northern and southern nearshore, continental shelf, and continental slope rockfish species,) Pacific cod, POP, Pacific whiting, sablefish, shortbelly rockfish, shortspine thornyhead, splitnose rockfish, widow rockfish, yelloweye rockfish, and yellowtail rockfish. Numerical OYs are not set for every stock, such as for those where the harvest has been less than ABC.

The Magnuson-Stevens Act requires an FMP to prevent overfishing. Overfishing is defined in the National Standards Guidelines (63 FR 24212, May 1, 1998) as exceeding the fishing mortality rate needed to produce maximum sustainable yield. The OY harvest levels are set at levels that are expected to prevent overfishing, equal to or less than the ABCs. The term "overfished" describes a stock whose abundance is below its overfished/rebuilding threshold. Overfished/rebuilding thresholds are generally linked to the same productivity assumptions that determine the ABC levels. The default value of this threshold for the groundfish FMP is 25% of the estimated unfished biomass level. Eight groundfish species continue to be designated as overfished: bocaccio (south of Monterey) , canary rockfish, cowcod (south of Point Conception,) darkblotched rockfish, [lingcod](#), [Pacific ocean perch](#), [widow rockfish](#), and [yelloweye rockfish](#).

This is a tiered EA that expands on information presented in the July 2003 EA titled, "The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery". Section 3.2 of the original EA , "Biological Environment" contained detailed biological information on the groundfish resources. Readers who are interested in further information on the status of the groundfish resources are referred to section 4.0 of the August 2004 Draft Environmental Impact Statement (DEIS), prepared by the Pacific Fishery Management Council, for the Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish Fishery.

3.2.2 Endangered Species

West Coast marine species listed as endangered or threatened under the Endangered Species Act (ESA) include marine mammals, seabirds, sea turtles, and salmon. Under the ESA, a species is listed as "endangered" if it is in danger of extinction throughout a significant portion of its range and "threatened" if it is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range. The following species are subject to the conservation and management requirements of the ESA:

Table 3.2.2.1. West Coast Endangered Species

Marine Mammals	Seabirds
<p>Threatened:</p> <ul style="list-style-type: none"> • Steller sea lion (<i>Eumetopias jubatus</i>) Eastern Stock, • Guadalupe fur seal (<i>Arctocephalus townsendi</i>), and • Southern sea otter (<i>Enhydra lutris</i>) California Stock. 	<p>Endangered:</p> <ul style="list-style-type: none"> • Short-tail albatross (<i>Phoebastria (=Diomedea) albatrus</i>), • California brown pelican (<i>Pelecanus occidentalis</i>), and • California least tern (<i>Sterna antillarum browni</i>). <p>Threatened:</p> <ul style="list-style-type: none"> • Marbled murrelet (<i>Brachyramphus marmoratus</i>).
Sea Turtles	Salmon
<p>Endangered:</p> <ul style="list-style-type: none"> • Green turtle (<i>Chelonia mydas</i>) • Leatherback turtle (<i>Dermochelys coriacea</i>) • Olive ridley turtle (<i>Lepidochelys olivacea</i>) <p>Threatened:</p> <ul style="list-style-type: none"> • Loggerhead turtle (<i>Caretta caretta</i>) 	<p>Endangered:</p> <ul style="list-style-type: none"> • Chinook salmon (<i>Oncorhynchus tshawytscha</i>) Sacramento River Winter; Upper Columbia Spring • Sockeye salmon (<i>Oncorhynchus nerka</i>) Snake River • Steelhead trout (<i>Oncorhynchus mykiss</i>) Southern California; Upper Columbia <p>Threatened:</p> <ul style="list-style-type: none"> • Coho salmon (<i>Oncorhynchus kisutch</i>) Central California, Southern Oregon, and Northern California Coasts • Chinook salmon (<i>Oncorhynchus tshawytscha</i>) Snake River Fall, Spring, and Summer; Puget Sound; Lower Columbia; Upper Willamette; Central Valley Spring; California Coastal • Chum salmon (<i>Oncorhynchus keta</i>) Hood Canal Summer; Columbia River • Sockeye salmon (<i>Oncorhynchus nerka</i>) Ozette Lake • Steelhead trout (<i>Oncorhynchus mykiss</i>) South-Central California, Central California Coast, Snake River Basin, Lower Columbia, California Central Valley, Upper Willamette, Middle Columbia, Northern California

Marine Mammals: Marine mammal communities by nearshore, shelf and slope depth categories for each of three coastal regions, including southern California, central to northern California, and Oregon to British Columbia, were identified in table 3.2.3.1 of the original VMS EA .

Seabirds: Over sixty species of seabirds occur in waters off the West Coast within the EEZ, including: loons, grebes, albatross, fulmars, petrels, shearwaters, storm-petrels, pelicans, cormorants, frigate birds, phalaropes, skuas, jaegers, gulls, kittiwakes, skimmers, terns, guillemots, murrelets, auklets, and puffins. The migratory range of these species includes commercial fishing areas; fishing also occurs near the breeding colonies of many of these species. Besides entanglement in fishing gear, seabirds may be indirectly affected by commercial fisheries in various ways. Change in prey availability may be linked to directed fishing and the discarding of fish and offal. Vessel traffic may affect seabirds when it occurs in and around important foraging and breeding habitat and increases the likelihood of bird storms. In addition, seabirds may be exposed to at-sea garbage dumping and the diesel and oil discharged into the water associated with commercial fisheries.

Sea Turtles: Sea turtles are highly migratory; four of the six species found in U.S. waters have been sighted off the West Coast. Little is known about the interactions between sea turtles and West Coast commercial fisheries. The directed fishing for sea turtles in West Coast groundfish fisheries is prohibited, because of their ESA listings, but the incidental take of sea turtles by longline or trawl gear may occur. Sea turtles are known to be taken incidentally by the California-based pelagic longline fleet and the California halibut gillnet fishery. Because of differences in gear and fishing strategies between those fisheries and the West Coast groundfish fisheries, the expected take of sea turtles by groundfish gear is minimal.

Salmon: Salmon caught in the U.S. West Coast fishery have life cycle ranges that include coastal streams and river systems from central California to Alaska and oceanic waters along the U.S. and Canada seaward into the north central Pacific Ocean, including Canadian territorial waters and the high seas. Some of the more critical portions of these ranges are the freshwater spawning grounds and migration routes.

This is a tiered EA that expands on information presented in the July 2003 EA titled, "The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery" Section 3.2.2 of the original EA, "Endangered Species" contains more detailed information on these resources.

3.2.3 Nongroundfish Species Interactions

Coastal Pelagic Species (CPS): CPS are schooling fish not associated with the ocean bottom, that migrate in coastal waters. These species include: northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific (chub) mackerel (*Scomber japonicus*), jack mackerel (*Trachurus symmetricus*) and market squid (*Loligo opalescens*). These species are managed under the Coastal Pelagic Species Fishery Management Plan. Sardines inhabit coastal subtropical and temperate waters and at times have been the most abundant fish species in the California current. During times of high abundance, Pacific sardine range from the tip of Baja California to southeastern Alaska. When abundance is low, Pacific sardine do not occur in large quantities north of Point Conception, California. Pacific (chub) mackerel in the northeastern Pacific range from Banderas Bay, Mexico to southeastern Alaska. They are common from Monterey Bay, California to Cabo San Lucas, Baja California, and most abundant south of Point Conception, California. The central subpopulation of northern anchovy ranges from San Francisco, California to Punta Baja, Mexico. Jack mackerel are a pelagic schooling fish that range widely throughout the northeastern Pacific, however much of their range lies outside the U.S. EEZ. Adult and juvenile market squid are distributed throughout the Alaska and California current systems, but are most abundant between Punta Eugenio, Baja California and Monterey Bay, Central California.

Dungeness Crab: The Dungeness crab (*Cancer magister*) is distributed from the Aleutian Islands, Alaska, to Monterey Bay, California. They live in bays, inlets, around estuaries, and on the continental shelf. Dungeness crab are found to a depth of about 180 m. Although it is found at times on mud and gravel, this crab is most abundant on sand bottoms and occurs among eelgrass. The Dungeness crab, which are typically harvested using traps (crab pots), ring nets, by hand (scuba divers) or dip nets, are incidentally taken or harmed unintentionally by [groundfish gears](#).

Pacific Pink Shrimp: Pacific pink shrimp (*Pandalus jordani*) are found from Unalaska in the Aleutian Islands to San Diego, California, at depths of 25 to 200 fm (46 to 366 m). Off the U.S. West Coast, these shrimp are harvested with trawl gear from northern Washington to central California between 60 and 100 fm (110 to 180 m). The majority of the catch is taken off the coast of Oregon. Concentrations of pink shrimp are associated with well-defined areas of green mud and muddy-sand bottom. Shrimp trawl nets are usually constructed with net mesh sizes smaller than the net mesh sizes for legal groundfish trawl gear. Thus, it is shrimp trawlers that commonly take groundfish in association with shrimp, rather than the reverse.

Pacific Halibut: Pacific Halibut (*Hippoglossus stenolepis*) belong to a family of flounders called Pleuronectidae. Halibut are usually found in deep water (40 to 200 m). The International Pacific Halibut Commission (IPHC) report, "Incidental Catch and Mortality of Pacific Halibut, 1962-2000" contains estimates of the incidental catches of halibut in the coastal trawl fisheries (groundfish and shrimp trawls). Estimates of incidental catches of halibut, based on the at-sea observer data collected in the Enhanced Data Collection Program conducted from 1995 through 1998, results in an estimated mortality level of legal-sized halibut incidentally taken in shrimp and groundfish trawl fisheries of 254 mt (560,000 pounds) for 2002.

Forage Fish: Forage fish are small, schooling fish that serve as an important source of food for other fish species, birds and marine mammals. Examples of forage fish species are herring (*Clupea harengus pallasii*), smelt (*Osmeridae*), anchovies, and sardine. Many species of fish feed on forage fish. Major predators of herring include Pacific cod (42% of diet), whiting (32%), lingcod (71%), halibut (53%), coho (58%), and chinook salmon (58%) (Environment Canada 1994). Many species of seabirds depend heavily on forage fish for food as well. Marine mammals consuming forage fish include: harbor seals, California sea lions, Stellar sea lions, harbor porpoises, Dall's porpoises, and Minke whales (Calambokidis and Baird 1994). Forage fish are most commonly found in nearshore waters and within bays and estuaries, although some do spend of their lives in the open ocean where they may be incidentally taken by groundfish gears, particularly in trawls. Preliminary data from the 2001 at-sea whiting fishery indicates the fishery encounters very minor amounts of forage fish species (Pacific herring less than 5 mt and less than 1 mt of smelt and sardines combined). There is little information on the incidental take of forage fish by the other segments of the fishery, however given they are not associated with the ocean bottom, the interaction is expected to be minimal.

3.3 SOCIO-ECONOMIC ENVIRONMENT

3.3.1 Conservation Areas and Depth-Based Management.

Since 1998, groundfish management measures have been shaped by the need to rebuild overfished groundfish stocks. The 80+ species in the West Coast groundfish complex mix with each other to varying degrees throughout the year and in different portions of the water column. Some species, like Pacific whiting, are strongly aggregated, making them easier to target with relatively little bycatch of other species. Conversely, other species like canary rockfish may occur in species-specific clusters, but are also found co-occurring with a wide variety of other groundfish species. Over the past several years, groundfish management measures have been more carefully crafted to recognize the tendencies of overfished species to co-occur with healthy stocks in certain times and areas.

Management measures have been designed to reduce incidental interception of overfished species taken in fisheries targeting more abundant groundfish stocks. In addition to setting trip limits for targeted species to reduce co-occurrence rates for overfished species, a set of large time/area closures known as Groundfish Conservation Areas have been used to manage the fishery.

The Council and NMFS began using closed areas to reduce fisheries impacts on overfished groundfish species in 2001. NMFS initially defined two Cowcod Conservation Areas (CCAs) in the Southern California Bight. These areas were closed to recreational and commercial fishing for groundfish. These closures were located in areas of known cowcod abundance and were intended to prevent fishing vessels from taking cowcod either directly or incidentally in fisheries targeting other species. The CCAs have remained in place since 2001 and continue to be part of the Council's long-term rebuilding strategy for cowcod.

In September 2002, NMFS introduced its first large-scale conservation area, a Darkblotched Rockfish Conservation Area (DBCA,) extending from the U.S./Canada border to Cape Mendocino, California. The DBCA extended between boundary lines approximating the 100 fm (183 m) and 250 fm (457 m) depth contours, with trawling prohibited within the conservation area. This closure was intended to reduce incidental darkblotched rockfish interception by fisheries targeting more abundant continental slope species.

Beginning in 2003, the Council recommended a greater suite of area closures intended to protect different overfished species from incidental harvest by vessels targeting other, more abundant species. Similar to Council efforts to craft landings limits and seasons to protect overfished species, the 2003 conservation areas were intended to protect overfished species at depths where they are most likely encountered and from gear that is most likely to encounter those species. For example, POP has historically been taken almost exclusively by trawl gear, while yelloweye rockfish is more susceptible to hook-and-line gear used in commercial and recreational fisheries. The 2003 and 2004 GCAs included the two CCAs, a similarly block-shaped Yelloweye Rockfish Conservation Area off the Washington coast that was closed to recreational fishing, and Rockfish Conservation Areas (RCA) along the entire length of the West Coast.

The 2003 and 2004 RCAs are gear specific, with different closed areas for trawl and nontrawl gear. These RCAs have been based on ocean bottom depths, and vary seasonally depending on when and where the overfished species targeted for protection were taken by historic fisheries. RCA boundary lines were designated by a series of latitude/longitude coordinates intended to approximate ocean bottom depth contours delineating overfished species habitats. A more in-depth discussion of the introduction of depth-based management to West Coast groundfish fisheries management is provided in the proposed rule to implement the 2003 and 2004 specifications and management measures (January 7, 2003, 68 FR 936 and January 8, 2004, 68 FR 1380.)

3.3.1 Commercial fisheries

In 1994, NMFS implemented Amendment 6 to the groundfish FMP, a license limitation program intended to restrict vessel participation in the directed commercial groundfish fisheries off Washington, Oregon, and California. The limited entry permits that were created through that program specify the gear type a permitted vessel may use to participate in the limited entry fishery and the vessel length associated with the permit. Most of the Pacific Coast non-tribal commercial groundfish harvest is taken by the limited entry fleet. The groundfish limited entry program includes vessels using trawl, longline, and trap (or pot) gears. There are also several open access fisheries that take groundfish incidentally or in small amounts. Participants in those fisheries may use, among other gear types, longline, vertical hook-and-line, troll, pot, setnet, trammel net, shrimp and prawn trawl, California halibut trawl, and sea cucumber trawl. These vessels do not hold groundfish limited entry permits, yet may target groundfish or catch them incidentally. Although their groundfish landings are much smaller, they are part of the economic make-up of West Coast groundfish vessels

As of August 2004, there were 406 vessels with Pacific Coast groundfish limited entry permits, of which approximately 43% were trawl only vessels, 48% were longline only vessels, 7% were trap vessels, and the remaining 2% were combinations of 2 or more gears. The number of vessels registered for use with limited entry permits has decreased since the implementation of the permit stacking program for sablefish-endorsed limited entry fixed gear permits in 2001 and the limited entry trawl vessel buyback program in late 2003.

This is a tiered EA that expands on information presented in the July 2003 VMS EA titled, "The Program to Monitor Time-Area Closures in the Pacific Coast Groundfish Fishery". Section 3.3 of the original EA, "Socio-economic Environment" contained information and detailed statistics on historical groundfish landings in the commercial fisheries. This EA will update and expand on information relevant to the open access sector of the commercial fishery. Readers who are interested in further information on the status of the commercial fisheries are referred to section 8.1 of the August 2004 Draft Environmental Impact Statement (DEIS), prepared by the Pacific Fishery Management Council, for the proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish Fishery.

3.3.2 Open Access Groundfish Fisheries.

Unlike the limited entry sector, the open access fishery has unrestricted participation and is comprised of vessels targeting or incidentally catching groundfish with a variety of gears, excluding groundfish trawl gear. Open access vessels must comply with cumulative trip limits established for this sector and are subject to the other operational restrictions imposed in the regulations, including general exclusion from the RCAs. While the open access groundfish fishery is under federal management and does not have participation restrictions, some state and federally managed fisheries that land groundfish in the open access fishery have implemented their own limited

entry (restricted access) fisheries or enacted management provisions that have affected participation in groundfish fisheries. Fisheries are generally distributed along the coast in patterns governed by factors such as location of target species and ports with supporting marine supplies and services, and restrictions or regulations imposed by state and federal governments.

The commercial open access groundfish fishery consists of vessels that do not necessarily depend on revenue from the fishery as a major source of income and is split between vessels targeting groundfish (*directed fishery*) and vessels targeting other species (*incidental fishery*). The majority of landings by the directed groundfish fishery, by weight, occur off California, while Oregon shows the next highest landings, followed by Washington. In the incidental groundfish fisheries, Washington also has the lowest groundfish landings by the incidental fishery, by weight of incidental groundfish (Hastie 2001).

Open access landings and estimated exvessel values by major species groups north and south of 40° 10' N latitude are shown in Table Tables 3.3.2.1 and 3.3.2.2 . The open access fishery is most important in the south, when landings and landings revenue are measured. Open access fishers in the south earned more per pound of landed fish, reflecting more lucrative markets—for live fish among others—in that region. Overall, open access groundfish landings in 2002 (472 mt) were down 59% compared to 1998 (1,162 mt). The fall in landings during this period in the south—a 70% decline—is much steeper than in north. The net result is that the landings differential between the two regions is now less dramatic. In 1999, vessels in the south landed almost three times as much total groundfish as those in the north. By 2003, it was divided almost equally between both regions. Rockfish were an important component of open access groundfish landings in the south—75% of landings by weight in 1998. Limits imposed because of overfishing declarations for certain rockfish species, bocaccio and cowcod in particular, partly explain the steep drop in landings in the south. In 2003, substantial increases in sablefish were observed in both regions

Table 3.3.2.1 Historical harvest of groundfish by species group in the open access fishery north and south of Cape Mendocino, 1999-2003

North of 40° 10' N. Lat.							
Year	Lingcod	Whiting	Flatfish	Sablefish	Rockfish	Other groundfish	Total Groundfish
1999	19.0	0.2	3.9	4.1	116.1	16.4	159
2000	14.8	0.0	0.7	8.5	90.9	7.1	122
2001	17.0	0.0	1.3	21.7	125.0	15.5	180
2002	28.1	0.0	1.2	13.2	109.3	45.9	198
2003	43.8	0.1	3.7	291.3	188.2	88.5	616
South of 40° 10' N. Lat.							
	Lingcod	Whiting	Flatfish	Sablefish	Rockfish	Other groundfish	Total Groundfish
1999	15.0	0.0	19.2	2.8	276.2	168.8	482
2000	7.4	0.0	17.1	6.3	159.9	142.0	333
2001	11.5	0.2	23.1	6.3	154.7	107.9	304
2002	17.0	0.0	17.5	28.2	136.1	75.2	274
2003	27.5	0.1	14.7	315.2	166.1	139.6	663

Based on Table 8-6 in DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery

Table 3.3.2.2 Exvessel revenues from historical harvest of groundfish by species group in the open access fishery north and south of Cape Mendocino, 1999-2003 (revenue in thousands of current dollars)

North of 40° 10' N. Lat.							
Year	Lingcod	Whiting	Flatfish	Sablefish	Rockfish	Other groundfish	Total Groundfish
1999	42	0	3	12	216	54	327
2000	28	0	0	29	176	32	266
2001	50	0	1	75	312	99	537
2002	82	0	1	45	321	324	772
2003	141	0	3	1,082	613	359	2,199
South of 40° 10' N. Lat.							
	Lingcod	Whiting	Flatfish	Sablefish	Rockfish	Other groundfish	Total Groundfish
1999	46	0	49	10	1,272	835	2,212
2000	17	0	54	39	1,307	1,003	2,420
2001	38	1	69	34	1,249	628	2,018
2002	63	0	64	132	1,033	399	1,692
2003	109	0	39	937	1,072	530	2,686

Extracted from Table 8-6 in DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery

Many vessels predominately fish for other species and inadvertently catch and land groundfish. In times and areas when fisheries for other species are not as profitable, some vessels will transition into the groundfish open access fishery for short periods. Table 3.3.2.3 shows the historical landings of groundfish and non-groundfish by open access vessels. In 2003, the first complete year in which coastwide RCAs were implemented, the round weight of groundfish landed by the open access fishery increased substantially over previous years while landings of non-groundfish species decreased. This change was primarily due to increased sablefish landings (Table 3.3.2.1) over recent years.

Table 3.3.3. Historical harvests for the open access fishery, 1999-2003 (landed round weight in mt and exvessel revenue in thousands of current dollars)

Year	Groundfish round weight (mt)	Groundfish exvessel value (\$)	Non-groundfish round weight (mt)	Non-groundfish exvessel value (\$)	Total round weight (mt)	Total exvessel value (\$)
1999	642	2,539	225,410	189,886	226,052	192,425
2000	455	2,686	277,349	191,658	277,804	194,344
2001	484	2,555	247,790	159,985	248,274	162,541
2002	472	2,463	250,954	166,343	251,426	168,807
2003	1,279	4,885	198,583	227,072	199,862	231,957

Extracted from table 8-3 DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery

Because the open access groundfish fishery consists of vessels that do not necessarily depend on revenue from the fishery as a major source of income and predominately fish for other species where they inadvertently catch and land groundfish, understanding the level of dependency that participants in this fishery have on groundfish should be considered in light of their overall fisheries revenues. Table 3.3.2.4 shows the number of open access vessels by vessel length and level of dependency (proportion of annual revenue) on the groundfish fishery and Table 3.3.2.5 shows the number of open access vessels by gross income levels of dependency for all West Coast landings. Between November 2000 and October 2001, 1,287 vessels landed groundfish in the open access sector of the groundfish fishery. Of these vessels, 771 vessels (60%) had a greater than 5% dependency on the groundfish fishery with 345 of these vessels having a 95-100% level of dependency of groundfish. The open access fishery is dominated by vessels under 40 feet in length, with 675 (88%) of the vessels with a greater than 5% dependency on groundfish being less than 40 feet and 741 (96%) of the vessels less than 50 feet in length. Fifty eight percent of the vessels (200) with a greater than 95 percent dependency on groundfish had less than \$5,000 of gross income from West Coast landings. A greater proportion of vessels with lower levels of dependency on groundfish fell within income categories greater than \$5,000. However, increases in higher valued groundfish catch in 2003 (primarily sablefish) may reduce the proportion of open access vessels in the lowest (<\$5,000) income category.

Table 3.3.2.4 Number of open access vessels by level of dependency and vessel length (based on data from November 2000 - October 2001) a/

	<40'	40'-50'	50'-60'	60'-70'	70'-150'	Unspecified	Total
<5%	324	109	29	28	25	1	516
>5% &<35%	154	32	6	4	1	0	197
>35% &<65%	96	8	1	0	0	0	105
>65% &<95%	115	5	0	0	1	3	124
>95% &<100%	310	21	5	2	0	7	345

Extracted from table 6-18a DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery

a/ open access vessels with more than half of their total landings value coming from groundfish are considered to be in the directed fishery

Table 3.3.2.5 Number of open access vessels by gross income levels of dependency for all West Coast landings (based on data from November 2000 - October 2001) a/

	Exvessel revenue from West Coast landings				Total
	<\$5,000	\$5,000-\$50,000	\$50,000-\$200,000	>\$200,000	
<5%	45	268	169	34	516
>5% &<35%	52	1001	44	0	197
>35% &<65%	47	50	8	0	105
>65% &<95%	63	55	6	0	124
>95% &<100%	200	138	7	0	345

Extracted from table 6-17a DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery

a/ open access vessels with more than half of their total landings value coming from groundfish are considered to be in the directed fishery

Table 3.3.2.6 shows historical landings of overfished species in the open access fishery prior to implementation of RCAs and state requirements for regarding the use of finfish excluders on vessels targeting pink shrimp. Historically, most of the open access fishing activity occurs in the nearshore and shelf areas. As a result, bocaccio, canary rockfish, lingcod, yelloweye rockfish, and cowcod have been encountered more frequently than the other overfished species. Deeper slope species such as darkblotched rockfish and POP, and widow rockfish, which is more vulnerable to trawl gear, have been taken in smaller proportions relative to the entire commercial open access fishery. Projected catches of overfished species in the open access sectors of the 2005 groundfish fishery are presented in Table 3.3.2.7.

Table 3.3.2.6 Historical landings of overfished species by commercial fishers prior to the implementation of RCAs and state requirements for finfish excluders on pink shrimp vessels, 1999-2001 (Extracted from table 6-14 DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery)

	1999		2000		2001	
	OA landed catch (mt)	OA & LE landed catch (mt)	OA landed catch (mt)	OA & LE landed catch (mt)	OA landed catch (mt)	OA & LE landed catch (mt)
Bocaccio	Non-shrimp-22.8 Shrimp-0.2 Total-23.0	58.5 (40% OA)	Non-shrimp-5.9 Shrimp-0.0 Total- 5.9	24.6 (24% OA)	Non-shrimp-6.4 Shrimp-0.1 Total- 6.5	22.8 (3.5% OA)
Canary rockfish	Non-shrimp-56.6 Shrimp-21.3 Total- 77.9	642.2 (12% OA)	Non-shrimp-5.0 Shrimp-7.2 Total-12.2	55.8 (22% OA)	Non-shrimp-2.8 Shrimp-2.0 Total- 4.8	36.2 (13% OA)
Cowcod	Non-shrimp-2.2 Shrimp-0.2 Total- 2.4	6.5 (37% OA)	Non-shrimp-0.4 Shrimp-0.1 Total- 0.5	2.4 (21% OA)	Non-shrimp-0.0 Shrimp-0.0 Total- 0.0	0.8 (0% OA)
Darkblotched rockfish	Non-shrimp-0.1 Shrimp-2.0 Total- 2.1	284.3 (0.7% OA)	Non-shrimp-0.5 Shrimp-0.0 Total- 0.5	218.8 (0.2% OA)	Non-shrimp-0.2 Shrimp-0.0 Total- 0.2	143.1 (0.1% OA)
Lingcod	Non-shrimp-84.7 Shrimp-17.5 Total- 102.2	354.5 (29% OA)	Non-shrimp-49.0 Shrimp-9.1 Total- 58.1	143.5 (40% OA)	Non-shrimp-63.5 Shrimp-5.5 Total- 69	147.8 (47% OA)
POP	Non-shrimp-0.2 Shrimp-0.1 Total- 0.3	481.8 (0% OA)	Non-shrimp-0.0 Shrimp-0.1 Total- 0.1	140.6 (0% OA)	Non-shrimp-0.0 Shrimp-0.0 Total- 0.0	187.6 (0% OA)
Widow rockfish	Non-shrimp-41.4 Shrimp-4.6 Total- 46	3,903.5 (1% OA)	Non-shrimp-17.7 Shrimp-1.7 Total- 19.4	3,787.5 (0.5% OA)	Non-shrimp-13.0 Shrimp-0.6 Total- 13.6	1,765 (0.8% OA)
Yelloweye rockfish	Total-15.4	83.5 (18% OA)	Total- 2.9	8.95 (32% OA)	Total- 2.9	12.0 (24% OA)

Table 3.3.2.7 Total catch projections of overfished species in the 2005 open access fisheries. (Extracted from table2-13a DEIS, Proposed Acceptable Biological Catch and Optimum Yield Specifications and Management Measures for the 2005-2006 Pacific Coast Groundfish fishery)

	2005 bycatch projections (mt)							
	Bocaccio	Canary rockfish	Cowcod	Darkblotched rockfish	Lingcod	POP	Widow	Yelloweye
Groundfish directed	10.6	1.0	0.1	0.2	70.0	0.1		0.6
California Halibut	0.1			0.0	2.0	0.0		
California Gillnet	0.5			0.0		0.0	0.0	
California Sheephead				0.0		0.0	0.0	0.0
CPS wetfish	0.3							
CPS squid								
Dungeness crab	0.0		0.0	0.0		0.0		
HMS		0.0	0.0	0.0				
Pacific Halibut	0.0		0.0	0.0		0.0	0.0	0.5
Pink Shrimp	0.1	0.5	0.0	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	0.0
Salmon troll	0.2	1.6	0.0	0.0	0.0	0.0	0.0	0.2
Sea cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot prawn (trap)								
Total OA Projected catch	11.9	3.1	0.1	0.2	72.0	0.1	0.1	1.4

Fishery managers divide the open access sector into directed and incidental categories. The directed fishery comprises vessels targeting groundfish while the incidental fishery category applies to vessels targeting other groundfish but landing some groundfish in the process. It is difficult to segregate vessels into these two categories because the choice depends on the intention of the fisher. Over the course of a year—or even during a single trip—a fisher may engage in several different strategies, switching between the directed and incidental categories. Such changes in strategy are likely the result of a variety of factors, but especially the potential economic return from landing a particular mix of species.

In the directed open access fishery, fishers target groundfish in the “dead” and/or “live” fish fishery using a variety of gears. The terms dead and live fish fisheries refers to the state of the fish when they are landed. The dead fish fishery has historically been the most common way to land fish. The dead fish fishery made up 80% of the directed open access landings by weight coastwide in 2001. More recently, the market value for live fish has increased landings of live groundfish. The other component of the open access fishery is the incidental catch of groundfish in fisheries targeting other species (e.g., shrimp, salmon, highly migratory species, squid). Combining both the directed and incidental fisheries, the commercial groundfish open access fishery is potentially very large and includes a variety of gear types.

Table 3.3.2.5. Open access groundfish landings by gear group, 2000 - 2003 (based on 8/24/04 PacFin data)

Open access gear group	Number of vessels landing groundfish	Landed weight of groundfish (mt)	Exvessel revenue of groundfish (\$)	Exvessel revenue per vessel (\$)
Longline - all groundfish a\				
2000	399	435	1,847,800	4,627
2001	392	408	1,656,395	4,221
2002	287	349	1,268,537	4,422
2003	307	507	1,728,038	5,625
4-year average	346	425	1,625,193	4,724
Longline - groundfish directed b\				
2000	133	399	1,679,851	12,619
2001	115	367	1,466,101	12,765
2002	96	318	1,129,437	11,733
2003	113	469	1,541,727	13,610
4-year average	114	388	1,454,279	12,682
Longline - CA Halibut				
2000	4	3	24,226	6,057
2001	2	3	29,774	14,887
2002	2	1	5,352	2,676
2003	0	0	0	0
4-year average	2	2	19,784	7,873
Pot - groundfish directed c\				
2000	28	164	834,087	29,789
2001	34	145	720,680	21,196
2002	35	124	573,289	16,380
2003	41	194	763,732	18,628
4-year average	35	157	722,947	21,498
Pot - Dungeness crab				
2000	71	45	165,638	2,333
2001	63	29	124,674	1,979
2002	63	34	149,311	2,370
2003	61	39	173,518	2,845
4-year average	65	37	153,285	2,382
Pot - prawn/shrimp				
2000	12	1	3,973	331
2001	10	5	21,569	2,157
2002	8	1	9,869	1,234
2003	7	6	25,635	3,662
4-year average	9	3	15,262	1,846
Pot - sheephead				
2000	49	4	43,446	887
2001	40	3	30,770	769
2002	36	9	58,951	1,638
2003	22	1	14,542	661
4-year average	37	5	36,927	989
Trawl - sea cucumber				
2000	3	0.1	189	63
2001	10	0.8	1,649	165
2002	8	0.8	2,962	370
2003	6	0.3	650	108
4-year average	7	1	1,363	177
Trawl - CA halibut				
2000	24	22	38,697	1,612
2001	30	7	12,324	411
2002	21	6	12,961	617
2003	15	2	5,513	368
4-year average	23	9	17,374	752

Trawl -Ridgeback Prawn				
2000	28	11	28,468	1,017
2001	0	0	0	0
2002	0	0	0	0
2003	0	0	0	0
4-year average	--	--	--	--
Line gear - all groundfish a/				
2000	1,180	391	2,029,516	1,720
2001	1,175	418	2,136,846	1,818
2002	881	406	2,178,544	2,474
2003	641	326	1,614,643	2,521
4-year average	969	385	1,989,887	2,133
Line gear - CA halibut				
2000	< 285	10	32,419	114
2001	< 270	7	31,471	117
2002	< 250	5	31,333	125
2003	< 245	6	40,284	164
4-year average	< 263	7	33,877	129

a/ multiple records exist for landings with HKL gear that do not have an associated vessel id. The vessel count in this case is an estimate

b/ annual revenue of \$2,500 is used as a proxy for vessels that had efforts directed at groundfish

c\ if $\geq 20\%$ of revenue was from groundfish, a vessel was assumed to have target groundfish at some point during the year

Open Access Directed Fisheries :

Participation in the directed open access fishery segment varies between years. Participants may be moving into other, more profitable fisheries, or may have quit fishing altogether. Fishers use various gear types to target particular groundfish species. Hook-and-line gear, the most common open access gear type used by vessels directly targeting groundfish, is generally used to target sablefish, rockfish, and lingcod. Pot gear generally is used when targeting sablefish and some thornyheads and rockfish. Though largely restricted from use under current regulations, in the past in Southern and Central California setnet gear was used to target rockfish, including chilipepper, widow rockfish, bocaccio, yellowtail rockfish, and olive rockfish, and to a lesser extent vermilion rockfish.

Another important distinction in the directed segment is between fishers landing fish alive and dead. Although groundfish targeted by open access fishers are typically landed and sold dead, higher prices for live fish have stimulated landings in this category. Live fish harvests are a recent but growing component of the directed fishery: in 2001, 20% of fish landed (by weight, coastwide) by directed open access fishers was alive, compared to only 6% in 1996 (05-06 DEIS). In the live-fish fishery the fish are caught using pots, stick gear, and rod-and-reel, and kept aboard the vessel in a seawater tank, to be delivered to foodfish markets—such as the large immigrant Asian communities in California—that pay a premium for live fish. Currently, Oregon and California are drafting nearshore fishery management plans that would transition some species of groundfish landed in the live fish fishery from federal to state management.

Open Access Incidental Fisheries: Many fishers catch groundfish incidentally when targeting other species, because of the kind of gear they use and the co-occurrence of target and groundfish species in a given area. Managers classify vessels in the open access incidental fishery if groundfish comprise 50% or less of their landings, measured by dollar value. Fisheries targeting pink shrimp, spot prawn, ridgeback prawn, California and Pacific halibut, Dungeness crab, salmon, sea cucumber, coastal pelagic species, California sheephead, highly migratory species, and the mix of species caught in the gillnet complex comprise this incidental segment of the open access sector. These fisheries and associated target species are described below.

These incidental open access fisheries may also account for substantial amounts of bycatch, especially for overfished groundfish species. A range of fisheries, identified by the target species, comprise this sector. These include ocean (pink) shrimp, spot prawn, ridgeback prawn, California and Pacific halibut, Dungeness crab, salmon, sea cucumber, coastal pelagic species, highly migratory species, and the gillnet complex. A summary description of these fisheries follows.

California Halibut: The commercial California halibut fishery extends from Bodega Bay in northern California to San Diego in Southern California, and across the international border into Mexico. California halibut, a state-managed species, is targeted with hook-and-line, setnets and trawl gear, all of which intercept groundfish. Trawling for California halibut is permitted in federal waters (3-200 nm from shore) using trawl nets with a minimum mesh size of 4.5 inches. Trawling is prohibited within state waters (0-3 nm) except in the designated "California halibut trawl grounds," which encompass the area between Point Arguello (Santa Barbara County) and Point Mugu (Ventura County) in waters beyond 1 nm from shore. Bottom trawls used in this area must have a minimum mesh size of 7.5 inches and trawling is closed here from March 15 to June 15 to protect spawning adults. Also, California requires a nearshore trawl bycatch permit to land shallow nearshore rockfish, California scorpionfish, California sheephead, cabezon and greenlings. An open access trawler with a bycatch permit has been allowed to land a maximum of 50 pounds per landing of these species in recent years. Historically, commercial halibut fishers have preferred setnets because of these restrictions. Setnets with 8.5-inch mesh and maximum length of 9,000 feet are the main gear type used in Southern California. Setnets are prohibited in certain designated areas, including a Marine Resources Protection Zone, covering state waters (to 3 nm) south of Point Conception and waters around the Channel Islands to 70 fm, but extending seaward no more than 1 mile. In comparison to trawl and setnet landings, commercial hook-and-line catches are historically insignificant. Over the last decade, they have ranged from 11% to 23% of total California halibut landings. Most of those landings were made in the San Francisco Bay area by salmon fishers mooching or trolling slowly over the ocean bottom.

Dungeness Crab The Dungeness crab fishery is divided between treaty sectors, covering catches by Indian Tribes, and a non-treaty sector. The crab fishery is managed by the states of Washington, Oregon, and California with inter-state coordination through the Pacific States Marine Fisheries Commission. This fishery is managed by season, sex and size of crab. In Washington, the Dungeness crab fishery is managed under a limited entry system with two tiers of pot limits and a December 1 through September 15 season. In Oregon, 306 vessels made landings in 1999 during a season that generally starts on December 1. In California, distinct fisheries occur in Northern and Central California, with the northern fishery covering a larger area. California implemented a limited entry program in 1995 and as of March 2000, about 600 California residents and 70 non-residents had limited entry permits. Nonetheless, effort has increased with the entry of larger multipurpose vessels from other fisheries. Landings have not declined, but this effort increase has resulted in a "race for fish" with more than 80% of total landings made during the month of December.

Pink shrimp: The pink (ocean) shrimp fishery is managed with uniform coastwide regulations by the states of Washington, Oregon, and California. The Council has no direct management authority. The season runs from April 1 through October 31. Pink shrimp may be taken for commercial purposes only by trawl nets or pots. Most of the pink shrimp catch is taken with trawl gear with minimum mesh size of 3/8 inch to one inch between knots. In some years, the pink shrimp trawl fishery has accounted for a significant share of canary rockfish incidental catch. Since canary rockfish was designated as overfished, all canary rockfish harvests have been greatly restricted. To reduce bycatch of canary rockfish in the shrimp trawl fishery, the states have mandated the use of finfish excluders in trawl nets.

Spot Prawn: Spot prawn, which are targeted with both trawl and pot gear, are state-managed. Until late 2003, the prawn trawl fishery was categorized in the groundfish open access (exempted trawl) sector. California had the largest trawl prawn fishery, with about 54 vessels operating from Bodega Bay south to the U.S./Mexico border. All three states have banned the use of trawl gear for this species due to concerns over bycatch of overfished groundfish and other species. Standard gear was a single-rig shrimp trawl with roller gear, varying in size from eight-inch disks to 28-inch tires. In California, area and season closures for the trawl fleet were previously implemented to protect spot prawns in the Southern California Bight during their peak egg-bearing months of November through January. These closures, along with the development of ridgeback prawn, sea cucumber, and other fisheries, and also greater demand for fresh fish, kept spot prawn trawl landings low and facilitated growth of the trap fishery with a live prawn segment. The fleet operates from Monterey Bay - where 6 boats are based - to Southern California, where a 30 to 40 boat fleet results in higher production. In both fishing areas, traps are set at depths of 600 feet to 1,000 feet along submarine canyons or along shelf breaks. Between 1985 and 1991, trapping accounted for 75% of statewide landings; trawling accounted for the remaining 25% (Larson and Wilson-Vandenberg 2001). Landings continued to increase through 1998, when they reached a historic high of 780,000

pounds. Growth in participation and a subsequent drop in landings led to the development of a limited entry program.

Pacific Halibut: Pacific halibut harvest levels and gear restrictions are set by the International Pacific Halibut Commission (IPHC), with implementing regulations set by Canada and the U.S. in their own waters. A license from the IPHC is required to participate in the commercial Pacific halibut fishery. Commercial halibut fishers use bottom longline gear; any halibut caught in trawls or traps must be released. The commercial sector off the West Coast, (IPHC Area 2A) has both a treaty and non-treaty sector. The directed commercial fishery in Area 2A is confined to south of Point Chehalis, Washington, Oregon, and California. In the non-treaty commercial sector, 85% of the harvest is allocated to the directed halibut fishery and 15% to the salmon troll fishery to allow incidental catch. When the Area 2A total allowable catch (TAC) is above 900,000 pounds, halibut may be retained in the limited entry primary sablefish fishery north of Point Chehalis, Washington (46°53'18" N latitude). Since 2001, the TAC has been above this threshold and permits have been issued for vessels in the primary sablefish fishery that land incidentally caught halibut. Area 2A licenses, issued for the directed commercial fishery were as follows: in 2000 268 permits were issued; in 2001, 320 permits were issued; in 2002, 252 permits were issued; and in 2003, 260 permits were issued.

Salmon Troll: The ocean commercial salmon fishery, both non-treaty and treaty, is under federal management with a suite of seasons and total allowable harvest. The Council manages fisheries in the EEZ, while the states manage fisheries in their waters (within 3 nm). All ocean commercial salmon fisheries off the West Coast states use troll gear. Chinook and coho are the principal target species with limited pink salmon landings in odd-years. However, commercial coho landings fell precipitously in the early 1990s and remain very low. Reductions in landings are mainly due to diminished opportunity as salmon populations declined. Many natural salmon runs on the West Coast have been listed under the ESA. Ocean fisheries are managed based on zones that reflect the distribution of salmon stocks and are structured to allow and encourage capture of hatchery-produced stocks while depressed natural stocks are avoided.

Ridgeback Prawn: The ridgeback prawn fishery is managed by the State of California. In 2003, California has also prohibited trawling for this species due to concerns about bycatch of overfished groundfish and other species in this fishery. Ridgeback prawns occur from Monterey, California to Cedros Island, Baja, California, at depths ranging from less than 145 feet to 525 feet. According to Sunada *et al.* (2001) this fishery occurs exclusively in California, centered in the Santa Barbara Channel and off Santa Monica Bay. In 1999, 32 boats participated in the ridgeback prawn fishery. Traditionally, a number of boats fish year-round for both ridgeback and spot prawns, targeting ridgeback prawns during the closed season for spot prawns and vice versa. Most boats typically used single rig trawl gear. Prior to the trawl prohibition, the fishery was closed during June through September to protect spawning female and juvenile ridgeback prawns. An incidental take of 50 pounds of prawns or 15% by weight was allowed during the closed period. During the season, a maximum of 1,000 pounds of other finfish could be landed with ridgeback prawns, of which no more than 300 pounds per trip could be groundfish, per federal regulation. Other regulations included a prohibition on trawling within state waters, a minimum fishing depth of 25 fm, a minimum mesh size of 1.5 inches for single-walled codends or 3 inches for double-walled codends and a logbook requirement.

Sea Cucumber: Along the West Coast, sea cucumbers are harvested by diving or trawling. Only the trawl fishery for sea cucumbers, which is also classified as an open access (exempted trawl) fishery, is allowed an incidental catch of groundfish. Sea cucumbers are managed by the states. In Washington, the sea cucumber fishery only occurs inside Puget Sound and the Strait of Juan de Fuca. Most of the Washington harvest is taken by diving, although the tribes can also trawl for sea cucumbers in these waters. Two species of sea cucumbers are fished in California: the California sea cucumber, also known as the giant red sea cucumber, and the warty sea cucumber. The warty sea cucumber is fished almost exclusively by divers. The California sea cucumber is caught principally by trawling in southern California, but is targeted by divers in northern California. In 1997, the state established separate, limited entry permits for the dive and trawl sectors. Permit rules encourage transfer to the dive sector, which now accounts for 80% of landings. There are currently 113 sea cucumber dive permittees and 36 sea cucumber trawl permittees. Many commercial sea urchin and/or abalone divers also hold sea cucumber permits and began targeting sea cucumbers more heavily beginning in 1997. At up to \$20 per pound wholesale for processed sea cucumbers, there is a strong incentive to participate in this fishery.

Coastal Pelagic Species (CPS): CPS include northern anchovy, Pacific sardine, Pacific (chub) mackerel, jack mackerel and market squid. They are largely landed with round haul gear (purse seines and lampara nets). Vessels using round haul gear are responsible for 99% of total CPS landings and revenues per year. The southern California round haul fleet is the most important sector of the CPS fishery in terms of landings. This fleet is primarily based in Los Angeles Harbor, along with fewer vessels in the Monterey and Ventura areas. The fishery harvests Pacific bonito and tunas as well as CPS. The fleet consists of about 40 active purse seiners averaging 20 m in length. Although these fisheries are concentrated in California, CPS fishing also occurs in Washington and Oregon. In Washington, the sardine fishery is managed under the Emerging Commercial Fishery provisions as a trial commercial fishery. The target of the trial fishery is sardines; however, anchovy, mackerel, and squid are also landed. The fishery is limited to vessels using purse seine gear. It is also prohibited inside of three miles and logbooks are required. Eleven of the 45 permits holders participated in the fishery in 2000, landing 4,791 mt of sardines. Three vessels accounted for 88% of the landings. Of these, two fished out of Ilwaco and one out of Westport. In Oregon, the sardine fishery is managed under the Developmental Fishery Program with annually-issued permits, which have ranged from 15 in 1999 and 2000 to 20 in 2001. Landings, almost all by purse seine vessels, have rapidly increased in Oregon: from 776 mt in 1999 to 12,798 mt in 2001. The number of vessels increased from three to 18 during this period.

The Council manages these fisheries under its CPS FMP. Because stock sizes of these species can radically change in response to ocean conditions, the CPS FMP takes a flexible management approach. Pacific mackerel and Pacific sardine are actively managed through annual harvest guidelines based on periodic assessments. In 2003, the Council established an interim management line for allocation of the annual Pacific sardine harvest guideline. The management line splitting the northern and southern components of the fishery occurs now at Point Arena (~39° N latitude). Northern anchovy, jack mackerel, and market squid are monitored through commercial catch data. If appropriate, one third of the harvest guideline is allocated to Washington, Oregon, and northern California (north of 35°40' N latitude) and two-thirds is allocated to southern California (south of 35°40' N latitude). An open access CPS fishery is in place north of 39° N latitude and a limited entry fishery is in place south of 39° N latitude. The Council does not set harvest guidelines for anchovy, jack mackerel, or market squid.

Highly Migratory Species Fisheries: HMS include tunas, billfishes, dorado and sharks. Management of HMS is complex due to the multiple management jurisdictions, users, and gear types targeting these species. Adding to this complexity are oceanic regimes that play a major role in determining species availability and which species will be harvested off the U.S. West Coast in a given year. The states currently regulate the harvest of HMS but the Council is in the process of implementing an FMP for fisheries prosecuted in the West Coast EEZ or by vessels originating from West Coast ports fishing beyond the EEZ. There are five distinctive gear types used to harvest HMS commercially, with hook-and-line gear being most common. Other gear types used to target HMS are driftnet, pelagic longline, purse seine, and harpoon. While hook-and-line can be used to take any HMS species, traditionally it has been used to harvest tunas. Drift gillnet for swordfish, tunas and sharks off California and Oregon is most likely to intercept groundfish, including spiny dogfish and yellowtail rockfish. Albacore is commonly caught with troll gear. The majority of albacore are taken by troll and jig-and-bait gear (92% in 1999), with a small portion of fish landed by gillnet, drift longline, and other gear. These gears vary in the incidence of groundfish interception depending on the area fished, time of year, as well as gear type. Overall, nearly half of the total landings of albacore (millions of pounds coastwide) were landed in California. Other gear includes pelagic longline, used to target swordfish, shark and tunas; and harpoon for swordfish off California and Oregon. Some vessels, especially longliners and purse seiners, fish outside of the U.S. EEZ, but may deliver to West Coast ports.

California Gillnet Complex: The gillnet complex is managed by the State of California and comprises two gear types. Fishers use setnets to target California halibut (discussed above), white seabass, white croaker, and sharks. Drift nets are used for California halibut, white croaker, and angel shark. Most of the commercial catch is sold in the fresh fish market, although a small amount is used for live bait. Currently, the only restriction on catches of white croaker off California is a small no-take zone off Palos Verdes peninsula. In the early 1990s, California's set gillnet fishery was subject to increasingly restrictive state regulations addressing high marine bird and mammal bycatch mortality. This forced the fleet into deeper water where shelf rockfish became their primary target. However, as open access rockfish limits became smaller, there was a shift from targeting shelf rockfish with setnets to the use of line gear in the more lucrative nearshore live-fish fishery. Thus, many fishers that were

historically setnet fishers have changed their target strategy in response to increasing restrictions and changing market value.

Shorebased Processing Sector [Section to be complete by November]

Fishing Communities [Section to be complete by November]

Enforcement

Scarce State and Federal resources also limit the use of traditional enforcement methods. Traditional fishery monitoring techniques include air and surface craft surveillance, declaration requirements, landing inspections, and analysis of catch records and logbooks. Current assets for patrolling offshore areas include helicopter and fixed wing aircraft deployed by the U.S. Coast Guard and state enforcement entities, one large 210 foot Coast Guard cutter, and smaller Coast Guard and state enforcement vessels. Only the aircraft and large cutter are suitable for patrolling the more distant offshore closed areas. The availability of Coast Guard assets may be challenged by other missions such as Homeland Security and search and rescue

Shoreside enforcement activities complement at-sea monitoring and declaration requirements by inspecting recreational and commercial vessels for compliance with landing limits, gear restrictions, and seasonal fishery closures. State agencies are increasingly using dockside sampling as a means of assessing groundfish catch in recreational fisheries, which when combined with state and federal enforcement patrols at boat launches and marinas, provides a means of ensuring compliance with bag limits and fishery closures. Commercial landings are routinely investigated upon landing or delivering to buying stations or processing plants and can be tracked through fish ticket and logbook records.

4.0 IMPACTS OF THE ALTERNATIVES

Table 4.0.1 Summary of Biological and Socio-economic Impacts of the Monitoring System Alternatives from Sections 4.1 - 4.3.5

	Alternative 1 Status quo:	Alternative 2 Vessels using longline gear	Alternative 3 Vessels using longline or pot gear	Alternative 4 Vessels using longline, pot or trawl (except shrimp trawl) gear	Alternative 5 Vessels using longline, pot, trawl (except shrimp trawl) or line gear (except salmon troll)
Biological indicators					
<u>Fishing mortality</u> -- Incidental catch of overfished species in the conservation areas		<p>* <u>Fishing effort</u>: may be better understood for OA vessels using longline gear to target groundfish approx. 114 vessels, and 275 vessels that land Pac. halibut taken with longline gear. May also be available for HMS OA vessels using longline gear.</p> <p>* <u>Overfished species bycatch estimates</u> may be refined if position and effort data can be joined with OA longline bycatch data. No Overfished species catch is projected in 2005 for HMS vessels using longline gear.</p> <p>* <u>Integrity of closed areas</u>: Because it improves the ability to maintain the integrity of fixed gear RCAs in relation to longline activities, it reduces the risk of exceeding an OY for the higher risk species such as bocaccio, lingcod, yelloweye rockfish and canary rockfish. However, there is no change over alt 1 for HMS longline vessels that are not projected to catch overfished species</p>	<p>* <u>Fishing effort</u>: may be better understood for approx. 35 vessels using pot gear to target groundfish; and 65 dungeness crab, 9 prawn, and 37 sheephead OA vessels using pot gear, plus those identified in alt.2</p> <p>* <u>Overfished species bycatch estimates</u> Same as alt 2, but adds pot vessels. Increased data from groundfish pot vessels only. No overfished species catch is projected in 2005 for Dungeness crab, prawn or sheephead vessels using pot gear.</p> <p>* <u>Integrity of closed areas</u>: Same as alt 2, but adds pot vessels. No change over alt 1 for Dungeness crab, prawn or sheephead pot vessels that are not projected to catch overfished species</p>	<p>* <u>Fishing effort</u>: may be better understood for approx. 7 sea cucumber and 23 CA halibut. Groundfish have been landed by prawn trawlers since 2000. OA vessels using exempted trawl gear, plus those identified in alt. 2 & 3.</p> <p>* <u>Overfished species bycatch estimates</u> Same as alt 2, but adds pot and trawl (except shrimp trawl) vessels. Increased data from CA halibut. No overfished species catch is projected in 2005 for OA sea cucumber vessels using trawl gear.</p> <p>* <u>Integrity of closed areas</u>: Same as alt 2, but adds pot and trawl (except shrimp trawl) vessels. No change over alt 1 for sea cucumber trawl vessels that are not projected to catch overfished species</p>	<p>* <u>Fishing effort</u>: may be better understood for approx 969 vessels using line gear to target groundfish, and 263 CA halibut OA vessels using line gear, plus those identified in alt. 2, 3 & 4. May also be available for HMS OA vessels using line gear.</p> <p>* <u>Overfished Species bycatch estimates</u> Same as alt 2, but adds pot, trawl (except shrimp trawl) or line gear (except salmon troll) vessels. Increased data from vessels targeting groundfish with line gear and OA CA halibut vessels using line gear. No Overfished species catch is projected in 2005 for HMS vessels using line gear.</p> <p>* <u>Integrity of closed areas</u>: Same as alt 2, but adds pot, trawl (except shrimp trawl) and line gear (except salmon troll) vessels. No change over alt 1 for HMS line vessels that are not projected to catch overfished species</p>
<u>Ability to understand effort shifts</u> --To project impacts on juveniles, other fishery resources, or habitat	* Declaration reports may be used to estimate the number of vessels/trips in conservation areas by exempted trawl vessels	<p>* <u>Accurate harvest location data</u> needed to understand impacts on juveniles and other fishery resources would be available for OA longline gear.</p> <p>* Declaration reports may be used to estimate the number of vessels/trips in conservation areas by exempted trawl vessels and OA longline vessels</p>	<p>* <u>Accurate harvest location data</u> may be better understood for approx. 35 vessels using pot gear to target groundfish; and 65 Dungeness crab, 9 prawn, and 37 sheephead OA vessels using pot gear, plus those identified in alt.2</p> <p>* <u>Declaration reports</u> Same as alt 2, but adds pot vessels</p>	<p>* <u>Accurate harvest location data</u> may be better understood for approx X prawn, 7 sea cucumber and 23 CA halibut OA vessels using exempted trawl gear, plus those identified in alt.2 & 3.</p> <p>* <u>Declaration reports</u> Same as alt 2, but adds pot and trawl (except shrimp trawl) vessels.</p>	<p>* <u>Accurate harvest location data</u> may be better understood for approx 969 vessels using line gear to target groundfish, and 263 CA halibut OA vessels using line gear, plus those identified in alt. 2, 3 & 4. May also be available for HMS OA vessels using line gear.</p> <p>* <u>Declaration reports</u> Same as alt 2, but adds pot, trawl (except shrimp trawl) or line gear (except salmon troll) vessels.</p>

Socio-economic indicators					
Availability of information for enforcement -- for efficiency in the use of enforcement resources	* <u>Declaration reports</u> may aid in identifying vessels legally fishing in conservation areas by exempted trawl vessels	* <u>Deterrence</u> : May deter illegal longline fishing in GCAs by OA vessels * <u>Inspections</u> : May be used to target landing and at-sea inspections of vessels using longline gear in the OA fishery * <u>Surveillance</u> : May be used to increase efficiency of surveillance patrols for OA vessels using longline gear * <u>Homeland security</u> : May benefit homeland security activities * <u>Enforcement Action</u> : May be used as basis for enforcement action	* <u>Deterrence</u> May deter illegal longline & pot fishing in GCAs by OA vessels * <u>Inspections</u> : May be used to target landing and at-sea inspections of vessels using longline & pot gear in the OA fishery * <u>Surveillance</u> : Same as alt 2, but adds pot vessels * <u>Homeland security</u> Same as alt 2 * <u>Enforcement Action</u> Same as alt 2	* <u>Deterrence</u> May deter illegal longline, pot and exempted trawl fishing in GCAs by OA vessels * <u>Inspections</u> : May be used to target landing and at-sea inspections of vessels using longline, pot and exempted trawl gear in the OA fishery * <u>Surveillance</u> : Same as alt 2, but adds pot and trawl (except shrimp trawl) vessels. * <u>Homeland security</u> Same as alt 2 * <u>Enforcement Action</u> Same as alt 2	* <u>Deterrence</u> May deter illegal longline, pot, exempted trawl and line fishing in GCAs by OA vessels * <u>Inspections</u> : May be used to target landing and at-sea inspections of vessels using longline, pot, exempted trawl and line gear in the OA fishery * <u>Surveillance</u> : Same as alt 2, but adds pot, trawl (except shrimp trawl) or line gear (except salmon troll) vessels. * <u>Homeland security</u> Same as alt 2 * <u>Enforcement Action</u> Same as alt 2
Availability of information for management -- for measuring the effectiveness of management measures		* Can be used to improve understanding of depth ranges in which fisheries occur			
<u>The effects on harvesters, processors, and communities</u> from depth-based management regime for OA fisheries	[to be completed by November]	[to be completed by November]	[to be completed by November]	[to be completed by November]	[to be completed by November]
Cost burden -- initial and long-term	\$0	* <u>Per vessel costs</u> : Includes installation, unit purchase, transmission costs, maintenance, replacement costs, exemption and declaration reports. Year 1 - \$1,983- \$5,603 (\$783-\$1,800 if an acceptable unit already on vessel for other fishery). Subsequent years - \$780-\$2,870	* <u>Per vessel costs</u> : Same as alt 2	* <u>Per vessel costs</u> : Same as alt 2	* <u>Per vessel costs</u> : Same as alt 2
Safety of human life -- search and rescue efficiency		* Distress signal may reduce response time in emergency for OA vessels using longline gear	* Same as alt 2, but adds pot vessels	* Same as alt 2, but adds pot and trawl (except shrimp trawl) vessels.	* Same as alt 2, but adds pot, trawl (except shrimp trawl) or line gear (except salmon troll) vessels.

4.1 Physical Impacts

Physical impacts associated with fishery management actions generally result from changes to the physical structure of the benthic environment as a result of fishing practices. This action pertains to a program that is expected to provide information needed to monitor fishing locations in relation to time/area closures. There are no distinguishable differences in physical impacts between the alternatives. The physical impact of the proposed actions are not expected to be different from the status quo alternative because the alternatives are for the expended coverage of a monitoring program which is intended to monitor fishing activities are already occurring under status quo. The DEIS prepared for the 2005 -2006 annual specifications and management measures addresses the physical impacts on the environment **under the status quo alternative.**

4.2 Biological Impacts [Section to be completed by November]

This section forms the analytic basis for comparing possible direct and indirect biological impacts across the alternatives. Direct effects are caused by the action and occur at the same time and place, while indirect effects occur later in time and are further removed in distance from the direct effects (40 CFR 1508.27). The impacts of each alternative on one or more components of the biological environment are discussed in sections 4.2.1 through 4.2.3 below.

4.2.1 Fishing mortality - incidental catch of overfished species

Direct effects on fishing mortality include the removal of target and non-target species (incidental catch) from the environment. Because this action would expand the VMS program to the open access gear sectors to monitor fishing location in relation to time-area closures, no direct biological impacts are expected to result from any of the alternatives. However, if the integrity of the closed areas is not adequately maintained, harvest assumptions could be inaccurate which could result in indirect effects such as unaccounted for removals. This is especially a concern for overfished species with low OYs.

At the beginning of 2003, the Council sought a management strategy that would allowed fishing to continue in areas and with gears that could harvest healthy stocks with little incidental catch of the low abundance or overfished species. Management measures since 2003 have been intended to keep harvests of overfished species within the OYs established for rebuilding. Large scale depth related areas, referred to as rockfish conservation areas, are being used to prohibit both commercial and recreational fishing across large portions of the continental shelf. Depth-based management lines have been used to define the conservation areas.

Depth-based management measures are gear-specific. Gear-specific measures are necessary, because the various overfished species are not encountered at the same rate by the different gear types. Prohibiting or restricting the use of a gear type that a particular overfished species is vulnerable reduces the incidental catch and keeps the total catch of that species from exceeding the OY, while providing fishing opportunity for more abundant stocks in times and areas where incidental catch and discard of the depleted stocks is lowest.

The fishing mortality level (total catch level) for each species is the sum of retained catch and discarded catch (incidental or targeted catch that is not retained and landed by the vessel). To monitor the attainment of an OYs, the total catch level must be estimated for each species or species group. There is no exact measure of discard amounts in most fisheries. For all species except lingcod, sablefish, and nearshore rockfish species, it is assumed that discarded fish are dead or die soon after being returned to the sea. Since 2003, depth-related discard assumptions have been made (detailed in the preamble of the proposed rule for the 2003 Annual Specifications and Management Measures; January 7, 2003, 68 FR 936). The revised discard assumptions reflect the areas where vessel activity is expected to occur rather than where they historically operated. Data provided by VMS could provide information regarding the distribution of fishing effort in the open access fisheries that could be used in combination with bycatch data from other sources, such as observer or survey data, to improve the estimates of total catch.

If the integrity of the closed areas cannot be maintained, the risk of exceeding an OY is increased, with the risk being greatest for species most frequently encountered by the open access gears (bocaccio, lingcod, yelloweye rockfish and canary rockfish), which the closed areas are intended to protect. Incursions into the conservation areas and the use of prohibited gear types could result in higher catch of the protected species than had been estimated in discard assumptions. If the true discard rates are higher than the discard assumptions used to estimate total catch, the OYs could unknowingly be exceeded. If the OYs are substantially exceeded, a stock's ability to rebuild could be impaired. If a "rebuilding deficit" is created for an overfished stock because the OY is exceeded, the stock may not be able to recover within the specified rebuilding time. For stocks in the precautionary zone (B25%-B40%), the stock biomass could be further reduced, possibly leading to an overfished status.

Coverage refers to that portion of the overall fishing fleet that would be required to have VMS or observers on board in order to participate in the fishery. Alternative 2 would require the smallest proportion (longline) of the open access fishery to have and use VMS while Alternative 5 would require the largest proportion (longline, pot, trawl, and line gear). Alternative 5 would be the most beneficial for estimating total catch and monitoring the attainment of OYs in the long-term. This is because Alternative 5 would provide the most amount of information on fishing locations for the greatest number participants. However, at this time there is very little data (observer or otherwise) from open access vessels on the amounts and types of bycatch in their fisheries. In the short-term, using effort data obtained from a VMS system to estimate total catch and to monitor the attainment of OYs will be limited until more data becomes available. [Therefore, in the short-term there would be little differences between the alternatives 2-5.](#)

4.2.2 Ability to understand effort shifts to project impacts on groundfish, other resources, or habitat

Very little is known about fishing patterns by location or how effort has shifted from closed areas to the remaining open fishing areas. Because logbook data is only available for the limited entry trawl fleet, this lack of understanding is especially true for commercial vessels that are not part of that fleet. Little specific information on fishing locations is available for open access vessels.

The depth-based conservation areas have restricted particular gears from fishing on large portions of the continental shelf. This was expected to result in effort shifts to open areas that are shoreward and seaward of the conservation areas. Smaller vessels are generally not able to withstand rough seas as well as larger vessels. Much of the open access groundfish fleet is comprised of small vessels, which means that most of the effort tends to be in waters that are shoreward of the conservation areas. Because juveniles that have settled tend to be found in shallower water than adults who tend to occupy different communities, the juvenile rockfish could be affected by increased effort shifts into nearshore areas. Rockfish that may benefit from data on fishing effort shoreward of the conservation area include: chilipepper rockfish and several minor rockfish species (bank, black, blue, brown, calico, china, copper, flag, freckled, halfbanded, honeycomb, Mexican, olive, pink, pinkrose, pygmy, quillback, rosy, speckled, squarespot, starry, whitespeckled, and vermilion). Juvenile rockfish that may benefit from data on fishing effort shoreward of the conservation area include: copper, cowcod, greenspotted, greenstriped, splitnose, widow, vermilion, and stripedtail. Effort data for fishing seaward of the conservation area would also likely be beneficial for projecting fishing impacts on the thornyhead rockfishes. Information collected under a monitoring system would also likely be beneficial to cabezon, lingcod, and sablefish (seaward and shoreward of the conservation area).

Knowing the amount of fishing effort that shifts into shallower depths is critical to understanding the direct effects on the adult and juveniles of the various groundfish species from conservation area management. The amount of information available for managers to understand where fishing effort is taking place and to [evaluate possible impacts on the adult and juvenile groundfish species varies between the alternatives.](#)

The VMS systems provide accurate harvest location data that could be used to estimate the distribution of fishing effort throughout the WOC. Because the VMS would be required to be operated continuously after a vessel fishes in the open access fishery in federal waters data from additional non-groundfish fisheries of the West Coast may also be available. When VMS position information is combined with data collected by at-sea observers, the impacts of the effort shift on adult and juvenile population could be better understood. The response time for management to address unintended impacts resulting from effort shifts could be improved with VMS. However, ability to understand the extent of the impacts resulting from effort

shifts on groundfish and other resources would depend on the amount, availability and applicability of at-sea observer data for the different gears and sectors of the fishery.

Coverage refers to that portion of the overall fishing fleet that would be required to have VMS to participate in the fishery. Alternative 5 would require all open access vessels using longline, pot, trawl (except shrimp trawl) or line gear (except salmon troll) to carry and use VMS to fish in the EEZ. This alternative would be most beneficial to understanding effort shifts and projecting impacts related to fishing effort in the long-term because it would provide the most amount of information on fishing location and effort by the largest number of open access participants. However, at this time there is very little data (observer or otherwise) on catch composition and discard levels from open access vessels. In the short-term, using effort data obtained from a VMS system to estimate changes in effort and impacts on groundfish from the open access fisheries, will be limited until more data becomes available. Alternative 2, which applies only to longline vessels, would provide more data than is available under status quo but less than the other [alternatives that require VMS](#).

4.2.3 Other Resources

Nongroundfish species interactions

The action is to expand the VMS program to monitor the integrity of closed areas in relation to open access fishing activities. None of the management alternatives is expected to have an adverse effect on the incidental mortality levels of CPS, dungeness crab, Pacific pink shrimp, Pacific halibut, forage fish or miscellaneous species over what has been considered in previous NEPA analyses. Information on where fishing effort is occurring (Alternatives 3- 5) may be positive because it may allow NMFS observer data and data from other sources to be joined together to derive a better understand of potential fishing related impacts on these species.

Salmonids

The action is to expand the VMS program to monitor the integrity of closed areas in relation to open access fishing activities. None of the management alternatives is expected to have an adverse effect on the incidental mortality levels of listed salmon species over what has been considered in previous NEPA analyses. Information on where fishing effort is occurring (Alternatives 3- 5) may be positive because it may allow NMFS observer data and data from other sources to be joined together to derive a better understand of potential fishing related impacts on these species.

Marine Mammals

The action is to expand the VMS program to monitor the integrity of closed areas in relation to open access fishing activities. The West Coast groundfish fisheries are considered a Category III fisheries where the annual mortality and serious injury of a stock by the fishery is less than or equal to 1% of the PBR level (potential biological removal). Information on where fishing effort is occurring (Alternatives 3- 5) may be positive because it may allow NMFS observer data and data from other sources to be joined together to derive a better understand of potential fishing related impacts on these species.

Seabirds

The action is to expand the VMS program to monitor the integrity of closed areas in relation to open access fishing activities. None of the proposed management alternatives are likely to affect the incidental mortality levels of seabirds over what has been considered in previous NEPA analyses. Information on where fishing effort is occurring (Alternatives 3- 5) may be positive because it may allow NMFS observer data and data from other sources to be joined together to derive a better understand of potential fishing related impacts on these species.

Sea Turtles

The action is to expand the VMS program to monitor the integrity of closed areas in relation to open access fishing activities. None of the proposed management alternatives are likely to affect the incidental mortality levels of sea turtles over what has been considered in previous NEPA analyses. Information on where fishing effort is occurring (Alternatives 3- 5) may be positive because it may allow NMFS observer

data and data from other sources to be joined together to derive a better understand of potential fishing related impacts on these species.

Endangered Species

Species listed under the ESA are identified in section 3.2 of this EA. Specific discussion of species listed under the ESA can be found above in the sections titled salmonids, marine mammals, sea birds and sea turtles.

4.3 Socio-economic Impacts

[Section to be completed by November]

4.3 Socio-economic Impacts

This section of the EA looks at impacts, positive and negative, on the socio-economic environment. To the extent possible, these impacts include: changes in harvest availability to the different sectors of the fishery; changes in income and revenue; costs to participants; the effectiveness and costs of enforcing the management measures, affect on fishing and low income communities; and how the actions effect safety of human life at sea

4.3.1 Availability of information needed to maintain the integrity of conservation areas and the efficiency in using enforcement resources to maintain the integrity of conservation areas

Implementing depth-based management measures over large geographic areas, such as from the U.S./Canada border to the US/Mexico border, marked the transition to a much greater dependence upon at-sea enforcement. Maintaining the integrity of the conservation areas is largely dependent upon the ability to enforce such management measures. In the past, fishery management measures, such as landing limits, size limits, and species landing restrictions were largely enforced by the relatively easy and inexpensive method of dockside enforcement. Enforcing depth-based closed areas represents a more costly and difficult challenge. To effectively enforce conservation areas, enforcement must be capable of patrolling the shoreward and seaward boundaries of the conservation areas.

At the present time there are 5 NMFS agents (3 additional job positions are currently vacant) covering the Pacific Coast groundfish fishery. These officers and agents are responsible for enforcing all conservation regulations in the Pacific Coast groundfish fishery (e.g. size limits, trip limits, gear restrictions, etc). They are also responsible for monitoring all other fisheries in those areas that are regulated by NMFS. In addition, there are XX state enforcement officers (XX [with an additional XX job vacancies] in California, X Oregon, and XX for Washington with X stationed on the coast) that cover the groundfish fishery as well as other state fisheries. At this time, state enforcement resources (personnel and budgets) are extremely limited.

Under status quo alternative, traditional enforcement methods would continue to be used to monitor the open access fleet activities in relation to the conservation areas. Of the alternatives, Alternative 1 would be the least efficient in using limited state and federal enforcement resources and likely the least effective in monitoring the integrity of conservation areas. Alternatives 2-5, which requires VMS and declaration reports for various gear groups in the open access fishery, would not replace or eliminate traditional enforcement measures, but would provide information that could aid enforcement in identifying vessels that are legally operating in the conservation areas from those that are fishing illegally. Alternative 5 would require all open access vessels using longline, pot, trawl (except shrimp trawl) or line gear (except salmon troll) to carry and use VMS to fish in the EEZ. This alternative would be most beneficial to enforcement because it would provide the most amount of information on fishing location. Alternative 2, which applies only to longline vessels, would provide more data than is available under status quo but less than the other alternatives that require VMS.

VMS would not replace or eliminate traditional enforcement measures such as aerial surveillance, boarding at-sea via patrol boats, landing inspections and documentary investigation. Traditional enforcement measures may need to be activated in response to information received via the VMS. VMS positions can be efficient in identifying possible illegal fishing activity and can provide a basis for further investigation by one or more of the traditional enforcement measures. VMS positions in themselves can also be used as the basis for an enforcement action. Vessel positions provided by observers would likely not be received in real time and would therefore be less efficient than those received from a VMS transceiver.

Deterrent - One of the major benefits of VMS is its deterrent effect. This has been observed and reported on through practical experience in Australia, New Zealand and the USA. It has been demonstrated that if fishing vessel operators know that they are being monitored and that a credible enforcement action will result from illegal activity, then the likelihood of that illegal activity occurring is significantly diminished. In this context, VMS is a preventive measure rather than a cure.

To be effective as a deterrent, the VMS program must maintain its credibility in the eyes of the vessel operators and its use must be kept at the forefront of their minds if the deterrent effect is to be maintained. The credibility of the system can only be maintained if all operational issues are followed up, particularly those that affect a vessel, such as failure of the vessel to report on schedule. The presence of the VMS equipment on the vessel will be a reminder to operators of its monitoring operation.

Probable Cause and Targeted Investigations: In an active sense, VMS will potentially show enforcement officers breaches of time/area restrictions. VMS can show officers those vessels that are following the rules as well those which are not. In doing so, it makes the activities of investigating officers much more cost effective because less time will be spent pursuing false trails and fishing operators who are following the rules. It may also be used to establish "probable cause" before pursuing some types of investigations, for example, in obtaining a search warrant. VMS may be of assistance in this situation because while not being evidence of sufficient significance by itself, it could provide sufficient evidence to lead an officer to believe that an illegal act had occurred.

Landing and at-sea inspections - In some cases, enforcement officers will have particular vessels or particular situations for which they may wish to conduct an at-sea or landing inspection, sometimes without warning to the vessel operator. Without VMS, it is extremely difficult to determine where a vessel is located at-sea or where and at what time it might enter port. VMS provides a good and reliable means of achieving this with potential savings in time and other expense in moving officers and aircraft or patrol vessels to the correct location at the appropriate time.

Increasing efficiency of surveillance patrols - Patrols by both sea and air will still be necessary for fully effective monitoring and management even with an effective VMS program. A patrolling aircraft or vessel can spend considerable time and fuel investigating legitimate fishing vessels that will appear on their radar. Providing access to VMS data for patrol craft can minimize the effort spent confirming radar contacts of vessels fishing legitimately. Further, identifying legitimate fishing vessels to patrol craft via VMS may help them choose particular contacts for more productive investigation when several contacts are made by radar.

Homeland security: Expansion of the VMS program clearly supports an enforcement mission and has indirect benefits to Homeland Security activities. NOAA believes that increased border security correlates directly with increased risk within our EEZ and along our coast line for illegal entry. In March 2002, the "Citizen Corps" initiative was announced, which includes the expansion of "Neighborhood Watch" to include the participation of ordinary citizens in detecting and preventing terrorism. Under "Coastal Watch", the Coast Guard requests fishers to report suspicious activities for investigation and intelligence purposes. Furthermore, critical decisions on the deployment of enforcement assets can be based on VMS surveillance reports. Satellite communication can also update essential information during a law enforcement response. Investigative methodologies would be enhanced via surveillance data maintained within VMS, such as easily identifying potential witnesses to incidents, locating U.S. vessels in areas of

suspicious activity for assistance and support and increased intelligence gathering capabilities. By expanding the number of U.S. fishing vessels operating with VMS, NOAA and fishers are expanding the capability to detect and prevent terrorism and other criminal activity in one of our most vulnerable areas, the U.S. Exclusive Economic Zone. VMS also supports the Coast Guard's "Coastal Watch" initiative, which was developed in response to their homeland defense activities.

4.3.2 Availability of information needed to measure the effectiveness of management measures

Data gathered from commercial and recreational fisheries are essential for assessing the effectiveness of management regulations. Logbooks, landing surveys, VMS, and observers are different fishery dependent methods used to collect data on harvest location. Interception at sea by an independent vessel can also be used to obtain harvest location data. The cost of collecting data from the fishery participants tends to be lower than collecting the data from an independent source. This is because it is a byproduct of the fishing activity. Some forms of fishery dependent data, particularly unverified logbooks and landing surveys, are more subject to bias than other methods and their collection and use in measuring the effectiveness of management measures requires added care.

Alternative 2 -5 provide for expanded VMS coverage that has the potential of producing reliable and useful information for assessing the effectiveness of open access fishery management measures. At a minimum, the data can be used to efficiently monitor fishing location and to verify times and dates in observer data as well as assist in the interpretation of fishery data. It can also be used to provide information on days at sea and location data for the open access fleet where logbook data is generally not available.

Understanding where fishing effort is occurring in realtime may provide insight into understanding information reported on fish tickets and be useful in understanding how management measures affect fishing behavior. Knowing where a vessel is fishing as compared to where the catch is being landed, may be valuable in assessing the effectiveness of trip limit management lines and differential trip limits. The data provided by VMS are cost effective and accurate over large geographical areas. Accurate and timely data on fishing locations are necessary to assess effectiveness of closed areas and the overall results of the management scheme.

VMS data can be combined with observer data to assess the effectiveness of management measures. However, the value in combining observer data with VMS data for non-enforcement purposes depends on the amount of observer data on catch and discards that is available from the different gears and fishing strategies. At the current time there is little data on the open access fisheries. In the long term, when observer data becomes available, VMS may provide information that results in a better understanding of [fishery location and a spacial understanding of fish stocks](#).

Electronic logbooks that can be integrated with VMS transceivers with two-way communications have been developed. If electronic logbooks could be combined with a VMS system for all or a portion of the open access fisheries, there would be several benefits to management. First, there is only a single data entry function and this can be performed very soon after each fishing operation is completed (at-sea or shoreside depending on the individual fishery). Paper logbooks must first be filled out by the fisher and then submitted to a government agency for data entry before logbook data can be used. In performing the data entry function, the fisher will interact directly with the editing checks for the data and a more complete and accurate data record can be required before the data record is accepted by the computer system. Having electronically recorded the data, the operator may produce a hard copy and also transmit the data to the fisheries agency or other recipients such as the fishing company, and may be easily incorporated into appropriate databases. As a result, improvements in timeliness, accuracy and reduced costs are possible. When the data is in the database and available to be analyzed, it can be used to improve the [ability of managers to measure the effectiveness and economic impacts of management measures](#).

4.3.3 The effects on harvesters (tribal and non-tribal), processors, and communities

[Section to be completed by November]

4.3.4 Cost burden

[Section to be completed by November]

Table 4.3.4.1 shows the estimated burden per vessel for VMS. These include the costs for installation, VMS transceiver unit, annual maintenance, replacement cost, cost to transmit hourly positions and declaration reports.

Table 4.3.4.1. Estimated burden, per vessel, for the VMS monitoring systems

	<u>Alternative 1</u> Status quo	<u>Alternatives 2-5</u> Cost per vessel for VMS and declaration reports
Installation - start up cost	\$0	* Minimal - not to exceed 4 hours or \$120 * Most are do-it yourself installation * 5 min to complete installation report, \$3 to send fax to NMFS
VMS transceiver/transponder unit - start up cost	\$0	* \$1,200 - \$3,800
Annual maintenance	\$0	* 4 hours or \$120 per year
Annual replacement costs (unit cost/years of service - estimate based on 4 years of service)	\$0	* \$300-\$950 per year
Annual cost to transmit 24 hourly position reports	\$0	* \$360-\$1,800 (\$2-\$5/day)
Annual cost to transmit exemption reports (4 min/rpt 2 per year)	\$0	* \$0 (toll free call)
Annual cost to transmit declaration report (4 min/rpt- 12 time per year)	\$0	* \$0 (toll free call)

Declaration reports

Declaration reports are used to assist enforcement in identifying vessels that are legally fishing in conservation areas. Under status quo, vessels registered to limited entry permits with trawl endorsements; any vessel using trawl gear, including exempted gear used to take pink shrimp, spot and ridgeback prawns, California halibut and sea cucumber, and any tribal vessel using trawl gear, are required to send a declaration report before the vessel is used to fish in any trawl RCA or the CCA in a manner that is consistent with the requirements of the conservation areas (e.g. pelagic trawl during when permitted for yellowtail and widow rockfish or Pacific whiting or pink shrimp gear with a finfish excluder during the pink shrimp season). In addition, declaration reports would be required from vessels registered to limited entry permits with longline and pot endorsements before the vessel can be used to fish in any Non-trawl RCA or the CCA in a manner that is consistent with the requirements of those conservation areas.

Each declaration report is valid until cancelled or revised by the vessel operator. After a declaration report has been sent, the vessel cannot engage in any activity with gear that is inconsistent with that which can be used in the conservation area unless another declaration report is sent to cancel or change the previous declaration. Declaration reports are sent to NMFS and vessel operators receive confirmation that could be used to verify that the reporting requirement was met. It is necessary for a vessel owner, operator or representative to submit these reports because only they can make statements about where they intend to fish.

Vessels will call in declaration reports by using an Interactive Voice Response (IVR) system. The IVR system, which is accessed by dialing a toll-free number, asks the caller to use the touch-tone telephone to respond to a series of questions. An IVR system allows vessels to quickly and easily submit their report 24 hours a day and will reduce the paperwork burden on both the fisherman and the NMFS, as it makes it easier to collate the information submitted in the reports and monitor fishing activity.

Aside from the cost in time to summarize and call in an IVR report, there will be no additional cost burden for respondents. All respondents are assumed to have access to a telephone. The telephone call will be placed through a toll-free number so the respondent will not pay for the call.

Installation - The time burden for installation of the units is estimated at 4 hours per vessel, or \$120. Personnel costs are estimated to be \$30 per hour. The actual installation time for a VMS unit is estimated to be less than two hours, but a higher estimate of 4 hours/vessel is based on a worst case scenario where the power source (such as a 12 volt DC outlet) is not convenient to a location where the VMS unit can be installed. Most of the systems are do-it-yourself installations.

The ArgoNet MAR GE uses a single mobile transmitting unit mounted atop the vessel. The unit contains an Argos transceiver, an integrated global positioning system (GPS) receiver, a battery, and an antenna. The mobile transceiver unit is connected to a power junction box in the wheelhouse, which can be installed in less than 1 hour. The installation of the Inmarsat-C Thrane units are do-it-yourself while the Trimble units must be installed by Trimble-trained and Trimble-authorized support dealers. This is expected to result in an installation charge of \$400. The installation of software and attachment of a personal computer to an Inmarsat-C unit may also require dealer assistance. Satamatics and Orbcomm units can be self installed. However, vendor experience indicates that professional installations provide the best results for optimal unit performance.

Installation/Activation Report - Given that the VMS hardware and satellite communications services are provided by third parties as approved by NMFS, there is a need for NMFS to collect information on the individual vessel's installation in order to ensure that automated position reports will be received. This information collection would not increase the time burden for installation of VMS, but does require that a certification and checklist be returned to NMFS prior to using the VMS transceiver to meet regulatory requirements.

The checklist indicates the procedures to be followed by the installers. The VMS installer completes the NMFS issued checklist and signs the certification before returning it to NMFS. Signing the completed checklist shows that the installation was done according to the instructions and provides the Office of Law Enforcement with information about the hardware installed and the communication service provider that will be used by the vessel operator. Specific information that links a permitted vessel with a certain transmitting unit and communications service is necessary to ensure that automatic position reports will be received properly by NMFS. In the event that there are problems, NMFS will have ready access to a database that links owner information with installation information. NMFS can then apply troubleshooting techniques to contact the vessel operator and discern whether the problem is associated with the transmitting hardware or the service provider.

The time and cost burden of preparing and submitting installation information to NMFS is minor. Submission of a checklist would be required only for the initial installation or when the hardware or communications service provider changes. NMFS estimates a time burden of 5 minutes (\$2.50 at \$30 per hour) for completing the checklist and additional \$3 for mailing/faxing to NMFS, for a total of \$5.50 per occurrence.

The ability for NMFS to ensure proper operation of the VMS unit prior to the vessel's departure will save time and money. The installation checklist and activation report will be made available over the internet. These reports would be faxed or mailed to NMFS.

VMS transceiver unit On September 23, 1993, NMFS published proposed VMS standards at 58 FR 49285. On March 31, 1994, NMFS published final VMS standards at 59 FR 15180. These notices stated that NMFS endorses the use of VMS and defined specifications and criteria for VMS use. On September 8, 1998, NOAA published a request for information (RFI) in the Commerce Business Daily in which it stated the minimum VMS specifications necessary for NOAA's approval. The information was used as the basis for approving the mobile transceiver units and communications service providers.

Units currently type approved for the Pacific Coast Groundfish Fishery are: TT 3022D and 3026, Satamatics SAT101, and Stellar ST2500G-NMFS (Table 4.3.4.2.) Type approved units are tested and approved by NMFS OLE. A list of VMS mobile transponder units and communications service providers approved by NOAA for the Pacific Coast groundfish fishery were published in the *Federal Register* on November 17, 2003 (68 FR 64860). Each time the list is revised, it will be published in the *Federal Register*. Inmarsat C transponders, TT 3022D and 3026, range from \$1,550 to \$3,800, not including a personal computer which would be approximately \$1,200 more. The Satamatics SAT101 Inmarsat D+ with a transponder costs about \$1,200 and the Stellar ST2500G-NMFS also costs about \$1,200.

The North American Collection and Location by Satellite, Inc. (NACLS) is the sole service provider of the ArgoNet systems. The Argos Mar-GE and MAR-YX mobile transponder units costs \$2,000. The ArgoNet MAR GE uses NOAA polar-orbiting satellites, and, as such, it is considered a NOAA Data Collection and Location System. The use of any NOAA Data Collection and Location System is governed by 15 CFR part 911. Under these regulations, the use of a NOAA Data Collection and Location System can be authorized only if it is determined that there are no commercial services available that are adequate. In addition, special provisions have been made because of cost effectiveness to the Government, resulting in a temporary approval (3 year approval was granted for the Atlantic pelagic longline fishery).

On June 10, 2002, 50 CFR 679.7(a)(18), required all vessels fishing in the Bering sea and Gulf of Alaska using pot, hook-and-line or trawl gear that are permitted to directly fish for Pacific cod, Atka mackerel or pollock to have an operable VMS transceiver. Approximately 49 vessels that had limited entry permits or participated in the WOC open access fishery in 2001 qualify for reimbursements to the Argos MAR-GE as a result of their participation in the Alaska groundfish fishery. Allowing the use of Argos MAR-GE by WOC operating vessels that have purchased these units for participation in the Alaska groundfish fisheries would eliminate the cost of purchasing, installing and maintaining a second unit for these vessels. On April 15, 2004(69 FR 19985) new provisions for the Alaska fisheries prohibit the installation of new Argos units. Replacement units will need to be compatible with the requirements of both fisheries or vessels will need to purchase separate units. Similarly, allowing vessels to use units they have already purchased for other business purposes, providing they are a type-approved model with the required software and hardware, would also eliminate the cost of purchasing, installing and maintaining a second unit for these vessels. The number of open access vessels that currently have VMS transceivers is unknown.

Most of the VMS transceiver units can be operated for extended periods from the same DC power source used to run other on board electronic equipment and so should increase power consumption only marginally.

Table 4.3.4.2. VMS Equipment Currently in Type-approved for use in the Pacific Coast Groundfish Fisheries

Communication Service	Orbcomm	Inmarsat D+	Argos a/	Inmarsat-C
Transceiver/transponder name	SST2500G-NMFS	Satamatics SAT101	MAR GE	Trimble Galaxy TNL 7001 and 7005, Thrane and Thrane TT3022D
Number of boats using				
Geographic coverage, when in line of sight of satellite or cell	Global	Global	Global	Global to 78°N/S
Communication between ship – shore	Two-way	Two-way	One-way, (ship-to-shore)	Two-way
Satellite type	Low earth orbit, Orbcomm Network	Geo-stationary, INMARSAT	Polar-orbiting, 5 NOAA meteorological	Geo-Stationary, INMARSAT
Time between the vessel position fix and receipt at NMFS	Within 5-10 minutes	Within 5-10 minutes	Varies per latitude, Alaska – 10-30min. avg. wait. HMS – 60-90min. wait	Within 5-10 minutes
Ability to poll/query the transceiver	Yes	Yes	No	Yes
Interval between position reports	Configurabel	Configurabel	30 - 60 minutes depending upon latitudes	Configurable for 5 minutes to 24 hours
Ability to change the interval between position reports	Remote from OLE	Remote from OLE	Factory reprogramming	Remotely from OLE
Position calculation (accuracy)	Integrated GPS (20 m)	Integrated GPS (20 m)	Integrated GPS (20m), reverts to Doppler when GPS blocked (350 or 1000m)	Integrated GPS (20m)
Automatic anti-tampering and unit status messages	Yes	Yes	Yes	Yes
Distress signal	Yes ??	Yes	Yes	Yes
Reduces power when stationary	Yes	Yes	Yes	Yes
Installation	Di-it-yourself	Do-it-yourself	Do-it-yourself	Dealer or electrician (costs not included), or do-it-yourself
Internal battery back-up	Yes	Yes	Yes, 48-hour	No
Log or memory buffer storing positions / number of positions	Yes	Yes	Yes, must download manually/?	Yes, auto, remote or manual download/ Trimble – 5000 Thrane – 100
Can send logbook/catch report data	Yes	Yes, limited	Yes, with computer	Yes, with computer
Transceiver/transponder cost	\$1,200	\$1,200	\$2000 (\$400 keypad optional)	Thrane TT3022D \$2650, TT3026M \$1,550; Trimble \$3800, optional computer for email not included
Daily communications cost for hourly positions	\$2	\$2	\$5	\$2

a/ The Argos MAR GE is only allowed for vessels that have been required to have this model for other fisheries such as the Alaska groundfish fishery

Maintenance of transponder unit Once a vessel is used for fishing in the open access fishery in federal waters, the vessel operator is required to operate the VMS unit continuously for the remainder of the year. This means that the vessel operator will need to maintain the transponder unit, antennas and the electrical sources that power the system.

When an operator is aware that transmission of automatic position reports has been interrupted, or when notified by NMFS that automatic position reports are not being received, they must contact NMFS and follow the instructions provided. Such instructions may include, but are not limited to, manually communicating to a location designated by NMFS the vessel's position or returning to port until the VMS is operable. There is a reporting burden associated with this requirement, but it is not expected to be substantial. The annual burden of these communications and the time required to maintain the antennas and electrical systems on the vessel operator is estimated to be approximately 4 hours per year or \$120. In addition, some systems may require software to be updated. Many of the transponders can have their set of features upgraded by being reloaded/flushed with updated versions.

If a unit needs to be repaired there may be fishing opportunity lost unless the unit can be quickly replaced.

Replacement cost The various VMS transceivers have similar life spans of about 4- 5 years before the units need to be replaced. Because of advancements in VMS systems or service providers that may no longer provide services, some models may become obsolete in less than 5 years. The purchase of these units may be considered as a tax deductible business expense during the first year of use. For depreciation purposes, VMS devices using satellite technology may qualify as "five-year property", although devices using cell phone technology probably will be treated similar to other cell phone equipment, as "seven-year property." For the purposes of this analysis, 4 years was used to estimate unit replacement costs.

Cost to transmit hourly positions The primary costs after purchase and installation of a VMS is the charge for the messages that communicate the vessel's position. Once installed and activated, position reports are transmitted automatically to NMFS via satellite. Once a vessel is used for fishing in the open access fishery in federal waters the vessel operator is required to operate the VMS unit continuously for the remainder of the year. The total costs for these messages depend on the system chosen for operation and the number of fishing days for units with a sleep function. Many of the systems have a sleep function. Position transmissions are automatically reduced when the vessel is in port. This allows for port stays without significant power drain or power shutdown. When the unit restarts, normal position transmissions automatically resume before the vessel goes to sea.

The estimated time per response varies with type of equipment and requirement. Upon installation, vessel monitoring or transponder systems automatically transmit data, which takes about 5 seconds, except when issued a VMS exemption or when the vessel is inactive in port and the VMS goes into sleep mode. Transmission costs vary between units, with some having daily rates or monthly rates. The daily rate for the Inmarsat D+ , Inmarsat C, and Orbcom units is \$2, while the Argos daily transmission rate is \$5.

Exemption reports Exemption Reports would be sent by the vessel owner or operator whenever their vessel qualified for being excused from the requirement to operate the mobile transceiver unit continuously 24 hours a day throughout the calendar year (e.g. when the vessel will be operating outside of the EEZ for more than 7 consecutive days or the vessel will be continuously out of the water for more than 7 consecutive days). A vessel may be exempted from the requirement to operate the mobile transceiver unit continuously 24 hours a day throughout the calendar year if a valid exemption report, is received by NMFS OLE and the vessel is in compliance with all conditions and requirements of the exemption. An exemption report would be valid until a second report was sent canceling the exemption.

Improved technology would be used to reduce the reporting burden on NMFS and the fishery participants. Vessels will call in exemption reports by using an Interactive Voice Response (IVR) system . The IVR system, which is accessed by dialing a toll-free number, asks the caller to use the touch-tone telephone to respond to a series of questions. An IVR system allows vessels to quickly and easily submit their report 24

hours a day and will reduce the paperwork burden on both the fisherman and NMFS, as it makes it easier to collate the information submitted in the reports and to monitor fishing activity.

Aside from the cost in time to summarize and call in an IVR report, there will be no additional cost burden for respondents. All respondents are assumed to have access to a telephone. The telephone call will be placed through a toll-free number, so the respondent will not pay for the call. Two exemption reports are estimated to be submitted per vessel annually. Each report would require approximately 4 minutes to submit, for an average cost of \$4 per vessel per year (at \$30 per hour).

4.3.5 Safety of Human Life at Sea-- Search and Rescue Efficiency

There is a certain degree of danger associated with groundfish fishing, however, little is known about the connection between fisheries management measures and incident, injury, or fatality rates in the fishery. Moreover, little is known about risk aversion among fishers or the values placed on increases or decreases in different risks. Decreased harvest may lead to less investment in fishing vessels safety and less care by skippers. If this were to occur, the rate of safety related incidents, injury, or fatality rates could increase. However, if the number of harvesters decreases, and the time at sea decreases, the rates of safety related incidents, injury, or fatality could decrease.

Should the USCG need to assist a fishing vessel in distress, search and rescue missions are more dangerous during winter months. It usually takes USCG surface vessels longer to respond during harsh weather and if the weather is really bad, fishing vessels cannot afford to wait for assistance very long. VMS may provide information that can reduce the time needed for the USCG to arrive at the vessel's location. Alternatives 2-5 require a VMS system that could provide for a distress signal that may reduce response time in an emergency. However, VMS cannot be used at this time as replacements for EPIRBS, but can be of assistance during an emergency. Some systems have distress buttons and allow for two-way communications. All the systems can show where a vessel is located. However, they become ineffective should power be lost or a vessel sink. EPIRBS have their own power source and are designed to release from the vessel should it go down. Alternative 5 will have the greatest safety benefits because the greatest number of vessels will be required to carry VMS transceivers. As noted above, when fishing opportunity is reduced and profits are marginal, vessels may display more risk prone behavior and may not adequately maintain equipment and vessels.

4.4 Cumulative Impacts

Cumulative effects must be considered when evaluating the alternatives to the issues considered in the EA. Cumulative impacts are those combined effects on quality of human environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what federal or non-federal agency undertake such actions (40 CFR 1508.7, 1508.25 (a), and 1508.25 (c))

[Section to be completed by November]

5.0 CONSISTENCY WITH THE FMP AND OTHER APPLICABLE LAWS

5.1 Consistency with the FMP

The socio-economic framework in the Pacific Coast Groundfish FMP requires that proposed management measures and viable alternatives be reviewed and consideration given to the following criteria: a) how the action is expected to promote achievement of the goals and objectives of the FMP; b) likely impacts on other management measures; c) biological impacts; d) and economic impacts, particularly the cost to the fishing industry; and e) accomplishment of one of a list of factors.

GOALS AND OBJECTIVES OF THE FMP

The Council is committed to developing long-range plans for managing the Pacific Coast groundfish fisheries that prevent overfishing and loss of habitat, yet provide the maximum net value of the resource, and achieve maximum biological yield. Alternatives 2- 5 are consistent with FMP goal 1-objective 1, and goal 3-objective 10.

Goal 1- Conservation: Objective 1 -- maintain an information flow on the status of the fishery and the fishery resource which allows for informed management decisions as the fishery occurs.

Goal 3- Utilization: Objective 10 -- strive to reduce the economic incentives and regulatory measures that lead to wastage of fish. Also, develop management measures that minimize bycatch to the extent practicable and, to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. In addition, promote and support monitoring programs to improve estimates of total fishing-related mortality and bycatch, as well as those to improve information necessary to determine the extent to which it is practicable to reduce bycatch and bycatch mortality.

ACCOMPLISHMENT OF ONE OF THE FACTORS LISTED IN FMP SECTION 6.2.3.

Under the socio-economic framework, the proposed action must accomplish at least 1 of the criteria defined in section 6.2.3 of the FMP. Alternatives 2-5 are likely to accomplish objective 2 by providing information to avoid exceeding a quota, harvest guideline or allocation, and objective 13 by maintaining a data collection and means for verification.

5.2 Magnuson-Stevens Conservation and Management Act

The Magnuson-Stevens Act provides parameters and guidance for federal fisheries management, requiring that the Councils and NMFS adhere to a broad array of policy ideals. Overarching principles for fisheries management are found in the Act's National Standards. In crafting fisheries management regimes, the Councils and NMFS must balance their recommendations to meet these different national standards.

National Standard 1 requires that 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. The proposed action is to expand a monitoring program to monitor the integrity of closed areas that were established to protect overfished species. Information provided under Alternatives 2- 5 reduce the risk of overfishing because they would provide information that could be used to reduce the likelihood of overfishing while allowing for the harvests of healthy stocks. Because Alternative 5 provides the most information, it would have the least risk, while Alternative 1 has the greatest risk.

National Standard 2 requires the use of the best available scientific information. The proposed action is to expand a VMS program to monitor the integrity of closed areas that were established to protect overfished species. Data collected under Alternatives 2-5 would be used to understand the level of fishing effort and how it was distributed. When combined with data from the existing federal observer program, it could be used to more accurately estimate total catch.

National Standard 3 requires, to the extent practicable, that an individual stock of fish be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination. This standard is not affected by the proposed action to expand a monitoring program to monitor the integrity of closed areas.

National Standard 4 requires that conservation and management measures not discriminate between residents of different States. None of the alternatives would discriminate between residents of different States.

National Standard 5 is not affected by the proposed actions because it does not affect efficiency in the utilization of fishery resources.

National Standard 6 requires that Conservation and management measures take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches." All alternatives meet [this standard](#).

National Standard 7 requires that conservation and management measures minimize costs and avoid [unnecessary duplication](#). [Measures that were taken to minimize the costs of a monitoring program by](#) reducing the time burden and cost of declaration reports, they would only be required when vessel changes gears rather than on every trip.

National Standard 8 provides protection to fishing communities by requiring that conservation and management measures be 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 proposed alternatives are consistent with this standard.

National Standard 9 requires that conservation and management measures minimize bycatch and minimize the mortality of bycatch. NMFS is required to "promote and support monitoring programs to improve estimates of total fishing-related mortality and bycatch, as well as those to improve information necessary to determine the extent to which it is practicable to reduce bycatch and bycatch mortality. The proposed action is consistent with this standard.

National Standard 10 Conservation and Management measures shall, to the extent practicable, promote the safety of human life at sea. Alternatives 2-5 have safety benefits because the VMS system provide for a Distress signal that may reduce response time in an emergency. Alternative 5 has the greatest safety benefits because requires VMS for the largest portion of the open access fleet.

Essential Fish Habitat This action will affect fishing in areas designated as essential fish habitat (EFH) by Amendment 11 to the FMP. The proposed action is to expand a program to monitor the integrity of closed areas that were established to protect overfished species. The potential effects of the proposed actions are not expected to have either no adverse effect on EFH, or to have a positive effect resulting from reduced fishing effort in critical areas. No EFH consultation is warranted for this action.

5.3 Endangered Species Act

NMFS issued Biological Opinions (B.O.) under the ESA on August 10, 1990, November 26, 1991, August 28, 1992, September 27, 1993, May 14, 1996, and December 15, 1999 pertaining to the effects of the groundfish fishery on chinook salmon (Puget Sound, Snake River spring/summer, Snake River fall, upper Columbia River spring, lower Columbia River, upper Willamette River, Sacramento River winter, Central Valley spring, California coastal), coho salmon (Central California coastal, southern Oregon/northern

California coastal), chum salmon (Hood Canal summer, Columbia River), sockeye salmon (Snake River, Ozette Lake), and steelhead (upper, middle and lower Columbia River, Snake River Basin, upper Willamette River, central California coast, California Central Valley, south-central California, northern California, southern California). During the 2000 Pacific whiting season, the whiting fisheries exceeded the 11,000 fish chinook bycatch amount specified in the Pacific whiting fishery B.O. (December 19, 1999) incidental take statement, by approximately 500 fish. In the 2001 whiting season, however, the whiting fishery's chinook bycatch was about 7,000 fish, which approximates the long-term average. After reviewing data from, and management of, the 2000 and 2001 whiting fisheries (including industry bycatch minimization measures), the status of the affected listed chinook, environmental baseline information, and the incidental take statement from the 1999 whiting B.O., NMFS determined that a re-initiation of the 1999 whiting BO was not required. NMFS has concluded that implementation of the FMP for the Pacific Coast groundfish fishery is not expected to jeopardize the continued existence of any endangered or threatened species under the jurisdiction of NMFS, or result in the destruction or adverse modification of critical habitat. This proposed rule implements a data collection program and is within the scope of these consultations. Because the impacts of this action fall within the scope of the impacts considered in these B.O.s, additional consultations on these species are not required for this action.

5.4 Marine Mammal Protection Act

Under the MMPA, marine mammals whose abundance falls below the optimum sustainable population level (usually regarded as 60% of carrying capacity or maximum population size) can be listed as "depleted". Populations listed as threatened or endangered under the ESA are automatically depleted under the terms of the MMPA. Currently the Stellar sea lion population off the West Coast is listed as threatened under the ESA and the fur seal population is listed as depleted under the MMPA. Incidental takes of these species in the Pacific Coast fisheries are well under their annual PBRs. None of the proposed management alternatives are likely to affect the incidental mortality levels of species protected under the MMPA. The West Coast groundfish fisheries are considered Category III fisheries, where the annual mortality and serious injury of a stock by the fishery is less than or equal to 1% of the PBR level. Implementation of Alternatives 3,4, or 5 are expected to benefit MMPA species because they would allow observer data and data from other sources to be joined to the VMS data to better understand the extent of potential fishing related impacts on various marine mammal species.

5.5 Coastal Zone Management Act

The proposed alternatives would be implemented in a manner that is consistent to the maximum extent practicable with the enforceable policies of the approved coastal zone management programs of Washington, Oregon, and California. This determination has been submitted to the responsible state agencies for review under section 307(c)(1) of the Coastal Zone Management Act (CZMA). The relationship of the groundfish FMP with the CZMA is discussed in Section 11.7.3 of the groundfish FMP. The groundfish FMP has been found to be consistent with the Washington, Oregon, and California coastal zone management programs. The recommended action is consistent and within the scope of the actions contemplated under the framework FMP. Under the CZMA, each state develops its own coastal zone management program which is then submitted for federal approval. This has resulted in programs that vary widely from one state to the next.

5.6 Paperwork Reduction Act

[Section to be completed for November]

5.7 Executive Order 12866

This action is not significant under E.O. 12866. This action will not have a cumulative effect on the economy of \$100 million or more nor will it result in a major increase in costs to consumers, industries, government agencies, or geographical regions. No significant adverse impacts are anticipated on competition, employment, investments, productivity, innovation, or competitiveness of U.S.-based enterprises.

5.8 Executive Order 13175

Executive Order 13175 is intended to ensure regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes.

The Secretary of Commerce recognizes the sovereign status and co-manager role of Indian tribes over shared Federal and tribal fishery resources. At Section 302(b)(5), the Magnuson-Stevens Act reserves a seat on the Council for a representative of an Indian tribe with Federally recognized fishing rights from California, Oregon, Washington, or Idaho.

The U.S. government formally recognizes that the four Washington Coastal Tribes (Makah, Quileute, Hoh, and Quinault) have treaty rights to fish for groundfish. In general terms, the quantification of those rights is 50% of the harvestable surplus of groundfish available in the tribes' usual and accustomed (U and A) fishing areas (described at 50 CFR 660.324). Each of the treaty tribes has the discretion to administer their fisheries and to establish their own policies to achieve program objectives. The proposed action is being developed in consultation with the affected tribe(s) and, insofar as possible, with tribal consensus.

5.9 Migratory Bird Treaty Act and Executive Order 13186

The Migratory Bird Treaty Act of 1918 was designed to end the commercial trade of migratory birds and their feathers that, by the early years of the 20th century, had diminished populations of many native bird species. The Act states that it is unlawful to take, kill, or possess migratory birds and their parts (including eggs, nests, and feathers) and is a shared agreement between the United States, Canada, Japan, Mexico, and Russia to protect a common migratory bird resource. The Migratory Bird Treaty Act prohibits the directed take of seabirds, but the incidental take of seabirds does occur. None of the proposed management alternatives, or the Council recommended action are likely to affect the incidental take of seabirds protected by the Migratory Bird Treaty Act. Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) is intended to ensure that each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations develop and implement a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service that shall promote the conservation of migratory bird populations. Currently, NMFS is developing an MOU with the U.S. Fish and Wildlife Service. None of the proposed management alternatives are likely to have a measurable effect on migratory bird populations.

5.10 Executive Order 12898 (Environmental Justice) and 13132 (Federalism)

There is no specific guidance on application of EO 12898 to fishery management actions. The EO states that environmental justice should be part of an agency's mission "by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority or low-income populations."

These recommendations would not have federalism implications subject to E.O. 13132. State representatives on the Council have been fully consulted in the development of this policy recommendation.

6.0 REGULATORY IMPACT REVIEW AND REGULATORY FLEXIBILITY ANALYSIS

The RIR and IRFA analyses have many aspects in common with each other and with EAs. Much of the information required for the RIR and IRFA analysis has been provided above in the EA.. Table 6.0.1 identifies where previous discussions relevant to the EA and IRFA can be found in this document. In addition to the information provided in the EA, above, a basic economic profile of the fishery is provided annually in the Council's SAFE document.

Table 6.0 1 Regulatory Impact Review and Regulatory Flexibility Analysis

RIR Elements of Analysis	Corresponding Sections in EA	IRFA Elements of Analysis	Corresponding Sections in EA
Description of management objectives		Description of why actions are being considered	
Description of the Fishery		Statement of the objectives of, and legal basis for actions	
Statement of the Problem		Description of projected reporting, recordkeeping and other compliance requirements of the proposed action	
Description of each selected alternative		Identification of all relevant Federal rules	
An economic analysis of the expected effects of each selected alternative relative to status quo			

6.1 Regulatory Impact Review

[Section to be completed by November]

The RIR is designed to determine whether the proposed action could be considered a “significant regulatory actions” according to E.O. 12866. E.O. 12866 test requirements used to assess whether or not an action would be a “significant regulatory action”, and identifies the expected outcomes of the proposed management alternatives. 1) Have a annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; 2) Create a serious inconsistency or otherwise interfere with action taken or planned by another agency; 3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or 4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this executive Order. Based on results of the economic analysis contained in section 4.3, this action is not expected to be significant under E.O. 12866.

6.2 Initial Regulatory Flexibility Analysis

When an agency proposes regulations, the RFA requires the agency to prepare and make available for public comment an Initial Regulatory Flexibility Analysis (IRFA) that describes the impact on small businesses, non-profit enterprises, local governments, and other small entities. The IRFA is to aid the agency in considering all reasonable regulatory alternatives that would minimize the economic impact on affected small entities (attachment 1). To ensure a broad consideration of impacts on small entities, NMFS has prepared this IRFA without first making the threshold determination whether this proposed action could be certified as not having a significant economic impact on a substantial number of small entities. NMFS, must determine such certification to be appropriate if established by information received in the public comment period.

Requirements of an IRFA

The Regulatory Flexibility Act (5 U.S.C. 603) states that:

(b) Each initial regulatory flexibility analysis required under this section shall contain--

- (1) a description of the reasons why action by the agency is being considered;
- (2) a succinct statement of the objectives of, and legal basis for, the proposed rule;
- (3) a description of and, where feasible, and estimate of the number of small entities to which the proposed rule will apply;
- (4) a description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- (5) an identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule.

(c) Each initial regulatory flexibility analysis shall also contain a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives such as--

- (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
- (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
- (3) the use of performance rather than design standards; and
- (4) an exemption from coverage of the rule, or any part thereof, for such small entities.

- 1) A description of the reasons why the action by the agency is being considered.

- 2) A succinct statement of the objectives of, and legal basis for, the proposed rule.

- 3) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;

- 4) A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.

- 5) An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule.

- 6) A summary of economic impacts.

- 7) A description of any alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimizes and significant economic impacts of the proposed rule on small entities.

7.0 List of Preparers

This document was prepared by the Northwest Regional Office of the NMFS.

8.0 References

[Section to be completed by November]

OVERVIEW OF DRAFT ENVIRONMENTAL ASSESSMENT/REGULATORY
IMPACT REVIEW/REGULATORY FLEXIBILITY ANALYSIS

As directed by the Council, the Ad Hoc Vessel Monitoring System (VMS) Committee held a public meeting in October 2003 to consider expansion of the VMS program beyond the limited entry fisheries. The committee discussed criteria that would be used to prioritize the expansion of the VMS program into the open access and recreational sectors of the groundfish fishery. These criteria included: potential impacts to overfished species in the Rockfish Conservation Area (RCA); the ability to define the fleet if participants are directly fishing for groundfish (targeting); and vessels using commercial gears that look like those used by the limited entry fleet that targets groundfish, such as fixed gear/longline (these vessel complicate enforcement of the RCAs because they look like limited entry vessels). Using this criteria, the committee determined that commercial vessels (non-charter) operating in the Exclusive Economic Zone, at any time during the year, and that land groundfish, should be considered for the next phase of the VMS program. The following open access gears were listed in order of priority: longline, groundfish pot, trawl (excluding shrimp), and line (excluding salmon). The committee also considered expansion to the charter and private sectors of the recreational fishery, but determined that an area-by-area evaluation of the groundfish impacts by these participants was necessary before a final recommendation could be made.

This recommended priority consideration was presented to the Council at the November 2003 meeting where it was tabled until June of 2004. At the June 2004 meeting, the Council directed NOAA Fisheries staff to prepare a draft environmental assessment (EA) to consider expanding the VMS requirement to open access groundfish vessels using longline, pot, trawl, and line gear.

Table 2.0.1 on page 7 of Agendum C.10.b, Attachment 1, dated September, 2004 lists five alternatives, ranging from status quo to a rather inclusive open access list for Council consideration. Alternative 5 incorporates the priority listing presented to the Council by the Ad Hoc VMS Committee last November. This alternative would require VMS on vessels using longline, pot, trawl, and line gear that engages in activity pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters. Exceptions for VMS would be made for pink shrimp trawl gear and salmon troll.

Pink shrimp vessels are allowed to fish within the trawl RCA, providing a declaration report is sent prior to leaving port on a trip in which the vessel is used to fish within the RCA with shrimp trawl gear. In addition, state requirements include the use of approved finfish excluders.

The salmon troll exception created considerable debate among the ad hoc committee members. Salmon troll fisheries are allowed to fish within the fixed gear RCA and are allowed to retain some groundfish. Additionally, VMS alone cannot be used to determine, in a definitive manner, where a particular species was caught. Therefore, it was considered by the committee to be a less effective enforcement tool for monitoring salmon troll open access trip limit compliance, compared to shrimp trawl. Ultimately, with some reservation, the committee decided to forward the salmon troll exception recommendation.

PFMC
09/16/04

ENFORCEMENT CONSULTANTS REPORT ON
EXPANSION OF VESSEL MONITORING SYSTEM

The Enforcement Consultants (EC) supports Alternative 5 in Table 2.0.1 on page 7 of Agendum C.10.b, Attachment 1, September 2004 with the following changes:

Salmon Troll - due to the existence of regulations holding vessels to the most restrictive limits and the existence of differential trip limits for this gear type, depending on whether the fishing activity occurs within the Rockfish Conservation Area (RCA) or outside the RCA, the EC recommends the inclusion of salmon troll in the vessel monitoring system (VMS) expansion.

Recommended exceptions to VMS requirements are pink shrimp, highly migratory species, and crab fisheries. When considering who should be exempted, the determining factor was that current management lines, or RCA's, can and do change also, potentially changing the ability and incentives to fish illegally in the RCA. Our recommendations for inclusion and exclusion essentially mirror the Groundfish Advisory Subpanel (GAP) recommendation.

The EC recommends that VMS activation and VMS on/off regulations for the open access fishery, to include trollers, would be the same as the limited entry VMS regulations.

The EC evaluated an initial GAP suggestion that open access vessels engaged in fisheries other than groundfish, or those that are in port, be able to turn off the VMS unit. Our position is that the ability of some vessels to be unmonitored for periods of time defeats the purpose of VMS and would render the program useless. Under current regulations for the limited entry fleet, VMS units can be turned off when leaving the Exclusive Economic Zone or when entering dry dock for more than seven days. Any cost savings are minimal.

The EC met with the GAP on Wednesday and proposed a permitting system for all vessels that use longline, troll, pot, trawl, and line gear while engaged in activity pursuant to the harvest guidelines, quotas, and other management measures governing the open access fishery in federal waters. This open access groundfish permit (OAGP) would be non-transferable and renewable annually. The EC would like to see permits in place for the open access fishery for the purpose of utilizing a sanctioning tool, similar to the same kind of tool available in the limited entry program. However, we recognize that this desire would require further analysis and offer it for future consideration. If the concept of assigning an OAGP to a vessel were adopted, we envision that the issuance of a permit would trigger a requirement that a vessel be equipped with an activated VMS unit.

PFMC
09/16/04

GROUND FISH ADVISORY SUBPANEL STATEMENT ON EXPANSION OF VMS

The Groundfish Advisory Subpanel (GAP) met with the Enforcement Consultants (EC) to consider alternatives for expansion of the vessel monitoring system (VMS) to the open access fleet. The GAP appreciates the EC's willingness to work with us on this complex subject.

The GAP has identified two additional alternatives for consideration by the Council, which we have labeled Alternative 6 and Alternative 7. Please note that Alternative 6 is supported by the majority of the GAP, while Alternative 7 is a minority alternative. We recommend that the Council adopt our alternatives for public review, along with the alternatives shown on Agendum C.10.b, Attachment 1 - Draft environmental impact statement (EIS) on VMS Expansion, Table 2.01 on page 7.

GAP Alternative 6 - Majority View

Any vessel engaged in a commercial fishery to which a Rockfish Conservation Area (RCA) restriction applies must carry a VMS unit.

The GAP believes that this is a simple and straight-forward way of maintaining the integrity of the RCA, which is the primary reason for requiring VMS units. Under this alternative, crab, salmon, and shrimp vessels would be excluded and would continue to operate under the existing declaration system unless those vessels are also used to take groundfish. Once they are employed as groundfish vessels, and are thus restricted by an RCA requirement, they will have to carry an operable VMS unit.

GAP Alternative 7 - Minority View

Any vessel engaged in a commercial fishery to which an RCA restriction applies must carry a VMS unit, with the following exceptions:

- (1) Vessels less than 12 feet in overall length.
- (2) Vessels which fish only in state waters.

A minority of the GAP believes these exceptions will prevent a cost burden being imposed on small vessels and on vessels that only fish near shore.

The majority of the GAP expressed the concern that some RCA boundaries extend into state waters and that if we want to maintain the integrity of the RCA, there should be no exceptions of this nature.

Permit requirements

The GAP reviewed a draft proposal from the EC that would impose a permit requirement on open access vessels. While the GAP agrees that open access permitting should be explored, it should be done so in the comprehensive context of the Open Access Permit Committee, which has been working on this issue and all of its complexities for some time. Trying to tag a permit requirement onto a VMS regulation would be a huge workload chore, which could delay expansion of the VMS requirement. It could also lead to speculative permit buying and confuse the issue of maintaining RCA integrity. The application forms for VMS units will provide the enforcement authorities with the identification data needed to track VMS ownership. While the GAP understands the EC's desire to be able to use permit sanctions as an enforcement tool, we believe this can best be accomplished in the more focused open access permit development process.

Other Issues

Implementation date - the GAP suggests that final implementation of an open access VMS requirement be delayed until June 1, 2005. This will provide sufficient time to educate the open access fleet about their legal requirements and avoid imposing additional costs on small boats during the very beginning of the fishing season.

Payment of VMS costs - while the GAP is aware that acquiring funding to pay for VMS units is outside the jurisdiction of the Council, such cost recovery was a key point in the Council's initial acceptance of VMS. The GAP urges the Council during any contact it has with NMFS or Congress, to continue pursuing funds for cost recovery of VMS unit purchase by both those vessels that will have a new installation requirement and those vessels that have already purchased VMS units.

Vessel safety - some of the original presentations on VMS by NMFS touted their usefulness as a vessel safety tool. However, VMS monitoring occurs only during normal business hours, Monday to Friday. Since vessel accidents don't always occur during those times, the GAP urges that full monitoring (24 hours per day, 7 days per week) of VMS is essential in order to fulfill the promise made by NMFS that having a unit would enhance vessel safety.

Drifting - the GAP continues to believe that drifting in the RCA should be allowed for safety reasons. This is even more urgent as we extend the VMS requirement to smaller vessels, some of which fish seaward of the RCA. NMFS should reconsider its opposition to a drifting allowance.

PFMC

09/17/04

SALMON ADVISORY SUBPANEL REPORT ON
EXPANSION OF VESSEL MONITORING SYSTEM

Some Salmon Advisory Subpanel (SAS) members were at sea and did not receive the material prior to the conference call. (See attached email).

The SAS Chair has been advised Thursday, September 16, 2004 that Vessel Monitoring System (VMS) on Salmon Troll Vessels is, in fact, being considered an option by the Pacific Fishery Management Council members at the recommendation of the Enforcement Consultants.

The Salmon Advisory Subpanel Troll Advisors request the Council maintain a "Status Quo" option for Salmon Trollers in the options and allow the full SAS to be provided the accumulated VMS documents prior to the November Council meeting. The SAS request adequate meeting time be made available at the November 2004 meeting to review these documents and provide considered testimony to the Council at that time.

PFMC
09/17/04

The Salmon Advisory Subpanel met via conference call on September 8, 2004. The following message was sent via e-mail and faxed to Salmon Advisory Subpanel members 24 hours prior to the conference call:

"Subject
: Conference call

Date
: Tue, 07 Sep 2004 11:56:25 -0700

From: Chuck Tracy <Chuck.Tracy@noaa.gov>

Dave Hillemeier <naypooie@northcoast.com>, Mike Orcutt <director@pcweb.net>, Craig Stone <emvlsport@aol.com>, Duncan MacLean <b-faye@pacbell.net>, Jim Olson <jaocto@juno.com>, Steve Watrous <branchofic@aol.com>, Jim Welter <jswltr@nwtec.com>, Tom Welsh <mwelsh9538@aol.com>, Butch Smith <coho@willapabay.org>, Jim Tuggle <tugstours@comcast.net>, Bob Strickland

To: <bstrickland@unitedanglers.org>, Kent Martin <imartin@tdn.com>

Hello:

Some of you have not received your briefing materials yet, but they should be arriving today. They were Fed-Ex'd Thursday. The conference call in number is on the Committee Memo, but for your connivance, it is listed below. Please note: Due to the expense of the call, the number of lines available is limited, and we request that only SAS members use the call-in lines. There will be a listening station at the Council office for interested public who wish to listen in on the call. The call in number for SAS members is 1-888-487-6444. The participant code is 8202280. The call is scheduled for 2-4 p.m., tomorrow, Sept. 8.

The Vessel Monitoring System briefing materials were not included in your package because salmon troll and recreational fisheries are not being considered for inclusion in the VMS. However, we have gotten some public comment expressing concern about including the salmon troll fishery in the VMS, so to alleviate concern, I've included the following excerpt from the EA being considered at the September Council meeting:

2.3 Alternatives rejected for analysis in this EA

VMS coverage of the recreational fisheries is not being considered at

this time. At its October 2003 meeting, the ad hoc VMS Committee considered expansion of the VMS program, including expansion into the charter and private sectors of the recreational fishery. After considerable discussion, the committee recommended that an area-by-area evaluation of the groundfish impacts by these participants was necessary before a final recommendation could be made.

The pink shrimp fisheries have not been included in the alternatives for VMS coverage. Pink shrimp vessels are allowed to fish within the trawl RCA providing a declaration report has been sent prior to leaving port on a trip in which the vessels is used to fish within the RCA.. Pink shrimp trawl vessels were excluded in the coverage alternatives because they are required to use finfish excluders, which dramatically reduce their catch of overfished species, primarily canary rockfish.

The salmon troll fisheries are allowed to fish within the fixed gear RCA and are allowed to retain some groundfish. Because VMS cannot be used to determine where a particular species was caught it is not considered to be an effective enforcement tool for monitoring open access trip limit compliance by salmon troll vessels.

State and federal fisheries in which groundfish are incidentally taken but not landed were not included in the analysis because fisheries where groundfish catch is not landed are not considered to be open access fishery. These vessels include: the those targeting Coastal Pelagic Species (CPS) with round haul gear; those targeting HMS with purse seine gear, and those targeting the gillnet complex (California halibut, white sea bass, sharks, and white croaker) with driftnet.

--

Chuck Tracy
Pacific Fishery Management Council
7700 NE Ambassador Avenue, Suite 200
Portland, Oregon 97220
Phone: 503-820-2280 or toll free 866-806-7204
Fax: 503-820-2299
e-mail: Chuck.Tracy@noaa.gov
url: www.pcouncil.org

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NO MORE VMS (C-10)

As the council proceeds with whether to expand **VMS** into other sectors of the fishing fleet. I must make my comments now.

My name is Ray Monroe from Pacific City, Oregon, Home of the Dory fleet. My 22' vessel has a state limited entry permit for black rock. I feel VMS should not be required on vessels that have the legal right and/or ability to be in the RCA.

- Black Rock limited entry vessels fish inside the **RCA**
- Black Rock don't range into or outside the RCA
- Our vessels don't travel through the RCA to utilize our State limited entry Black Rock permits.
- Pacific City's Dorymen fish inside of 20 fathoms for Black Rock
- There are no reefs between Cascade Head and Cape Lookout in the **RCA** that are Black Rock inhabited.
- **Vessels without Black rock permits** may retain Black Rock fish.
- Salmon Vessels while fishing in the RCA may retain yellow tail.
- We are restricted at this time to 1500 pounds of Black Rock every two months.
- It is not **monetarily feasible** for us to have VMS
- You will force small vessels with limited income out of the fishery

Please take into consideration my concerns as you move forward. Pacific City has only one place to fish Black Rock. It is one mile from shore and about three miles wide. You can see us from the beach. If you require us to have VMS you will be tracking a vessel that is going nowhere, both monetarily and physically.

Thank You, Ray Monroe Pacific City, Or 97135

RE: Expansion of the Vessel Monitoring System PROP...

Subject: RE: Expansion of the Vessel Monitoring System PROPOSED!!
From: "Heikkila, Paul" <paul.heikkila@oregonstate.edu>
Date: Fri, 3 Sep 2004 11:11:56 -0700
To: <spirit.spirit@verizon.net>
CC: <Chuck.Tracy@noaa.gov>

Don, I thought trollers were out of the VMS issue, if not what a waste of money. Because the troll fishery operates legally within and outside the RCA there would be NO enforcement value. We cannot keep any groundfish except yellowtail within the RCA and zero species of concern anywhere, except lingcod which are coming off the list. Most trollers do not want groundfish on the gear for economic reasons. I don't want a rockfish hanging on one of my four hooks instead of a \$3.50/lb. Chinook. Finally there is a huge cost both to the individual and the fleet without any enforcement value. VMS for trollers is applying a very expensive and intrusive solution to a non problem. Paul Heikkila F/V Andante

-----Original Message-----

From: spirit.spirit@verizon.net [mailto:spirit.spirit@verizon.net]
Sent: Friday, September 03, 2004 10:31 AM
To: Kevin & Katie Thiel; Nancy J Fitzpatrick; Ray Monroe; Mark Newell; John Warner; Darus Peake; Keith Wilkinson; Dwight Collins
Cc: file; Onno Husing; OREGONTROLLERS@aol.com
Subject: Expansion of the Vessel Monitoring System PROPOSED!!
Importance: High

FYI

IF YOU HAVE COMMENTS FOR OR AGAINST EXPANSION OF THE VESSEL MONITORING SYSTEM TO include SALMON TROLLERS, I WOULD SUGGEST YOU GET THOSE COMMENTS TO ME AT: Spirit.Spirit@verizon.net or Chuck.Tracy@noaa.gov IMMEDIATELY!

WRITTEN COMMENTS CAN ALSO BE SENT TO : Pacific Fishery Management Council

East Conference Room
7700 NE Ambassador Place, Suite 200
Portland, Oregon, 97220-1384
503-820-2280
1-800-806-7204

Don Stevens
Regulatory Committee, Oregon Salmon Commission
Chair, Salmon Advisory Subpanel, PFMC
503-537-0976
Spirit.Spirit@verizon.net

P.S. SO FAR ONLY ONE TROLLER HAS BOTHERED TO COMMENT. SEE LAST PAGE IN ATTACHMENT

Subject: Fw: Objection to VMS for salmon trollers
From: <spirit.spirit@verizon.net>
Date: Mon, 6 Sep 2004 09:24:00 -0700
To: <Chuck.Tracy@noaa.gov>
CC: "Chris Wright" <Chris.Wright@noaa.gov>, "file" <spirit.spirit@verizon.net>, "Phil Peterson" <prpeterson@harborside.com>, "Paul Heikkila" <paul.heikkila@oregonstate.edu>

Chuck I sent this a second time as I did not know if it went through
Don

----- Original Message -----

From: spirit.spirit@verizon.net
To: Chuck.Tracy@noaa.gov
Cc: [Phil Peterson](#) ; [Paul Heikkila](#) ; [Chris Wright](#) ; [file](#)
Sent: Monday, September 06, 2004 9:17 AM
Subject: Fw: Objection to VMS for salmon trollers

Good Morning Chuck

I received this comment from Phil Peterson Salmon Troller from Newport Oregon (fishing both Washington and Oregon) He would like it to be entered into the PFMC record under FRIDAY SEPTEMBER 17, 2004, GENERAL SESSION, C. Groundfish Management (continued) 10.0 Expansion of Vessel Monitoring System (VMS) c.

As well you should have received an electronic Public Comment from Paul Heikkila, Salmon Troller from Coos Bay Oregon. Please enter it into the record as well.

Thanks

Don Stevens
Chair, Salmon Advisory Subpanel, PFMC
4505 E. Portland Rd
Newberg, Oregon
97132
503-537-0976
[Spirit.Spirit@verizon.net](mailto:spirit.spirit@verizon.net)

Public Comment. ----- Original Message -----

From: [phil peterson](#)
To: spirit.spirit@verizon.net
Sent: Monday, September 06, 2004 8:58 AM
Subject: Objection to VMS for salmon trollers

Dear Sirs:

I object to salmon trollers being included in the VMS program. I see no reason for salmon trollers being included other than as a convenient way for salmon managers to count noses to see how many trollers may be fishing in a given area at a given time. Surely there must be a

better way for salmon managers to do this that will not impact the trollers with yet another regulation which will prove costly to comply with as well as maintain. Salmon trollers will find it difficult to bear this added, unnecessary, financial burden. Phil Peterson, Salmon Troller, Newport, Oregon.

TRAWL INDIVIDUAL QUOTA ENVIRONMENTAL IMPACT STATEMENT

This agenda overview will cover matters associated with public scoping, relevant events between the June and September Council meetings, and next steps in the process for considering a trawl individual quota (TIQ) program (Agendum C.11.a, Attachment 1).

The Council scoping information document was released in June 2004 (Agendum C.11.a, Attachment 2) and the formal public scoping period for an environmental impact statement (EIS) on individual fishing quotas for the trawl fishery ended August 2, 2004. Three public scoping hearings were held, 17 people testified, and 9 written comments were received. The comments are provided as Agendum C.11.b, Formal Scoping Period Comments. In addition to comments received during the formal scoping period, input can continue to be received and considered as the TIQ program and accompanying EIS are developed. As with all Council processes under the Magnuson-Stevens Fishery Conservation and Management Act, opportunity for additional public participation and comment will be provided throughout the process of Council deliberation. Therefore, as the process continues the Council will consider additional public comment as it refines the alternatives and develops the EIS.

On June 28, 2004, staff from Washington Senator Patty Murray and Oregon Senator Gordon Smith convened a meeting of the Ad Hoc TIQ Committee (TIQC) and Council staff in Portland, Oregon to discuss concerns they had about the process and representation on the committee, in the context of their consideration of a specific additional appropriation to support further development of the EIS. In response to a briefing on the results of the meeting, Council Chair Don Hansen announced the appointment of Ms. Ginny Goblirsch to the committee, as a dedicated seat to represent coastal communities. Adding seats for additional processors and environmental groups was also discussed, but the Chairman elected not to do so. He expressed concern that expanding the committee beyond eighteen members would threaten the committee's ability to function. To address questions of seat parity between various processor and fishing representatives as it may affect committee votes, he has asked the TIQC to review the voting rules relative to options of consensus or majority/minority reports as a replacement of the current super majority rules. A related letter has been received from some members of the TIQC (Agendum C.11.d, Public Comment). Issues directly affecting nontrawl sectors will be taken up in the setting of the Allocation Committee rather than the Ad Hoc TIQC.

The Ad Hoc TIQ Analytical Team met July 1-2, 2004 and September 7-8, 2004 to plan analysis of issues that will need to be addressed regardless of the specific design of the TIQ program.

At the September Council meeting, the Council should consider three potential tasks. First, the Council may want to identify any alternatives or design element options it would like to see considered that are not covered in current documents. Second, the Council may wish to state any particular issues or questions on which it would like advisory body advice and comment at the November meeting (noting that refinement of the EIS scope, including selection of alternatives for preliminary analysis, is scheduled for the November Council meeting). Third, at the June 2004 meeting the Council discussed whether the composition of the Ad Hoc Allocation Committee should be adjusted for the specific tasks associated with the trawl fishery IQ EIS. The Council should,

therefore, consider two aspects of the Ad Hoc Allocation Committee role in the EIS effort, specifically, (1) whether the current committee composition is sufficient or a specialized work group with broader representation should be appointed and (2) when this committee or work group should meet. A draft proposed agenda for the next Ad Hoc Allocation Committee or work group meeting on this subject is attached (Agendum C.11.a, Attachment 3).

Between the September and the November Council meetings the following steps will be taken:

Ad Hoc TIQ Independent Experts Panel	September 22 and 23	Meet to review scoping comments and identify additional options that should be considered by the Council.
Ad Hoc TIQ Enforcement Group	September 28	Meet to identify status quo enforcement costs and develop an example estimate of costs for enforcing a generic IQ program based on the 5 monitoring and enforcement programs included in the June 2004 scoping information document.
Ad Hoc Allocation Committee	To be announced; may be postponed until after the November Council Meeting.	Meet to conduct preliminary scoping of between sector allocation issues (historic data to be provided).
Ad Hoc Groundfish Trawl Individual Quota Committee	Week of October 25	Meet to review scoping and analysis.

These steps are reflected in the unshaded cells of Attachment 1. Additionally, the Groundfish Management Team will convene during the week of the September Council meeting for a work session on the scoping information document and to discuss projections of the status quo against which IQ and other alternatives will be compared.

At its November meeting, the Council is scheduled to review the scoping results and provide initial options for preliminary analysis over the course of the winter. Some background data pertinent to the options and analysis of some issues pertinent to any IQ program the Council might consider will be provided from the Ad Hoc TIQ Analytical Team. Reports should be expected from the above advisory bodies that meet in late September and October.

Topics that may be covered in the Ad Hoc TIQ Analytical Team analysis include (1) the need for area management (biological and socioeconomic), (2) an assessment of bycatch in the trawl fishery and the IQ program design factors which influence the impact of such programs on bycatch, (3) a description of status quo and current management measures likely to remain in place if IQs are implemented, (4) some generic indicators of the scale of economic activities associated with the trawl industry and potentially affected by an IQ program, (5) indicators of potential program costs

and efficiency gains, and (6) data summaries pertaining to initial allocation options thus far identified.

Council Tasks:

1. Provide guidance as necessary on further defining the scope of the EIS effort by expanding the list of alternatives and design element options.
2. Provide guidance to advisory bodies on particular issues and questions on which the Council would like advice at the November Council meeting.
3. Provide guidance on the composition of the Ad Hoc Allocation Committee in the context of responsibilities associated with the TIQ EIS and when the committee should meet.

Reference Materials:

1. Agendum C.11.a, Attachment 1: Trawl IQ Process: Phase I through 1st Steps of Phase II.
2. Agendum C.11.a, Attachment 2: Information for Public Scoping of Dedicated Access Privileges for the Pacific Coast Limited Entry Trawl Groundfish Fishery.
3. Agendum C.11.a, Attachment 3: Draft Proposed Agenda for Next Ad Hoc Allocation Committee Meeting and Meeting Schedule.
4. Agendum C.11.b, Formal Scoping Summary: Formal Scoping Period Comments on Dedicated Access Privileges (Individual Quotas) for the Pacific Coast Limited Entry Trawl Groundfish Fishery.
5. Agendum C.11.d, Public Comment.

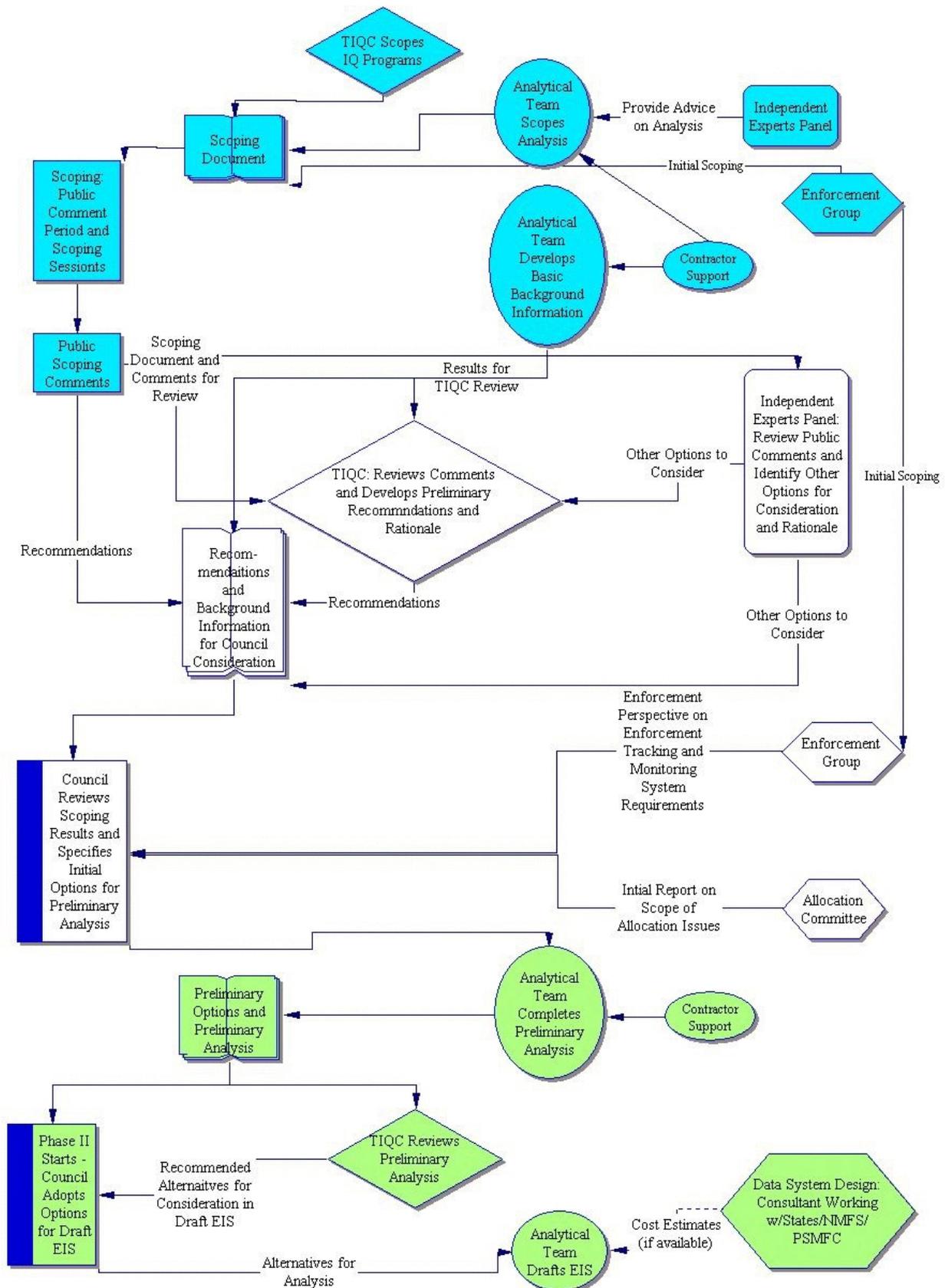
Agenda Order:

- a. Agendum Overview
- b. Summary of Scoping
- c. Reports and Comments of Advisory Bodies
- d. Public Comment
- e. Council Guidance on Process, As Necessary

Jim Seger

PFMC
08/31/04

TRAWL IQ PROCESS: PHASE I THROUGH 1ST STEPS OF PHASE II



**INFORMATION FOR
PUBLIC SCOPING OF
DEDICATED ACCESS PRIVILEGES**

FOR THE

**PACIFIC COAST LIMITED ENTRY TRAWL
GROUNDFISH FISHERY**

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384
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JUNE 2004

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Terminology and Acronyms

- Buyer/Processor - All references to buyers or processors are references to the first receiver of a vessel's catch.
- DAP - Dedicated Access Privileges - (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)
- ICA - Incidental Catch Allowance (an amount of catch available to a harvesting sector to cover incidental catch, not allocated individually)
- IQ - Individual Quota (IQ for fishing or processing)
- IBQ - Individual Bycatch Quota (IQ for fishing, must be held for the catch certain species for which discard is required—prohibited species)
- IFQ - Individual Fishing Quota (IQ for fishing, must be held for catch, catch may be retained or discarded at the fisher discretion but once caught it counts against the IFQ regardless of its final disposition)
- IPQ - Individual Processing Quota (IQ for processing, currently prohibited)
- QS - Quotas Shares (IQ held as percent of total quota allocated to an individual)
- Quota Pounds - Annual Individual Quota (IQ held as pounds allocated annually based on the quota share held)

1.0 INTRODUCTION

1.1 The Scoping Process and Organization of this Document

Overview

Scoping is an early and open public process conducted in compliance with the National Environmental Policy Act (NEPA). Two types of comment are sought during the scoping process:

- Alternatives that should be considered.
- Impacts of the alternatives that should be covered in the environmental analysis.

The policy that is the subject of this scoping process is the possible creation of a dedicated access privilege system for the Pacific Coast groundfish limited entry trawl fishery to address problems, goals and objectives identified in Section 1.2. Dedicated access privileges (DAP) 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.” One type of dedicated access privilege with which many people are familiar with is individual fishing quotas (IFQs). The primary type of dedicated access privilege proposed thus far is IFQs.

This public scoping period will run through August 2, 2004.

You may submit comments, on issues and alternatives, by any of the following methods:

- E-mail: TrawlAccessEIS.nwr@noaa.gov. Enter “Scoping Comments” in the subject line of the message
- Fax: 503-820-2299
- Mail: Dr. Donald McIsaac, Pacific Fishery Management Council, 7700 NE Ambassador Pl., Suite 200, Portland, OR, 97220

A hearing was held June 13, 2004 in Foster City, California.

Two additional hearings will be held in the latter half of July:

July 20, 2004 in Seattle, Washington

July 27, 2004 in Newport, Oregon

Type of Environmental Analysis

There are generally two types of environmental analysis conducted pursuant to NEPA: an environmental assessment (EA) and an environmental impact statement (EIS). An EIS is conducted when a determination is made that an action has a reasonable probability of having significant environmental impacts. Criteria for significance under NEPA are provided in Appendix B. For the dedicated access privilege proposal a determination has been made that there is a reasonable likelihood of significance, therefore, environmental impact statements will be developed.

Two Decision Stages

The Council will need to deal with two main issues, if a dedicated access privilege program is to be recommended and implemented: first, is the design of the program; second, is the establishment of

allocations of groundfish between the limited entry trawl and other groundfish fisheries. These two issues will be dealt with in separate but related EISs.

This scoping process is intended to address program design issues that will be covered in the DAP EIS. There will be a separate scoping process to address the between sector allocation EIS. While the DAP EIS is not intended to support the between sector allocation decision, the program design issues addressed in the DAP EIS will help determine the species for which the allocations must be made. One of the key decisions before the Council will be which species would be managed under dedicated access privileges and which species might be managed through other types of regulations. Those managed through other types of regulations may not need be the subject of a between sector allocation decision in the second EIS.

Public scoping for an EIS on the between allocation issue is scheduled to begin after a decision has been made on alternatives to be considered in the draft DAP EIS. While alternative DAP programs are being designed, the Council's allocation committee will engage in some initial discussions on the need for intersector allocations to support a DAP program. Preliminary comments on the between sector allocation issue may be sent to the Council office or e-mailed to pfmc.comments@noaa.gov (enter "Intersector Groundfish Allocation" in the subject line).

Organization of This Document

Dedicated access privileges are being proposed to address the problem statement, goals, and objectives presented in Section 1.2. Comment is sought both on other types of management programs that should be considered to address the issues identified in Section 1.2 and the specific design elements for a possible IFQ program. Alternatives currently being considered are provided in Section 2.0 and those detailed design elements thus far identified for an IFQ program are provided in Appendix A. The potential design elements provided in Appendix A are based on the initial recommendations from the Council's Ad Hoc Trawl Individual Quota Committee (TIQC) (Appendix D). The work done by the TIQC is expected to stimulate and focus public comment on central issues for consideration by the Council.

Documentation of the Scoping Results

Comments pertaining to alternatives and impacts will be recorded, summarized, and presented to the Council for consideration when it makes its decision on the alternatives to use if it proceeds to with the drafting of a DAP EIS. With respect to specific design elements for an IFQ program, public comments and recommendations will be summarized and presented to the Council in Appendix A along with those recommendations developed by other Council committees and, in particular, the recommendations of the TIQC.

1.2 Purpose and Need for the Proposed Action

1.2.1 The Proposed Action

The proposed alternatives to the status quo are programs that provide dedicated access privileges for participants in the non-tribal Pacific Coast groundfish trawl fishery. The main dedicated access privilege alternative the Pacific Council is considering is an individual fishing quota (IFQ) program

for the Pacific Coast groundfish limited entry trawl fishery off Washington, Oregon, and California. A trawl IFQ program would change management of harvest in the trawl fishery from a trip limit system with cumulative trip limits for every two-month period to a quota system where each quota share could be harvested at any time during an open season. Status quo (no action) will also be considered along with dedicated access privilege and other reasonable alternatives that may be proposed to address issues identified in the problem statement.

1.2.2 Statement of Need

Despite the recently completed buyback program, management of the West Coast groundfish trawl fishery is still marked by serious biological, social, and economic concerns; and discord between fishermen and managers and between different sectors of the fishery, similar to those cited in the U.S. Commission on Ocean Policy's April 2004 preliminary report. The trawl fishery is viewed as economically unsustainable given the current status of the stocks and the various measures to protect these stocks. One major source of discord and concern stems from the management of bycatch, particularly of overfished species as described in the draft programmatic bycatch DEIS. The notice of availability of the DEIS was published in the *Federal Register* on February 27, 2004 (69 FR 9314). The DEIS is available from the Pacific Council office (see ADDRESSES). After reviewing the draft programmatic bycatch DEIS the Pacific Council adopted a preferred alternative for addressing bycatch that included IFQ programs. The alternatives to status quo to be evaluated in the dedicated access EIS are amendments to the Fishery Management Plan (FMP) and associated regulations to address these concerns through the use of dedicated access privileges. The concerns are described in more detail in the following problem statement.

As a result of bycatch problems, considerable harvest opportunity is being forgone in an economically stressed fishery. The trawl groundfish fishery is a multispecies fishery in which fishers 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 that place a major constraint on the industry's ability to fully harvest the available OYs of the more abundant target species that occur with the overfished species, wasting economic opportunity. Average discard rates for the fleet are applied to projected bycatch of overfished species. These discard rates determine the degree to which managers must constrain the harvest of targeted 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. Thus, in the current system there are uncertainties about the appropriate bycatch estimation factors, few incentives for the individual to reduce 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 fishers who would prefer being 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 key to 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: controlling bycatch, taking advantage of the available allowable harvests of more abundant stocks (including conducting safe and efficient harvest activities in a manner that optimizes net benefits over the short-term and long-term), increasing management efficiency, and responding to community interest.

1.2.3 Purpose of the Proposed Action

The purpose of the proposed action is to resolve or ameliorate problems in the fishery related to the current access system by addressing the following goals and objectives.

Goals

1. Provide for a well managed system for protection and conservation of groundfish resources.
2. Provide for a viable and efficient groundfish industry.
3. Increase net benefits that arise from the fishery.
4. Provide for a fair and equitable distribution of fishery benefits.
5. Provide for a safe fishery.
6. Capacity rationalization through market forces.

Objectives

1. Takes into account structure of the stocks.
2. Minimize ecological impacts while taking the available harvest.
3. Reduce bycatch and discard.
4. Encourage sustainable fishing practices.
5. Account for total groundfish mortality.
6. Promote individual accountability - responsibility for landed catch and bycatch.
7. Avoid provisions where the primary intent is a change in marketing power balance between harvesting and processing sectors.
8. Avoid excessive quota concentration.
9. Provide certainty/stability for economic planning.
10. Provide operational flexibility.
11. Minimize adverse effects on fishing communities to the extent practical.

12. Promote economic and employment benefits through the seafood catching, processing, and distribution elements of the industry.
13. Provide efficient and effective monitoring and enforcement.
14. Design a responsive review and modification mechanism.

Design features of the IFQ alternative should be related to these objectives (NRC, 1999, pg 197).

In considering modification to the current rules for access to the fishery and harvest from the fishery, the goals and objectives for the groundfish fishery management plan and the Magnuson-Stevens Act national standards will be considered (Appendix C).

1.3 Background

Council consideration of limited entry programs, such as license limitation and IFQs, has been in response to significant over capacity problems in the harvesting sector of the groundfish fishery. IFQ programs have been under Council discussion since before the 1987 inception of the limited entry committee that designed the West Coast groundfish license limitation program. When the Council adopted the groundfish license limitation program in 1991, it acknowledged that additional capacity control measures would be required. It was anticipated that the license limitation program would limit the growth of harvesting capacity but would not resolve the overcapacity problem. The Council's first effort to develop an IQ program was for the fixed gear sablefish fishery. This effort was cut short in 1996 by a Congressional moratorium on new IQ programs. The groundfish fishery was declared a disaster in the year 2000. The groundfish strategic plan, adopted in October 2000, listed reduction of harvesting capacity as one of its main goals. Given the moratorium on IQs, the plan included a trawl vessel buyback program as a short to intermediate term objective, and a trawl IQ or mandatory permit stacking program^{1/} as an intermediate to long-term objective. IQs for trawlers have been on the Council's workload list since just after the October 2000 adoption of the strategic plan. In June 2001, the Council created an Ad Hoc Trawl Permit Stacking Work Group. That group met February 26, 2002, but then activity was suspended while the permit buyback program was developed and other Council workload priorities were addressed. The moratorium on IQ programs expired October 1, 2002, and the buyback program was completed in December of 2003.

The Pacific Groundfish Limited Entry Trawl Buyback Program was designed with the following goals:

- Reduce capacity in the groundfish fishery.
- Increase the remaining harvesters' productivity.
- Financially stabilize the fishery.
- Conserve and manage groundfish.

On December 4, 2003, under the buyback program, 91 trawl vessels and their Pacific Groundfish limited entry trawl permits were permanently retired from the fishery. The buyback program

1/ Mandatory permit stacking reduces capacity in the fishery by requiring permit holders to acquire an additional permit to continue fishing.

reduced the available pool of limited entry permits for vessels that deliver to shore plants and motherships from 263 permits to 172 permits, excluding the ten permits associated with the catcher-processor fleet. In terms of 2002 groundfish ex-vessel revenues, buyback program vessels accounted for 40% of the \$32 million landed by all groundfish trawlers, either on shore or delivered to non-tribal motherships. The buyback program was funded by a \$10 million appropriation and a \$36 million buyback loan (approved in an industry referendum). This loan will be paid back by members of the participating fleets through landings fees to be paid over the course of 30 years.

A major concern after completion of the buyback program was that relatively unused permits (latent permits) would be acquired by those who sold their permit under the program and would then be used at higher levels of effort. The Council decided not to take action to address concerns about permit latency. In reaching its decision the Council noted the degree of permit latency in the Pacific Coast program was not as substantial as in other limited entry systems that had been subject to buyback programs. The Council found no need to take remedial action given the relatively low degree of long term latency represented by currently unfished permits and the low level of concern among those bearing the responsibility for repaying the industry loan that largely funded the buyback program. Further, it was stated that moving forward with the IFQ project was a better solution to the issues of overcapacity in the fleet. Such an IFQ program would obviate the need to address any remaining concerns with latent permit issues.

At its September 2003 meeting, the Council chair was authorized to appoint the TIQC. This committee met October 28 and 29 and began developing an IFQ alternative for consideration. At its November 2003, meeting the Council heard testimony that individual quotas (IQs) have been identified as a management tool that could potentially do more than any other management tool to permanently resolve various problems in the trawl fishery, including bycatch and other conservation concerns, safety, and industry economic viability. The Council concurred and acted to:

- Recommend November 6, 2003 be published as a control date for IFQ and individual processing quota (IPQ) programs (Appendix E).
- Identify that additional resources would be required for consideration of a trawl IQ program.
- Task the staff with preparing a detailed draft plan for IQ program development, identifying the necessary budget, and pursuing funding options.

NMFS did not publish the IPQ control date, because of restrictions on consideration of individual processing quota programs. Another meeting of the TIQC was held on March 18-19, 2004 to continue with initial scoping options for an IFQ alternative. A notice of intent to develop an EIS and formally initiate scoping was published in the *Federal Register* on May 24, 2004 (Appendix F). A trawl individual quota enforcement group meeting was held May 25-26 to scope enforcement issues related to IFQs and a TIQ Analytical Team meeting was held June 8-9 to scope analytical issues.

2.0 ALTERNATIVES AND IMPACTS

2.1 Description of the Alternatives

The policy that is the subject of this scoping process is the possible creation of a dedicated access privilege system for the Pacific Coast groundfish limited entry trawl fishery. The primary type of dedicated access privilege proposed thus far is IFQs. Specification of an IFQ or other alternatives for the groundfish trawl fishery requires answering three main questions:

1. What would be the specific design elements of the IFQ system and other possible management tools?
2. Which species and species groups would be managed with which types of management tools?
3. What would be the initial intersector allocations of nonwhiting species: between whiting sectors and nonwhiting sectors?

For an IFQ program there may also be a limited-entry-trawl/open-access allocation issue that arises if the groundfish catch of trawl vessels with open access gear (e.g. pink shrimp) is not covered by the IFQ program. If an option is chosen which would affect the open access fleet, the allocation itself would be addressed in the allocation EIS (see Section 1.1, Two Decision Stages).

2.1.1 Alternative Harvest Control Tools

There are a number of management tools that may be applied to controlling harvest in the trawl fishery. Potentially, different tools could be applied to different species and areas. The Council will need to make decisions on design elements for the alternative management tools. Design of the IFQ program alternatives will likely require the most attention. The decision on which tools to apply to which species is treated in Section 2.1.2.

There are four main alternatives for controlling total harvest that are presented here. Under each alternative, there are other tools such as rockfish conservation areas that might or might not remain in place to further control the harvest rates of particular species.

Status Quo Management: cumulative landing limits and season closures are the primary tools.

Trawl Individual Quotas: IFQs and individual bycatch quotas (IBQs). IBQs is the term applied to individual quota used to control the catch of prohibited species. A list of possible types of design elements that may be considered for an IFQ program is provided in this section. Discussion of the design elements and initial recommendations from some Council committee's (primarily the TIQC) are provided in Appendix A.

Cumulative Catch Limits: Cumulative catch limits apply to the vessel and are like cumulative landing limits, except they would apply to catch rather than landings. When the cumulative catch limit is reached, a vessel would have to cease operations in segments of the fishery where a particular species is caught. Cumulative catch limits might or might not be temporarily transferable between vessels within the designated period to which they apply.

Incidental Catch Allowances: Incidental catch allowances are sector catch caps. They apply to a segment of the fleet and when that segment of the fleet reaches its catch cap for a species the segment would have to stop fishing. Cumulative limits might still be used to control harvest rates.

Status Quo Management

Cumulative Landing Limits (Cumulative Limits)

Cumulative limits are a kind of trip limit. Trip limits have been a feature of groundfish management since the inception of the FMP; over time the regime has become more complex, covering a wider range of species and fishery sectors. The basic concept is to set a limit on the how much of a given species (or multi-species complex^{2/}) an individual vessel may land in a fixed time period. Thus trip limits, as currently implemented, are retention or landing limits. Any groundfish captured beyond the specified limit are classified as bycatch (if discarded) or a violation (if retained). As long as a vessel owner does not retain more fish than the limit, additional fishing is allowed. Originally, these limits were per trip limits; today the limits are for a two-month cumulative limit period, in order to reduce the likelihood of regulatory discards. Vessels are allowed to make as many individual trips as the fisherman desires; so long as cumulative landing limits are not exceeded additional fishing is allowed. In general, separate limits are established for U.S. waters north and south of 40° 10' N. lat. (approximately Cape Mendocino, California). The Pacific whiting fishery is a significant exception to trip limit management.

Seasons

Most fisheries are managed to achieve a year round season; in fact, this is one of the key objectives expressed in the groundfish FMP because buyers and processors regard a continuous and consistent supply of fish as essential to maintaining markets. In the last two years managing fisheries to prevent OYs from being exceeded before the end of the year has become increasingly difficult because of the low harvest limits for some overfished species, and some fisheries have been closed early.

Only one groundfish trawl fishery is managed primarily with a season closure, the Pacific whiting fishery. The length of the whiting season is determined by how quickly the OY is taken. The OY is allocated according to fixed percentages between vessels delivering to shore-based processors, at sea motherships, at-sea catcher/processor, and the tribal fleet. Seasons for sectors of the nontribal fishery are staggered, usually beginning on April 1 with shoreside deliveries in California. Each sector's season runs until the allocation for the sector has been caught. Before and after the season openings there is some opportunity to retain whiting under a 10,000 pound cumulative landing limit.

2/ Many less commercially important or less frequently caught species are combined in stock complexes for the purposes of management. These species may not be differentiated in reported landings and most have not been assessed; these factors make it impossible to manage these species individually. Multi-species complexes currently in use include the minor rockfish (additionally separated into several sub-categories), other flatfish, and other fish categories.

Trawl Individual Quota Management (IFQ and IBQ)

Under IFQs, total harvest is controlled by allocating an amount of quota to individual fishers and holding those individuals responsible for ensuring that their harvest does not exceed the amount they are allocated. The Magnuson-Stevens Act defines IFQs as “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.” [Sec 3(21)]. IFQs differ from cumulative limits in that, in general, they may not be infringed upon by the harvest of others. In contrast, with cumulative limits or season closures, increased participation by other fishers can cause reduction in the cumulative limits or reduction in the season length. Typically IFQs also allow the fishers great flexibility in determining the time and area of harvest, and, where IFQs are transferable, the scale of their harvest operation.

The term IFQ applies to fish that may be retained or discarded by a fisherman while IBQ is reserved for fish that must be discarded (prohibited species).

The following is a list of IFQ program design elements covered in Appendix A. The list is based on preliminary work of the TIQC. Additions to the list may be made as a result of public comment and the comments of other Council advisory bodies.

- Portion of the Limited Entry Trawl Fleet Allocation for Which IFQs are Required

- Area Restrictions on IFQ

- IFQ and Limited Entry Permit Holding Requirements

- Transfer Rules

 - Transfer of IFQ to a Different Sector for Use

 - Eligible Owners/holders (Who May Own/hold)

 - Leasing - Duration of Transfer

 - Time of Sale

 - Divisibility

 - Liens

 - Accumulation Limits

 - Vertical Integration Limit

- Rollover to a Following Year

- Use-or-Lose Provisions

- Entry Level Opportunities

- Tracking IFQ, Monitoring Landings, and Enforcement

- Cost Recovery/Sharing and Rent Extraction

- Penalties

- Procedures for Program Performance Monitoring, Review and Revision (Magnuson-Stevens Act (d)(5)(A))

- Data Collection

- Initial IFQ Allocation

 - Qualifying Criteria: Membership in an Eligible Group

 - Qualifying Criteria: Recent Participation

 - Allocation “Formula” (Size of Individual Allocations)

 - Catch History: Species/Species Groups to Be Used for Allocation

 - Catch History: Allocation Periods

Catch History: Combined Permits and Other Exceptional Situations Initial Issuance Appeals Process

There are generally a number of different ways to specify each design element. The term “design option” is being used to refer to the different ways to specify design elements (e.g. a five percent cap on ownership vs. a ten percent cap on ownership). The term “alternative” is being reserved for reference to an IFQ program constructed of a set of design elements (e.g. a program composed of a five percent ownership cap, a ten percent rollover provision, a 1999-2003 qualifying period, etc.) Preliminary TIQC recommendations on design options are included as part of Appendix A and public comment is sought on additional design options for consideration.

One issue that will need to be settled as part of the design of the IFQ alternatives is the date after which qualifying activities (such as landings) would not count toward an initial allocation of IFQ. To this end, a control data of November 6, 2003 has been published (Appendix E).

Another issue that comes up anytime IFQs are discussed is whether or not the IFQ constitute a property right. IFQs do not change the basic ownership of the resource. The resource 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 harvest and allowing catch taken under the management rules to be converted to private property sometime between when it is caught and sold to a fish buyer. An IFQ system would not change the current public ownership of the resource and would likely make little change in the determination of when particular catch might be considered private property. IFQs are an alternative way for the government to control and organize harvest activity. They do so by creating a harvest privilege. A harvest privilege is different from ownership of the resource. The Magnuson-Stevens Act contains specific language pertaining to the limits to this harvest privilege:

- Sec. 303(d)(2) No provision of law shall be construed to limit the authority of a Council to submit and the U.S. Secretary of Commerce to approve the termination or limitation, without compensation to holders of any limited access system permits . . . or regulations that provides for a limited access system, including an individual quota program.
- 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.
 - (D) Shall not be construed to create, any right, title , or interest in or to any fish before the fish is harvested.

Cumulative Catch Limits

Cumulative catch limits apply to catch rather than landings and require 100% accounting of catch. These cumulative catch limits might be specified as temporarily transferable between vessels but could not be transferred between periods. The cumulative catch limits might be used to manage

toward catch quotas or catch based harvest guidelines (as distinct from status quo landing quotas or harvest guidelines).

ICAs (Pooled Species Caps)

Incidental catch allowances (ICAs) are sector level catch limits and are not allocated to individual vessels. ICAs differ from status quo sector level landings quotas in that they apply to catch rather than landings. As implied by the name, ICAs would generally be used for incidental species rather than targeted catch. A sector may be kept within its ICA by application of season closures, cumulative limits or other mechanisms to slow or stop the fishery. If a sector reaches its ICAs, all mortality caused by that sector must be halted, usually achieved through a season closure. Fish taken under an ICA may be retained or discarded, unless full retention rules are in place or the ICA is provided for a prohibited species, in which case discard would be mandatory. ICAs for prohibited species are often termed prohibited species caps (PSC).

2.1.2 Choice of Species to Which Harvest Control Measures Will Apply

The overriding question before the Council is one of how to best control total catch of the limited entry trawl fleet. Under status quo management, access to the trawl fishery is controlled under a license limitation system and total harvest in the fishery is controlled predominantly using trip limit and cumulative limit management. IFQs, a kind of direct access privilege, have been proposed as an alternative means for controlling access and managing harvest. ICAs and cumulative catch limits are other tools being discussed to be applied in concert with IFQs (see Section 2.1.1).

Different management approaches may be used for different species. Different combinations of management measures and species are used to structure alternatives. To stimulate discussion and bring issues into focus, the TIQC has constructed a number of initial alternatives for public consideration during the scoping process. The following are the guidelines under which the specific alternatives mixes of harvest measures were constructed.

Alternative 1 (Status Quo). All species are managed under one of the following: cumulative limits, season closures (Pacific whiting), catch monitoring only (no regulatory constraints).

Alternative 2 (IFQ Only for Primary Trawl Targets). IFQ for groundfish species that are primarily trawl targets with minimal harvest by other sectors (whiting split by sector, DTS, slope rockfish, nearshore flatfish) and target species for which there is already trawl allocation, i.e. sablefish. Transferable cumulative catch limit management or monitoring only for all other groundfish and prohibited species and status quo prohibited species management.

Alternative 3 (IFQ for OY Species). All groundfish species with an OY (with separate types of IFQ for each of the whiting sectors). Transferable cumulative catch limit management or monitoring only for non-OY species and status quo prohibited species management.

Alternative 4 (IFQ for All Groundfish and IBQ for Selected Prohibited Species) All groundfish species would be covered by an IFQ, in some cases IFQ would be aggregated, particularly for species that are currently not managed with cumulative limits or quotas. IBQ for halibut and possibly other prohibited species.

Table 2.1-1 lists the species and species groups for which the Council currently sets OYs and controls harvest. Each column in the table specifies an alternative by indicating the management approach that would be used for the species listed in the rows, based on the above guidelines. There is more than one row for species or species groups for which area management has been established or for which there is a division of harvest among trawl sectors (Pacific whiting). At some future point, the Council may wish to specify IFQ types which distinguish between fish delivered for at-sea and shoreside processing, regardless of whether the processing takes place in the context of the whiting or some other groundfish fishery (fish dressed and iced at-sea would not be considered processed at-sea and fish frozen at-sea would be considered processed at-sea).

TIQC recommendations for additional options for the management systems under these alternatives are provided in Table 2.1-2. Some of these details include

- when OYs are set very low due to rebuilding schedules, a provision to switch the management measures to ICAs with catch rates controlled with nontransferable cumulative catch limits (Alternative 2 and 3).
- use of ICAs for bycatch species in the whiting fishery under Alternative 2.
- limitations on whiting-nonwhiting and between whiting sector transfers of IFQ (Alternatives 2, 3, and 4).
- allow retention of prohibited species landed with trawl IBQ (i.e. convert the IBQ for prohibited species to IFQ).

Rationale for TIQC recommendations: The TIQC spent an extensive amount of time discussing a system under which some species would be managed using IFQ and others would be managed with more traditional management measures. The primary concern was the control of harvest of the non-IFQ species under an alternative in which not all species would be managed with IFQs.

In discussing the nonIFQ management measures to be used, it was agreed the principle of individual accountability and responsibility should guide the design of management measures. On this basis, the TIQC found it appropriate to support a regime that focuses on catch limits rather than landing limits, such that individuals are held accountable for their discards.

Vessel cumulative catch limits could lead to difficult situations for some vessels, therefore consideration of transferable cumulative catch limits is recommended. Concern was expressed for the effect of “disaster tows” on the individual. Cumulative catch limits would likely be based on incidental catch rates, derived from averages that reflect fleet performance. However, individual vessel performance is likely to vary from the average, to some degree on the basis of skill but also on the basis of chance. Under catch limits, vessels that are unlucky enough to experience a high bycatch tow for a species for which there is a low limit could be forced to stop fishing (under the current landing limits system the vessel discards catch in excess of limits and continues to fish). Transferability of catch opportunity (cumulative catch limits) might allow the vessel to be able to continue fishing while still limiting fleet catch to the desired level.

The potential for a disaster tow also lead to consideration of management with ICAs may also be of major concern for a whiting fishery managed with IFQs and for situations where the OYs for IFQ species would be very low, such as for an overfished species. In both cases the concern is that a vessel may have a disaster tow and be forced to stop fishing or bear a substantial financial burden,

as no other vessel would be very willing to sell IFQ until it was sure it would be able to take all of its target species without encountering a disaster tow of its own. As a possible means of addressing this concern, the TIQC recommended inclusion of an option under which some species would not be managed with IFQs but would be pooled and managed as an ICA for the fleet as a whole.

2.1.3 Within Trawl Sector Allocation (Excluding Initial IFQ Allocation)

Allocation Between and Among Whiting and Nonwhiting Sectors

The types of IFQ may distinguish between fish subject to processing at-sea and fish delivered for shoreside processing. In the whiting fishery, incidental catch species may be managed differently from the nonwhiting fishery (managed with ICAs instead of IFQs). In either case, an between whiting and nonwhiting sectors and among the whiting sectors may need to be addressed. Thus far, one approach for allocating between sectors has been suggested:

One of the principles on which the following allocation approach is based is to not reward individuals or sectors which have historically had higher incidental catch rates than other individuals or sectors.

1. Establish an incidental catch rate for the whiting fishery as a whole. This rate would be established by determining the incidental rate for each year of the allocation period and determining the average of the annual incidental rates. Annual incidental rates would be calculated by summing the estimated catch of incidental species for all whiting sectors and dividing by the sum of whiting catch for all whiting sectors.
2. To establish the whiting fishery allocation of a nonoverfished incidental species in any particular year, multiply the incidental rate from Step 1 by the nontribal directed whiting sector OY. For overfished species a set-aside would be determined by the Council.
3. Allocate the incidental catch species among the three whiting sectors (catcher processors, vessels delivering to motherships and vessels delivering shoreside) based on the formula used to allocate whiting between these sectors (i.e. shoreside 34%, catcherprocessor 42%, motherships 24%).

A policy call will need to be made as to whether to use only landings/deliveries or to include estimated incidental in the catch history for purpose of allocation. Some additional allocation decisions may be needed with respect to crediting sectors with catch history accounted for by permits bought back in the buyback program.

Trawl Allocation Taken By Trawl Vessels Using Open Access Gears

Current Allocation Accounting Rules

Under the allocation accounting system of the license limitation program, all groundfish taken by vessels with limited entry permits count against the limited entry groundfish quota, regardless of the gear used. Limited entry vessels may use open access gears in fisheries that target groundfish or

harvest groundfish incidental to the harvest of nongroundfish species. For example, directed groundfish catch by limited entry vessels using longline and fishpot gear under open access regulations counts against the limited entry allocation. Additionally, if a vessel with a limited entry trawl permit participates in nongroundfish fisheries, such as pink shrimp or California halibut, and lands groundfish as incidental catch, the landed incidental groundfish catch counts against the limited entry allocation.

Provision with Possible Impacts on Open Access Sector

The coverage of the IFQ program needs to be reconciled with the current allocation accounting rules (see Section A.1.0 of the appendix). This allocation issue primarily affects the trawl sector but some options that would address this issue may affect the open access fishery. In specifying the scope of the IFQ program, the Council may decide to consider the separation, and possible reallocation to the open access sector, of the portion of the limited entry allocation typically taken by limited entry trawl vessels using open access gears. Such consideration will be needed if the scope of the IFQ program will not include catch by limited entry trawl vessels using directed or incidental open access gears (such catch is currently counted against the limited entry gear allocation).

Two issues affecting the open access fishery may be involved.

The first issue is whether or not to change the catch accounting rules and make a reallocation between the limited entry trawl and open access fishery. This issue would be addressed as part of this EIS; and additional committee level work on the issue and recommendations to the Council will be developed by the Allocation Committee.

The second issue is the amount which would be reallocated. This issue would also be handled by the Allocation Committee but would be addressed as part of the second step of this process and analyzed in the allocation EIS (see Section 1.1, “Two Decision Stages”).

2.2 *Types of Environmental Impacts for Consideration*

One purpose of the public scoping process is to solicit comment on environmental impacts that should be considered. Comments may be aimed at adding to the list or suggesting possible mechanisms of impact that should be evaluated. The following categories of impacts have thus far been identified.

2.2.1 *Habitat and Ecosystem*

Changing impact on habitat due to gear changes.

Potential changes in ecosystem dynamics if regional or localized depletion occurs.

Potential changes in the mix of species harvested with changes in fishing tactics, seasonality or gear.

Environmental impacts due to economic, community, and resource management changes.

2.2.2 *Fishery Resources*

Changes in accuracy of total mortality estimates.

Incentives for unreported highgrading.

- Incentives to underreport landings.
- Improved monitoring.
- Changes in total mortality.
 - Incentives to minimize take of incidental catch species to avoid IFQ costs.
- Changes in size and maturity of fish taken.
- Direct and indirect impacts on fisheries prosecuted by other gear sectors, including sport.

2.2.3 Socioeconomic Environment

- Production Value - harvesters and processors
 - Mix of species and products
 - Product quality
 - Market timing (special orders)
 - Allowable catch (reduced uncertainty about discards with proper monitoring)
- Production Costs - harvesters
 - Harvest flexibility
 - opportunity to better scale harvest activities to improve operational efficiency
 - Gear flexibility
 - Timing flexibility
 - Opportunity for more efficient investment in capital
 - Asset values (permit and vessel)
- Production Costs - buyers and processors
 - Product recovery rates
 - Operational planning
 - Storage costs
 - Opportunity for more efficient investment in capital
 - Asset values (facilities)
 - Consolidation impacts, loss of infrastructure, and indirect impacts on the businesses (e.g. shifts impacting the operation of existing businesses and their competitiveness)
- Safety and Personal Security
 - Vessel maintenance, repair and replacement
 - Avoidance of bad weather
 - Personal financial and employment security
- Community Impacts
 - Local income
 - Employment
 - Tax base and municipal revenues
 - Cost recovery for fishery related public works projects
 - Cultural heritage
 - Business and infrastructure impacts
- Fairness and Equity
 - Effects on groups involved and dependent on the fishery (income and employment) for crew, skippers, vessel owners, processor labor and management, support industries

- Effects on small entities (businesses (including family businesses) local governments, organizations)
- Effects on low income and minority populations
- Effects on asset value (quotas, permits, vessels)
- Effects on adjacent fisheries (geographically adjacent fisheries, for example Alaskan fisheries)
- Effects nontrawl gear fisheries on the West Coast including sport fisheries

Nonconsumptive Values

- Nonconsumptive Use
- Existence Value

Initial Program Development and Implementation Costs

Ongoing Administrative Costs

Enforcement and Compliance Monitoring Costs

Research and Performance Monitoring Costs

References

National Research Council. 1999. "Sharing the Fish: Toward a National Policy on Individual Fishing Quotas." Ocean Studies Board, Commission on Geosciences, Environment, and Resources, National Research Council. National Academy Press. Washington, D.C.

TABLE 2.1-1. Trawl catch, management regime alternatives (INITIAL/ PRELIMINARY TIQC RECOMMENDATIONS) and acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2003 and 2004. (Overfished stocks in CAPS) (page 1 of 2).

Stock	2004 ABCs/OYs		Alternative Management Regimes				Deliveries for At-Sea Processing (NOTES 1&2)		
	(mt)		Alt 1 - Status Quo	Alt 2	Alt 3	Alt 4	Alt2	Alt 3	Alt 4
	ABC	OY							
LINGCOD	1,385	735	CL	CL/ICA	IFQ	IFQ			IFQ
Pacific Cod (Vanc-Col OY, Eur-Mont-Conc catch counts toward the "Other Fish" OY)	3,200	3,200	No Lim	IFQ	IFQ	IFQ			
PACIFIC WHITING (Coastwide)	188,000	250,000							
Shoreside			Season & CL	IFQ	IFQ	IFQ	IFQ	IFQ	IFQ
Mothership			Season	IFQ	IFQ	IFQ	IFQ	IFQ	IFQ
Catcherprocessor			Season	IFQ	IFQ	IFQ	IFQ	IFQ	IFQ
Sablefish (Coastwide) b/	8,487	7,786	CL						
North of Conception	8,185	7,510	CL	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Conception area	302	276	CL	IFQ	IFQ	IFQ			
PACIFIC OCEAN PERCH	980	444	N-CL; S-CLgrp	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Shortbelly Rockfish	13,900	13,900	No Lim	IFQ	IFQ	IFQ	ICA	ICA	IFQ
WIDOW ROCKFISH	3,460	284	Closure & CL	IFQ	IFQ	IFQ	ICA	ICA	IFQ
CANARY ROCKFISH c/	256	47	CL	CL/ICA	IFQ	IFQ	ICA	ICA	IFQ
Chilipepper Rockfish	2,700	2,000	N-CLgrp; S-CLgrp	IFQ	IFQ	IFQ	ICA	ICA	IFQ
BOCACCIO	400	250	S-Closure	CL/ICA	IFQ	IFQ	ICA	ICA	IFQ
Splitnose Rockfish	615	461	S-CL	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Yellowtail Rockfish (north)	4,320	4,320	N-CL; S-CLgrp	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Shortspine Thornyhead	1,030	983	CL	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Longspine Thornyhead	2,461	2,443	CL	IFQ	IFQ	IFQ			
S. of Pt. Conception	390	195	CL	IFQ	IFQ	IFQ			
COWCOD N. Concep & Monterey)	5	2.4	Closure	CL/ICA	IFQ	IFQ			
S. Concep	19	2.4	Closure	CL/ICA	IFQ	IFQ			
DARKBLOTCHED	240	240	N-CLgrp; S-CLgrp	IFQ	IFQ	IFQ	ICA	ICA	IFQ
YELLOWEYE	53	22	N-CL, CLgrp; S-CLgrp	CL/ICA	IFQ	IFQ	ICA	ICA	IFQ
Nearshore Species									
Black WA	540	540	N-CLgrp; S-CLgrp	CL/ICA	IFQ	IFQ	ICA	ICA	IFQ
Black OR-CA	775	775	N-CLgrp; S-CLgrp	CL/ICA	IFQ	IFQ	ICA	ICA	IFQ
Minor Rockfish North (for management purposes split: nearshore, shelf and slope)	4,795	2,250 (ns=122, shlf=968, slp=1,160)		ns -CL/ICA shlf-IFQ slp-IFQ	IFQ-grp	IFQ or IFQ-grp (depending on spp)	ICA	ICA	IFQ-grp
Remaining Rockfish North	1,612	-							
Bocaccio	318	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Chilipepper - Eureka	32	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Redstripe	576	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			

TABLE 2.1-1. Trawl catch, management regime alternatives (INITIAL/ PRELIMINARY TIQC RECOMMENDATIONS) and acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2003 and 2004. (Overfished stocks in CAPS) (page 2 of 2).

Stock	2004 ABCs/OYs		Alternative Management Regimes				Deliveries for At-Sea Processing (NOTES 1&2)		
	ABC	OY	Alt 1 - Status Quo	Alt 2	Alt 3	Alt 4	Alt2	Alt 3	Alt 4
Sharpchin	307	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Silvergrey	38	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Splitnose	242	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Yellowmouth	99	-	N-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Other Rockfish North	2,068	-	N-CLgrp by depth	IFQ-grp	IFQ-grp	IFQ-grp			
Minor Rockfish South (for management purposes split: nearshore, shelf and slope)	3,506	1,968 (ns=615, shlf=714, slp=639)		ns -CL/ICA shlf-IFQ slp-IFQ	IFQ	IFQ or IFQ-grp (depending on spp)			IFQ??
Remaining Rockfish South	854	-							
Bank	350	-	S-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Blackgill	343	-	S-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Sharpchin	45	-	S-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Yellowtail	116	-	S-CLgrp	IFQ-grp	IFQ-grp	IFQ or IFQ-grp			
Other Rockfish South	2,558	-	S-CLgrp by depth	IFQ-grp	IFQ-grp	IFQ-grp			
Dover Sole	8,510	7,440	CL	IFQ	IFQ	IFQ			
English Sole	3,100	na	CLgrp	IFQ	IFQ	IFQ			
Petrale Sole	2,762	na	CL	IFQ	IFQ	IFQ			
Arrowtooth Flounder	5,800	na	CL	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Other Flatfish	7,700	na	CLgrp	IFQ	IFQ	IFQ	ICA	ICA	IFQ
Other Fish	14,700	na	No Lim	??	CL/ICA	IFQ			
Halibut NOTE3			Prohib	Prohib	Prohib	IBQ	Prohib	Prohib	IBQ
Salmon NOTE3			Prohib	Prohib	Prohib	Prohib??	Prohib	Prohib	Prohib??
Crab NOTE3			Prohib	Prohib	ProhiT	Prohib??	Prohib	Prohib	Prohib??

TABLE 2.1-1. Trawl catch, management regime alternatives (INITIAL/ PRELIMINARY TIQC RECOMMENDATIONS) and acceptable biological catches (ABCs) and total catch optimum yields (OYs) (mt) for 2003 and 2004. (Overfished stocks in CAPS) (page 2 of 2).

Stock	2004 ABCs/OYs		Alternative Management Regimes				Deliveries for At-Sea Processing (NOTES 1&2)		
	ABC	OY	Alt 1 - Status Quo	Alt 2	Alt 3	Alt 4	Alt2	Alt 3	Alt 4

KEY TO CODES FOR ALTERNATIVE MANAGEMENT REGIMES

Prefix N or S = measures used north or south of Cape Mendocino.

CL = species specific cumulative trip limits

-grp = harvest controlled under the IFQ or cumulative limit for a species group.

Season = opening with no cumulative limits

Closure = no retention allowed (any catch must be discarded)

Prohib = no retention every allowed in the groundfish fishery.

No Lim = harvest monitoring only, other limits have not been necessary to control harvest.

NOTE1: Substantial dog shark are caught in the whiting fishery (2,269 mt in the at-sea portion from 1992-2002)

NOTE2: At-sea species for management has not been discussed by the TIQC. The list of potential species provided here is based on a threshold of at-least 3 mt in the estimated at-sea deliveries for 1992-2002.

NOTE3: TIQC has not reviewed management options for prohibited species under Alternative 4.

Table 2.1-2. Management alternatives recommended for consideration by the TIQC.			
Management Tools to Be Applied	Species Groups to Which Tool Applies and Transfer Rules between Whiting and NonWhiting Fishery		
	Alt 2	Alt 3	Alt 4
NonWhiting Fishery			
IFQ	Target Species and Species for Which There is a Trawl Allocation	OY Species	All Groundfish Species
Cumulative catch limit <ul style="list-style-type: none"> Transferable cumulative catch limit between vessels <i>within period</i>. Trawl share based on biennial council decision. Any transfers between vessels are temporary. 	Most Non IFQ Species (during initial allocation calculate an IFQ so it would be available for future use)	Species without OYs (nonIFQ species) (same as Alt 2)	Not Applicable
Monitoring Only	Species managed with monitoring only under status quo.	Same as Alt 2	Same as Alt 2
ICA (Collective cap). Managed as a pool. When pool is exhausted fishery shuts down. 100% mortality accounting. Retention allowances may vary based on annual management measure decisions. Harvest rate control measures: <ul style="list-style-type: none"> Cumulative catch limit (nontransferable), when a vessel reaches its limit that vessel's operations shut down. Sector/area caps, when sector reaches cap it shuts down. Other measures to keep bycatch rates low may stay in place (e.g. RCAs).	NonIFQ Species with Extremely Low OYs (rebuilding species) (establish a threshold at which point a species would switch from incidental catch management to "Low OY" management) (during initial allocation, calculate an IFQ so its available for future use)	IFQ Species with Extremely Low OYs (rebuilding species)	Not Applicable
Prohibited Species	Status quo	Status quo	IBQ for some (Suboption: Allow retention of IBQ when taken by gear legal for the prohibited species)
(Alt 1 = status quo, primarily cumulative landing limits)			
Whiting Fishery			
IFQ	Target Species (Whiting)	Target Species and Incidental Catch Species with OYs	Target Species and Incidental Catch
Collective Cap. Manage as a pool. When pool is exhausted sector shuts down. 100% mortality accounting.	Incidental Catch (NonWhiting Groundfish)	Not applicable, however, individuals could form a co-op and pool their IFQ.	Not applicable, however, individuals could form a co-op and pool their IFQ.
Monitoring Only	Species managed with monitoring only under status quo.	Same as Alt 2	Same as Alt 2
Whiting Nonwhiting Transfer Rules			
Whiting-Nonwhiting Access Privilege Transfer Rules	Roll-over any unused incidental catch from one whiting sector to the next as the year progresses. Allow one sector to buy from another sector's pool (requires establishing a co-op). Allow purchase of IFQ from nonwhiting vessels. Such IFQ would be placed in the pool for whiting vessels.	Do not allow transfer of nonwhiting IFQ between whiting and nonwhiting sectors.	Allow transfer of nonwhiting IFQ between whiting and nonwhiting sectors.
Under Alternatives 3 and 4, allocate incidental catch equally among vessels, see Section A.13. (Alt 1 = status quo, primarily season management)			

Appendix A: IFQ Program Elements and Analysis

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Appendix A: IFQ Program Elements and Analysis

This appendix describes potential design elements and related options for a trawl IFQ program. These options will be grouped into program alternatives for the main analysis of the EIS (see Section 2.1.1). As the initial recommendations of TIQ advisory groups have been reviewed and incorporated into this document, questions have been identified as to exactly how some of the provisions would be implemented. These implementation questions are noted in italics and will be the subject of further discussion. TIQC recommendations provided in this appendix are an initial set of options identified for scoping and do not necessarily represent the TIQCs preferred policy options.

Incorporated in the discussion on each design element are references to relevant Magnuson-Stevens Act language and recommendations of a recent report from the National Research Council of the National Academy of Sciences (NRC, 1999). The NRC report was mandated by Congress. Section 303(d)(5) of the Magnuson-Stevens Act requires that “In submitting and approving any new individual fishing quota program . . . the Councils and the Secretary shall consider the report of the National Academy of Sciences and any recommendations contained in such report.”

A.1.0 Portion of the LE Trawl Fleet Allocation for Which IFQs are Required

Under the allocation accounting system of the license limitation program, all groundfish taken by vessels with groundfish limited entry (LE) permits count against the LE groundfish quota, regardless of the gear used. LE vessels may use open access gears in fisheries that target groundfish or harvest groundfish incidental to the harvest of nongroundfish species. For example, directed groundfish catch by LE trawl vessels using longline and fishpot gear under open access regulations counts against the LE allocation. Additionally, if a vessel with an LE trawl permit participates in nongroundfish fisheries, such as pink shrimp, salmon or California halibut, and lands groundfish as incidental catch, the landed incidental groundfish catch counts against the LE allocation.

The coverage of the IFQ program needs to be reconciled with the current allocation accounting rules. If the current accounting rules are used and the IFQ program is to cover all of the LE trawl vessel allocation, LE trawl vessels making groundfish landings in nongroundfish fisheries would have to make those landings in compliance with tracking and monitoring rules for the IFQ program. As a mitigation measure, the possibility might be explored for having somewhat different tracking and monitoring rules when a vessel is using an open access gear. In considering this possibility, the effect on opportunities for noncompliance would have to be taken into account.

Ensuring LE trawl vessel compliance with IFQ tracking and monitoring rules while fishing with open access gear would result in additional costs for vessels and the tracking and monitoring system. Therefore, options might be considered that would not require IFQs when LE trawl vessels use open access gears. Subdividing the trawl allocation brings up issues of how to divide the allocation, the need to modify the catch accounting system to track progress toward taking the allocation, difficulties in managing what may be very small quotas and management responses when such nonIFQ LE trawl quotas are approached by the LE trawl fleet participating in directed or incidental open access fisheries. Options include subdividing the trawl allocation and/or of changing the LE catch accounting system. In the following table, Option 2 provides a set of logically complete approaches are outlined for a system in which IFQ is not required for groundfish catch by LE trawl vessels using open access gears. To date, no one has advocated Option 2, SubOption B. Changing

the accounting system for LE trawl vessels would also bring up the issue of considering such a change for LE fixed gear vessels and treatment of vessels with LE permits for both trawl and fixed gears.

IFQ Program Scope - Option 1: Require IFQ for all Catch by LE Trawl Vessels. Require LE Trawl vessels to make landings in compliance with IFQ tracking and monitoring rules, even when using nontrawl open access gears (examples of directed and incidental gears that may take groundfish include longline, fishpot, shrimp trawl, California halibut trawl, and crab pots).	
SubOption A	Require that landings be made in compliance with open access fishery cumulative limit and other harvest regulations.
SubOption B	Allow landings in excess of open access fishery cumulative limits, so long as landings are completely covered by IFQ.
IFQ Program Scope - Option 2: Require IFQ Only for Groundfish Trawl Catch by LE Trawl Vessels	
SubOption A	<ul style="list-style-type: none"> • Split the trawl allocation between IFQ and nonIFQ harvest • Manage groundfish harvest by trawl vessels using open access gears to stay within the suballocation.
SubOption B	<ul style="list-style-type: none"> • Maintain the same LE allocation • Change the accounting system such that catch of LE trawl vessel's using open access gears counts against the open access allocation. • Determine whether or not to make similar changes with respect to LE longline and fishpot vessels.
SubOption C	<ul style="list-style-type: none"> • Reallocate a portion of the LE allocation • Change the accounting system such that catch of LE trawl vessel's using open access gears counts against the open access allocation. • Determine whether or not to make similar changes with respect to LE longline and fishpot vessels.

TIQC Recommendations:

The portion of the LE trawl allocation covered by the IFQ program includes:

- Option 1. Any catch taken under a groundfish LE trawl permit regardless of gear used—e.g. when using pink shrimp trawl or any other open access gear. For those species covered by the program, IQ would be required for all catch counted against the LE trawl fishery under the current system.
- Option 2. Groundfish taken with groundfish trawl gear under an LE trawl permit. A separate accommodation would be required to cover any landings made by vessels with an LE trawl permit that are not made with groundfish trawl gear.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.2.0 Area Restrictions on IFQ

Area restrictions can be applied to IFQs:

- To prevent regional depletion^{3/} and set catch levels for areas that correspond to stock assessments.
- To disperse economic benefits of catch along the coast.
- To ensure that certain communities receive economic benefits.

Any of these aims could be pursued through catch area or landing area restrictions. Catch area restrictions would most precisely meet needs to prevent regional stock depletion and would likely keep landings more geographically dispersed than might be the case without catch or landing restrictions. Landing area restrictions would more precisely meet objectives for distributing harvest benefits along the coast (or in particular communities) and would likely serve to keep ocean catch area more dispersed than might be the case without catch or landing restrictions.

Landing area restrictions might be achieved either by putting landing area endorsements on all IFQ or through a policy that allocates some IFQ to communities, similar to Alaskan CDQ programs. Catch area restrictions would most likely be achieved through the use of catch area endorsements.

TIQC Recommendation: Inclusion of catch area restrictions should be based solely on need to address stock conservation concerns.

TIQC Considered But Rejected Options: Landings area endorsements.

TIQ Enforcement Group Recommendations: If some IFQ are to be catch area specific, all landings should occur in ports within the catch area. This implies that a vessel would not be able to fish in two catch areas in the same trip. If the enforcement system includes VMS, compliance monitors, and full retention, it may be possible to allow vessels to fish in two areas on a single trip and separate the fish.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.3.0 IFQ and LE Permit Holding Requirements

Determination of when the IFQ must be held has a substantial bearing on program enforceability and monitoring costs and on discard rates (bycatch). A program that requires IFQ be held earlier in the fishing trip would allow greater opportunity for ensuring compliance through the potential for enforcement activity during fishing or offloading activities. In such a case, enforcement officers in the field (USCG at-sea or state or NMFS agents on the dock) can determine whether there is

3/ “Regional” depletion is being used here to denote broader scale depletion of a segment of a stock and “localized” depletion is being reserved for concerns related to depletion of reefs or other relatively small geographic areas. IFQs established for INPFC management areas might prevent regional depletion but would not address localized depletion of biomass on a particular reef or in the area of a particular port.

sufficient IFQ to cover a particular landing. A program that allows IFQ to be acquired after offloading has been completed provides no opportunity for in-the-field deterrence of quota busting. In such case, greater reliance must be placed on the monitoring program, making it more necessary to have 100% at-sea monitoring and/or weigh master presence during offloading operations. On the other hand, allowing a vessel to cover its landing of IFQ after offloading has been completed reduces the incentive for at-sea discards (bycatch) or underreporting a landing for which insufficient IFQ is held. Additionally, if there is 100% at-sea and/or shoreside monitoring, the opportunity is substantially reduced for underreporting a landing for which sufficient IFQ is already held (the motive for such underreporting would be to preserve the IFQ for future use).

If the only requirement for landing groundfish with trawl gear is the possession of IFQ, the number of vessels participating in the fishery could potentially increase. In order to facilitate cost effective enforcement it may be useful to identify and limit the number of participants. This can be done through a requirement that IFQ be fished only from vessels with limited entry trawl permits.

TIQC Recommendation:

In order to be “fished,” quota pounds must be registered to a vessel. With respect to when the quota pounds must be held, the following options have been identified:

1. At time of landing.
2. Within 30 days of landing, no fishing until landing is covered.

These two options may be combined with a suboption that requires that some IFQ be held at the time a vessel departs from port. If such an option is developed, a threshold amount that must be held would need to be determined.

TIQC Considered But Rejected Options: Prior to departure from port.

TIQ Enforcement Group Recommendation:

A vessel may not fish until some quota is held (amount to be determined) and the vessel’s IFQ account does not have a deficit for any species. At the time of landing (or within 24 hours of landing) all fish must be covered. If a landing is not covered within the specified time limit, catch in excess of IFQ holdings (or, if there are carryover provisions, catch in excess of IFQ holdings plus carryover provisions) would be forfeited and additional enforcement actions possibly taken. Overages would be debited against a vessel’s IFQ account and show as a deficit balance until additional IFQ is acquired.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.0 Transfer Rules

Transferability promotes economic efficiency but often the potential structural changes to the fishing industry and fishing communities accompanying transfers are perceived as a threat. These

perceived threats include the concentration of quota shares, a lopsided distribution of economic gains, and a change in social relations among members of a community (NRC, 1999, pg. 208).

To further goals of economic efficiency and rapid downsizing, transferability should be as free as possible. Restrictions on transferability may be warranted to promote other goals such as protecting the owner-operator mode of production, preventing absentee ownership, or protecting fishery dependent coastal communities (NRC, 1999, pg. 208).

A.4.1 Transfer of IFQ to a Different Sector for Use

IFQ might be issued under sector specific allocation rules (Section 13.0) but might transferable between trawl sectors. Transferal to nontrawl sectors might also be considered, however, unless the nontrawl sectors are under an IFQ program, such transfers would expand program complexity and compliance and monitoring costs.

TIQC Recommendation:

IFQ options identified for further consideration:

1. IFQ must be used within the trawl sector for which it was issued.
2. IFQ may be traded between trawl sectors managed under the IFQ program.

Sector specific IFQs need to be considered for the following sectors and subdivisions

Trawl	Whiting	At Sea
		Shoreside
	Nonwhiting	

IBQ options identified for further consideration:

1. Prohibit transfers outside the trawl sector.
2. Allow transfers to gears that are legal for the species and allow those gears to retain catch taken under IBQ when operating in compliance with the IBQ program.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.2 Eligible Owners/holders (Who May Own/hold)

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 Council’s be permitted to “authorize communities to purchase, hold, manage and sell IFQs” (NRC, 1999, pg. 206). In making this recommendation the NRC states that Council’s should determine the qualifying criteria for a community that is permitted to hold quota.

The potential for foreign ownership and control is another issue related to determination of the class of eligible owners. In this regard, the NRC recommended that Congress take the lead in determining eligibility of foreign individuals and companies to receive IFQ in an initial allocation. Because of foreign ownership interest in the existing fishery, limitations on foreign ownership could be problematic and discriminate against US co-owners and investors. Also, bearing on this issue are current trends toward the liberalization of direct foreign investment worldwide (NRC, 1999, 211). Groundfish LE permit ownership in the current license limitation system is controlled with provisions that prohibit ownership of permits by anyone not eligible to own a US documented fishing vessel.

Other potential groups to consider are crew members, skippers, vessel owners, permit owners, members of fishing communities, 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), any person (including business entities such as corporations).

TIQC Recommendations: These options apply to both QS and quota pounds.

Options identified for further consideration:

1. Anyone eligible to own a U.S. documented vessel.
2. Only stakeholders may own.
 - a. Owners and lessees of LE permits or vessels.
 - b. Skipper/crew (a certain number of days at sea on a commercial fishing operation is required before IFQ can be purchased).
 - c. Processors/buyers.
 - d. Communities.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.3 Leasing - Duration of Transfer

Leasing can allow fisheries to adapt to change and cover overages and incidental catch through the short term transfer of IFQ, rather than through discarding (NRC, 1999, pg. 208).^{4/} One of the primary social concerns with leasing is the potential for absentee ownership in the fishery. Provisions that might be considered to restrict leasing (if such restriction is desirable) include limiting the proportion of the total quota which may be leased, the frequency of leasing, and taxing leases (NRC, 1999, pg, 208). The NRC recommends permanent transfers generally be allowed with restrictions on to whom or where the quota may be transferred, if necessary to address concerns about absentee ownership, geographic distribution of the fishery or other structural features of the industry.

4/ With 100% accounting of catch, using observers or other means of monitoring, discarding to avoid the need to cover catch with IFQ would not be an option.

TIQC Recommendations: These options apply to both QS and quota pounds.

Options identified for further consideration:

1. Permanent transfers only (no leasing or other kinds of temporary transfers).
2. Leasing and permanent transfers.

A suboption might be to prohibit all permanent transfers (leasing only) during the first year of the program. The purpose of the moratorium on transfers of quota shares would be to allow fishers to get used to the program so that they might make better business decisions when buying and selling quota shares.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.4 Time of Sale

One reason for considering a restriction on the time of sale is to simplify tracking IFQ, particularly if roll-over provisions for catch overages are to be applied to quota share or if the IFQ tracking system is not a real time electronic system.

TIQC Recommendations:

Quota share transfer options

1. Any time during the year.
2. Transactions only at end of year.

Quota pounds would be transferable any time during the year.

TIQC Considered But Rejected Options: None identified.

TIQ Enforcement Group Recommendation: Quota shares should not be transferred from any account for which there is a deficit of quota pounds.

Question: If quota pounds have been leased out to a vessel, and a vessel has acquired quota pounds from numerous quota share accounts, how would it be determined which quota share account is in deficit?

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.5 Divisibility

Limited divisibility (blocked quota shares) combined with limits on the number of blocks that can be stacked was used in Alaska to try to preserve the character of the fishery. Greater divisibility of IFQ may increase the number of transactions and hence the governing costs.

TIQC Recommendations: Options -

7. QS: nearly unrestricted divisibility - “many decimal points.”
8. Quota pounds: 1 lb.

TIQC Considered But Rejected Options: Blocked shares/pounds.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.6 Liens

The NRC (1999, page 202) found that “Individuals who do not receive an initial allocation, or those who received a small quantity of quota, may find it difficult to obtain bank financing to purchase shares because they lack acceptable collateral.” Lenders have expressed concern that liens on IFQ might be passed on to IFQ purchasers without the purchasers knowledge. This situation may undermine the confidence of lenders, making it more difficult for potential new entrants or existing operations to gain the financing needed to purchase IFQ. The Magnuson-Stevens Act includes creation of a lien registry system, but none has been implemented to date.

TIQC Recommendations (Comment): Liens (Use as Collateral) - Pledging IFQs as collateral is a matter of private contract, independent of the government program. Placement of a lien would not affect the government’s ability to sanction or revoke the IFQ for violations.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.7 Accumulation Limits

Accumulation limits may be used to promote equity by preventing a few IFQ holders from acquiring excessive market power and thereby adversely affecting other sectors such as crew and processors. Accumulation limits may also be an indirect way to encourage broader geographic distribution of quota shares. While some IFQ programs rely solely on antitrust law to prevent excessive concentration of shares, experience has shown this not been sufficient to prevent problems resulting from excessive concentration of IFQ (NRC, 1999, page 209). The NRC also notes that concentration limits may not be very effective if there are ways to circumvent them.

Section (d)(5)(c) of the Magnuson-Stevens Act requires that any new program “prevent any person from acquiring an excessive share of the individual fishing quotas issued . . .” The NRC has recommended that all IFQ programs define excessive shares, including specification of its measurement, and prevent the accumulation of “excessive shares” of IFQ (NRC, 1999, pg. 210).

TIQC Recommendations: Caps should be considered to limit the amount of IFQ held. The caps may be for individual species and/or total IFQ holdings. If an entity would be eligible to receive more than the cap as part of the initial allocation that entity would be allowed to receive and use the

amount in excess. If a person has partial control of an IFQ account (for example, through a partnership) all IFQ under that account would count toward that person's cap.

Consider the need for separate caps for:

- Ownership
- Control (ownership, lease or other business arrangements)
- Use by a vessel

The following cap options were recommended for consideration.

	Option 1	Option 2	Option 3
Nonwhiting Groundfish	1%	5%	10%
Whiting Fishery	5%	10%	25%

The TIQC discussed without resolution whether caps should be based on poundage or value. Under the British Columbia system value equivalents are established, using Pacific Ocean Perch as a base unit. TIQC Considered But Rejected Options: The following option was implicitly rejected from consideration. Require someone receiving an initial allocation of more than the cap to divest themselves of the excess shares.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.4.8 Vertical Integration Limit

Vertical integration occurs when a single entity operates at several levels in the harvest and distribution chain, e.g. owns both a catcher vessel and a processing facility.

TIQC Recommendations: No limits on vertical integration other than what is provided through the accumulation caps.

TIQC Considered But Rejected Options: Options to limit vertical integration were rejected.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.5.0 Rollover (Carryover) to a Following Year

Allowing a fisher to land catch in excess of his or her IFQ allotment but counting it against the following year's allotment is one means of penalizing fishers for exceeding their IFQ without creating large incentives for discarding the excess harvest (NRC, 1999, pg. 217). Similarly, allowing a fisher to carry over some portion of his or her unused IFQ allotment from one year to the next creates a situation in which there is less incentive for fishers to catch up to their full limit and hence risk exceeding the limit. While midseason transfers can facilitate coverage of any over catch, as the season progresses there would be less and less IFQ available for transfer.

TIQC Recommendations:

Rollover would allow unused quota pounds to be used in a subsequent year. A person might also be allowed catch in excess of the persons IFQ holdings with any overage being debited against quota pounds to be issued the following year. The amount that could be used in a subsequent year would be limited.

Options identified for consideration:

1. No rollover.
2. 10% rollover (no rollover allowance for overfished species).
3. 20% rollover (5% rollover allowance for overfished species).
4. 30% rollover (full rollover allowance for overfished species).

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

Question: If quota pounds have been leased out to a vessel, and a vessel has quota pounds from numerous accounts, how would rollover provisions for overages be applied?

A.6.0 Use-or-Lose Provisions

Use-of-lose provisions would require that if IFQ is not used over a certain period of time it would expire or be revoked and reallocated.

TIQC Recommendations: Option identified for further consideration:

1. Include use-or-lose provisions (consider how to treat leases, medical exceptions, and partial use).
2. Do not include use-or-lose provisions.

The use-or-lose provision would apply to the person owning the IFQ. A requirement that IFQ be used in three out of five years was considered. During TIQC discussions, several questions were raised for consideration:

- What portion of the IFQ would have to be used in order for this provision to be applied?
- How would it be determined which IFQ had been used and which not used?
- How would use-or-lose provisions be applied if part but not all IFQ were transferred from one account to another?

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.7.0 Entry Level Opportunities

Individuals who do not receive an initial allocation and lack collateral or credit history may have a difficult time acquiring IFQ, particularly in situations where IFQ price is overinflated (NRC, 1999, pg. 211). However, the NRC (1999, pg. 210) warns that measures to facilitate new entry could defeat the purpose of an IFQ system if they expand the quota share pool or hinder consolidation.

Section 303(d)(5)(c) of the Magnuson-Stevens Act requires that any new program “considers the allocation of a portion of the annual harvest in the fishery for entry-level fishermen, small vessel owners, and crew members who do not hold or qualify for individual fishing quotas.” There are also provisions in the Magnuson-Stevens Act that allow for the creation of loan programs to finance small boat and entry level participation.

Section 303(d)(4) of the Magnuson-Stevens Act allows the dedication of 25% of fees collected for the IFQ program to be used to issue obligations to aid in financing:

- (i) purchase of individual fishing quotas in that fishery by fishermen who fish from small vessels; and
- (ii) first time purchase of individual fishing quotas in that fishery by entry level fishermen.

The criteria for qualifying under (i) and (ii) are to be included as part of the Council recommendations.

With respect to facilitating new entry, a central lien registry system could make loans more available (NRC, 1999, pg. 202) and taxing quota rents would reduce their price (NRC, 1999, pg 214), though at the same time it would reduce the revenue stream from the IFQ and the purchasers ability to recover investment in the purchase of IFQ. The NRC recommends consideration of a zero-revenue auction (NRC, 1999, pg. 211). Under such a system, some percent of the IFQ reverts back to government each year for auctioning, with the proceeds of the auction returning to those forced to give up their quota shares. The advantages cited for this auction are that it provides excellent information about prices (helpful both to fishermen and bankers) and it guarantees the presence of a steady flow of IFQs in the market, ensuring an opportunity for potential entrants to gain access (NRC, 1999, pg. 145). It might also provide price information for the purpose of determining taxes to be levied against the first transfer of IFQ.

TIQC Recommendations:

- An option for a loan program should be included as part of the analysis. (The question of qualification for low interest loans was left open.)
- If penalties result in revocation of quota shares (including use-or-lose provisions), some of the revoked shares might be used for new entry. (The question as to how individuals might qualify for reissuance of revoked shares was left open.)

The following are some provisions that would help ensure opportunity for new entry:

- Providing unlimited divisibility in the size of share blocks traded.
- Providing a central lien registry to facilitate financing by ensuring more security in the collateral and therefore lower interest rates.
- Limiting ownership to individuals.

TIQC Considered But Rejected Options: A zero revenue auction should not be considered as there would be sufficient trading to ensure the availability of quota on the market for purchase by a new entrant..

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.8.0 Tracking IFQ, Monitoring Landings, and Enforcement

The NRC report finds that compliance and self policing would be more likely if the process of establishing an IFQ program involves co-management schemes that allow fishermen to participate in the development and implementation of the IFQ program (NRC, 1999, pg. 216). This program is being developed and considered in an open Council process that provides substantial and significant opportunity for participation of members of industry, interest groups and the public.

Section 303(d)(5)(B) of the Magnuson-Stevens Act requires that any new program “provides for the effective enforcement and management of any such (new IFQ) program, including adequate observer coverage...”

A program that requires IFQ to cover bycatch must have some means by which to ensure that bycatch is not discarded without being accounted for.

TIQC Recommendations:

A compliance monitoring program may be needed to monitor harvest (catch and/or landings). Elements of the compliance monitoring program might include one or more of the following.

1. Onboard Compliance Observer (Compliance Monitors) (20% - 100%).
2. Dockside (Delivery Location) Compliance Monitor (20% - 100%).
3. Onboard and Dockside Monitor.
4. 100% Hauling Requirement and Lesser % of Landings Monitored.
5. Exemption for Smaller Vessels (from need to carrying monitors.)
6. Video Monitoring System (Including all Components Necessary to Make Effective).

The skills of compliance monitors may or may not be different from those generally required for Federal fishery observers.

TIQC Considered But Rejected Options: None

TIQ Enforcement Group Recommendations:

The TIQ Enforcement Group developed the following goals and objectives for an enforcement program.

Goal: An effective enforcement system that ensures that the possible gains from violating rules does not exceed the risks of violation penalties and that the costs of enforcement are in balance with the final outcome.

Objectives:

- A. Develop reasonably enforceable regulations that are not overly complex.
- B. Ensure that catch, landings, and deliveries are properly recorded.
- C. Ensure that IFQ is held/acquired to cover landings and deliveries.
- D. Prevent and detect fraud.
- E. Conduct operations in a cost-effective manner.
- F. Facilitate joint Federal-state enforcement activities including the complete sharing of data between agencies.

Initial Application Fraud Detection

PacFIN data should be used to determine the initial allocations. Any proposed revisions to fishtickets should go through enforcement review. Capability should be built into the data system to screen illegal landings from the fishtickets—possibly focus primarily on gross violators using a threshold value. Other landings that may not qualify toward IFQ should also be screened from use in the determination of catch history (e.g. landings over fleet limits taken by EFP vessels, compensation fish).

IFQ Program Operation

The following enforcement program design elements were used to develop five initial enforcement program options for consideration (Table A-1).

At-Sea Monitors (“Observers”). At-Sea Monitors would be obligated to share information with enforcement personnel in a timely fashion. A camera backup might be considered for at-sea monitors.

With partial at-sea monitoring, require a camera if there is no compliance monitor onboard. If cameras are used to monitor a vessel there can be no discards of any species (e.g. no discards of sea-stars). There are issues associated with chain of custody and costs of reviewing films that would need to be addressed with a camera system. If there is not a camera requirement for vessels not carrying at-sea monitors (i.e. some trips are completely unmonitored while at-sea), adjustments would need to be made to the OY to account for likely illegal discards. An accurate violation factor to apply to the OY would be difficult to assess and would be dependent on the officers ability to detect violations and comparison of observed and unobserved trips.

Retention Requirement. Under a full retention requirement, the role for at-sea monitors would be to ensure that no fish went overboard. Under a partial retention requirement the role for at-

sea monitors would be to record information on any discards and ensure that information was entered into a discard recording system, to be debited against IFQ accounts.

Bycatch Reporting System: If at-sea discards are allowed and IFQ is required to cover catch, a bycatch recording system comparable to the landings reporting system would be required to match catch against IFQs.

Landings Tracking System: Either the current fish ticket system could be converted to an electronic system to record close to real time information, or a parallel reporting system could be developed. Reliance on the paper fishticket system might work but flexibility of the IFQ system and associated benefits would have to be substantially constrained. The TIQ Enforcement Group believes that landings should be debited against IFQ accounts based on the dock receipt and not what goes on the final fishticket. How this would work for an electronic fishticket system or if the paper fishticket system is used needs to be addressed. If a parallel system for tracking landings is implemented, there would be inconsistencies between the fishticket system and what is reported as landed against IFQs. Under the current cumulative limit system, citations are issued on the basis of the dock receipt.

Shorebased Monitoring: Either 100% of the landings would have to be observed, or the opportunity to observe would have Comments received during public scoping will be placed here. through an advance-notice-of-landing requirement.

Limited Landing Locations: Limited landing locations would enhance cost-effective enforcement. Enforcement costs would be substantially greater without such limits than with the limits. One way to limit landing locations would be to specify that landings be made only in certain ports. Another way would be to license specific landing sites. Licensing specific sites would ensure that all communities can participate while still gaining enforcement efficiency. There would be facilities standards applied for licensing sites (e.g. activities at the site would have to be arranged such that a shorebased monitor can observe the off-loading and weighing activity at the same time).

Electronic IFQ Tracking System: Regardless of other elements of the system, an electronic IFQ tracking system would be required such that an enforcement officer in the field can determine the current IFQ account balances for a particular vessel.

With only partial at-sea monitoring and no full retention requirement, the Enforcement Group's initial assessment is that compliance would start to break down. If the IFQ were specified to cover catch instead of landings, expected compliance would likely be similar to the current system, except instead of existing cumulative landings limits there would be IFQs.

Databases would need to be built and communication equipment provided to go with the personnel requirements of the enforcement program.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.9.0 Cost Recovery/Sharing and Rent Extraction

Fees or taxes can be used for cost recovery and to capture for the public some of the value fishers gain through use of the public resource (rents). Fees and taxes on transfers should not be so large as to eliminate transfers and the attendant benefits derived from establishing a market for harvest privileges (NRC, 1999, pg. 213). Moreover, because such charges would affect the value at which IFQ trades in the market place, they should be established at the start of the program rather than added on at a later time after investments have already been made (NRC, 1999, pg. 213).

Section 303(d)(5)(b) of the Magnuson-Stevens Act requires that any new program “provides for... fees... to recover actual costs directly related to... enforcement and management [of the new IFQ program].”

Section 304(d)(2)(A)^{5/} states that the “Secretary is authorized and shall collect a fee to recover the actual costs directly related to the management and enforcement of any—(i) individual fishing quota program; and (ii) community development quota program that allocates a percentage of the total allowable catch of a fishery to such a program.” Such a fee is not to exceed three percent of the exvessel value of the fish harvested under the program. Section 304(d)(2)(C)(ii) allows a state to receive up to 33% of any fee collected in relation to a community development program to reimburse the state for related management and enforcement costs.

The three percent fee currently authorized under the Magnuson-Stevens Act may not be sufficient to recover all direct costs related to the IFQ program. The NRC (1999, pg. 214) recommends an increase in the cap to above three percent.

Noting that for many resources the government captures a significant portion of the rent above cost recovery (timber, oil, etc), the NRC recommends that Magnuson-Stevens Act be amended to allow such cost recover from fisheries and that the collected rents be placed in funds dedicated to improving the fisheries and the fishing communities dependent on them (NRC, 1999, pg. 215). One means of extracting such rents would be a tax on first transfer of the IFQ (NRC, 1999, pg. 214). The tax would serve a dual purpose of reducing the socially objectionable windfall and collecting rents.^{6/} Another means of cost recover and collecting rents would be a two-fee system. Under such a system a per IFQ share fee might be levied to recover program costs and a tax per pound of landing charged to recover rents (NRC, 1999, pg. 215).

TIQC Recommendations: Options for further consideration.

5/ Section 304(d)(1) states that “The Secretary shall by regulation establish the level of any fees which are authorized to be charged pursuant to section 303(b)(1). The Secretary may enter into a cooperative agreement with the States concerned under which the States administer the permit system and the agreement may provide that all or part of the fees collected under the system shall accrue to the States.” Section 303(b)(1) authorizes the charging of fees for permits for fishing vessels, operators and processors (first receivers).

6/ A first transfer tax would have to be carefully structured so that mock transfers at lower than market values could not be used to minimize windfall payment. If a zero-rent auction were in place, prices from that auction might be used to determine taxes to be applied at first transfer.

1. Landings Fee (max of three percent under current Magnuson-Stevens Act).
2. Privatization of Elements of the Management System.
 - Monitoring IFQ Landings (e.g. industry pays for their own compliance monitors)
 - Fishtickets
 - Stock Assessments

The TIQC discussed the potential of using an auction to provide for an initial influx of revenue to support program startup costs.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.10.0 Penalties

The NRC report to Congress on IFQ programs recommends a set of graduated sanctions:

“Administratively imposed sanctions should be established for minor violations with specified increase in penalties for each additional offense. Criminal penalties (jail sentences and/or seizure of catch, vessel, and equipment and forfeiture of quota) should be reserved for serious offenders and for intentional falsification of reports.” (NRC, 1999, pg. 217)

Consideration needs to be given to the likely effect of a set of penalties on the incentive to commit more serious crimes. For example, a severe penalty on landing incidental catch for which no IFQ were held would create incentive for discards, whereas penalizing by deducting any overage from a subsequent year’s IFQ would substantially reduce that incentive (NRC, 1999, pg. 217)

Civil penalties for Magnuson-Stevens Act violations are limited to \$100,000 for each violation and permit restriction, denial, suspension, or revocation (Magnuson-Stevens Act, Section 308). Criminal penalties are punishable by a fine of not more than \$100,000, or imprisonment for not more than six months unless such acts involve threats to observers or enforcement officers, in which case the penalties may reach \$200,000 and ten years imprisonment (Magnuson-Stevens Act, Section 309). Criminal penalties include knowingly and willfully submitting to a Council, the Secretary, or the Governor of a State false information regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying the Magnuson-Stevens Act (Magnuson-Stevens Act, Section 307).

TIQC Recommendations: The TIQC was generally supportive of strong sanctions for violators.

TIQC Considered But Rejected Options: None identified.

TIQ Enforcement Group Recommendations: A situation should not be created in which it is cheaper to catch fish in a manner that violates the IFQ program and incur penalties than to acquire the IFQ needed to cover catch or otherwise comply with the program. Situation wherein a legal participant

incurs greater operational costs than a violator are viewed as inequitable and reduce program compliance.

Illegal overages should be landed and forfeited and additional enforcement action possibly taken. Illegal overages should be debited against the IFQ holders account and fishing suspended until they are covered, thereby ensuring that compliance would have been less expensive than violating program rules (with respect to the trip on which the illegal overage occurred).

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.11.0 Procedures for Program Performance Monitoring, Review, and Revision (Magnuson-Stevens Act (d)(5)(A))

Section 303(d)(5)(A) of the Magnuson-Stevens Act requires that any new program “establishes procedures and requirements for the review and revision of the terms of any ... [program], (including any revisions that may be necessary once a national policy with respect to individual fishing quota programs is implemented), and, if appropriate, for the renewal, reallocation, or reissuance of individual fishing quotas.”

Noting the need for the nation to learn from its mistakes and successes in order to improve management, the NRC has recommended the promulgation of guidelines for monitoring IFQ program effectiveness (NRC, 1999, pg. 218). A monitoring and evaluation program for short-term and long-term impacts should be included as part of the initial program design (NRC, 1999, pg. 198). The program should include a clear timetable, criteria to be used in evaluation, and steps to be taken if the programs do not meet these criteria (NRC, 1999, pg. 221). At a minimum, monitoring the effectiveness of an IFQ program should involve maintaining a central registry or shareholders and share transactions (including the value of such transactions); assessing the biological status of the stock, measuring economic performance and characteristics of commercial and recreational fisheries and subsistence patterns; assessing performance of the IFQ market; collecting data on administrative and enforcement costs, and monitoring translocational effects on other fisheries (NRC, 1999, pg. 218). Additionally, annual reports should be provided describing trends in the fishery and effects of the IFQ program (NRC, 1999, pg, 222).

The NRC report also recommends that to lay the groundwork for the impact review, a preliminary study be conducted of relevant socioeconomic aspects of a fishery prior to the design of the management program (NRC, 1999, pg. 198). Such information is contained in recent groundfish programmatic EISs, the EISs for annual specifications and rebuilding plans, and in baseline description documents such as the community description produced by the Economic Fishery Information Network (EFIN) program of Pacific States Marine Fisheries Commission (PSMFC).

Sunset provisions signify the need to reevaluate an existing law or policy after a period to ensure that they are best achieving program objectives. However, with respect to IFQ programs, the NRC report identifies that sunset provisions are fundamentally inconsistent with the nature of IFQs and may be counter productive to their purpose (NRC, 1999, pg. 201).

While sunset provisions are not recommended, it is recommended that consideration be given to the issuance of cascading fixed-term entitlements. This system works by issuing IFQ for a long but limited duration (e.g. 30 years). The program is then reviewed and if adjustments are needed, new IFQ are defined with a different set of privileges and obligations. IFQ holders are given the option of switching over to the new IFQ prior to the expiration of their existing shares or waiting until their existing shares expire. If they switch prior to the expiration of their existing shares, the new shares would be valid for another 30 years commencing with the date on which they switch. The recommendation for consideration of this design feature is not a recommendation that this type of feature should necessarily be incorporated.

Criteria on which to base program performance need to be developed. Such criteria should probably be derived from program goals and objectives.

TIQC Recommendations: The program should include a review period, built in performance monitoring, and opportunity for adjustments to the program.

TIQC Considered But Rejected Options: The committee recommends that automatic sunset provisions for the program not be considered. Sunset provisions make the fishery less stable and make investment planning more difficult.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.12.0 Data Collection

Magnuson-Stevens Act 303(a)(8) states that FMPs must assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan. Section A.11.0 discusses the need for ongoing assessments of the status of the program and its impacts in order to monitor and make changes required to meet the original objectives. The NRC (1999, pg. 198) recommends these assessments be incorporated as part of the IFQ program design.

The NRC recommendations state that Councils and NMFS should ensure that long-term routine data collection and studies be initiated that are complementary to data collection for IFQ monitoring (NRC, 1999, pg. 218). Further, the NRC states that this data collection should occur separate from the consideration of specific management alternatives for a fishery and should facilitate evaluation of impacts of various allocation actions, including IFQs (NRC, 1999, pg. 199).

The issue of whether industry provision of data should be mandatory or voluntary will likely be addressed under this design element. Mandatory industry compliance provisions are included as part of the data collection provisions of the Alaska crab rationalization program. The Alaska program provisions are specific as to the data elements Comments received during public scoping will be placed here. and include draft survey instruments.

The TIQ Analytical Team will be asked to develop specific recommendation for data collection elements to be included as options for the IFQ program.

TIQC Recommendations: None identified.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.0 Initial IFQ Allocation

Section 303(d)(5)(C) of the Magnuson-Stevens Act requires that any new IFQ program “provides for a fair and equitable allocation of individual fishing quotas, . . .” Initial allocations are the most controversial aspect of IFQ programs. Over the long run, performance of the program does not depend substantially on the initial allocation. However, the initial allocation does distribute wealth. A substantial portion of a common opportunity (the capture of fish) is converted to private wealth through the creation of a marketable fishing privilege. Even though the IFQ is revocable without compensation, its function as the near equivalent of a private asset is evidenced by the value placed on it in the market place. When IFQ is awarded without charge, the initial recipient of IFQ receives an unearned asset and income upon sale or lease of that asset.^{7/}

Within the context of current West Coast license limitation system, the creation of a IFQ would redistribute wealth through three mechanisms:

- (1) The value of the asset received by the initial recipient (value in excess of any payment for IFQ issuance).
- (2) The expenditure on IFQ that would be required of those who do not receive enough IFQ to enable them to maintain the stream of net revenue associated with current operations (or, if the choice is made not to acquire additional IFQ, the reduced net revenue stream).
- (3) A reduction in the value of the existing LE permits due to the separation, redefinition and reallocation of the bundle of fishing privileges previously associated with the permit.

In many cases, the same individual may be subject to changes in wealth through all three mechanisms. The greater the degree to which the initial distribution of IFQ does not match the existing distribution of human and physical capital that exists in the fishery, the greater the disruption costs associated with implementation of the program. However, these disruption costs would be a short-term phenomena which would not substantially affect the long-term performance of the program. In addition to disruption costs, there may be longer-term impacts on shifts of power between participants in the fishery, changing the composition of the stakeholders involved in managing the fishery. Initial recipients may be in a better position to obtain loans to buy additional quota than others in the fishery (NRC, 1999, pg. 202).

The NRC recommends 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

7/ This unearned income is regarded by many as an unfair windfall (recovery of windfall and extraction of rents is addressed in Section A.9).

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. Council’s should consider using auctions, lotteries, or a combination of mechanisms to allocate initial shares of quota” (NRC, 1999, pg. 207).

A.13.1 Qualifying Criteria: Membership in an Eligible Group

The NRC reports notes that vessel owners are usually the recipients of initial allocation and makes the following recommendations with respect to allocation to other fishery participants (NRC, 1999, pgs. 202-207).

Groups (Other than Vessel Owners)	Summary of NRC Recommendation
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.

Unless some common point system is developed that can be applied across groups, for each group to be included in the initial allocation there would need to be a determination of the amount of IFQ to be divided among members of the group.

TIQC Recommendations:

Options identified for further consideration:

1. Allocate IFQ to Current Permit Owners.
2. Allocate IFQ to Vessel Owners.
3. Allocate IFQs to Permit-Owners/Vessel-Owners/Processors (consider all combinations allocate to ownership at the time of initial allocation, where relevant).
4. Allocate to High Bidder in Auction (eligibility rules for participation to be developed).

TIQC Considered But Rejected Options:

1. Allocate IFQ to those who owned the permit at time of landings.
2. Allocate to lottery entrant (eligibility rules for participation to be developed).
3. Allocate to crew or skippers.
4. Allocate to communities.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.2 *Qualifying Criteria: Recent Participation*

Recent participation requirements can be used to place more weight on recent participation and ensure that current participants benefit from allocations rather than those who may have left the fishery. To some extent, an allocation that places greater weight on recent participation than participation in the distant past may reduce disruptive effects of the initial allocation.

TIQC Recommendations:

The TIQC developed options that might apply to harvesters or processors in order to qualify for an initial allocation of IFQ.

Option identified for further consideration:

1. No recent participation requirement
2. Recent participation required to be eligible for an initial allocation.
(All permits would still be eligible to fish IFQ acquired through transfer after initial IFQ issuance.)

A recent participation requirement necessitates establishing a recent participation qualification period. Options identified for further consideration:

- 2a. 1998-2003 (number of trips and/or number of yrs required, to be specified)
- 2b. 2000-2003 (small footrope period, number of trips and/or number of yrs required, to be specified)

Recent participation in either the shoreside or at-sea fisheries would suffice to meet minimum landing requirements for shoreside or at-sea IFQ, if such a distinction is made.

Number of Unfished Permits by Consecutive Period (NMFS NWR, 3/9/04):

Period	Number of Permits		Year	Number of Permits Not Fished During the Year
	Not Fished During the Period			
1998-2003	5		1998	18
1999-2003	7		1999	14
2000-2003	13		2000	20
2001-2003	24		2001	32
2002-2003	33		2002	40
2003	40		2003	40

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.3 Allocation “Formula” (Size of Individual Allocations)

In determining the amount of initial allocation, the NRC report (1999, pg. 224) encourages consideration of stewardship and other potential criteria in addition to catch history. The TIQC developed some preliminary recommendations for elements of formulas to allocate IFQ among permits and processors (1st buyers). If other groups are to qualify, such as those described in Section 13.1, IFQ allocation formula would have to be developed for each group. Additionally, there would need to be an allocation of IFQ among the groups before it is subdivided within the groups

Vessel/Permit Related Allocation

TIQC Recommendations:

Options identified for further consideration

1. Determined in an auction.
2. Some mix of criteria that might include:
 - a. Catch history (for certain species, consider allocating a portion based on an estimate of bycatch).
 - b. Equal sharing
 - i. Equally allocate QS represented by catch history of those vessels/permits bought back among those vessels/permits with catch history for the species.
 - ii. Equally allocate incidental catch species.
 - iii. Some other equal sharing basis.
3. Catch history only (for certain species, consider allocating a portion based on an estimate of bycatch).

TIQC Considered But Rejected Options: Vessel length.

Options from Public Comment Period: Comments received during public scoping will be placed here.

Processor (1st Buyer) Allocation

TIQC Recommendations:

Options identified for further consideration:

1. 1st receiver purchase history of groundfish trawl landings (lbs).
2. Determined in an auction.

Note: Processors may also receive some IFQ based on their ownership of vessels (vertical integration).

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.4 Catch History: Species/Species Groups to Be Used for Allocation

For some species, species composition information would need to be applied to develop allocations based on the catch history. This would entail application of fleet average species compositions to categories of species taken by individual vessels (e.g. applying fleet average species compositions to landings recorded as “Slope Rockfish”).^{8/} The other apparent choice would involve allocating all species based on larger levels of catch aggregation (e.g. allocating each individual slope rockfish species based on a permit’s catch history of all slope rockfish species combined; or in the extreme allocating each individual nonwhiting species based on a permit’s catch history for all nonwhiting species combined).

TIQC Recommendations:

1. Allocate species IFQ based on relative total groundfish catch.
2. Allocate species IFQ based on relative catch of each species.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.5 Catch History: Allocation Periods

If allocation is to be based on landings history a period would need to be used to define what landings count toward catch history.

TIQC Recommendations: The TIQC recommended options which would allow/require applicants to drop a number of worst years from their catch history. Option identified for further consideration:

Allocation Period Option	Number of Years in Allocation Period	Number of Worst Years to Drop from Catch History	
		Option A	Option B
1. 1994-2003	10	None	2
2. 1994-1999	6	None	1
3. 2000-2003	4	None	None
4. 1998-2003	6	None	1

The issue of how bycatch might be included in catch history and the impacts of including or not including it should be discussed in the analysis. Another consideration is the allocation of IFQ for overfished species. Allocating overfished species on the basis of landings would reward those vessels that have fished less cleanly than others.

If all years are weighted evenly, years when there was more fishing opportunity would have a greater influence on the amount of IFQ allocated than years with less fishing opportunity. Since there has been less fishing opportunity in recent years, recent years would have less influence than

8/ Such species composition information is often specific for a given area and time period.

years in the more distant past. The TIQC recommends that an option be developed which would weight the catch history between years such that catch representing 0.05% of the landings in 1994 would receive a weight equal to catch representing 0.05% of the landings in 2003.

Groundfish landings in thousands of tons by all limited entry trawlers (buyback and nonbuyback) (NMFS NWR, 3/9/04)

Year	Shore			Mothership (Nontribal)	All Whiting	All Groundfish
	Nonwhiting	Whiting	Total			
1994	46	80	126	93	173	219
1995	50	75	125	41	115	166
1996	52	85	137	47	132	184
1997	47	87	135	50	138	185
1998	34	91	125	50	140	175
1999	33	87	120	48	135	167
2000	29	89	117	47	136	164
2001	25	73	99	36	109	135
2002	25	46	71	27	72	98
2003	22	55	78	26	81	104

The following is a discussion of the reasoning behind some of the years selected to delineate the catch history qualifying periods.

1994. The earliest year for the allocation period options was set at 1994, because this was the first year of the license limitation program. 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. 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 par with vessels that qualified with 1984-1988 catch history. The use of vessel catch history prior to 1994 may be viewed as inconsistent with the issuance of permits with equivalent rights for vessels under construction or conversion through 1994 and those with a 1984-1988 catch history, the former having had no opportunity to establish catch history.

1999/2000. Regulations prior to 2000 allowed extensive use of large and small footropes on trawl gear. In 2000, the imposition of restrictions on the use of large footropes shifted trawl effort away from reef and rocky bottom substrates. This substantially changed fishing opportunities and the mix of species landed. An allocation period that stops in 1999 would place more emphasis on the mix of opportunities that was available when small and large footropes could be used. The period after 2000 would reflect how vessels operated under the opportunities present in the most recent management regime.

1998. This year is used to establish a six year period (1998-2003) that includes an amount of time of sufficient length to allow vessels to demonstrate their level of activity in the fishery and landings mix. By shortening the allocation period it puts more emphasis on recent participation patterns. The license limitation program used a four year period for vessels to demonstrate a pattern of activities that would qualify them for a permit. The longer period that is created by using 1998 counts catch history that includes two years prior to the large footrope restrictions and four years under the large footrope restriction.

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 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.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.6 Catch History: Combined Permits and Other Exceptional Situations

Under the Pacific Coast license limitation program, permits may be combined to create single permits with a larger vessel size endorsement. This is different from, and sometimes confused with, registration of multiple permits for a single vessel (permit stacking). When permit stacking occurs, permits remain distinct from one another. For the fixed gear sablefish endorsement and tier qualification requirements, catch history was considered to be transferred with the permit; and, when multiple permits were combined to create a single permit with a larger size endorsement, the catch history of all of the combined permits were considered to accrue to the resultant permit.

Other categories of catch to be considered are:

Illegal catch.

Catch in excess of trip limits authorized under an EFP.

Compensation fish (fish taken as payment by vessels assisting in research).

TIQC Recommendations:

Option identified for further consideration:

1. Consider all catch history of the permits that have been combined to be part of the catch history of the permit resulting from the combination.
2. The combined permit would have only the catch history associated with its permit number (catch history of other permits with which it has been combined would not accrue to the combined permit).

The TIQC recommended illegal catch not be counted toward qualifying for a permit.

TIQC Considered But Rejected Options: None identified.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.13.7 Initial Issuance Appeals Process

An appeals process may be needed to address disputes between permit applicants and the NMFS Limited Entry Permits office over landings records or other qualification criteria.

For the groundfish license limitation program there were numerous disputes over landings records and other qualifying criteria. For the license limitation program there were thresholds that had to be reached and, depending on whether that threshold was reached, a permit was or was not issued. As part of the appeals process, a Council Limited Entry Permit Review Board was convened composed of members of industry.

For the fixed gear tiered sablefish endorsement program there was also a threshold landing history that had to be reached to qualify for a particular tier. However, the only criteria considered was total landings and the thresholds were set at levels such there was a considerable gap between the permit with the highest catch history in the Tier 2 or Tier 3 group and the amount of catch history required to qualify for the next highest tier. There were no appeals associated with administration of this program.

For an IFQ program qualification requirement based on catch history, on the one hand any additional poundage that can be demonstrated through the challenge of a fish ticket would lead to some additional quota for the applicant, on the other hand the amount of benefit may be small relative to the cost of the appeal, unless there are a large number of landings records for the individual to dispute. The exception to this might be a recent participation requirement, which may be presented as a threshold amount of catch history that an applicant must demonstrate before being able to qualify for any IFQ. In this case, applicant coming close to the threshold but falling short may have considerable incentive to initiate appeals.

TIQC Recommendations: None identified.

TIQC Considered But Rejected Options: None identified.

TIQ Enforcement Group Recommendations: Require that any proposed revisions to fishtickets undergo review by state enforcement personal prior to finalization of the revisions.

Options from Public Comment Period: Comments received during public scoping will be placed here.

A.14.0 Some Other Possible Provisions

The above categories were based on design elements that the TIQC identified for consideration. There may be other types of design elements for an IFQ program that are not covered in the above sections. This section is a placeholder for such provisions as may come forward in other parts of the scoping process. For example, owner-on-board provisions were rejected by the TIQC committee because they would be too complex, there are substantial numbers of trawl vessels for which owners are not on-board, and it would be difficult for processors that own permits and vessels. The TIQC's view was that there is no demonstrable conservation or economic benefit from such provisions and unclear social benefits. Design elements such as this, or other such elements that are brought forward during the public comment period, will be included here for Council consideration.

Options from Public Comment Period: Comments received during public scoping will be placed here.

Table A-1. TIQ Enforcement Group preliminary scoping of possible enforcement programs.

	Program 1	Program 2	Program 3	Program 4	Program 5
At-Sea Monitoring	100% (Compliance Monitors)	100% (Compliance Monitors)	100% (Compliance Monitors or Camera)	Partial Compliance Monitor Coverage	None
Retention Requirement	Full Retention	Discards Allowed	Full if Camera, Discards Allowed if Compliance Monitor Present	Discards Allowed if Compliance Monitors Present	Full Retention (ABC held in reserve)
Bycatch Reporting System Comparable to Landing Tracking System	None	System Needed (electronic)	System Needed (electronic)	System Needed (electronic)	None
Landing Tracking System	Electronic	Electronic	Parallel Electronic Federal System (maintain paper fishtickets)	Parallel Electronic Federal System (maintain paper fishtickets)	Paper Fishticket
Shorebased Monitoring	100%	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)
Vessel Provides Advance Notice of Landing	Yes	Yes	Yes	Yes	Yes
Limited Landing Locations	Site Licenses	Specified Ports	Site Licenses	Specified Ports	Specified Ports
Electronic IFQ Reporting	Yes	Yes	Yes	Yes	Yes

VMS is an assumed component of the enforcement environment.
 Small vessel provision: small vessels may apply for an exemption and carry a camera instead of an compliance monitors.

APPENDIX B - DETERMINING ENVIRONMENTAL SIGNIFICANCE OF NOAA ACTIONS

NOAA 216-6 Guidelines

SECTION 6. INTEGRATING NEPA INTO NOAA LINE OFFICE PROGRAMS.

.01 Determining the Significance of NOAA's Actions. As required by NEPA Section 102(2)(C) and by 40 CFR 1502.3, EISs must be prepared for every recommendation or report on proposals for legislation and other "major Federal actions" significantly affecting the quality of the human environment. A significant effect includes both beneficial and adverse effects. Federal actions, including management plans, management plan amendments, regulatory actions, or projects which will or may cause a significant impact on the quality of the human environment, require preparation of an EIS. Following is additional explanation per the definitions used in determining significance.

- a. "Major Federal action" includes actions with effects that may be major and which are potentially subject to NOAA's control and responsibility. "Actions" include: new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by NOAA; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals. Refer to 40 CFR 1508.18 for additional guidance.
- b. "Significant" requires consideration of both context and intensity. Context means that significance of an action must be analyzed with respect to society as a whole, the affected region and interests, and the locality. Both short- and long-term effects are relevant. Intensity refers to the severity of the impact. The following factors should be considered in evaluating intensity (40 CFR 1508.27):
 1. Impacts may be both beneficial and adverse -- a significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
 2. Degree to which public health or safety is affected.
 3. Unique characteristics of the geographic area.
 4. Degree to which effects on the human environment are likely to be highly controversial.
 5. Degree to which effects are highly uncertain or involve unique or unknown risks.
 6. Degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
 7. Individually insignificant but cumulatively significant impacts.
 8. Degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources.

9. Degree to which endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973, are adversely affected; and
 10. Whether a violation of Federal, state, or local law for environmental protection is threatened.
 11. Whether a Federal action may result in the introduction or spread of a nonindigenous species.
- c. "Affecting" means will or may have an effect (40 CFR 1508.3). "Effects" include direct, indirect, or cumulative effects of an ecological, aesthetic, historic, cultural, economic, social, or health nature (40 CFR 1508.8).
 - d. "Legislation" refers to a bill or legislative proposal to Congress developed by or with the significant cooperation and support of NOAA, but does not include requests for appropriations (40 CFR 1508.17). The NEPA process for proposals for legislation significantly affecting the quality of the human environment shall be integrated with the legislative process of the Congress (40 CFR 1506.8).
 - e. "Human environment" includes the relationship of people with the natural and physical environment. Each EA, EIS, or SEIS must discuss interrelated economic, social, and natural or physical environmental effects (40 CFR 1508.14).
- .02 Specific Guidance on Significance of Fishery Management Actions. The following specific guidance expands, but does not replace, the general language in Section 6.01 of this Order. When adverse impacts are possible, the following guidelines should aid the RPM in determining the appropriate course of action. If none of these situations may be reasonably expected to occur, the RPM should prepare an EA or determine, in accordance with Section 5.05 of this Order, the applicability of a CE. NEPA document preparers should also consult 50 CFR 600, Subpart D, for guidance on the national standards that serve as principles for approval of all FMPs and amendments. The guidelines follow.
- a. The proposed action may be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action.
 - b. The proposed action may be reasonably expected to jeopardize the sustainability of any non-target species.
 - c. The proposed action may be reasonably expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs.
 - d. The proposed action may be reasonably expected to have a substantial adverse impact on public health or safety.
 - e. The proposed action may be reasonably expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species.

- f. The proposed action may be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species.
- g. The proposed action may be expected to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc).
- h. If significant social or economic impacts are interrelated with significant natural or physical environmental effects, then an EIS should discuss all of the effects on the human environment.
- i. A final factor to be considered in any determination of significance is the degree to which the effects on the quality of the human environment are likely to be highly controversial. Although no action should be deemed to be significant based solely on its controversial nature, this aspect should be used in weighing the decision on the proper type of environmental review needed to ensure full compliance with NEPA. Socioeconomic factors related to users of the resource should also be considered in determining controversy and significance.

APPENDIX C - FMP GOALS, OBJECTIVES AND NATIONAL STANDARDS

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Groundfish FMP Goals and Objectives

FMP Goals and Objectives (Including Limited Entry) from Pacific Coast Groundfish Fishery Management Plan For the California, Oregon and Washington Groundfish Fishery As Amended Through Amendment [14]

General FMP Goals and Objectives

2.1 Goals and Objectives for Managing the Pacific Coast Groundfish Fishery

The Council is committed to developing long-range plans for managing the Washington, Oregon, and California groundfish fisheries that will promote a stable planning environment for the seafood industry, including marine recreation interests, and will maintain the health of the resource and environment. In developing allocation and harvesting systems, the Council will give consideration to maximizing economic benefits to the United States, consistent with resource stewardship responsibilities for the continuing welfare of the living marine resources. Thus, management must be flexible enough to meet changing social and economic needs of the fishery as well as to address fluctuations in the marine resources supporting the fishery. The following goals have been established in order of priority for managing the West Coast groundfish fisheries, to be considered in conjunction with the national standards of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Management Goals.

Goal 1 - Conservation. Prevent overfishing by managing for appropriate harvest levels and prevent any net loss of the habitat of living marine resources.

Goal 2 - Economics. Maximize the value of the groundfish resource as a whole.

Goal 3 - Utilization. Achieve the maximum biological yield of the overall groundfish fishery, promote year-round availability of quality seafood to the consumer, and promote recreational fishing opportunities.

Objectives. To accomplish these management goals, a number of objectives will be considered and followed as closely as practicable:

Conservation.

Objective 1. Maintain an information flow on the status of the fishery and the fishery resource which allows for informed management decisions as the fishery occurs.

Objective 2. Adopt harvest specifications and management measures consistent with resource stewardship responsibilities for each groundfish species or species group.

Objective 3. For species or species groups which are below the level necessary to produce maximum sustainable yield (MSY), consider rebuilding the stock to the MSY level and, if necessary, develop a plan to rebuild the stock.

Objective 4. Where conservation problems have been identified for nongroundfish species and the best scientific information shows that the groundfish fishery has a direct impact on the ability of that species to maintain its long-term reproductive health, the Council may consider establishing management measures to control the impacts of groundfish fishing on those species. Management measures may be imposed on the groundfish fishery to reduce fishing mortality of a nongroundfish species for documented conservation reasons. The action will be designed to minimize disruption of the groundfish fishery, in so far as consistent with the goal to minimize the bycatch of nongroundfish species, and will not preclude achievement of a quota, harvest guideline, or allocation of groundfish, if any, unless such action is required by other applicable law.

Objective 5. Describe and identify essential fish habitat (EFH), adverse impacts on EFH, and other actions to conserve and enhance EFH, and adopt management measures that minimize, to the extent practicable, adverse impacts from fishing on EFH.

Economics.

Objective 6. Attempt to achieve the greatest possible net economic benefit to the nation from the managed fisheries.

Objective 7. Identify those sectors of the groundfish fishery for which it is beneficial to promote year-round marketing opportunities and establish management policies that extend those sectors fishing and marketing opportunities as long as practicable during the fishing year.

Objective 8. Gear restrictions to minimize the necessity for other management measures will be used whenever practicable.

Utilization.

Objective 9. Develop management measures and policies that foster and encourage full utilization (harvesting and processing) of the Pacific coast groundfish resources by domestic fisheries.

Objective 10. Recognizing the multispecies nature of the fishery and establish a concept of managing by species and gear or by groups of interrelated species.

Objective 11. Strive to reduce the economic incentives and regulatory measures that lead to wastage of fish. Also, develop management measures that minimize bycatch to the extent practicable and, to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. In addition, promote and support monitoring programs to improve estimates of total fishing-related mortality and bycatch, as well as those to improve other information necessary to determine the extent to which it is practicable to reduce bycatch and bycatch mortality.

Objective 12. Provide for foreign participation in the fishery, consistent with the other goals to take that portion of the optimum yield (OY) not utilized by domestic fisheries while minimizing conflict with domestic fisheries.

Social Factors.

Objective 13. When conservation actions are necessary to protect a stock or stock assemblage, attempt to develop management measures that will affect users equitably.

Objective 14. Minimize gear conflicts among resource users.

Objective 15. When considering alternative management measures to resolve an issue, choose the measure that best accomplishes the change with the least disruption of current domestic fishing practices, marketing procedures, and the environment.

Objective 16. Avoid unnecessary adverse impacts on small entities.

Objective 17. 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.

Objective 18. Promote the safety of human life at sea.

[Amended; 7, 11, 13]

Amendment 6: License Limitation Goals and Objectives

14.1.2 Goals and Objectives for Groundfish Limited Entry

The following are the goals and objectives for limited entry adopted by the Council in April 1990. The primary objective directly addresses the overcapacity problem, and the secondary objectives address the ways the Council hopes limited entry will promote achievement of the Council's goals and objectives for the groundfish fishery.

Goals. The goals for the West Coast groundfish fishery limited entry program are to improve stability and economic viability of the industry while recognizing historic participation, meet groundfish management objectives and provide for enforceable laws.

Primary Objective. The primary objective of the limited entry program will be to limit or reduce harvest capacity in the West Coast groundfish fishery.

Secondary Objectives. In pursuit of the primary objective, the following secondary objectives will be addressed:

Economic

- Promote long-term economic stability.
- Increase net returns from the fishery.
- Allow flexibility for combination vessels.

Management

- Stabilize management regimes by reducing need for frequent inseason changes.
- Reduce the cost of management.
- Reduce by-catch and waste.
- Encourage effort in underutilized species fisheries.

Enforcement

- Promote cost-effective enforcement by reducing need for frequent changes and tight trip limits.
- Promote logistically viable enforcement by minimizing need to use regulations such as trip limits or subarea closures which are more difficult to enforce.

Social

- Recognize and accommodate historical participation of those investing their life and resources in the fishery.
- Maintain a mechanism for fishery entrance/exit and flexibility for change in the fleet.
- Reduce conflicts between user groups by limiting or reducing effort competition for the same resource.
- Provide a stable supply of groundfish to the public at a reasonable price.

National Standards from the Magnuson-Stevens Act

EXCERPTS from

Public Law 94-265

As amended through October 11, 1996

TITLE III -- NATIONAL FISHERY MANAGEMENT PROGRAM

SEC. 301. NATIONAL STANDARDS FOR FISHERY 16 U.S.C. 1851

CONSERVATION AND MANAGEMENT

(a) **IN GENERAL.**--Any fishery management plan prepared, and any regulation promulgated to implement any such plan, pursuant to this title shall be consistent with the following national standards for fishery conservation and management:

98-623

(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.

104-297

(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.

104-297

(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.

104-297

(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.

104-297

(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

Additional Magnuson-Stevens Act Considerations (303(b)(6))

The following must be taken into account in designing limited access systems:

- (A) Present participation in the fishery.
- (B) Historical fishing practices in, and dependence on, the fishery.
- (C) The economics of the fishery.
- (D) The capability of fishing vessels used in the fishery to engage in other fisheries.

- (E) The cultural and social framework relevant to the fishery and any affected fishing communities.
- (F) Any other relevant considerations.
Magnuson-Stevens Act 303(b)(6)

Appendix D - Ad Hoc Individual Quota Committee

Membership:

Dave Hanson-PSMFC-Chair
Steve Bodner-Trawler
Alan Hightower-Trawler
Marion Larkin-Trawler
Pete Leipzig-Trawl Rep
Brad Pettinger-Trawler
Richard Young-Trawler
Chris Garbrick-Whiting Trawler
Dave Jincks-Whiting Trawler

Jan Jacobs-Whiting Catcher-Processor
Dale Myer-Whiting Mothership
Joe Plesha-Whiting Processor
Jay Bornstein-Processor
Frank Dulcich-Processor
Steve Joner-Tribal
Dorothy Lowman-Environmental
Dayna Matthews -Enforcement

Appendix E - IQ Control Date

1563-1564 Federal Register / Vol. 69, No. 6 / Friday, January 9, 2004 / Proposed Rules

DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration 50 CFR Part 660

[Docket No. 031230329-3329-01;
I.D.120903B]RIN 0648-AR82

Fisheries Off West Coast States and in the Western Pacific; Pacific Coast Groundfish Fishery; Advance Notice of Proposed Rulemaking regarding a Trawl Individual Quota Program and to Establish a Control Date

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Advance notice of proposed rulemaking; notice of control date for the Pacific Coast groundfish fishery; request for comments.

SUMMARY: The Pacific Fishery Management Council (Council) is considering implementing an individual quota (IQ) program for the Pacific Coast groundfish limited entry trawl fishery off Washington, Oregon and California. The trawl IQ program would change management of harvest in the trawl fishery from a trip limit system with cumulative trip limits for every 2-month period to a quota system where each quota share could be harvested at any time during an open season. The trawl IQ program would increase fishermen's flexibility in making decisions on when and how much quota to fish. This document announces a control date of November 6, 2003, for the trawl IQ program. 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.

DATES: Comments may be submitted in writing by February 9, 2004.

ADDRESSES: Comments may be mailed to Don Hansen, Chairman, Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 200, Portland, OR 97220-1384.

FOR FURTHER INFORMATION CONTACT: The Pacific Fishery Management Council at 866-806-7204; or Bill Robinson at 206-526-6140; or Svein Fougner at 562-980-4000.

SUPPLEMENTARY INFORMATION: The Pacific Fishery Management Council (Pacific Council) established under section 302(a)(1)(F) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852(a)(1)(F)) is considering implementing an individual quota (IQ) program for the Pacific Coast groundfish limited entry trawl fishery off Washington, Oregon and California. The Pacific Coast groundfish limited entry trawl fishery is managed under the Pacific Coast Groundfish Fishery Management Plan (FMP) approved on January 4, 1982 (47 FR 43964, October 5, 1982), as amended 15 times. Implementing regulations for

the FMP and its amendments are codified at 50 CFR part 660, subpart G. Additional implementing regulations can be found in the specifications and management measures for the Pacific Coast groundfish fishery published in the Federal Register, as amended through inseason actions. If the Pacific Council recommends and NMFS adopts a trawl IQ program, the program would be implemented through a proposed and final rulemaking, and possibly an FMP amendment.

The trawl IQ program would change management of harvest in the trawl fishery from a trip limit system with cumulative trip limits per vessel for every 2 month period to a quota system where each quota share could be harvested at any time during an open season. The trawl IQ program would increase fishermen's flexibility in making decisions on when and how much quota to fish.

With the lapse of the moratorium on new individual fishing quotas (IFQs) in October 2002, the Regional Fishery Management Councils may propose new IFQs and the Secretary of Commerce will review them for consistency with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), in particular section 303(d).

In advance of a rulemaking on the trawl IQ program, this document announces a control date of November 6, 2003, for the trawl IQ program. 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. This control date will apply to any person potentially eligible for IQ shares. Persons potentially eligible for IQ shares may include vessel owners, permit owners, vessel operators, and crew. 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. Groundfish landed from limited entry trawl vessels after November 6, 2003, may not be included in the catch history used to qualify for initial allocation in the trawl IQ program.

Implementation of any management measures for the fishery will require amendment of the regulations implementing the FMP and may also require amendment of the FMP itself. Any action will require Council development of a regulatory proposal with public input and a supporting analysis, NMFS approval, and publication of implementing regulations in the Federal Register. The Pacific Council has established an ad-hoc Groundfish Trawl Individual Quota Committee to make recommendations on the development of IQs in the groundfish fisheries. Meetings of this committee are open to the public. Interested parties are urged to contact

the Pacific Council office to stay informed of the development of the planned regulations. Fishers are not guaranteed future participation in the groundfish fishery, regardless of their date of entry or level of participation in the fishery.

This advance notice of proposed rulemaking has been determined to be not significant for purposes of Executive Order 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: January 6, 2004.

Rebecca Lent,

*Deputy Assistant Administrator for
Regulatory Programs, National Marine
Fisheries Service.*

[FR Doc. 04-464 Filed 1-8-04; 8:45 am]

BILLING CODE 3510-22-S

Appendix F - Notice of Intent to Prepare an Environmental Impact Statement

Billing Code 3510-22-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[I.D. 051004B]

Pacific Fishery Management Council; Notice of Intent

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of intent to prepare an environmental impact statement (EIS); request for comments; preliminary notice of public scoping meetings.

SUMMARY: NMFS and the Pacific Fishery Management Council (Pacific Council) announce their intent to prepare an EIS in accordance with the National Environmental Policy Act (NEPA) of 1969 to analyze proposals that provide dedicated access privileges for participants in the non-tribal Pacific Coast groundfish trawl fishery.

DATES: Public scoping meetings will be announced in the Federal Register at a later date. Written comments will be accepted at the Pacific Council office through August 2, 2004.

ADDRESSES: You may submit comments, on issues and alternatives, identified by [i.d. number] by any of the following methods:

! E-mail: TrawlAccessEIS.nwr@noaa.gov. Include [I.D. number] and enter "Scoping Comments" in the subject line of the message.

1. Federal Rulemaking Portal: <http://www.regulations.gov>.

1. Fax: 503-820-2299.

2. Mail: Dr. Donald McIsaac, Pacific Fishery Management Council, 7700 NE Ambassador Pl., Suite 200, Portland, OR, 97220.

FOR FURTHER INFORMATION CONTACT: Steve Freese, (Northwest Region, NMFS) phone: 206-526-6113, fax: 206-526-6426 and email: steve.freese@noaa.gov; or Jim Seger, Pacific Fishery Management Council, phone: 503-820-2280, fax: 503-820-2299 and email: jim.seger@noaa.gov.

SUPPLEMENTARY INFORMATION:

Electronic Access

This Federal Register document is available on the Government Printing Office's website at: www.gpoaccess.gov/fr/index/html.

Description of the Proposal

The proposed alternatives to the status quo, which will be the subject of the EIS and considered by the Pacific Council for recommendation to NMFS, are programs that provide dedicated access privileges for participants in the non-tribal Pacific Coast groundfish trawl fishery. The main dedicated access privilege alternative the Pacific Council is considering is an individual fishing quota (IFQ) program for the Pacific Coast groundfish limited entry trawl fishery off Washington, Oregon and California. A trawl IFQ program would change management of harvest in the trawl fishery from a trip limit system with cumulative trip limits for every 2-month period to a quota system where each quota share could be harvested at any time during an open season. A trawl IFQ program would increase fishermen's flexibility in making decisions on when and how much quota to fish. Status quo (no action) will also be considered along with dedicated access privilege and other reasonable alternatives that may be proposed to address issues identified in the problem statement.

At the request of the Pacific Council, NMFS published an Advance Notice of Proposed Rulemaking regarding a Trawl Individual Quota Program and to Establish a Control Date (69 FR 1563, January 9, 2004). This 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. Although the control date notice discussed the development of the trawl IQ program, NMFS and the Pacific Council also plan to consider other dedicated access alternatives.

General Background

The Council implemented a Pacific Coast Groundfish Fishery Management Plan (FMP) in 1982. Groundfish stocks are harvested in numerous commercial, recreational, and tribal fisheries in state and Federal waters off the West Coast. The non-tribal commercial seafood fleet taking groundfish is generally regulated as three sectors: Limited entry trawl, limited entry fixed gear, and directed open access. Groundfish are also harvested incidentally in non-groundfish commercial fisheries, most notably fisheries for pink shrimp, spot and ridgeback prawns, Pacific halibut, California halibut, and sea cucumbers (incidental open access fisheries).

Despite the recently completed buyback program, management of the West Coast groundfish trawl fishery is still marked by serious biological, social, and economic concerns; and discord between fishermen and managers and between different sectors of the fishery, similar to those cited in the U.S. Commission on Ocean Policy's April 2004 preliminary

report. The trawl fishery is viewed as economically unsustainable given the current status of the stocks and the various measures to protect these stocks. One major source of discord and concern stems from the management of bycatch, particularly of overfished species as described in the draft programmatic bycatch DEIS. The notice of availability of the DEIS was published in the FEDERAL REGISTER on February 27, 2004 (69 FR 9314). The DEIS is available from the Pacific Council office ((see ADDRESSES). After reviewing the draft programmatic bycatch DEIS the Pacific Council adopted a preferred alternative for addressing bycatch that included IFQ programs. The alternatives to status quo to be evaluated in the dedicated access EIS are amendments to the FMP and associated regulations to address these concerns through the use of dedicated access privileges. The concerns are described in more detail in the following problem statement:

As a result of bycatch problems, considerable harvest opportunity is being forgone in an economically stressed fishery. The trawl groundfish fishery is a multispecies fishery in which fishers 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 that place a major constraint on the industry's ability to fully harvest the available OYs of the more abundant target species that occur with the overfished species, wasting economic opportunity. Average discard rates for the fleet are applied to projected bycatch of overfished species. These discard rates determine the degree to which managers must constrain the harvest of targeted 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. Thus, in the current system there are uncertainties about the appropriate bycatch estimation factors, few incentives for the individual to reduce 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 fishers who would prefer being 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 key to 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- 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: controlling bycatch, taking advantage of the available allowable harvests of more abundant stocks (including conducting safe and efficient harvest activities in a manner that optimizes net benefits over the short- and long-term), increasing management efficiency, and responding to community interest.

In consideration of this statement of the problem, the following goals have also been identified for improving conditions in the groundfish trawl fishery.

- ! Provide for a well-managed system for protection and conservation of groundfish resources.
- ! Provide for a viable and efficient groundfish industry.
- ! Increase net benefits from the fishery.
- ! Provide for capacity rationalization through market forces.
- ! Provide for a fair and equitable distribution of fishery benefits.
- ! Provide for a safe fishery.

Preliminary Identification of Alternatives

NEPA requires preparation of an EIS for major Federal actions significantly affecting the quality of the human environment. The Pacific Council and NMFS are seeking information from the public on the range of alternatives and on the environmental, social, and economic issues to be considered.

Based on the above problem statement, goals and objectives, and consistent with the Pacific Council's preferred alternative in the programmatic bycatch EIS, the Pacific Council has identified IFQs for the trawl fishery as one of the main types of alternatives to status quo that it will consider. The Pacific Council has begun developing specific provisions for IFQ alternatives. Under IFQs, total harvest mortality is controlled by allocating an amount to individual fishers and holding those individuals responsible for ensuring that their harvest or harvest mortality does not exceed the amount they are allocated.

The EIS will identify and evaluate other reasonable and technically feasible alternatives that might be used to simultaneously address capacity rationalization and the other problems and goals specified here. The Pacific Council is interested in public comment on alternatives to dedicated access privilege programs that address the problems

surrounding and goals for this issue. The Pacific Council is also interested in receiving comments on different types of dedicated access privilege programs that should be considered and specific provisions that should be included in the alternatives.

According to the U.S. Commission on Ocean Policy's April 2004 preliminary report (pp. 232-236), there are several different types of dedicated access privileges:

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.

Community quotas grant a specified portion of the allowable catch to a community. The community then decides how to allocate the catch.

Cooperatives split the available quota among the 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.

There are also systems that allocate the right to buy fish. Such systems are often referred to as individual processing quotas (IPQs). The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) does not allow NMFS to implement IPQs. Congress has also prohibited the Department of Commerce and the Councils, via the Department's 2004 appropriations bill, from establishing or even considering IPQs (except in crab fisheries off Alaska). Therefore, they will not be considered in this EIS.

Not included in the proposed scope for this action are the two other nontribal commercial seafood harvester sectors: the limited entry fixed gear fleet and the open access fleets. The limited entry fixed gear fleet already operates under an IFQ program for sablefish, a species that dominates the groundfish economic activity for most vessels in this fleet. Including consideration of the fixed gear fleet in the development of a trawl IFQ program could increase the complexity of developing the program. The directed open access fleet has yet to be well identified. Identification of this fleet will likely be a major and controversial task in its own right, even without concurrent inclusion of the fleet under an umbrella IFQ program covering all sectors of the West Coast commercial seafood harvesting industry. However, this notice does not preclude further consideration of IFQ for other sectors of the fleet (open access and fixed gear).

At the end of the scoping process and initial Pacific Council deliberations, the Pacific Council may recommend specific alternatives and options for analysis. Depending on the alternatives selected, Congressional action may be required to provide statutory authority to implement a specific alternative preferred by the Council. Lack of statutory authority to implement any particular alternative does not prevent consideration of that alternative or option in the EIS (40 CFR 1502.14(2)).

Preliminary Identification of Environmental Issues

A principal objective of this scoping and public input process is to identify potentially significant impacts to the human environment that should be analyzed in depth in the dedicated access privilege EIS. Pacific Council and NMFS staff conducted an initial screening to identify potentially significant impacts resulting from implementing one of the proposed alternatives to status quo, as well as the continuation of status quo, no action. These impacts relate to the likelihood that there will be a substantial shift in fishing strategies, the configuration of the groundfish fleet, and fishery management and enforcement activities as a result of the implementation of a program meeting the specified goals. Impacts on the following components of the biological and physical environment may be evaluated (1) Essential fish habitat and ecosystems; (2) protected species listed under the Endangered Species Act and Marine Mammal Protection Act and their critical habitat; and (3) the fishery management unit, including target and non-target fish stocks. Socioeconomic impacts are also considered in terms of the effect changes will have on the following groups: (1) Those who participate in harvesting the fishery resources and other living marine resources (for commercial, subsistence or recreational purposes); (2) those who process and market fish and fish products; (3) those who are involved in allied support industries; (4) those who rely on living marine resources in the management area; (5) those who consume fish products; (6) those who benefit from non-consumptive use (e.g. wildlife viewing); (7) those who do not use the resource but derive benefit from it by virtue of its existence, the option to use it, or the bequest of the resource to future generations; (8) those involved in managing and monitoring fisheries; and (9) fishing communities. Analysis of the effects of the alternatives on these groups will be presented in a manner that allows the identification of any disproportionate impacts on low income and minority segments of the identified groups and impacts on small entities.

Related NEPA Analyses

Certain complementary and closely related actions are likely to be required to implement a dedicated access privilege program. As described herein, implementation of an IFQ program or an alternative dedicated access privilege program for the trawl fishery will be a two-step process. The first step is to design the basic program and its major elements (e.g. allocation of shares among participants, monitoring and reporting requirements, needed species to be allocated, etc.). With this notice, the Council and NMFS are seeking comments on this first step. The second step is to determine the amounts of each species that are to be allocated to the trawl and other sectors. Such allocations would be evaluated in a separate but related process supported by a separate but connected NEPA analysis.

Implementation of an IFQ alternative would require an allocation of available harvest between the commercial trawl fisheries and other fishing sectors (inter-sector allocation). This allocation would be needed to annually set the amount of fish that would be partitioned between participants in the trawl IFQ fishery. An inter-sector allocation may be based on an allocation formula or on a determination of the needs of a fishery for each management cycle. The only species now allocated between trawl and other sectors is sablefish. For a trawl IFQ program to succeed, the Council may need to quantify allocations for other species between the trawl sector and other fishing sectors. Allocation questions raise issues beyond developing a dedicated access privilege program. Thus, a second but related NEPA analysis will be undertaken, particularly as intersector allocations may be useful for managing the fishery even if an IFQ program is not adopted. This second NEPA analysis will be about the potential costs and benefits to all fisheries from developing specific commercial and recreational allocations and, within the commercial allocations, developing specific sub-allocations to the open access, trawl, and fixed gear fisheries.

The Council's Allocation Committee will be meeting to discuss the need for intersector allocations and criteria for making such allocation decisions. These meetings will be open to the public and announced in a separate Federal Register document. At approximately the time the Council approves a set of alternatives to be analyzed in the dedicated access privileges EIS, it will likely initiate formal scoping for a NEPA document to cover the intersector allocation issue. In the meantime, comments on the intersector allocation issue should be addressed to the Council office pfmc.comments@noaa.gov (enter "Intersector Groundfish Allocation" in the subject line). Potential outcomes of the allocation decision and impacts of that decision on the IFQ program would be considered in the cumulative effects section of the EIS on dedicated access privileges for the trawl fishery.

Scoping and Public Involvement

Scoping is an early and open process for determining the scope of issues to be addressed and for identifying the notable issues related to proposed alternatives (including status quo). A principal objective of the scoping and public input processes is to identify a reasonable set of alternatives that, with adequate analysis, sharply define critical issues and provide a clear basis for distinguishing among those alternatives and selecting a preferred alternative. The public scoping process provides the public with the opportunity to comment on the range of alternatives and specific options within the alternatives. The scope of the alternatives to be analyzed should be broad enough for the Pacific Council and NMFS to make informed decisions on whether an alternative should be developed and, if so, how it should be designed, and to assess other changes to the FMP and regulations necessary for the implementation of the alternative, including necessary intersector allocations.

Some preliminary public scoping of IFQ alternatives has been conducted through the Council process. Such preliminary scoping is consistent with the Council on Environmental Quality guidelines (46 FR 18026, 51 FR 15618). The results of this preliminary scoping are being used to develop a scoping document that will help focus public comment. Public scoping conducted thus far includes Council meetings held September 2003 (68 FR 51007) and November 2003 (68 FR 59589), and Ad Hoc Trawl Individual Quota Committee meetings held in October 2003 (68 FR 59358) and March 2004 (69 FR 10001). To provide additional preliminary information for the public scoping document, a group of enforcement experts will meet in Long Beach, CA, May 25 and 26, 2004, and a group of analysts will meet in Seattle WA, June 8 and 9, 2004. Times and locations for these meetings will be announced in the Federal Register and posted on the Council website (www.pcouncil.org). The public scoping document will be completed and released at least 30 days prior to the end of the scoping period. Copies will be available from the Council office (see ADDRESSES) or from the Council website (www.pcouncil.org).

Written comments will be accepted at the Council office through July 31, 2004 (see ADDRESSES).

Public scoping meetings will be announced in the Federal Register at a later date and posted on the Council website. There will be a public scoping session held June 13, 2004, in Foster City CA, in conjunction with the June 2004 Council meeting. The exact time and location for the meeting will be provided in the Federal Register notice announcing the June 2004 Council meeting.

Authority: 16 U.S.C. 1801 et seq.

Dated: May 18, 2004.

Galen R. Tromble,
Acting Director,
Office of Sustainable Fisheries,
National Marine Fisheries Service.

DRAFT PROPOSED AGENDA FOR
NEXT AD HOC ALLOCATION COMMITTEE MEETING AND MEETING SCHEDULE

**DRAFT
PROPOSED AGENDA**

A. Call to Order

1. Meeting Objective - Preliminary Scoping of Allocation Issue for Environmental Impact Statement

B. Need for Intersector Allocation

1. Trawl Individual Fishing Quota Program
2. Other

C. Species and Sectors for Which Allocations are Needed

1. Recreational/Commercial, Within Commercial, Other

D. Frequency of Allocation Decisions

1. Biannual, Limited Duration, Until Changed, Other

E. Elements of the Allocation Alternatives

1. Percentages, Sliding Scales, Tables, Rules for Suspension

F. Criteria for Making the Allocation Decision

G. Review of Preliminary Data and Specification of Additional Data Requests

GROUND FISH ALLOCATION PROCESS AND ALLOCATION COMMITTEE MEETING SCHEDULE

Phase I: Preliminary Internal Scoping

- Meeting 1 (March 2004): Review committee's role and make initial data request.
- Meeting 2 (2004): Develop initial conceptual alternatives (elements of possible allocation rules—not specific numbers).
Evaluate preliminary data and request additional information.
- Analysts: Evaluate quality of data, compile, and summarize.
- Meeting 3: (2005) Review analysis.
Finalize preliminary public information scoping document for Council review.

Phase II: Formal Scoping

- Meeting 4 (2005): Review scoping comments and develop specific percentages for options for Council consideration.
Council selects alternatives for draft environmental impact statement (EIS).

Phase III: Develop Draft EIS, Public Comment and Final Council Decision

Phase IV: Implementation

PFMC
08/31/04

FORMAL SCOPING PERIOD COMMENTS ON
DEDICATED ACCESS PRIVILEGES (INDIVIDUAL QUOTAS)
FOR THE
PACIFIC COAST LIMITED ENTRY TRAWL GROUND FISH FISHERY

Summaries of the hearings and summaries of written comments are provided in this document, and transcripts of public testimony from the hearings and written comments are attached as an appendix.

Hearing Summaries

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Appendix: A

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HEARING SUMMARY

*Scoping Hearing on
Individual Quotas (Dedicated Access Privileges) for
the Pacific Coast Groundfish Trawl Fishery*

Pacific Fishery Management Council

Crowne Plaza Hotel

Alexandria I Room

1221 Chess Drive

Foster City, CA 94404

June 13, 2004

Public Attendance: 12

Council Staff: Dr. Kit Dahl, Mr. Jim Seger

Testifying: Seven people testified representing five organizations.

Mr. Bob Osborne	United Anglers of Southern California
Mr. Kent Crawford	Coastal Jobs Coalition
Mr. Peter Huhtala	Pacific Marine Conservation Council
Mr. Tom Raftican	United Anglers of Southern California
Ms. April Wakeman	United Anglers of Southern California
Mr. Pete Leipzig	Fishermen's Marketing Association
Mr. Steve Bodnar	Bandon Submarine Cable Committee

Summary of Comments:

Mr. Bob Osborne, United Anglers of Southern California

- We have asked to have a recreational angler represented in the process.
- Seems like an individual fishing quota (IFQ) program would be granting rights.
- Seems the Council is trying to avoid difficult questions, such as cross-sector transfer of quotas and call for National Standards.
- Concerned about bycatch and habitat damage caused by trawling.

Mr. Kent Crawford, Director, Coastal Jobs Coalition

- Support balanced fisheries rationalization.
- Strongly support IQ system.
- Believe any IQ system must provide equally for harvesters and processors.
- Support establishment of community development quota (CDQ) or community quota to operate parallel to IFQs.
- Council should analyze the use of an auction-based system.
- Council should analyze different combinations of allocation, including 50-50 initial allocation of IFQ to trawl permit owners and primary processors, and combinations of initial allocation to trawl permit owners, primary processors, and community entities.

- Urge study of the recently rationalized Bering Sea crab fishery.
- Concerned that this environmental impact statement (EIS) process is premature; allocation should be dealt with first.

Mr. Peter Huhtala, Pacific Marine Conservation Council

- Concerned about bycatch.
- Concerned that move into IFQs might be distracting the Council from bycatch issues; should spend time completing the bycatch EIS.
- A programmatic EIS should be completed before a trawl IFQ EIS.
- The fact that allocation isn't being dealt with now is a problem; can't conduct cumulative impact analysis without considering allocation.
- Support U.S. Ocean Commission recommendations regarding National Standards.

Mr. Tom Raftican, United Anglers of Southern California

- The groundfish fishery needs a programmatic review before an IFQ can be considered.
- The recreational sector must be included in the initial program and in the design of intersector allocation.
- The Ad Hoc Groundfish Trawl Individual Quota Committee (TIQC) should include recreational representatives.
- Funding for the TIQ program must be discrete and secure.
- Support National Standards for IQ programs.

Ms. April Wakeman, attorney (United Anglers of Southern California)

- Include recreational sector in planning, etc. for trawl IQ program.

Mr. Pete Leipzig, Fishermen's Marketing Association

- Support moving forward with IQ program.

Mr. Steve Bodnar, Coos Bay Trawlers Association

- Trawl fleet supports the program, but now that it's about trawlers, there's much attention being paid.

HEARING SUMMARY

*Scoping Hearing on
Individual Quotas (Dedicated Access Privileges) for
the Pacific Coast Groundfish Trawl Fishery*
Pacific Fishery Management Council
National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, WA 98115
July 20, 2004

Public Attendance: 22 (12 representatives of government/academia, three environmental representatives, one fisherman, three processors, and three unknown).

Council Staff: Mr. Jim Seger

Testifying: Five people testified:

Mr. Ray Hartwell	Environmental Defense
Mr. Tom Casey	Bering Sea crab vessel owners' representative
Mr. Dave Fraser	Fishing vessel skipper
Mr. Peter Huhtala	Pacific Marine Conservation Council
Mr. Joe Bersh	Supreme Alaska Seafoods (mothership)

Summary of Comments:

Mr. Ray Hartwell, Environmental Defense

- Supports development of IQ alternatives.
- Supports addition of coastal community representative on the TIQC.
- Process should be open to stakeholders' input.

Mr. Tom Casey, Bering Sea crab fishing vessel owners

- In the Alaska crab ITQ program, ownership caps favor processors leading to vertically integrated operations. Impose the same ownership caps on processors as apply to fishermen.

Mr. Dave Fraser, fishing vessel skipper

- The Council should move ahead quickly with ITQs.
- Doesn't support fourth option on page 2.9.
- Doesn't support individual processor quota (IPQ) programs.
- It is important to maintain a competitive marketplace.
- Communities may or may not support processor shares. Communities contain both harvesters and processors.
- Allocation of harvester shares to skippers or permit owners should be considered as one of the options.

Mr. Peter Huhtala, Pacific Marine Conservation Council

- The IFQ development process is premature because a programmatic EIS needs to be completed for the groundfish fishery and National Standards developed for IFQs before the TIQ program goes forward.
- A program of sector-specific bycatch caps for overfished species should be considered as an alternative to IFQs. Such a program could be implemented more quickly.
- Bycatch caps, if implemented, should not be tradable.

Mr. Joe Bersh, Supreme Alaska Seafoods (whiting mothership)

- Some rationalization has occurred during the window period established to qualify for initial allocation in a TIQ program. As a result, individuals who have permanently left the fishery could qualify for quota shares. Therefore, there should be an ongoing participation requirement.
- A control date should be established for processors, in the event that the program includes processor shares.
- Consider allocating shares to processors who are not vertically integrated, since the issue of preserving non-mobile capital is not as important for vertically integrated operations.
- Consider an accumulation limit for processors that takes into account harvester ITQs they receive through fishing vessel ownership.
- There are significant differences between conditions on the U.S. West Coast and British Columbia—overfished species in particular—which makes it hard to readily transfer the British Columbia model to West Coast fisheries.

HEARING SUMMARY

*Scoping Hearing on
Individual Quotas (Dedicated Access Privileges) for
the Pacific Coast Groundfish Trawl Fishery*
Pacific Fishery Management Council
Mark O. Hatfield Marine Science Center
2040 SE Marine Science Drive
Newport, OR 97365
July 27, 2004

Public Attendance: 22 (eight representatives of the fishing industry; three representatives of non-governmental organizations; three representatives of state or federal agencies; three members of academia; three representatives of coastal community organizations; and two unknown).

Council Staff: Mr. Jim Seger

Testifying: Five people testified:

Mr. Leesa Cobb	Port Orford Ocean Resource Team
Mr. Peter Huhtala	Pacific Marine Conservation Council
Mr. David Jincks	Midwater Trawlers Cooperative
Ms. Dorothy Lowman	Environmental Defense
Mr. Denny Burke	F/V Timmy Boy

Summary of Comments:

Ms. Leesa Cobb, Port Orford Ocean Resource Team

- Identify Port Orford as an individual port; do not lump with Brookings, etc.
- Consider CDQs.
- Analyze impacts on Port Orford, especially inter-sector allocation.
- Identify how fishing opportunities are allocated, so communities know whether effort will be shifting into their areas.

Mr. Peter Huhtala, Pacific Marine Conservation Council

- This is an extremely controversial topic.
- Support development of National Standards by Congress to ensure that shares are allocated equitably and to prevent domination of industry by a few large businesses.
- Advocate a programmatic EIS to review the groundfish fishery management plan (FMP), paying attention to effects of management changes on communities.
- Advocate hard bycatch caps by sector (total mortality caps) for overfished species.
- Difficult to consider cumulative impacts without knowing how fisheries will be allocated.
- Cumulative impacts section should look at all recent management changes (area closures, buyback, etc.).

Mr. David Jincks, Midwater Trawlers Cooperative

- Support TIQs.
- Need to rationalize the fishery.
- IQs will bring stability.

Ms. Dorothy Lowman, Consultant, Environmental Defense

- Support dedicated access privileges from groundfish trawl fleet.
- Include alternative that looks at bycatch caps for overfished species; allocate them as tradeable quotas.
- Consider CDQs or other methods to address concerns of coastal communities.
- To maintain fishing and processing opportunities in coastal communities, consider holding back a percentage of the IQ each year to be allocated annually based on joint proposals with fishermen and processors.
- Analyze initial allocation to skippers who can demonstrate history of dependence on the fishery.
- Consider area-specific IQs based on socioeconomic and biological considerations.
- Consider a mechanism to allow communities to form nonprofits that can hold and lease quota to community members and allow the nonprofits to apply for loans.
- Don't wait too long to start inter-sector allocation discussion.
- Modify the Ad Hoc Allocation Committee, so all sectors and stakeholders are represented.

Mr. Denny Burke, fisherman

- Support quota program.
- Don't make shares smaller than they are now. It's very hard to make a living.

SUMMARY OF WRITTEN COMMENTS

*Scoping on
Individual Quotas (Dedicated Access Privileges) for
the Pacific Coast Groundfish Trawl Fishery
Pacific Fishery Management Council*

Number of Written Comments: Nine submissions from seven parties

Comments were received from the following parties:

Captain Gordon Murray (F/V Blue Horizon)
Coastal Jobs Coalition (Mr. Kent Craford)
Environmental Defense (Dr. Rod Fujita)
International Pacific Halibut Commission (Dr. Bruce Leaman)
Pacific Coast Federation of Fishermen's Associations (Mr. Zeke Grader, Jr.)
Pacific Marine Conservation Council (Mr. Peter Huhtala: two letters and one e-mail)
B. Sachau
West Coast Seafood Processors Association (Mr. Rod Moore)

Summary of Comments:

Captain Gordon Murray, Past Captain of the F/V Blue Horizon

- Captains and crew who were responsible for significant past catch records, but who did not own the vessels they fished, should not be overlooked, but should be granted IFQ access shares.

Coastal Jobs Coalition (Mr. Kent Craford)

[Coastal Jobs Coalition written comments from Kent Craford are identical to oral testimony taken at June 13, 2004 scoping hearing and are summarized as part of that hearing.]

Environmental Defense (Dr. Rod Fujita)

- Consider sectoral bycatch caps allocated as transferable bycatch quota.
- Initial allocation alternatives should address the potential impacts on coastal communities.
- Mechanisms should be explored that would help maintain fishing and processing opportunities in coastal communities.
- Analyze an initial allocation to skippers who can demonstrate specific history and dependence on the fishery.
- Explore using an auction mechanism, but recommend that it be tiered to provide opportunities for diverse operations to effectively compete.
- Consider area-specific IFQs based primarily on biological considerations to address concerns about local depletion.
- Urge effective monitoring of any IFQ system. Support 100% at-sea observer coverage, 100% dockside monitoring and mandatory vessel monitoring systems.
- Explicitly ban highgrading.

- Develop measurable environmental performance objectives to which the IFQ program will be held accountable.
- Support cost recovery for the monitoring activities described, as well as industry financial contributions to research and management. Urge considering a “sliding scale” or initial loan opportunities for members of the fleet who might be disadvantaged in paying these costs.
- Allow coastal communities to form nonprofits whose purpose would be to hold and lease quotas to community members, and these nonprofits qualify for any loan program opportunities.
- Include unambiguous language that is thoroughly vetted with stakeholders who have expressed concerns about IFQs constituting or evolving to become a de facto property right.

International Pacific Halibut Commission (Dr. Bruce Leaman, Executive Director)

- Any provision allowing retention of trawl-caught halibut would require IPHC approval.
- The Halibut Catch Sharing Plan would need to be amended to account for retention by this additional user group.
- Requiring retention of halibut would double the amount of legal-sized halibut mortality by the trawl fishery and would exceed the current catch limit for the directed commercial halibut fishery.

Pacific Coast Federation of Fishermen’s Associations (PCFFA) (Mr. Zeke Grader, Jr., Executive Director)

- Consideration of the trawl IFQ program is premature; an analysis of the effect of the buyback on trawl effort, reallocation of quota back to other groundfish sectors, and establishment of National Standards for IFQ programs should take place first.
- The justifications for an IFQ system are not strong enough. The proposal fails to say how an IFQ program will lessen bycatch, and the rationale for groundfish management seems to have changed from supporting a year-round fishery to allowing fishermen to fish when they want. An explanation for this change in rationale is needed.
- No mention is made of the increased cost of IFQ systems. The cost issue needs to be carefully considered.
- PCFFA urges the Council not to proceed at this time with the preparation of an IFQ system.

Pacific Marine Conservation Council (Mr. Peter Huhtala, Senior Policy Director) letter of May 25, 2004

- Concerned that this process is moving forward too quickly.
- The Pacific Council should decline to approve a public scoping document for a trawl ITQ EIS, and should instead recommend that NOAA Fisheries proceed with the issuance of a Notice of Intent (NOI) to prepare a comprehensive programmatic EIS that will facilitate an open public process for planning for the future of the groundfish fishery as a whole.
- A comprehensive programmatic EIS must be completed for the West Coast groundfish fishery prior to consideration of options for new forms of dedicated access privileges specific to the trawl sector of this fishery.
- The NOI to prepare an EIS regarding implementation of dedicated access privileges in the groundfish trawl fishery is deficient, and some premises set forth in the NOI can be considered misleading.

- The process leading to the public scoping document has been severely flawed, inherently tainting the material offered to the Council.
- Under objective criteria developed by the National Research Council, the West Coast groundfish trawl fishery is unlikely to be considered an appropriate fishery for implementation of an IFQ system.
- The way in which exploration of a possible IFQ system has transformed into a rush to implement a trawl IFQ program, demonstrates the need for Congress to enact National Standards. If Congress cannot act swiftly to pass National Standards, then a moratorium on new IFQ systems should be established until they are adopted.

Pacific Marine Conservation Council (Mr. Peter Huhtala, Senior Policy Director) includes letter of July 29, 2004, and comments in separate August 2, 2004 email

- Believe time and resources are being inappropriately diverted to design the dedicated access privileges (DAP) system, while a comprehensive programmatic EIS for the groundfish FMP is overdue.
- Urge completion of the bycatch program EIS, its associated FMP amendment, and implementation of associated regulations.
- Propose a new alternative based on sector caps on the total catch of each overfished species. (Detailed proposal included).
- Consider longer cumulative landing limit periods under status quo management (three, four, or six months).
- Elements of the attached proposal could be implemented swiftly, while not precluding additional solutions.
- Consider how any DAP system will respond to or discourage future changes in area-based management, both for biological and economic reasons.
- Recommend analyzing a range of sunset provisions from one to ten years. Also, consider reviewing the performance of the IFQ system prior to the sunset date. Short-term sunsets (such as two years) would increase flexibility.
- Sunsets would help ensure the IFQ program achieves its goals.
- Recommend the program be required to achieve measurable conservation goals.
- Offer a range of referendum scenarios, including a double referendum where two-thirds of those involved in the fishery would be allowed to vote first on whether to develop an IFQ system, then whether to implement the system.
- Analyze the current fishing situation spatially and model scenarios to help understand the biological and economic changes that various IFQ systems might cause.
- Concerned that IFQs could encourage local depletion of some populations. A spatial analysis could help address this concern.
- Constitutional problems may arise with community quotas. Please describe the range of legally possible solutions for community quotas and requiring landings in certain ports.

B. Sachau

- Raises questions about how the public is protected from self interest of fishermen and supports protecting the public from the self interested actions of fishermen.
- The resource belongs to the general public and the Council should make that clear.
- Reduce the number of fishermen so that seasons will be longer and fishermen will not rotate between fisheries.
- Establish marine reserves, and reduce quotas by 50% and 10% every year thereafter.
- Capacity rationalization through market forces is not appropriate.
- Community quotas are not appropriate as the fish are a public resource.
- Incorporates by reference Pew Foundation reports on overfishing and the Councils.

West Coast Seafood Processors Association (Mr. Rod Moore, Executive Director)

- Have concerns about the process chosen to develop the EIS; allocation should come first.
- Cannot analyze the social and economic effects of a DAP without first knowing whether fishing will be allowed and how it will be allocated.
- The DAP should include all species of Pacific groundfish covered under the FMP and legally available for harvest; or separate DAPs should be developed for Pacific whiting and for non-Pacific whiting groundfish fisheries.
- Providing privileges to some but not all harvested species will negate the economic benefits of a DAP and reduce impacts on bycatch reduction.
- The Council should consider three groups for initial allocation of privileges: owners of limited entry (LE) trawl permits, processing companies that purchase LE trawl-caught groundfish (with a sub-option of processing facilities, rather than companies); and communities where at least 1% of the annual landings of LE trawl-caught groundfish are made.
- The Council should consider allocating directly to recipients through a regulatory process and distributing privileges through an auction system.
- The Council should consider having no caps on quota ownership in order to allow maximum economic flexibility. The Council should also consider having different caps for different privilege holders.
- For ease of enforcement, the Council should analyze an option that limits the number of ports where trawl-caught groundfish may be landed.

APPENDIX A

TRANSCRIPT OF PUBLIC COMMENTS

Trawl IQ Scoping Hearing

Pacific Fishery Management Council

Crowne Plaza Hotel

1221 Chess Drive

Foster City, CA 94404

June 13, 2004

Mr. Bob Osborne, recreational angler and fishery consultant for United Anglers of Southern California

It's been over a year since we started talking about this. We've been asking for an opportunity to get a recreational angler into the process to discuss putting some potential alternates into the process, looking at other stuff that would affect recreational angling that might be covered in the process with the team currently in place.

I've heard where it's at that the Council doesn't consider this IFQ program to be granting rights, but the last time I was aware of a process where it made that determination that didn't involve the full public was King George, with the colonials. It's complicated. . . . The complications are covered in the NOAA publication "Sharing the Fish." I don't think it's simply cut and dried to have an IFQ program without answering some of these more difficult questions that the Council seems to be trying to avoid.

For example, cross-sector transfer of quotas; in addition, the call for national standards for IFQs, from a broad sector, very clearly states that this is not an easy process and that there needs to be a wide public process in establishing the goals and objectives for this process and in designing (it well?). Bycatch still is a problem. There are number of fish species subject to bycatch, such as northern bocaccio, which there is no stock assessments on. Another issue is habitat considerations. The damage to bottom habitat, over which the drag gear passes; and also offsite damage from the dragger gear, from clouds of sediments that increase water turbidity and may have smothering effects on filter feeders well away from the trawl passage. Thank you.

Mr. Kent Craford, Director, Coastal Jobs Coalition

We're a group recently formed by the WCSPA to evidence the broad base of support for *balanced* fisheries rationalization that recognizes and provides for all stakeholders in the west coast groundfish fishery, including seafood dependent communities. I'm here today representing dozens of companies and organizations employing thousands of people in primary processing and its supporting industries, including transportation, cold storage, and packaging, for example, in addition to seafood industry customer groups, like restaurants. . . . Thank you for the opportunity to comment today. . . . first I'd like to express our coalition's strong support for dedicated access privileges or IQ systems. There are significant economic and management benefits that can be derived from IQ systems for these 2 groundfish fisheries, but the key to obtaining those benefits, especially economic

benefits, is in the proper design of an IQ system. We've heard it said many times by both processors and fishermen that neither can exist, much less succeed, without the other; therefore it is imperative that any IQ program...recognize this fact, and work to foster the vitality of both for their mutual benefit and the benefit of the communities that depend on them. So the primary message we'd like to send today is that any IQ system must provide equally for harvesters and processors. A balanced approach will bring needed stability to both sectors, for supporting industries as well as coastal communities. With this in mind we formally proposed the inclusion of the following alternatives... And some of these may already be partially covered in the scoping documents. We feel that the socioeconomic impacts of each of these alternatives should be analyzed fully and independently of each other. The alternatives we propose are:

1. Establishment of community quota or CDQ to operate parallel to an IFQ. Despite use in other fisheries, this option was rejected by the ad hoc trawl IQ committee without sufficient justification. CDQ is a reasonable alternative and should be analyzed in the EIS.
2. Second, an auction-based system should be analyzed as a reasonable alternative to status quo or an IFQ system, so we'd like to see an auction-based system put alongside a more traditional IFQ system. Such was the recommendation of NRC to include an auction-based system in the scoping process, as referred to in the scoping document. ...

As stated in the EIS, initial allocation of quota is the most controversial aspect of quota systems, recognizing the tremendous economic and social impacts and shifts that will occur through the initial allocation. ... We support analysis of various combinations of IFQ initial allocation. Each of these deserves equal consideration as a reasonable alternative to status quo in the EIS.

3. A 50-50 initial allocation of IFQ to trawl permit owners and primary processors.
4. Combinations of initial allocation of IFQ to trawl permit owners, primary processors, and community entities.

Additionally, the Coastal Jobs Coalition supports analysis of existing dedicated access privilege or quota systems related to the above-mentioned alternatives, as well as others considered in the EIS. As part of the analysis, we feel it imperative to study our nation's most recently rationalized fishery, Bering Sea crab. We recognize and understand that Congress has temporarily prohibited the consideration of such a system as a reasonable alternative to status quo for west coast groundfish, but analysis of that system is appropriate for learning purposes. As seafood industry business, we feel strongly that the short experience we've had with crab rationalization will speak well for the socioeconomic benefit that such a balanced approach can have for processors, harvesters, community, and all stakeholders on the seafood industry. Ignoring the most recent and relevant American fishery quota system while we try to develop our own from scratch would be foolish.

Finally we must express our concerns that this EIS process is premature. It's been recognized that allocations between groundfish harvest sectors need to be negotiated before any trawl IQ system can move forward. Why is this not being done first? To march down the path towards an IQ system without even knowing where the trawl fishery stands vis a vis fixed gear, open access, and recreational fisheries is putting the cart before the horse. ... [We will participate actively in the coming months. Thanks.]

Mr. Peter Huhtala, Pacific Marine Conservation Council

I would like to introduce a letter submitted under C9, would like the substance considered in this process. Thanks for opportunity to speak. Although I have a lot of concerns about process (I'll limit those to the C9 discussion on Thursday), I have relevant comments on the notice of intent. I'll primarily talk about the cumulative impact analysis required. The NOI came jointly from the NOAA Fisheries and PFMC, and at every Council I'm racking my brain to find that moment where the Council explicitly voted to instruct staff and NOAA Fisheries to move forward with a trawl IQ EIS. I haven't figured that out yet. But I know we're working on a bycatch program EIS... and there is some sort of linkage. It's very important to PMCC to get a good handle on bycatch – both in monitoring and reducing bycatch, and coming into legal compliance with the FMP amendment for bycatch – and not just legal compliance, but getting down to producing regulations that improve this fishery, and that move us in the future, that increase the economic viability of the fishery and the health of the resource in both the short and long term.

I get the impression though, [that we are] moving quickly and heavily resource oriented into trawl ITQ development, that we may be losing sight of the bycatch EIS itself, referred to in the NOI. The resources, to my mind, really could be better spent in completing, as best we can, that bycatch program EIS, and developing a really useful FMP amendment that can be the basis of regulations for improving the fishery. The resources diverted into this trawl ITQ development could also be better spent on the programmatic EIS, and actually, are requisite to developing a trawl ITQ EIS, because the type of analysis that would be required to take place within the programmatic EIS is the type of information you need to complete the cumulative impacts analysis for these dedicated access privileges. The comprehensive programmatic EIS would not only link our bycatch monitoring and reduction efforts, our efforts to protect EFH, our approach to rebuilding overfished fish populations and preventing overfishing, but it would also provide a forum for analysis of major changes that have occurred in the fishery over the past several years, including our response to overfished species, but also the major closed area management decisions, which have had tremendous impacts on recreational and commercial fishing and fishing communities. And completing the analysis of the open access situation. Should we move the open access fishery into LE? We haven't completed that debate yet.

These are some of the ways that a programmatic [EIS] can start bringing us up to at least a baseline understanding of the what the past effects, the present actions, and possible future actions, could be, in a process in which the public can have a voice in the future of this fishery. And if the public, with eyes wide open, says a trawl ITQ is the way to go to really improve this fishery, then that's the way we go. [But we should go there through an open and inclusive process.]

The NOI and scoping document and the process that's been laid out here today has a fatal flaw which the previous speaker pointed out, in that the idea is to design the trawl ITQ program and then figure out allocation. Well, the cumulative impact analysis can't even be reasonably complete unless you consider the development of the program as well as the allocation. The allocation has considerable impact on fishing community, processors, the recreational fishing fleet, adjacent fisheries, fixed gear, OA, etc., and there is no way that we can separate these, whether the allocation should go first – maybe it should; in some ways, in completing and implementing the bycatch program EIS perhaps there needs to be some allocation issue worked out. But certainly in the context of a trawl ITQ, the program cannot be separated from the allocation, because it's far too complex

and we end up with a program design that is a foregone conclusion before we get the allocation, and that is no way to be fair in the social and economic analysis necessary to protect our fisheries and our fishing communities.

Finally the fact that DAP is the new buzzword is interesting to me. It became popularized with the US Commission on Ocean Policy report. The US Commission was supportive of considering DAPs at various times, but they very specifically, in their draft report, recommended a series of national standards that these programs should adhere to, or lacking standards, that ... and they're remarkably similar to the standards proposed by the MFCN, a group that the PMCC is part of...there are over 170 groups involved (said who is involved in MFCN.) But the US Commission—I have to read their recommendations into the record here:

At a minimum, the national guidelines should require DAPs to specify the biological, social, and economic goals of the plan; recipient groups designated for the initial quota shares and data collection protocols; provide for periodic reviews of the plan to determine progress in meeting goals; assign quota shares for a limited period of time to reduce confusion concerning public ownership of living marine resources; allow managers flexibility to manage fisheries adaptively, and provide stability to fishermen for investment decisions; mandate fees for exclusive access based on a percentage of quota shares held; these user fees should be used to support ecosystem-based management. Fee waivers, reductions or phase-in schedule should be allowed until a fishery is declared recovered, or a fishermen's profits increase. Include measures such as community-based quota shares or quota share ownership caps to lessen the potential harm to fishing communities during the transition to DAPs; and something we haven't heard about yet today, hold a referendum of all permitted commercial fishermen after adequate public discussion and close consultation with all effected stakeholders to ensure acceptance of the dedicated access plan prior to final RFMC approval. Worth reflecting on.

Mr. Tom Raftican, United Anglers of Southern California, and speaking on behalf of United Anglers of California, who couldn't be here today

The groundfish fishery needs a programmatic review before an IFQ program can be considered. According to NEPA, federal managers are required to analyze the impacts of recent changes to the groundfish fishery. The fishery is in tremendous flux, and needs this type of analysis before moving into a major reconfiguration of the fishery. Implementation of the trawl IFQ could lock us into sector allocations and gear configurations that may not be appropriate.

2. The recreational sector must be included in the initial program and design of intersector allocation. Trawl IQ committee membership has excluded representatives of the recreational sector. We have requested membership from the Council, and our exclusion has created uncertainty in the recreational community about the impacts of trawl IFQ on the recreational sector, especially w/regard to bycatch. Participation in the inter-sector allocation portion of the process is impaired by not having (been) part of the initial program design.
3. Funding for the trawl IFQ must be discrete and secure. The rush to complete an IFQ for the trawl sector has led to a virtual scramble for funds. The scramble indicates that the cart has been placed before the horse, and that a well thought out, integrated approach for design and funding should take place.

4. National standards for Congress have not been enacted. While it's certainly in the Council's right to pursue an IFQ program given that the moratorium has expired, it is the position of the UA of SC and the UA of CA that national standards such as those described in HR 2621 be enacted before new IFQ program are approved by NOAA Fisheries. NOAA Fisheries has made it clear that they want to see criteria from Congress before approving any new IFQ programs.

Ms. April Wakeman, attorney representing United Anglers of Southern California

Want to reiterate the fact that recreational fishermen will be affected, and do need to be represented, and would appreciate the chance to participate. From a personal point of view, buy-in is much better if everybody has participated in the solution, so it's just good common sense.

Mr. Pete Leipzig, Fisherman's Marketing Association

... This process is going to be a long one. It's a complicated issue, and a lot of work will go into putting this together. For many of us it will be a very frustrating process. Much of what is going to occur is very bureaucratic. But it's a requirement; you have to adhere to the requirements to complete all the necessary analysis. But for someone like myself, I feel much like a father bringing an injured child to the emergency room, and before he can be attended to there's the requirement to complete all the insurance paperwork. He needs attention, but we're gonna spend the time dealing w/the paperwork. And as I hear some of the other speakers, it's almost as though that analogy has expanded, that they're suggesting that perhaps we need to have a review of the admission procedures before we can begin the paperwork before we can have the child see a physician. This is frustrating. I hope that we can continue to move forward. Some of these issues that people raise can occur concurrently, in parallel with the work that the committee is doing, with the work that the analysis group is doing. The council has been requesting for years to get along with sector allocations. We've limped along; we have some things in place because of the declaration of overfished species; they're not adequate; we need to get past these things. But they don't have to occur sequentially. Those who suggest that they occur sequentially, I have to be very skeptical; in view of what you're saying, I believe you're not interested in having an ITQ program go forward, and that the perfect way to delay it, to kill it, is to have it go sequentially. Thank you.

Mr. Steve Bodnar, Coos Bay Trawlers Association and Bandon Submarine Cable Council

The trawl fleet wants the IQ program; everybody comes to the door and is knocking there; it is amazing to me that there wasn't this kind of attention done when the fixed gear, the LE fixed gear, pulled the same thing and got their IQs basically by permit stacking. It's just amazing to me that the gear makes the difference in who's at the door and who wants in. Welcome aboard everybody!

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TRANSCRIPT OF PUBLIC COMMENTS

Trawl IQ Scoping Hearing
Pacific Fishery Management Council
National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, WA 98115
July 20, 2004

Mr. Hartwell, Environmental Defense

Environmental Defense fully supports the Council's decision to move forward to develop IQ alternatives for the West Coast groundfish fishery. We look forward to working with Council in developing a program to improve management and resource sustainability and bring economic sustainability to fishermen, processors, and coastal communities. We are interested that there be a range of alternatives to address coastal community concerns. Over the summer we are working with coastal community leaders to better understand their concerns and needs and will be presenting a report to the Council at their September meeting describing our findings and their implications for IQ alternatives. We are pleased that the Council recently added a coastal community representative to the Trawl IQ Committee. We believe that it is of utmost importance that the process continues to be open to all stakeholders' input throughout the EIS process. Finally, ED will be hosting an open forum on the British Columbia ITQ program in Newport, Oregon, next week from 9 am to 1 pm on July 27th. The public will have an opportunity to hear firsthand about the environmental and economic benefits of IFQs from participants in the BC groundfish fishery and will be able to discuss the implications for our own ITQ development process. We will be submitting a summary of this meeting as part of our formal written scoping process after July 27th. I encourage interested parties to seem me after about the Newport forum. Thank you.

Mr. Casey, Bering Sea crab vessel owners representative, Woodinville, Washington

My clients are Bering Sea crab vessel owners, and if I lie to you today Bob Alverson and Dave Fraser can tell you that they saw everything that I saw. I simply came to warn you. I read this article on the web about what you are doing and all my remarks refer to page A9, accumulation limits. I simply wanted to tell you what happened in Alaska and warn you about a socioeconomic virus that I think we let loose up there and could very easily come down here all along the Pacific coast. In my opinion with the next rewrite of the Magnuson Act it spread all over the country. I believe it is against a hundred-year historical tradition in this country of antitrust containment. Here is what it is in a nutshell. I ask you to write down two numbers: eight, which is the percent of the IFQs in crab that processors own in the Bering sea. That's what they qualify for under the qualifying year scenarios decided on by the [North Pacific] Council. Number two, please write forty, question mark. I believe this is right; I get that number by multiplying eight processors times a five percent ownership cap. As you know, every fisherman, Dave Fraser for example, may only accumulate one percent of the IFQ in crab, according to the Secretary of Commence. Glenn's people may each acquire five percent. This is all legal, all above board, all on the public record. But when I tell you who decided that I think you will be surprised. Gary Locke decided that.

Governor Kulongowski decided that. Governor Kitzhaber decided. Governor Knowles decided that. And Governor Murkowski decided that. And do they even know it? Of course not. However, the Magnuson law says that they have a seat, a voting seat ex-officio, on those councils. All of their representatives voted to give Dave Fraser one percent max and give Glenn's people each five percent max. And when I read your article I thought maybe we can contain this to crab in the Bering sea. You remember who decisively won the Civil war by overrunning Atlanta? He had a brother who wrote a law called the Sherman—not William Tecumseh Sherman, his brother—the Sherman Antitrust law. You know that we've come to that in Alaska. The way the decision was made all of Glenn's guys are subject to the antitrust laws today and into the future. There is no escape from that. But what is the golden ingredient that gets all the way around that? It's the five-to-one ratio. If 240 Dave Frasers can only own one percent and eight processors can own five percent each, who cares about the Sherman or Clayton Antitrust Acts? Within 10 years, most likely the harvesting privilege will be owned and controlled by the vertically integrated operations. And you know what? Some of them are fishermen owned. Let's not point fingers. Not only international corporations, they are partnerships with the fishermen. We tend to think that's the wrong way to go, and I hope that when you guys make this decision.... I think I was looking at page A9, it says one percent or nine percent, and that's where we started too. I hope you make it the same. My message is purely that. Whatever you decide, give the fishermen the same as the processor. Otherwise I believe you are creating a system—remember in the *New Industrial State* John Kenneth Galbraith talked about countervailing power between labor and capital? This is a little different. But to maintain a competitive market it seems to me you don't want to accumulate large blocks of fishing privilege in the hands of a small group. Eight, and 240 can only have one percent. Thank you.

Mr. Dave Fraser, F/V Muir Milach

I haven't taken much time to go through this and I hope there's an opportunity to submit email comments on this. I just wanted to say real quickly that I support the comments of EDF. I think that the experience we had early on in the presentation from the B.C. fishermen and processors presents a real good model. I think the Council should move ahead quickly—2009 didn't sound real quickly—but as quickly as possible to move toward a rationalized environment. On page 2.9, socioeconomic environment, I think its real important, this is in the context of the allocation options on page 8-21, and I'm assuming the ones under the TIQ recommendations are the ones that will be further developed. [Inaudible response from Jim Seger.] Right. And I have no objections to the first three on the list. I think option number four isn't currently legal and I wouldn't encourage moving in that direction. One that isn't on the list that I've seen supported elsewhere is individual processing quotas in addition to the the allocation of quota to processors, which is a horse of a different color. I don't support IPQ systems. But I do think that the NRC set some good guidelines in *Sharing the Fish*. Looking at processor concerns is relevant, and in that context and coming back to what's on page 2.9, it's important to look at the relevant amounts of non-malleable capital invested in the harvesting and processing sectors and how relevant that capital is to the particular fishery. You can have a non-malleable processing plant, but it may be doing crab and salmon and sardines and this and that. So those sort of comparisons are relevant if you go down the road of alternative three of allocating harvest

share to processors and trying to put that in perspective. I think an important element that needs to be woven into the socioeconomic environment is maintaining a competitive marketplace. The one IPQ system that is recently popularized, the Department of Justice pointed out very serious competition issues with that. I heard the comments about communities, and EDF comments, and it's interesting to note what's important to communities can go two different ways. In Alaska, the Pribilof Islands are totally isolated from road access and kind of different situation from communities down here. They sort of jumped on board with the processors. On the other hand, Kodiak Island felt that they would be best served by a single pie system that encouraged competition in the marketplace, which would be good for the community as a whole. I'm just thinking about our situation on whiting, we deliver in Ilwaco. But some of our fish is processed in Ilwaco and some of it ends up in a truck going up to Bellingham or Stanwood, going up the road. The community issue doesn't necessarily resolve in one specific direction. Our crews are scattered from Bellingham to Port Townsend. Anyway, I'll try to submit more coherent comments by email. [Inaudible comment from Jim Seger.] I think it is a relevant option in terms of that. I mean the connection between the communities is both harvesters and the processors. One thing I did mean to mention, I found it rather odd that the TIQC included the allocation of harvest shares to processors but excluded the option of allocation to harvesters or skippers or permit owners. And that seem contrary to the general tone of advice from the NRC. It always baffles me why skippers would end up lower on the totem pole. [Inaudible comment from Jim Seger.] Yea, thank you.

Mr. Peter Huhtala, Pacific Marine Conservation Council

Some interesting additions to the discussion today. PMCC has commented on this before and we will in the future. We are real concerned about some of the issues that have been brought up today, around consolidation, also about potential loss of fleet diversity. We look forward to the detailed analysis in that regard. And certainly the issues of vertical integration and the real potential for this to spread to processor quotas, if not explicitly in this initial process, inevitably perhaps. PMCC's position remains that this process is premature to adoption of national standards for IFQ programs by Congress and premature to completion of a programmatic EIS for the groundfish fisheries, the whole programmatic to review the current state of the groundfish FMP and in an open process to establish the values, goals, and direction of the groundfish fishery. Today I'm going to just briefly offer an alternative to the primary issue as it's stated in the problem statement of the notice of intent to prepare an EIS, which basically comes down to we have a serious problem in the fishery that is constrained by the incidental catch of overfished—certain overfished groundfish species—and in association with healthy stocks. Our suggestion is to analyze something that is a little different from what was stated in the NOI. We'd like to look at a system of hard caps on the total mortality of each overfished species by sector. And in this case you may consider, for example, the nonwhiting groundfish trawl fishery to be a sector. The sector cap would be established through some sort of allocation process. Perhaps not a permanent allocation, but at least an allocation adequate to the season involved or two year period involved. The sector would receive a cap on each overfished species, and upon attainment of the total mortality cap for any of those overfished species the sector would cease fishing. Other sectors that may encounter the same species, as long the sector that was shut down didn't blow past the OY, could continue to fish. Within the sector, individuals

would have the opportunity to choose to opt out of the sector cap, taking with them an individual bycatch cap for their operation. In order to do that, the individual vessel or permit owner would need to agree to carry an observer to verify their compliance with the hard individual bycatch cap. They would, in exchange, also receive access to additional higher trip limits of the healthy target stocks. These individuals that have opted out may also choose to form groups or clubs to pool their hard individual bycatch caps and share the risk. In the case of a sector being shut down, the individuals that opted out would not be shut down; they would get to continue fishing regardless. In addition, the current system of two-month cumulative caps for each of these species could be analyzed in different ways. The hard total mortality caps could be for two months, they could be for four months, they could be for six months, they could be for a year, or they could even be for a two-year period. We're not going to get too far down into the weeds of that, but we'd like analysis looking at getting away from the two-month cumulative limits. But also maintaining some potential for somebody to get back into the fishery and not get shut out for a full two-year period, perhaps. It makes more sense to start that cap over again. We'd like to see this type of hard cap system analyzed in relationship to the complexity and time necessary to develop the other systems that have been suggested to deal with the problems that were stated in the NOI. In the end, we suspect this could be implemented in shorter order, or at least aspects of it, pilot programs, similar to this could be implemented. In fact, the arrowtooth flounder EFP moving to regulations next year is an example of a fishery that is managed very similar to what we are talking about. This allows additional time to go through a programmatic process to review the possibilities for different sorts of dedicated access privilege systems that may be a longer term solution to rationalizing the fishery. But in the meantime we are impatient and we'd like to get on with getting a better hand on the total mortality of groundfish that are in an overfished state, rebuilding those with some degree of assurance and providing access to healthy stocks through the use of incentives in reward. My little offering for today. [Inaudible comment from Jim Seger.] Well yea, if you run into a total mortality cap for one of the other species and you may have to quit fishing. But as far as hard sector caps, going through this, which is a bit of an allocation problem initially, focus on the overfished species rather than going through the full allocation battle. There is sure to be a battle on all the other species as well. Does that clarify what I mean? [Inaudible response from Jim Seger.] Probably. [Inaudible comment from Jim Seger.] Yea. Ultimately, but right now having the kind of monitoring necessary to set hard caps on the recreational sector sounds to me like a nightmare. You know, eventually we're going to have to have them, but since the subject of this problem statement is the trawl fishery, and the subject of this discussion is developing dedicated access privileges for the trawl fishery, I limited it to the trawl fishery. It is easier to define sectors; you can define it as the entire trawl fishery; you can divide up the whiting fishery out; you can divide up the sectors of the whiting fishery; and its relatively easy compared to some of the other sectors, open access for example. [Inaudible comment.] Yea it is; yea, I think that's correct Jim. I just see it in a different way than was presented in the ICA [Inaudible comment from Jim Seger.] And we're clearly not interested in tradable total mortality caps for the overfished species. But that doesn't mean you can't analyze them, which I'm sure you will. Thank you.

Mr. Joe Bersh, Supreme Alaska Seafoods

We operate the Excellence, a mothership in the tribal and nontribal whiting fisheries. My first point has to do with provision A13.2 and its interaction with provision A6, the use-it-or-lose-it and the recency provisions. Unfortunately, this program is apparently going to take some time to implement; yet we fixed in time the recency cap limits, which I believe are 2000 to 2003. At the present time there is a set or fixed allocation period for history years, which I don't see necessarily any reason to change. But one of the goals of this is rationalization through market forces, and I think an analysis of participation in this fishery would show that there has been rationalization that's occurred during the allocation years. Which if the recency requirements don't continue to call for an ongoing participation requirement, if they don't move forward when it comes time to allocate some of this in an IFQ, it's going to give fish to people who have long since retired from the fishery and currently have no intent to return to the fishery. I would say that an ongoing participation requirement would be consistent with the A6 use-it-or-lose-it requirement. If my memory serves me, use it every three out of five years is the requirement there. My next item would be provision A13.5. I suspect I'm not the first person in any of these scoping meetings to raise the issue regarding returning to putting a control date in these and that there is an allocation to the processing sector or to non-harvest sectors. So I would ask that that would be reconsidered. Comments from members of the TIQC suggested that the reason that it was not appropriate to put in the control date was because it somehow validated the concept of giving IFQ to processors. Certainly that is not a reasonable position as to why it should not be considered. If there are reasons for a harvesters' control date to prevent speculative harvesting, I would argue there is a reason to do it to prevent speculative processing. Another non-popular issue relative to allocation to processors would be to—or maybe this would be a popular one, I don't know—would be to consider alternatives which would only provide ITQ to processors who are not vertically integrated. The concept of preserving non-mobile capital really isn't such an overriding concern if the processor has its own harvest fleet which is already receiving ITQs. So I would suggest that there might be an analysis of placing some type of accumulation limit in the event that shares are given to processors, which would take into account what they are receiving as a harvester ITQ as owners of harvesting vessels. My final comment is I think that the panel has put together a group of people to put in input. We have strong input regarding the Canadian program. Yet I think there's—I fear a tendency to follow too much of the B.C. program without peeling back the layers of the onion in their program to see how it works for them and why it works for them. I would say why some of these provisions would not work for us is because we are faced with a very serious problem regarding overfished species. Peter makes some valid points as to how to treat overfished species. I don't think that there's anything within the B.C. model that can be readily transferred to our system. So I just hope we won't become too focused on looking at their system, thinking that it is working for them and that it will work in all areas for us. I think it's a good starting point, but we need to address our unique issues ourselves. Thank you.

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TRANSCRIPT OF PUBLIC COMMENTS

Trawl IQ Scoping Hearing
Pacific Fishery Management Council
Hatfield Marine Science Center
2040 SE Marine Science Drive
Newport, OR 97365
July 27, 2004

Ms. Leesa Cobb, Port Orford Ocean Resource Team

Firstly, when you do measure any impacts, if you get to that type of work with this program, and we hope you will... identify Port Orford as an individual port and don't lump us in with Brookings or Coos Bay, which has consistently been the practice in the past. It's going to be very important to us during this work that that doesn't happen because of our long history with the groundfish fishery. So we'd like to get that on the record.

I also want to speak in favor of CDQs as an alternative as you're developing these scoping issues. Our community has a community based management project in place that's been up and running for 3 years, so we have the infrastructure to manage a quota, and there's work being done in central California also with another group that could manage a quota. So we're interested in you scoping that.

And [we] request that as at this work proceeds, and as you identify alternatives, that you analyze the impacts on our community all through the process, and one that comes to mind is that when you talk about inter-sector allocation, we're interested in—I guess that means who gets the fish, right?—We're particularly interested in that type of analysis, because of our long history in groundfish fisheries in Port Orford, and essentially not fishing now on groundfish because of the closures on the prohibited species and also the area closure that we have. So we need that type of analysis done. That would help our community understand what this trawl IQ plan is going to mean to us.

In addition, as you do break up the fish and the trawl fleet and develop a process for that, we'd be very interested to identify where that fish is going, so we'll know if there's going to be a shift of effort into our area, accumulation into our area, that might impact our fishing grounds. Thanks.

Mr. Peter Huhtala, Pacific Marine Conservation Council

I've been talking to folks up and down the coast about this issue, had some meetings, public forums in Astoria, Port Townsend, and – gosh. There's a wide range of opinion and you know just for the record, the general idea of this proposal is outrageously controversial. There's some who really think that full-blown tradable IFQs for every species is the cat's pajamas. And there's the more extreme side, saying this is a gifting of a public resource and many of the people who are getting the gift are those who just took the buyback money from the public coffers, which need to be paid by a lot of folks in both the trawl fishery and other fisheries like pink shrimp and crab. There's some—in Astoria—that were [concerned] that

IFQs would reward those responsible for creating the problems that they intend to solve. Others are saying it's a grand economic experiment whose time has come.

I've talked to you a bit about the anxiety that many in PMCC have about the potential IFQs [have] to squeeze out small businesses, cause the loss of jobs and communities—potentially result in big boat domination of the fishery and alternately contribute to the processing sector being monopolized by a few major processors that end up coming in on the coattails of this. I don't know that all of that would happen, because there's a lot of ways that this could go. So we've consistently advocated that national standards be adopted by Congress as recommended by the US Commission on Ocean Policy, and I'm not going to go into the standards exactly right now, certainly we have before; but this would be a development of a some basic national standards in a democratic process in Congress, and it would give us a whole lot more comfort if some of these sideboards on accumulation, vertical integration, time periods for these programs to be expired or be reviewed... because I know you keep mentioning the Council's a public process and all these meetings are open to the public, but frankly the Council may be a public process, but it's not necessarily a real accessible institution, and the actual decision making authority is made by folks that—there's no requirement for the non-fishing public to have any representation on the Councils whatsoever.

So ... not only are we interested in national standards to be developed through a democratic process, but we've also advocated for a programmatic EIS to review the FMP. We consider a programmatic EIS review outrageously overdue, and potentially very useful. This would be a way, a public process, in which the public can look at the goals and objectives and future policy directions of the FMP, and consider the major changes that have occurred in this fishery over the past several years. The overfished species that need to go into rebuilding plans—what's that doing to our communities? What's that doing to our fisheries? The spatial management, the closed area management, wide areas of the coast—how is that affecting individual communities? The buyback itself—how did that play out? What really turned out, what capacity was reduced, and what's that doing to our towns?

That said, in Seattle, Jim, I talked with you a bit about looking at another alternative within this process—assuming this process does move forward, with or without a programmatic EIS—and that was looking at what we call hard bycatch caps by sector, or total mortality caps—very similar to the cumulative catch limits that are described in the scoping document. ... Basically we advocate for a cumulative catch limit, total mortality catch limits by sector, first off; (?) defining the trawl sector—you can surely subdivide that if you like—and giving individuals the option of opting out of their sector, taking with them the personal vessel total mortality cap—we're talking only on overfished species. And in exchange for accepting personal accountability, you get more fish, and if your sector gets closed down, you don't get closed down if you stay within your cap. You can also share the risk with your friends if you trust them, and pool those caps. Which is not unreasonable, because people may want to use gear, techniques, shorter tow times, simply communication to keep away from hot spots of the overfished species, that sort of thing. And we think this makes good sense, especially if we combine this with longer, potentially analyzing longer cumulative periods, so you end up with higher trip limits, higher cumulative period limits, and more flexibility within that period. And we believe this can be accomplished in far less time than 2008-2009;

...we're only talking about the overfished species, and this can be accomplished with what I call soft allocation or [the] annual process of making sense of what ... to offer each sector, and we don't have to go through the whole complete allocation battle, but we can actually start getting a handle on reducing bycatch of overfished species, gaining access to the healthy stocks that we're foregoing at this point, and making things better for the fishery, even as the longer-term potential for other types of dedicated access privileges for the trawl fishery or for the whole west coast groundfish fishery are explored over a longer period of time.

Finally, today I have to touch on a part of this—NEPA documents have a section called the cumulative impacts (or effects) analysis—and what that means is you've got to look at the combined effects of decisions that have been made, or are being made, or are likely to be made sometime in the near future on the decision at hand. And when you're looking at the cumulative impacts of this hard bycatch proposal or any of the other dedicated access schemes on the table, you're gonna have to look at cumulative impacts. And it's really hard for me to get my mind around how you look at the cumulative impacts of the designed phase of a trawl IFQ without looking at the allocation issues—who gets the fish... the communities, the fisheries, the trawl fishery itself—unless you know how many fish are gonna be roughly available between the sectors as well as within the sector. It's really hard to complete that cumulative impacts analysis.

In addition, the cumulative impacts analysis should take a look at the cumulative impacts [for] communities of the major changes in the fishery recently—the rebuilding plans, the shelf closure, the buyback, and look at those impacts carefully, and look them most specifically in how they affect the smaller boat fishermen, the smaller communities, the lower income and minority workers, local processing businesses of all sorts, and certainly adjacent fisheries.

Mr. David Jincks, President, Midwater Trawler's Cooperative, and owner of trawl vessels that fish in Alaska waters and off the West Coast

I'm speaking in favor of trawl ITQs; in favor of ways that I think will benefit not just the trawlers that are fishing, and the vessel owners, but also the communities that the vessels fish out of; the ports; I think it'll be a good thing for all. As far as rationalizing the fishery and moving through ITQs, there are several different ways besides ITQs; there are IFQs, there are several names to put on it; but one of the things that's needed in this fishery is some incentive for the fishermen to continue fishing, and to help with conservation and sustainability of the fisheries that they're fishing for. It gives us the opportunity to go to sea knowing what we can catch, how much we can catch, without throwing the fish away that we caught that we didn't intend to catch. Allocation issues—yes, there will be allocation issues; as I believe Jeff mentioned that between hook, longline, pot, shrimp, open access, we do have some issues there, but right now we are fishing under these scorecards that are ratcheted up and down on us, so not knowing fully each year what that scorecard's going to be set at makes it a little harder to fish. Some of the fisheries that try and fish clean, their scorecard might be dumped down lower to help another fishery. So yes, there should be allocations; we will need allocations. But as far as a set-aside to a certain group of fishermen, yes, I think this is needed; I think it's a long time coming. We've had buyback; I supported

buyback only with the thought of moving into ITQs. My vessel personally just fishes for whiting down here; my part of the buyback, which will go for probably the incidental catch that I bring in, but I am more than willing to still support it; I think it was a good thing, but only if we move into ITQs. Without ITQs, I think buyback wasn't necessary. We need to rationalize the fishery. I'm fully in support of it. The National Standards are in place today. As they change, possibly we'll have to change with them. I think that ITQ Committee, which I am also a member of, in some of our statements we did mention that if new national standards come into place they also will be looked at and incorporated if possible. Right now it's open to look at everything. But it is worth moving ahead with. It will bring stability to these fisheries. Thank you.

Ms. Dorothy Lowman, Environmental Defense

I'm going to give a few comments on behalf of Environmental Defense. E.D. does believe that designing a groundfish trawl dedicated access privilege that utilizes individual quotas may be one of the most important management initiatives ever undertaken by the Pacific Council. We've studied a lot of IFQ programs from around the world and we believe that IQs combined with other management measures can greatly improve the sustainability and economic viability of fisheries. E.D. is very committed to working in partnership with the Council and with all of the stakeholders to ensure that the West Coast trawl IQ process considers a full range of alternatives and their impacts. We really believe that if we work together we can design a program that meets the needs of the resource, industry, and our coastal communities. So we're going to provide you with some written comments, but I wanted today just to highlight, just concentrate on things that I don't think are in the scoping document at this time, that we ought to include to expand the scope at the beginning of this process before we start narrowing the scope.

And first of all, over on the general ideas of alternatives to be analyzed, given Council action on the programmatic bycatch EIS and some of the bycatch objectives that are identified during this process so far, that we should include another alternative for analysis which would be to look at having bycatch caps or incidental catch caps—I don't think I have my terminology quite right—for the overfished species, for all sectors, and then, where possible, allocate them as individual tradable quotas that could be traded between sectors as well as between individual vessels.

We also are concerned that when we design IFQ programs that it is critical that we understand and address the concerns of coastal communities. We're actually going to present a report to the Council in September that will describe the concerns of coastal communities that may not otherwise be engaged in the planning process, and some means of mitigating potential problems based on a summer-long outreach effort that we're currently undertaking. At that time we might have some additional design proposals, but at a minimum we think that it's too soon to take off the table initial allocation to coastal communities. And so we should include CDQs or some other mechanism to allocate to coastal communities.

In addition we ought to look at some other alternative that might be able to be explored to help maintain fishing and processing opportunities within coastal communities. One option that we recommend is to hold back some percentage of the IQ each year to be allocated

annually based on joint proposals with processors and fishermen. Fishermen and processors could present their proposals to the Council or some other body that would rank proposals based on a set of criteria that could include things such as contribution to coastal jobs, maintenance of processing opportunities, sustainable fishing practices, among other ideas. This is based on the British Columbia GDA mechanism, but of course we would modify it to meet the needs of our fishery.

We also think that we should analyze some initial allocation to skippers that could demonstrate some specific history of dependence on the fishery.

Also, in terms of the issues of area-specific IFQs, there may be localized depletion concerns that could warrant area-specific IQs. Therefore we recommend the consideration of area-specific IQs based on socioeconomic as well as biological considerations.

I'm not going to talk about things that are already in the document, although there are certainly some very important monitoring options and others that we think are going to be critical to design of a good program. Finally, one other area that I think we'd like to see a little extension is there's a section on trying to look at maybe a loan program or other options for new entry. We suggest [including] a mechanism [that allows] coastal communities to form nonprofits whose purpose would be to hold and lease quota to community members, that would allow these nonprofits to then qualify for loan program opportunities.

We have not addressed issues related to inter-sector allocations, not because they're not important, but because we know this is a separate EIS. But it's clearly going to be a very important and difficult set of decisions, and we believe that the impact analysis and the controversy of these decisions that we shouldn't wait too long to start that process. I urge the Council to being that soon, and modify the allocation committee to ensure that all sectors and stakeholders have representation and are actively involved.

Mr. Denny Burke – Fisherman with 55-foot crab, blackcod, shrimp boat

I support quota. The trip limit system that we have now isn't really an effective tool with the amount of fish available. When we get our 60-day limit, we really have 15, maybe 20 days and we're done. So if a guy doesn't have something else to do, he parks his boat a lot. So I'm for something other than what we have now, but having said that, I want to express that I have fear for the future. I've had my boat close to 20 years, and in that 20 years every year I've seen less and less access to the ocean and to fish. I mean, I used to catch a lot more pounds than I do now, and it's not because the fish aren't there; the fishing's actually good. I just don't have any access. So I'm for quota, but I'm hoping that as this thing comes down the road, when allocation comes, a guy's share isn't less than he already has now. I mean, what I consider we have now is a real weak pot of soup. It's been watered down, and what's left hardly keeps you alive. Dragging really is maybe 25-30% of my income, and I hope that when this thing's done, it doesn't give a guy less share than he has already, 'cause what he has now isn't enough to stay in business. And along those lines, something I want to ask the Council is, you're gonna get a lot of pressure to change that cutoff date. People are going to want to extend that, and I hope that they stick to their guns and keep it at the November 2003. That's one thing that can help. Another thing, I hope they don't do to make the pot of

stew even weaker than it is already is spread the allocation any further, in other words, right now we don't have access to the ocean. We don't have pounds today, and all we're talking about is the catchers. I mean, the fish is divided among people that are on the boat fishing, the trawlers, it's open access, fixed gear, but it's the actual catchers. There's other groups now looking for allocation—processors, I've heard suppliers, you know; I'm not selfish, but if I have 20 days out of 60 days that I can work now, and somebody else wants some of that, am I gonna get 10 days? So I'm for it. I just hope that when it's over, we don't all look each other in the eye and go "whoa, that was another mistake" because a lot of things that we've done, I didn't see any relief, really, from limited entry; so far I haven't gotten an increase from buyback—the only good thing is so far, there's no payback. And I hope that stays that way. Cause I mean, you know, my cannery has more boats than it used to, and my limits are no better. So I can wander on forever. I'm for this; obviously status quo isn't going to get it. But we can't water this down any more than it is. Everybody wants a piece of the pie. It's an awfully small pie already. I hope it stays where it started, which is with the fishers. Thank you.

WRITTEN COMMENTS

Following are the actual written comments received.

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RECEIVED

July 29, 2004

AUG 02 2004

Pacific Fishery Management Scoping Council

PFMC

Concern: Access Privileges
Individual Fishing Quotas

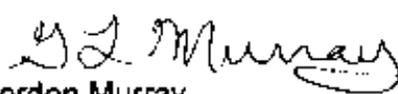
I started working on West Coast Trawlers in Eureka, CA in 1970. I worked on deck for 8 years. In 1978 I started operating a multitude of West Coast Trawlers. As a Captain I saw the fishery as prolific and sustainable.

I have devoted over 20 years of my life to catching groundfish as Captain/Manager. I have saved money towards purchase of a Trawler in the Capital Construction Fund. I may lose over half of this fund as my ability to buy a boat has changed with the buyback.

Captain/Crew who were responsible for significant past catch records but did not own the vessels they fished should not be overlooked and instead be granted IFQ Access Share in groundfish. As I state my situation I speak for many others.

I received nothing from the buyback. I am unemployed in less than a viable job market in my preferred and chosen profession.

Access to groundfish after many years of past catch history seems just. More just than Processors acquiring IFQ.

Sincerely, 

Captain Gordon Murray
Past Captain of the FV Blue Horizon
PO Box 948

Astoria, OR 97103

Email Address: Gordon & Murray @ EarthLink.NET

Cell: (503) 551-4846

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Coastal Jobs Coalition

Working for Sustainable Fisheries and Communities

Testimony of Kent Craford
Pacific Fisheries Management Council IQ Public Scoping Hearing
Foster City, CA
June 13, 2004

My name is Kent Craford and I am the director of the Coastal Jobs Coalition. We are a group recently formed by the West Coast Seafood Processors Association to evidence the broad base of support for balanced fisheries rationalization that recognizes and provides for all stakeholders in the West Coast groundfish fishery including seafood-dependent communities.

I am here today representing dozens of companies and organizations employing thousands of people in primary processing and its supporting industries including transportation, cold storage and packaging for example, in addition to seafood industry customer groups like restaurants. Together, these many specialized sectors make up the seafood industry.

Thank you for the opportunity to comment today on reasonable alternatives for the development of dedicated access privileges for the West Coast groundfish trawl fishery, and potential impacts of those alternatives.

First, I would like to express our coalition's strong support for dedicated access privileges or individual quota systems. There are significant, economic and management benefits that can be derived from IQ systems for these two groundfish fisheries. But the key to attaining those benefits, especially economic benefits, is in the proper design of an IQ system.

We've heard it said many times by both processors and fishermen that neither can exist, much less succeed, without the other. Therefore it is imperative that any IQ plan developed for West Coast groundfish recognize this fact, and work in such a way as to foster the vitality of both for their mutual benefit, and the benefit of the communities which depend on them. And so, the primary message we would like to send today is that any IQ system must provide equally for harvesters and processors. A balanced approach will bring needed stability to both sectors, their supporting industries as well as coastal communities.

With this in mind, we formally propose the inclusion of the following alternatives, to be given full and equal consideration in the EIS process in addition to those already outlined by the Ad Hoc Trawl IQ committee. We feel that the socio-economic impacts of each of these alternatives should be analyzed fully and independently of each other. The alternatives we propose are:

1. The establishment of Community Quota or CDQ, to operate parallel to an IFQ. Despite use in other fisheries, this option was rejected by the Ad Hoc Trawl IQ Committee without sufficient justification. CDQ is a reasonable alternative and should be analyzed in the EIS.
2. An auction-based system should be analyzed as a reasonable alternative to status quo or an IFQ system. Such was the recommendation of NRC as referred to in the scoping document. Such a system has merits and should be analyzed.

As stated in the EIS scoping document, initial allocation of quota is the most controversial aspect of quota systems. Recognizing the tremendous economic and social impacts and shifts that will occur through the initial allocation of fishing quota if an IFQ system is adopted, we support analysis of various combinations of IFQ initial allocation. We feel that each of these deserves equal consideration as a reasonable alternative to status quo within the EIS. They are:

3. 50/50% initial allocation of individual fishing quota to trawl permit owners and primary processors
4. Combinations of initial allocation of individual fishing quota to trawl permit owners, primary processors, and community entities.

Additionally, the Coastal Jobs Coalition supports analysis of existing dedicated access privilege or quota systems related to the above mentioned alternatives as well as others considered in the EIS. As part of this analysis, we feel it imperative to study our nation's most recently rationalized fishery, Bering Sea Crab.

We recognize and understand that Congress has temporarily prohibited the consideration of such a system as a reasonable alternative to status quo for West Coast groundfish. But, analysis of that system is appropriate for learning purposes.

As seafood industry businesses, we feel strongly that the short experience we have had with Bering Sea Crab rationalization will speak well for the socio-economic benefits that such a balanced approach can have for processors, harvesters, communities, and all stakeholders in the seafood industry. Ignoring the most recent and relevant American fishery quota system as we try to develop our own from scratch would be foolish.

Finally, we must express our concerns that this EIS process is premature. It has been recognized that allocations between groundfish harvest sectors will need to be negotiated before any trawl IQ system can move forward. Why is this not being done first? To march down the path towards an IQ system without even knowing where the trawl fishery stands vis-à-vis fixed gear, open access and recreational fisheries is putting the cart before the horse.

Over the coming months as the Council and its appointed committees analyze options for groundfish and whiting IQs, the Coastal Jobs Coalition plans to participate actively to ensure that the full range of reasonable options are investigated. We look forward to working with you and thank you again for the opportunity to comment.

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August 2, 2004

Mr. Don Hansen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

IFQ Scoping Comments

Dear Chairman Hansen:

Designing a groundfish trawl dedicated access privilege system, which uses individual quotas may be one of the most important management initiatives ever undertaken by the Pacific Council. Experiences from around the world show that properly designed IFQ programs, when combined with other management measures, can greatly improve the ecological sustainability and economic viability of fisheries.

Environmental Defense is committed to working in partnership with the Council and all of its stakeholders to assure that the west coast trawl IQ process considers a full range of alternatives and their impacts. By working together, we are hopeful that we can design a program that meets the needs of the resource, the industry and our coastal communities.

To this end, we have reviewed the June 2004 scoping document, and offer the following recommendations regarding the range of alternatives, IFQ design elements, and impact considerations. These are preliminary recommendations intended to meet the NEPA deadline, and we intend to provide ongoing comments through the Council process to encourage that the concerns of all stakeholders be adequately considered.

Additional Alternatives to Be Considered

Sectoral Bycatch Caps Allocated as Transferable Bycatch Quota

An additional alternative that should be considered is to develop hard bycatch caps for overfished species for all sectors of the groundfish fishery as a whole. Then, for the sectors where feasible, allocate the sectoral bycatch allowance as tradable Individual Bycatch Quota, which could be tradable between sectors as well as between individual vessels.

IFQ Design Elements

In designing an IFQ program, it is critical that we understand and address the concerns of coastal communities for which fisheries are an important part of their economy and culture. Environmental Defense intends to present a report to the Council in September that will describe both the concerns of coastal communities who may not be otherwise engaged in the planning process, and means of mitigating potential problems. The report

will reflect summer-long outreach efforts by our staff, and will describe strategies for ensuring that any IFQ system works for communities as well as industry and the environment. The results may provide some additional design options at that time. However, at a minimum the design options to be considered should include the following:

Initial Allocation

Out-migration of quota from a community has been a concern in other IFQ programs. Initial allocation alternatives should address the potential impacts on coastal communities. Mechanisms should be explored that would help maintain fishing and processing opportunities in coastal communities. One option that should be included is to hold back some percentage of the IFQ each year to be allocated annually based on joint proposals from fishermen and processors. Fishermen and processors would present their proposals to a committee that would include community representation and would rank the proposals based on a set of criteria that could include contribution to coastal jobs, maintenance of processing opportunity, sustainable fishery practices, among others. This option is based on the British Columbia Groundfish Development Authority but would be modified to meet the specific needs of our fishery.

We also recommend that initial allocation to skippers who can demonstrate some specific history and dependence on the fishery be analyzed.

With respect to Initial Allocation options that have already been identified, we support exploring using an auction mechanism, but recommend that it be tiered to provide opportunities for diverse operations to effectively compete for quota.

Area-Specific IFQs

There may be localized depletion concerns that could warrant area-specific IFQs. Therefore, we recommend consideration of area-specific IFQs based primarily on biological considerations. We suggest that agency and academic biologists recommend how best to determine area- and stock-specific management. Area-specific IFQs should also be considered as an option for protecting community interests, balanced with the need for flexibility and transferability to meet the primary objectives of the IFQ program.

Other Design Elements

Monitoring

Through our examination of other IFQ programs, we have been convinced that a key component of programs successful at achieving environmental goals have been individual accountability. Fishermen, managers, and processors in British Columbia alike testify to the importance of effective monitoring to support accountability. We support the 100% at-sea observer alternative as well as 100% dockside monitoring and mandatory VMS options that are included in the scoping document as critical design elements. We would also suggest that an explicit ban on highgrading be included.

Environmental Performance Objectives

The Council should develop measurable environmental performance objectives to which the IFQ program should be held accountable. Environmental performance objectives should be designed to protect habitat, conserve forage species, and sustain target and bycatch species/populations. Such objectives can result in innovative, practical, and cost-effective gear designs and fishing practices.

Cost Recovery

Environmental Defense supports cost recovery for the monitoring activities described above as well as industry financial contributions to research and management phased in over time. In order to preserve options for small boat participants, we also urge the consideration of some form of "sliding scale" or initial loan opportunities for members of the fleet that might otherwise be put at a disadvantage in paying for the costs of monitoring, management and research. Phasing of cost recovery should also be considered, to allow for a transition to a more profitable fishery that is more capable of cost recovery.

Level- Entry Opportunities

The scoping documents describes options for establishing a loan program to assist new entrants, small boat operators and crew who meet qualifying criteria in acquiring quota shares. We recommend that coastal communities be allowed to form non-profits whose purpose would be to hold and lease quota to community members; and that these non-profits also qualify for any loan program opportunities.

Definition of Individual Quotas as Privileges and Ensuring Against Defacto "Rights"

Congress was careful not to create a vested property right under Magnuson-Stevens, which states that an IFQ "shall not create, or be construed to create any right, title, or interest in or to any fish before the fish is harvested." (1996 Cong. US S 39 s 108(d)(3)(D)). Similarly, the National Marine Fisheries Service defines IFQs as a harvest privilege only and not as property for purposes of a takings claim.¹ The federal rule establishing an IFQ program in the Atlantic also emphasizes this point: "The system is not irreversible. It does not convey property rights in the resource...the right to sell an allocation exists only until the Council or the Secretary amend the FMP to modify or withdraw the allocation scheme." (55 Fed. Reg. 24187 (1990)).

¹ NFMS stipulates that the privilege "may be revoked or amended subject to the requirements of the Magnuson Fishery Conservation and Management Act and other applicable law." (50 C.F.R. s. 676.20(g) (1995)).

The government creates IFQs, and therefore has the ability to define them to ensure that they will not be considered legal property rights.² We encourage the Council and NMFS to include unambiguous language that is thoroughly vetted with those stakeholders who have expressed public concerns about IFQs constituting or evolving to become a defacto property right.

Conclusion

These scoping comments are focused on broad alternative and trawl IQ program design issues which were either not identified or had been initially rejected by the Trawl IQ Committee. We have not addressed issues related to inter-sectoral allocation. Clearly, this is going to be an important and difficult set of decisions and impact analyses that must occur before any trawl IQ program is implemented. We urge the Council to begin the inter-sectoral allocation EIS process as soon as possible and to modify the allocation committee to ensure that all sectors and stakeholders have representation and are actively involved.

We will be presenting additional information and comments based on ongoing outreach efforts in September and look forward to working closely with the Council, NMFS, and stakeholders on all aspects of this important management initiative throughout the design and implementation process.

Sincerely,

Rod Fujita

² The government can thus avoid takings claims under the Fifth Amendment. See Robert H. Nelson, 1986 U. Ill. L. Rev 363, 374 (1986).

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INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AND THE UNITED STATES OF AMERICA

June 30, 2004

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JUL 06 2004

PFMC

Dr. Donald O. McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Dear Don,

The staff of the International Pacific Halibut Commission (IPHC) has reviewed the materials available at the June meeting of the Pacific Fishery Management Council regarding the proposal for an Trawl Individual Quota (TIQ) program. An IQ program for this fishery clearly has the potential to address some of the problems currently facing this sector on the Pacific coast. However, the Council briefing document on the TIQ program suggests that prohibited species bycatch, which would include Pacific halibut, would be allowed to be retained by trawl vessels, presumably for sale. We have several comments on this issue for the Council as it develops the elements of the program.

1. Any provision allowing retention of trawl-caught halibut would require IPHC approval. Permissible gear for the retention of Pacific halibut is governed by the Halibut Convention between the U.S. and Canada and must be approved by the IPHC. Current IPHC regulations do not allow trawl-caught halibut to be retained, so allowing this type of retention would require approval by the IPHC and a change in IPHC regulations. In addition, the IPHC would need to address other management measures, e.g., fishing season and minimum size limit. Recent proposals to the Commission requesting trawl retention of halibut have not been approved, so it is unlikely that the Commission would adopt this proposal.
2. The Halibut Catch Sharing Plan (CSP) would need to be amended to account for retention by this additional user group. The CSP currently allocates the annual available halibut yield among recreational, directed and incidental commercial, and treaty tribal fishers. Allowing retention by trawls would effectively create another user group for the halibut resource off the west coast, which the Council would need to include in the CSP.
3. Effect on bycatch reduction. In 1991, Canada and the U.S. agreed to reduce halibut bycatch mortality in non-target fisheries by 50 percent. Requiring retention would, in effect, double the amount of legal-sized halibut mortality by the trawl fishery, as the current discard requirement allows for survival of those in the best condition, or 50 percent of the total caught. In turn, this 100% mortality associated with trawl retention would decrease the yield available to the other current harvesters of the halibut resource. The amount of additional mortality exceeds the current catch limit for the directed commercial halibut fishery.

A member of our staff will be attending the meeting scheduled for July 20, and can answer any questions the technical group may have.

Sincerely yours,

Bruce M. Leaman
Executive Director

cc: Commissioners

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Chuck Wise
President
David Birt
Vice-President
Larry Miyajima
Secretary
Mariyse Tattistella
Treasurer
In Memoriam:
Nahumel S. Bonglans
Harold C. Christensen

PACIFIC COAST FEDERATION of FISHERMEN'S ASSOCIATIONS

W.E. Zeker-Gander, Jr.
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Michele Farrow
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AUG 04 2004

Fax Received 8-2-04

PFMC

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30 July 2004

BY FAX AND BY MAIL

Dr. Donald McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

RE: Comments on Notice of Intent to Prepare an Environmental Impact Statement (EIS) for Consideration of Establishing an Individual Fishing Quota (IFQ) System for the Pacific Coast Groundfish Trawl Fishery.

Dear Dr. McIsaac:

The Pacific Coast Federation of Fishermen's Associations (PCFFA), representing working men and women in the west coast commercial fishing fleet, has reviewed the document noticed in the 24 May 2004 *Federal Register* (Vol. 69, No. 100, pp.29482-29485) noticing the intent of the Pacific Fishery Management Council to prepare an Environmental Impact Statement (EIS) and take scoping comments for the purpose of considering an Individual Fishing Quota (IFQ) system for the Pacific Coast groundfish trawl fishery. PCFFA, which represents some trawl fishermen along the central and southern California coast and various limited access and open access longline and hook-and-line fishermen in the groundfish fishery, has the following comments:

Consideration of Trawl IFQ Program is Premature

PCFFA believes that prior to proceeding with the preparation of an EIS to consider an IFQ system for the Pacific groundfish trawl fishery a number of steps must first be taken. It is premature at this time to be considering an IFQ system for trawling or any other sector of the groundfish fishery until the following occur:

1. **Analysis of Affect of Buyback on Trawl Effort.** Prior to moving ahead with an IFQ system, basing the reasons on many of the factors preceding the buy-back, that just took place this year, an analysis should be done to describe what the affect has been. Has the buyback appreciably reduced effort in the trawl fishery? Have vessels with "latent" trawl

permits moved in to fill the void left by the departure of the buy-back vessels? How does the new trawl fleet catch capacity/economic needs stack up against projected groundfish stock abundance? An analysis of the existing system as affected by the buy-back is needed prior to moving to a new system that may not be warranted by such an analysis.

2. ***Reallocation of Quota Back to Other Groundfish Sectors.*** Prior to moving ahead with consideration of an IFQ system for the trawl fleet, the Pacific Council has an obligation to consider the needs of the non-trawl limited entry fishery and the open access fishery. Both of these fisheries have watched their share of the groundfish resource be whittled away since 1982 in order to provide for the bycatch of the trawl fleet and the somewhat specious claims by some processors that they had to have access to trawl-caught groundfish throughout the year, disregarding either biological considerations (e.g., spawning periods) or economic considerations (the higher value of some of the hook-and-line or longline caught fish). Now that it is evident trawl groundfish may not be available throughout the year and the need to maximize the value of the fish that can be taken, the Pacific Council should consider first reallocating some of the total catch back to the non-trawl sector prior to issuing quota shares in the trawl fishery.
3. ***Establishment of National Standards for IFQ Systems.*** Neither the Pacific Council, nor the National Marine Fisheries Service should proceed with any IFQ system until Congress establishes national standards for the creation of such systems. Since 1996, Congress had a moratorium on IFQ systems, which was to allow time for NMFS to prepare a set of standards for IFQ systems. NMFS failed to do what Congress asked and the moratorium elapsed in September 2003. There is legislation currently in the House and language has been introduced in the Senate to establish standards. The Pacific Council and NMFS should wait, out of deference to the Congress and out of respect for those in the groundfish trawl fishery (in the event Congress enacts standards forcing changes in any groundfish IFQ system), until national standards for IFQ systems are established to assure any program created by the Pacific Council is consistent with the national standards.

Justification of an IFQ System

PCFFA recognizes that for some fisheries an IFQ system may be preferable, providing a number of conditions are met, including assurances that all the active participants in the fishery have access to quota, the quota is apportioned fairly, and ownership of quota is restricted to fishermen. However, in addition to the concern raised above that consideration of an IFQ system for the groundfish trawl fishery is premature at this time, PCFFA believes the rationale given in the notice, fails to make a compelling case for consideration.

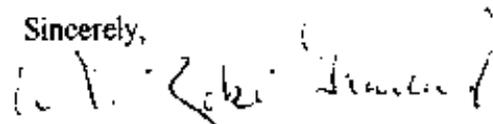
1. ***Bycatch Reduction.*** The proposal for consideration of an IFQ system discusses the bycatch issue in the trawl fishery but fails to say how an IFQ system will improve lessen bycatch over the current trip limit system. Are bycatch quotas being considered as well? Not only is no basis given for how bycatch will be reduced under an IFQ system, the issue of "highgrading" (i.e., sorting through fish to take only the largest or most valuable fish pursuant to a quota) is totally ignored. The notice discusses the problem the groundfish fleet has with being constrained, not be allowed to fish abundant stocks because of the incidental take of less abundant species. That issue is hardly unique to groundfish, but is something the salmon fishery has had to deal with since the Pacific Council instituted "weak stock" management for that fishery.

2. ***Change in Rationale for Groundfish Fishery?*** In the notice it is mentioned one of the advantages for fishermen under an IFQ system is the ability to fish when they want, when the weather and markets are best as well as to access other fisheries. This rationale is contrary to that given by the Pacific Council for nearly two decades to assure there was groundfish fishing year around to supply shoreside plants and processing lines. Indeed, as mentioned above, the rationale for wanting a year around trawl fishery was used to take catch from the non-trawl fishery. How does the Pacific Council and the IFQ proponents explain this change in rationale for groundfish management?
3. ***Cost of an IFQ Program.*** No mention is made of the increased cost of IFQ systems, or even the cost of preparing the EIS, at a time when the councils and NMFS are under pressure to contain costs given the magnitude of the federal budget deficit. PCFFA questions proceeding with an EIS at this time given the costs and the issues raised above, or the ability to pay for such a system if it were adopted. The cost issue has to be carefully considered.

PCFFA, for the reasons state above, urges the Pacific Council not to proceed at this time with the preparation of an IFQ system. The only reason PCFFA can see for rushing ahead with an IFQ system at this time is to grant as much of the fishery as possible to the trawl vessel owners with large catch histories. This is not a proper basis for moving ahead at this time.

If you have any questions regarding these comments, please do not hesitate to contact us.

Sincerely,



W.F. "Zeke" Grader, Jr.
Executive Director

(Blank)



Pacific Marine Conservation Council

May 25, 2004

Donald K. Hansen, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Re: Trawl Individual Fishing Quota public scoping document

Dear Chairman Hansen,

The Pacific Marine Conservation Council (PMCC) is a public-benefit, non-profit corporation that works with fishermen, marine scientists, conservationists, and the general public. PMCC seeks to ensure that needed steps are taken to rebuild and sustain depleted groundfisheries along the West Coast, as well as to balance healthy marine ecosystems with viable fishing community economies.

PMCC is very concerned that the development of an individual transferable quota (ITQ) system for the trawl sector of the groundfish fishery is moving forward with inadequate forethought. The haste in which the Pacific Fishery Management Council (Pacific Council) is being asked to approve a public scoping document to support this development is objectionable, and commencing scoping for a trawl ITQ environmental impact statement (EIS) is, in itself, inappropriate and premature.

The Pacific Council should decline to approve a public scoping document for a trawl ITQ-EIS, and should instead recommend that NOAA Fisheries proceed with the issuance of a Notice of Intent (NOI) to prepare a comprehensive programmatic EIS that will facilitate an open public process for planning for the future of the groundfish fishery as a whole. Within this programmatic EIS process, scientific investigation should occur which examines the biological, social, and economic implications of instituting various forms of dedicated access privileges within the West Coast groundfish fishery – including the possibility of ITQs in the trawl sector. The Pacific Council could, through the programmatic EIS process, also draw on the expertise of their Science and Statistical Committee (SSC) to attempt to reconcile divergent scientific points of view on this controversial subject. This process would assist the Council in deciding whether or not to move forward with an EIS regarding a specific IFQ program – based on a credible scientific foundation.

A comprehensive programmatic EIS must be completed for the West Coast groundfish fishery prior to consideration of options for new forms of dedicated access privileges specific to the trawl sector of this fishery.

PMCC has consistently cautioned against moving forward with a major management change such as a trawl ITQ program, and its associated allocations, before taking stock of the major changes that have already occurred in the groundfish fishery in recent years. These include several overfished species with rebuilding plans under development, large areas of the continental shelf closed to certain types of fishing effort, the buyback of 91 trawl permits and the subsequent transfer of at least 17 latent permits, and environmental impact statements under development for both bycatch and essential fish habitat. PMCC has called for analysis of these major changes and linkage between the various National Environmental Policy Act (NEPA) initiatives. This would require an open, public process, where informed decisions can be made about a vision for the future of the groundfish fishery – a comprehensive programmatic EIS.

Prior to taking the radical step of seriously considering ITQ-based management, it is essential to review and analyze the impacts of recent changes to the groundfish fishery, and important new information that is now available. NEPA (at 40 C.F.R. § 1502.9(c)) requires preparation of supplemental [programmatic] EIS when “the agency makes substantial changes in the proposed action that are relevant to environmental concerns;” or when “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” The groundfish fishery certainly qualifies on both accounts, and it would be entirely appropriate for the Pacific Fishery Management Council to urge NOAA Fisheries to begin work on a programmatic EIS as soon as possible, both for the utility of the process and to comply with the law.

The willingness of NOAA Fisheries to fund the trawl ITQ-EIS process should raise concern in light of a statement made by Bill Robinson of the Northwest Region at the June 2003 Council meeting, when development of a comprehensive programmatic EIS was abandoned in order to focus more narrowly on bycatch. From page 34 under B.12.b of the NMFS report: *“Mr. Robinson wanted to point out to the Council that the concept of a broader programmatic EIS is still alive as far as NMFS is concerned. But the resources available didn't allow preparing three major EIS's simultaneously. The EFH EIS and bycatch reduction are mandated by the Court so they take precedence. Hopefully, NMFS can prepare a programmatic EIS in the future once resources were made available.”* Yet, resources were apparently found for developing a trawl ITQ, instead.

The Notice of Intent (NOI) to prepare an EIS regarding implementation of dedicated access privileges in the groundfish trawl fishery is deficient, and some premises set forth in this NOI can be considered misleading.

Providing exactly 21 days of notice of the only Pacific Council meeting-associated scoping session, as is here the case, for an EIS which would herald a major departure for Council-system management is outrageous. When taken along with a promise to provide a draft public scoping document *at the time* of the session, outrage must turn to grief for the insult to public process that

this represents. This is an issue that affects people's lives, their livelihood, our ocean environment, and is integral to the future management of West Coast marine fisheries. This is not an isolated instance where the timing of notice limited the ability for the public to be involved with this process. The October 2003 meeting of the Ad Hoc Trawl Individual Quota committee was held after providing just 14 days advance notice in the Federal Register, the exact minimum notice required under the Magnuson-Stevens Act. Only 15 days Federal Register notice was provided for this committee's second meeting in March 2004.

Frankly, I'm surprised that this NOI was pushed to publication in the Federal Register, since I'm still not sure where the funding for this EIS might come from. Mr. Chairman, we have all heard about the attempt to access for this purpose the remaining \$550,000 or so in California's share of the groundfish disaster relief funds. The irony is clear: take funds that were intended to help the fishing community cope with the economic hardship of a fisheries disaster, then use that money to set up a system from which a few people will profit while putting many times more out of a job.

The authors of the NOI seized upon a phrase used by the U.S. Commission on Ocean Policy: "dedicated access privileges," perhaps as a euphemism for the vilified "individual fishing quotas." In fairness, the new term broadens the concept somewhat. However, there is a big problem here in that the NOI authors selectively take the work of the U.S. Commission out of context, completely omitting the commission's recommendation to enact national standards for implementation of dedicated access privileges – to guide processes like that being placed before the Pacific Council. (Please see page nine of these comments for a list of the U.S. Commission on Ocean Policy recommendations for minimum standards.)

It would seem that those developing this trawl ITQ would either rather not wait for Congress to enact standards such as those proposed by the U.S. Commission on Ocean Policy, or perhaps they just don't like those particular standards. Judging from the ITQ proponents' opposition to setting quota shares for limited durations, or even allowing participants in a fishery to vote in a referendum as to whether an ITQ system should be established, to name two standards, I the latter is likely the case.

The authors of the NOI also engage in an unfortunate misappropriation of the Bycatch Program EIS and the Pacific Council's choice of a preferred alternative. The Bycatch EIS is an important document designed to help guide the Pacific Council's program for bycatch monitoring and reduction over the next few years. The Pacific Council's preferred alternative moves toward sector-based bycatch caps, while making explicate the status quo efforts to quantify and minimize bycatch. Support for potential "future IFQ programs in appropriate sectors of the fishery" was mentioned, but not explained. The Pacific Council specifically *did not* choose an alternative in the Bycatch EIS that would have centered around "rights-based" management, even though this option was presented to the Council as an alternative. To use the Bycatch EIS in any way to form a programmatic nest for a trawl ITQ is worse than a stretch, it would be utterly misleading and disingenuous.

This is not to say that IFQ systems could not have a beneficial impact on bycatch reduction. Apparently most have not, though, and many IFQ systems have exasperated bycatch problems. Since the NOI highlights bycatch and the constraints imposed by encounters with overfished species

as major problems in the West Coast groundfish fishery, it will be interesting to see how the offered public scoping document proposes to reduce bycatch over the status quo, if in fact this is attempted. If peer-reviewed science is offered that is contrary to much of the current literature, this could be useful within the scientific review process discussed earlier, in the context of a comprehensive programmatic EIS, including consideration by the SSC.

In any event, the Bycatch Program EIS needs to lead in short order to a Fishery Management Plan Amendment that fully addresses bycatch monitoring and reduction, in a legally-compliant fashion. A hypothetical trawl ITQ years in the future is not going to fulfill this requirement, any more than the Bycatch EIS lays the foundation for a trawl ITQ.

Again, it comes back to a reasonable mandate: the Pacific Council and NOAA Fisheries should fully engage in developing a comprehensive programmatic EIS, linking disparate efforts in a thoughtful, measured way, and fully engaging the public. This step could go a long way toward improving a management system that has too often been crisis-driven.

The process leading to the public scoping document has been severely flawed, inherently tainting the material offered to the Council.

When the Pacific Council's Trawl Individual Quota Committee (TIQC) met in March 2004, the TIQC continued to develop recommendations for *how* a trawl ITQ would function, working to create a public scoping document to "focus" public comment during scoping for an EIS that would support development of a trawl ITQ system. The committee report to the April Council meeting states: "Public scoping sessions are not a required part of the scoping process, however, because of the controversial nature of individual quotas and the scoping effort that has already occurred through the Trawl IQ Committee meetings, such sessions may be warranted. An open process that 'invites broad participation by stakeholders' is one of the recommendations contained in the National Research Council report produced pursuant to the Sustainable Fisheries Act."

PMCC continues to maintain that an open process is needed *before* considering moving forward with developing a specific IFQ program. Systematically attempting to narrow the scope of alternatives for the groundfish fishery by presuming that a trawl ITQ system (or even trawl "dedicated access privileges) is the public's preferred general direction is premature. Spending federal resources to support the TIQC's development of specific recommendations which may further prejudice public scoping (because recommendations have been agreed to by a Pacific Council-appointed committee, and now potentially approved by the members of the Pacific Council) raises eyebrows – especially when interested stakeholders from recreational, fixed gear, open access, and other potentially impacted fisheries have been deliberately excluded – along with conservation groups that support the agenda of the Marine Fish Conservation Network (a coalition of over 170 conservation groups, commercial and recreational fishing organizations, and marine science groups), that new IFQ programs should not be established until after Congress enacts national standards that protect fishermen, coastal communities, and the environment from the many potentially harmful effects of this type of management.

The preliminary motion creating the TIQC, made by trawl fisherman and Pacific Council member Ralph Brown, specifically named eight trawl fishery and three processor representatives as the primary representation. Although the official motion was modified to describe representation rather than individuals, the same people ended up appointed (along with a tribal representative, a representative from enforcement, and, later, another processor). The named individuals also included a contractor with Environmental Defense (ED) as a "conservation" seat. It is well known that ED is very unusual in the conservation community as proponents of rights-based management; the staff of ED had been strongly advocating in support of IFQs, and the organization has since contributed money to support the Pacific Council's development of a trawl ITQ system.

Mr. Brown as well as several individuals who were appointed to this committee, which is primarily supported by public dollars, stand to see substantial financial benefit if a trawl ITQ is enacted, while other commercial and recreational fishermen excluded from the development process may lose market share, or even their businesses, depending on how the ITQ might be implemented. This situation argues strongly for legislation that would require council members to recuse themselves from votes which would have a direct financial implication upon their business. As it now stands, Mr. Brown did not violate any law by acting to support his personal financial self-interest.

But even conflict-of-interest reforms at the council level would not ameliorate the inherent flaws in setting up a committee designed to avoid dissenting opinions, other than the tensions of negotiating power between trawlers and processors. This is an insider, backrooms game that excludes adjacent commercial fisheries, the less-efficient trawl businesses, the entire recreational fishery, and the American public. There is no wonder that this process has inspired the widespread perception that what is going on here is a privatization of this country's ocean resources, a "theft of the commons."

For the Pacific Council to take the dramatic step of approving a scoping document for a trawl ITQ-EIS would be extraordinarily unwise, because this would quickly be interpreted as Council support for the basic idea that a trawl ITQ is desirable, and all that's left is to debate the precise structure and allocation of species. This would also be a rejection of the right of the public to have a voice in the future of West Coast groundfish.

Under objective criteria developed by the National Research Council, the West Coast groundfish trawl fishery is unlikely to be considered an appropriate fishery for implementation of an individual fishing quota system.

According to the National Research Council's Sharing the Fish: Toward a National Policy on Individual Fishing Quotas, "*IFQ programs will be more successful when the following conditions are met:*

- 1) *The total allowable catch can be specified with reasonable certainty.*
- 2) *The goals of economic efficiency and reducing the number of firms, vessels, and people in the fishery have a high priority.*
- 3) *Broad stakeholder support and participation is present.*
- 4) *The fishery is amenable to cost-effective monitoring and enforcement.*

- 5) *Adequate data exist. Because of the long-term impacts and potential irreversibility of IFQ programs, it is important that sufficient data are available to assess and allow the mitigation of, insofar as possible, the potential social and economic impacts of IFQs on individuals and communities.*
- 6) *The likelihood for spillover of fishing activities into other fisheries is recognized and provision is made to minimize its negative effects.*

Certainly a situation exists (1) in groundfish where the allowable catch for each managed species or group of species is *specified* each year, although most of these species have not undergone a complete stock assessment. I think the intent here is to point out the difficulty inherent in setting up IFQs for populations of exceptionally variable biomass, such as Dungeness crab or pink shrimp. However, implementation of IFQs can also be problematic in multi-species fisheries that include depleted populations with a low biomass. The need to rebuild the populations of these species demands a higher priority than quota-holder access to their percentage of healthy stocks. Data reporting limitations in other fisheries (including recreational) that encounter the overfished species, and potential overages in these fisheries, can also contribute to considerable uncertainty regarding access to quota.

The capacity reduction feature of (2) seemed to have importance in the trawl fishery during advocacy for the buyback, even though the trawl industry and NOAA Fisheries preferred to leave a substantial number of latent and underused permits available for those who took the buyback money to re-enter the fishery or expand their businesses, or for processors to purchase in an attempt to replace lost delivery capacity.

So, I'm not sure that capacity reduction is really a high value. The buyback reduced some capacity, and a large number of skippers and deckhands were put out of work, and the business plans of some processing plants were challenged. Whether additional consolidation, efficiency, and unemployment are desirable would depend upon one's point of view. Less than optimally efficient businesses that support coastal families can provide a substantial benefit to our communities, and IFQ systems have been observed to destroy such businesses from British Columbia to Iceland.

As far as (3) goes, we don't really know whether there might be "broad stakeholder support and participation," because the Ad Hoc Trawl Individual Quota committee was set up specifically to limit participation. In addition, the public has been resoundingly excluded by the continuing resistance to a comprehensive programmatic EIS process. Additionally, in September 2003, the Pacific Council heard testimony *against* inclusion of a referendum where participants in the fishery might vote on whether they wanted to develop and implement IFQs. On all accounts the Pacific trawl ITQ process fails this condition; this is clearly an insider play by those who would gain the most.

To suggest that airing these issues within the council process accommodates sufficient public involvement is inaccurate. Even the voting body of the Pacific Council itself does not include a fair and balanced cross-section of all sectors of the fishery and the public interest. This is not the fault of the Council, but rather a subject requiring national reforms. But the point is that the Pacific Council is an inadequate forum to ensure broad public participation.

On the other hand, there are many stakeholders who participate in the Council process – and discuss issues among themselves – who would be limited in their involvement in this scoping process, as the comment period, after an adopted scoping document is provided, does not include a Council meeting.

Number (4) is interesting, considering the long-time resistance of many in the trawl fleet to at-sea observers. Will industry now be willing to pay for 100% observer coverage, even with catch levels constrained by encounters with overfished species? Or will the public be expected to foot the bill, even as public resources are “gifted” to the private sector? Meanwhile, enforcement personnel are already strained with current tasks, as well as with national security.

We have huge problems with (5) because of lack of data in the biological, economic, and social realms. As mentioned earlier, most of the managed groundfish populations have not been fully assessed – there are not enough data available to assess many of them. The status of non-managed marine life is, in many cases, even more difficult to evaluate. As we move toward a more ecosystem-based management approach, the concept of operating a system of single species-based IFQs seems incompatible, if not outright bizarre. It gets worse if we consider the adaptive management consequences of in-season adjustments which attempt to ensure that total catch by species in the groundfish fishery as a whole stays within allowable levels, particularly those involving overfished species or bycatch species on a reduction plan; the IFQ setup might actually create a race-for-fish, driven by the fear that the accelerated mortality of constraining species might shut the fishery.

The social and economic impacts of (5) are also challenging. Useful new tools, such as the Groundfish Fleet Restructuring Information and Analysis (GFR) project, undertaken as a proof-of-concept by Ecotrust and PMCC, demonstrate that there are the means to look at the likely effects of IFQ-driven consolidation, unemployment, loss of infrastructure, reduction in diversity, concentration of fishing effort, deleterious impacts to the recreational fleet, and the adverse consequences suffered by communities. This argues for careful evaluation of these types of effects, their possible mitigation, and any offsetting benefits of IFQ programs, within the larger context of a comprehensive programmatic EIS.

This is a complex subject that needs to be informed by both biological and social scientists. The information to be provided by the analytical team is a start, but it would be prudent to have a substantial amount of data, which *could* be made available, provided to the SSC, the Pacific Council, and the public, *before* a decision is made to proceed with a trawl ITQ-EIS. The situation here involves approving a scoping document to go forward with this EIS without scientific foundation, based instead on self-interest and politics. This would, of course, bolster the case often made by critics of the council process, that scientific decisions – biological, sociological, and economic – should be insulated from the political realm, leaving only advice on allocation matters to the regional fishery management councils.

Finally, there should be no problem in recognizing the spillover probabilities (6) of a trawl ITQ, both due to increased capitalization and more flexible business planning. The Dungeness crab fishery in

Oregon, for example, saw a tremendous influx of pots this year, in part due to the capital infusion from the groundfish buyback. Many of the same individuals who took the profits of the buyback and expanded operations in other fisheries stand to also gain financial advantage through ITQs, and would likely continue expansion. We could run some sociological and economic analysis and make reasonable projections of expected behavior – and we should – *before* we decide whether to commit to the development of a trawl ITQ-EIS.

These are just a few criteria for evaluating whether a fishery might be a candidate for IFQ management, as posed by the National Research Council. There are a number of other biological, social and economic factors that can be examined in evaluating whether a fishery is appropriate for IFQs. NOAA Fisheries has begun some of this work by looking at IFQs in multi-species fisheries internationally. A draft of these findings was made available to the NRC, but apparently went no farther within the council system. It is only reasonable to expect the fisheries service to present these findings as completely as possible, along with the other material discussed earlier, through a comprehensive programmatic EIS, with vetting before the SSC, before encouraging the Pacific Council to move blindly on a path from which return would be difficult at best.

The Pacific Council deserves full information and adequate opportunity for deliberation, rather than a rush for approval of a scoping document. Certainly at the present it appears that the West Coast groundfish trawl fishery is not an appropriate candidate for IFQ management.

The way in which exploration of possible use of individual fishing quota systems in the Pacific Region has transformed into a headlong rush to implement a trawl ITQ, demonstrates clearly the vital need for Congress to enact strong national standards to protect marine ecosystems, commercial and recreational fishermen, our coastal communities, and the public trust from potentially substantial deleterious impacts of individual fishing quota systems. If Congress cannot act swiftly to pass standards legislation, such as HR 2621, then a moratorium on new IFQ systems should be established until national standards are adopted.

PMCC supports the national agenda of the Marine Fish Conservation Network (MFCN) regarding IFQs, including the following:

The Magnuson-Stevens Act should be amended to:

- *Acknowledge that marine fish are publicly owned and that IFQs are not property rights;*
- *Ensure that IFQ programs enhance fish conservation;*
- *Protect fishing communities from excess consolidation;*
- *Limit IFQs to no more than five years, after which they may be renewed if conservation is enhanced; and*
- *Recover all administrative costs*

The PMCC board of directors adds these additional requisite standards:

- *Any IFQ must have a community component that results in appropriate harvest in the full fishing ranges of traditional coastal communities.*
- *Any IFQ allocation should provide incentives for use of gear which has the least bycatch and the least adverse impacts on habitat.*
- *No provisions that allow for the transfer of bycatch quota (including non-target marine life and overfished or Endangered Species Act-listed species) will be allowed.*

More details about the need for national standards, and about the impacts of IFQ systems worldwide, can be found at <http://www.pacificmcc.org>.

The U.S. Commission on Ocean Policy also understands the compelling need to establish national standards, if dedicated access privilege systems are to be considered. The Commission recommended on page 235 of their Preliminary Report:

At a minimum, the national guidelines should require dedicated access programs to:

- *specify the biological, social, and economic goals of the plan; recipient groups designated for the initial quota shares; and data collection protocols.*
- *provide for periodic reviews of the plan to determine progress in meeting goals.*
- *assign quota shares for a limited period of time to reduce confusion concerning public ownership of living marine resources,*
- *allow managers flexibility to manage fisheries adaptively, and provide stability to fishermen for investment decisions.*
- *mandate fees for exclusive access based on a percentage of quota shares held. These user fees should be used to support ecosystem-based management. Fee waivers, reductions or phase-in schedules should be allowed until a fishery is declared recovered or fishermen's profits increase.*
- *include measures, such as community-based quota shares or quota share ownership caps, to lessen the potential harm to fishing communities during the transition to dedicated access privileges.*
- *hold a referendum among all permitted commercial fishermen after adequate public discussion and close consultation with all affected stakeholders, to ensure acceptance of a dedicated access plan prior to final Regional Fishery Management Council approval.*

Conclusions:

It is clear from the information presented in this letter that it would be decidedly inappropriate to approve a public scoping document for trawl dedicated access privileges at this time, or in any way to encourage NOAA Fisheries to develop an EIS solely for a trawl ITQ system. Nor should Pacific Council staff time continue to be diverted to this effort.

The appropriate, valuable, and legally-required course of action is for the Pacific Council and NOAA Fisheries to forthrightly begin scoping for, and development of a comprehensive programmatic EIS for the commercial and recreational groundfish fishery. This is the proper vehicle to fully assess the efficacy and impacts of the Rockfish Conservation Areas; decipher the actual impacts of the buyback program; create linkages between rebuilding overfished populations, assessing and reducing bycatch, and protecting essential fish habitat; investigate how to better implement ecosystem-based management; and...evaluate whether types of dedicated access privileges might be appropriate tools for some sectors of this fishery.

Seeking the best work in the biological and social sciences, including worldwide experiences with forms of dedicated access privileges, to incorporate into the analysis within a comprehensive programmatic EIS is a wise way to proceed. After this science is reviewed by the SSC, and general policy alternatives are selected for the future directions of the West Coast groundfish fishery, only then might it be appropriate to begin development of an EIS to support dedicated access privileges in a particular sector.

Respectfully,

Peter Huhtala
Senior Policy Director



Pacific Marine Conservation Council

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July 29, 2004

Donald O McIsaac, Ph.D.
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220

Re: Trawl IFQ-EIS scoping comments

Dear Dr. McIsaac,

These comments are intended to supplement oral testimony that Pacific Marine Conservation Council (PMCC) has made at scoping hearings for this environmental impact statement (Trawl IFQ-EIS) at Foster City, Seattle and Newport. Specifically, I'll take this opportunity to elaborate on PMCC's recommendation for the council and NOAA Fisheries to analyze an additional alternative, should a decision be made to proceed with this EIS.

To be clear, PMCC remains resolved that we believe that time and resources are being inappropriately diverted to designing a trawl dedicated access privilege system while a comprehensive programmatic EIS for the groundfish fishery management plan (FMP) is overdue. In addition, we believe that focus and resolve needs to be committed to completing the Bycatch Program EIS, its associated FMP amendment, and implementing regulations that make for effective monitoring and reduction of bycatch. There remains, nonetheless, the current Notice of Intent (NOI) and scoping process, and if the council decides to continue down this path then an additional alternative should be considered.

The problem statement in the NOI highlights the bycatch problems in the groundfish fishery, particularly the unintended encounters with overfished species. This statement summarizes some of these concerns as "uncertainties about the appropriate bycatch estimation factors, few incentives for the individual to reduce bycatch rates, and an associated loss of economic opportunity related to the harvest of target species." PMCC agrees that these are significant problems that should be addressed as quickly as possible.

The NOI makes reference to the council's preferred alternative for the draft Bycatch Program EIS. I'm attaching for the record your letter of April 27, 2004, to Regional Administrator Robert Lohn, describing this alternative. This alternative has many elements in common with the "Draft Proposal

for Counting and Minimizing Bycatch in the West Coast Groundfish Fishery” submitted by PMCC and other groups for analysis within the Bycatch Program EIS process. I’m also attaching this document. I will draw upon ideas expressed in these two documents in describing a new alternative for the Trawl IFQ-EIS.

This alternative is based on sector caps on the total catch of each overfished species. While this concept is discussed in the scoping document (2.0 Alternatives and Impacts) under “Cumulative Catch Limits” and “ICAs (Pooled Species Caps),” it would be useful to include some additional flexibility with these tools.

We would like to accommodate an approach that begins with sector-based catch caps (in this case the limited entry trawl sector, although there might be ways to further subdivide this sector to, say, delineate the whiting fleet). All vessels within the sector would be required to stop fishing once the cap for any species was attained. Adequate, but not necessarily 100% monitoring would be required. This is not a huge departure from status quo, although the allocation to the trawl sector of catch of the overfished species would be explicit, at least for the time period involved.

Permit holders would have the opportunity to opt out of their sector for the fishing season. If they make this choice, they take with them a proportionate share of the catch caps on each overfished species, which now become individual catch caps. The vessels that have opted out of the sector must carry an observer or a compliance monitor (if operating in a full-retention arrangement) or otherwise assure 100% accounting of catch. Incentives for opting out of the sector will be provided to offset the cost of monitoring, such as higher cumulative landing limits for non-overfished species. The other implicit incentive is that vessels that have opted out of a sector would get to continue fishing if their sector was shut down, as long as they stayed within their individual caps.

Those have chosen to accept individual catch caps would additionally have the opportunity to pool their caps with others who have opted out of the sector. However, the entire group that has pooled their caps would have to stop fishing upon attainment of the aggregate catch cap of any species. PMCC does not advocate making the individual catch caps for overfished species transferable.

Additional performance standards and incentives could be built into this system, as suggested in the “Draft Proposal for Counting and Minimizing Bycatch in the West Coast Groundfish Fishery.” We expect that some analysis of similar constructs for the groundfish fishery as a whole will be included in the final Bycatch Program EIS, as the authors complete work to incorporate public comments and the council’s preferred alternative.

Turning to Table 2.1-1 in the scoping document, this alternative could be described as “Alternative 5” and simply include this hybrid of ICAs and Cumulative Catch Limits as the means to manage the overfished species within the trawl fleet. All other species would be subject to status quo management. (I should acknowledge that, although this proposal is pretty specific it might be wise look more generically at CL/ICA management for the overfished species, as the council could then request to see a range of options analyzed within this alternative.)

I’m not sure how this will fit in your scoping report, but I’d like there to be a mechanism for looking at longer cumulative landing limit periods under status quo management – perhaps 3, 4, or 6 months – and how that might play out with the new Alternative 5.

One important area to consider when looking at Alternative 5 is the timeline for possible implementation. Elements of this proposal could be implemented more swiftly than other dedicated access privilege systems under consideration, while not precluding consideration of additional solutions. The benefits of superior accounting of bycatch to reduce uncertainty about the total catch of overfished species, and instituting incentive systems to reduce bycatch can lead to increased economic opportunity even as conservation mandates are fulfilled. Even though we are asking that Alternative 5 be considered and compared with other dedicated access privilege systems within the Trawl IFQ-EIS, the council could choose to move in this proposal into regulation without going through the lengthy process expected under other options. We believe this could be in place by the beginning of 2007, if not sooner.

Appendix A of the scoping document includes a discussion on area restrictions (A.2.0). We suggest anticipating that some groundfish stocks that are managed on a coast-wide basis may be determined in future years to include genetically distinct populations, and that we don't have the biological basis now to determine these future geographical ranges. Therefore, it's important to consider how any dedicated access privilege system will respond to or discourage future changes in area-based management, both for such biological reasons or for enhancing economic equity. Alternative 5 could provide the flexibility needed for making adaptive management decisions, particularly in that the catch caps are set by season and are non-transferable.

Thank you for considering this alternative and the other suggestions PMCC has made during this scoping period.

Respectfully,

Peter Huhtala
Senior Policy Director

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Draft Proposal for Counting and Minimizing Bycatch in the West Coast Groundfish Fishery

March 31, 2004

This proposal to count and minimize bycatch relies on enhanced bycatch observation in the groundfish fishery, the use of bycatch caps for sectors of the groundfish fishery, and the continued use of spatial management to reduce bycatch. The sectors referred to in this document match those currently used in the Council's "bycatch scorecard" and can be further subdivided by area. We propose that a statistically adequate reporting methodology to assess the amount and type of bycatch occurring in each fishery be established using the criteria contained in "Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs" (Powers Report) and "How Much Observer Coverage is Enough to Adequately Estimate Bycatch" (Pikitch report). Implementation will be phased in over time based on a ranking of need and feasibility consistent with these reports.

Proposed Alternative to Minimize Bycatch in the Groundfish Fishery

The proposed alternative is a modification of Alternative 4 in the Bycatch EIS. This proposed alternative would combine sector caps with continued use of spatial management to minimize bycatch. The groundfish fishery will initially be subdivided into the sectors defined by gear type (limited entry trawl, fixed gear, etc), as used in the bycatch scorecard (attached). These sectors may be further subdivided by the Cape Mendocino line (40-10) into North and South components and by the RCA, into fishing zones seaward and landward of the RCA. Vessel operators who want to fish both seaward and landward of the RCA must provide proof of past fishing in both of these areas using catch history for that vessel over the past three years. Upon further analysis, these sectors may be further subdivided into geographical areas to fit area-based management initiatives.

Caps on total mortality of each overfished species will be established for each sector, and a sector will be closed to fishing upon attainment of any of these caps. Additional management measures will be employed to ensure that the total mortality of every managed species stays within its OY.

Boats from within a sector can opt out of the sector cap, thereby preserving the opportunity to continue fishing if their sector is shut down, by meeting some established criteria such as funding 100% observer coverage for one's vessel. Upon opting out, a commercial vessel would get individual bycatch caps and incentives such as higher trip limits from a reserved portion of target species OY. This cap would be deducted from that of the vessel's sector. Vessels that opt out of sector allocations can form collectives to pool bycatch quotas amongst collective members. The entire collective is prohibited from further fishing once a collective bycatch cap is met.

Furthermore, vessels are permitted to switch to another sector by changing gear type. Similar to those vessels that opt for individual bycatch caps, bycatch cap amounts will transfer with the vessel to the new sector.

The initial bycatch caps will be for those species identified on the bycatch scorecard (bocaccio, canary rockfish, etc.), and the most current bycatch scorecard will be used to apportion the OY of each species among the sectors. The Council will review bycatch rates for other managed species not contained on the bycatch scorecard. If bycatch rates for these species are higher than an established threshold, a bycatch cap will be set for those species, and gradually reduced over time. As OY levels increase for the capped species, the increase beyond what may be needed as a buffer will be allocated to operators with the lowest bycatch rates among those with individual caps, and through other means that provide incentives for bycatch reduction individually, by sector and within collectives.

For species without set OYs (for example, unassessed species), information will be collected through a standardized reporting methodology for bycatch. After a to-be-determined time period of data collection, a bycatch cap will be established for individual species or species groups if bycatch of any unmanaged species is found to increase or decrease by 10% or more relative to the previous year. After a set number of years (e.g. five) after establishment of a bycatch cap, bycatch would be reduced by some set percentage (10%, for example) per time period through reductions in the caps, while providing incentives for those most successful at avoiding bycatch. In the interim, bycatch of unassessed and other species will be minimized by use of the RCA and additional spatial management measures as needed (for example, on the slope).

Establishing a Standardized Reporting Methodology for Bycatch

A bycatch reporting methodology will be established consistent with the criteria in the Powers and Pikitch reports. Groundfish fishing sectors will be analyzed consistent with these reports within the following categories: status of current reporting methodologies and bycatch interaction (fish, endangered animals and marine mammals). The sectors will then be ranked within the two categories. After consultation with appropriate NMFS and PSMFC staff, decisions will be made as to which sectors should be considered priorities for an enhanced reporting methodology. A timeline will be developed for establishment of this reporting methodology for each sector.

Reference Documents:

Powers report: http://www.nmfs.noaa.gov/by_catch/EvalBycatch.pdf

Bycatch EIS: <http://www.pcouncil.org/groundfish/gfbdpeis.html>

Pikitch report: <http://www.oceana.org/uploads/BabcockPikitchGray2003FinalReport.pdf>

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April 27, 2004

Mr. Robert Lohn, Regional Administrator
National Marine Fisheries Service, Northwest Region
Building 1, BIN C15700
7600 Sand Point Way NE
Seattle, WA 98115-0070

RE: The Pacific Coast Fishery Management Plan Bycatch Mitigation Draft Programmatic Environmental Impact Statement

Dear Mr. Lohn:

At its April 5-9, 2004, meeting in Sacramento, California, the Pacific Fishery Management Council (Council) reviewed the Pacific Coast Fishery Management Plan (FMP) Bycatch Mitigation Draft Programmatic Environmental Impact Statement (DPEIS) released on February 20, 2004, and identified its preferred alternative for NMFS to incorporate into the EIS. This would be identified as Alternative 7 in the Final Programmatic EIS (FPEIS) and would contain elements of several alternatives described in the DPEIS. The Council approved the following motion describing the recommended preferred alternative:

Create a new Alternative 7 that includes elements of Alternatives 1, 4, and 5. Elements from Alternative 1 that would be included in Alternative 7 would be all current programs for bycatch minimization and management, including but not limited to: setting optimum yield specifications, gear restrictions, area closures, variable trip and bag limits, season closures, establishing landings limits for target species based on co-occurrence ratios with overfished stocks, etc. The FMP would be amended to more fully describe our standardized reporting methodology program and to require the use of bycatch management measures indicated under Alternative 1 for the protection of overfished and depleted groundfish stocks and to reduce bycatch and bycatch mortality to the extent practicable. These would be used until replaced by better tools as they are developed.

Elements from Alternative 4 that would be included in Alternative 7 would be the development and adoption of sector-specific caps for overfished and depleted groundfish species where practicable. We anticipate phasing in sector bycatch caps that would include: monitoring standards, full retention programs, and individual vessel incentives for exemption from caps.

Mr. Robert Lohn
April 27, 2004
Page 2

Elements of Alternative 5 that would be included in Alternative 7 would be the support of future use of Individual Fishing Quota programs for appropriate sectors of the fishery. The FMP would incorporate the Strategic Plan's goal of reducing overcapacity in all commercial fisheries.

Additionally, baseline accounting of bycatch by sector shall be established for the purpose of establishing future bycatch program goals.

Consistent with our recommendation, we ask the EIS project team to further describe Alternative 7 as necessary for the purpose of making it consonant with the descriptions of the other alternatives and to support sufficient analysis of its impacts on the human environment, but to not change matters of intent substance.

After this action is finalized, the Council will consider undertaking preparation of a new groundfish FMP amendment consistent with the findings in the FPEIS. We look forward to working with NMFS after the release of the FPEIS to implement the policies and program direction described by the preferred alternative.

Sincerely,



D. O. McIsaac, Ph.D.
Executive Director

KRD:rdd

Subject: Scoping Comments - I.D. 051004B
From: "Peter Huhtala" <peter@pmcc.org>
Date: Mon, 2 Aug 2004 14:21:28 -0700
To: <TrawlAccessEIS.nwr@noaa.gov>
CC: <Jim.Seger@noaa.gov>, <steve.freese@noaa.gov>

Comments on Notice of Intent to Prepare an Environmental Impact Statement, ID # 051004B

August 2, 2004

Pacific Marine Conservation Council (PMCC) offers a few additional comments.

Sunsets: In the scoping document under A.11.0, the TIQC rejects the inclusion of automatic sunsets. We recommend analyzing a range of sunset provisions from one to ten years. In addition, the concept of conducting a review of the performance of an IFQ system prior to the sunset date should be examined (For example, setting a review at five years and a sunset at seven years, so that continuation or expiration of the IFQ system could be anticipated as a result of the review.)

Short-term sunsets, say two years, might make for flexibility, especially in a system focused exclusively on the overfished species.

Sunsets put teeth in performance standards designed to ensure that IFQ programs achieve the goal for which they are designed. We recommend that any program be required to achieve measurable conservation gains, such as reduction of bycatch or significant habitat protection, or they not be allowed to continue. This helps to return some value to the public, the owner of the resource, for granting a valuable privilege.

Setting the duration of quota shares for a fixed period not only can clarify any confusion about property rights, as recommended by the US Commission on Ocean Policy, but can obviate possible equity and biological problems. Short-term arrangements allow management to avoid long-term proportional allocations between gear groups. As overfished populations rebuild, the structure of the available resource will change, as will the basis for inter-sector allocations. Sunsets avoid a possible conundrum.

Referendums: A range of referendum scenarios should be offered, including a double referendum where two-thirds of those involved in the fishery would be allowed to vote first whether to develop an IFQ system, and finally whether to implement the system. Consideration should be given to allowing anyone earning more than three-quarters of their income (permit holders, skippers, deckhands) from groundfish harvest to participate in the referendum.

Spatial analysis: In order to project some of the biological and economic changes that various IFQ management systems may bring, it would be useful to describe the current situations spatially, and model some scenarios. First, we could look at catch by fishing block and landings by port in as fine a scale as possible. In addition, we could look at estimates of biomass by area (NMFS survey & ?).

Then we could look at how catch and landings might occur if all stocks were at MSY (a goal of the council). Again, we could draw on the historical data-set from the NMFS surveys. Another run might forecast the state of the ecosystem in, say, 2020 based on the rebuilding plans now in place.

These sort of projections might inform decisions about whether and how proportional allocation between sectors might be set. But this is not just an allocation issue; it speaks directly to the design of any dedicated access system, and, I believe will make obvious the need to limit share distribution to short periods.

One concern that we've raised about possible IFQ plans is that they might encourage localized depletions of some populations. This would be especially problematic if it turns out that a stock managed on a coastwide basis is actually genetically-distinct in certain areas. The spatial analysis described here could be used to consider whether any localized depletions due to fishing have already occurred.

Community quota: You've received requests to consider forms of community quota, CDQs and the like. This is certainly reasonable, as the GAO recently suggested that such arrangements might be one of the best means to mitigate the adverse impacts of IFQ systems. However, in a multi-state fishery certain constitutional problems might arise in relation to the Port Preference Clause. Would you please describe the range of legally possible solutions for community quota and/or requiring landings in a particular port. What does it take to get around the constitutional and inter-state commerce issues; what are the realistic possibilities in regard to community quota systems? Even if harvest quota is assigned to a community, could the community distribute the quota to fishermen and stipulate that they land their catch in the community?

Thank you for considering these comments, and our previous testimony and submissions.

Peter Huhtala
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Subject: public comment on federal register of 5/24/04 vol 69 no 100 pg 29482
From: Bk1492@aol.com
Date: Wed, 26 May 2004 18:42:51 EDT
To: TrawlAccessEIS.nwr@noaa.gov, rodney.frelinghuysen@mail.house.gov
CC: steve.freese@noaa.gov, jim.seger@noaa.gov

us doc noaa 50 cfr part 660 id 051004B - pacific fish

how is the public protected from fishermen who will keep lying to the council and pressuring as long as you let them to take out every fish in the ocean for their own financial profit? Meanwhile, they'll be making illegal catch all they want.

The general public says that in the face of pressure by fish profiteers the council has to stand up for the interests of the general public. Turn away special segments who beg for the whole pie, when the whole pie belongs to the whole american public. That is the job of the council. Tell that to the fishermen.

I do not want a large quota in a short season, because then the fish profiteers will go to another area and overfish in that area, which is not a good idea. Let's reduce the number of fishermen - that is a good beginning.

cut quotas 50% this year and by 10% every year thereafter. Establish marine sanctuaries.

comment on page 4 - I thoroughly oppose providing for capacity rationalization through market forces - that is completely inappropriate.

I do not think "community" quotas are a good idea. The fish are not a "community" resource - they belong to the entire american public. Letting community quotas be established would mean rich powerful would get the whole quota.

comment on page 5 - We have to set up limits for these financial profiteers so that there is fish left in the ocean. It is quite clear that fish profiteers will take every single fish in the ocean for their own profit, and forget about any obligations to the general american good.

comment on page 6 - the largest issue here is putting the commercial fish profiteers in their place, since compared with american population which needs protection of fish stocks, the profiteers will take everything for their own financial wealth.

As if fully set forth herein at length, I hereby make the Pew foundation report on overfishing part of this comment, as well as the well known Pew Foundation report on councils and how they have been commandeered by the commercial fish industry to stop protecting the general american public.

b. sachau
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florham park nj 07932

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STAFF SUMMARY OF PUBLIC COMMENT ON TRAWL INDIVIDUAL QUOTAS

This document covers the following topics and provides related public comments:

an overview of needed decisions1
 a summary of public comments on the process2
 an overview of the management tools being considered3
 a list of options covering the species to which the tools would apply4
 design elements for bycatch caps.....5
 design elements for IFQs5

Each set of public comments is provided in a text table for which the source of the comment is noted to the right. Organization acronyms used are as follows:

BSCC.....	Bandon Submarine Cable Committee
CBTA.....	Coos Bay Trawlers Association
CJC.....	Coastal Jobs Coalition
ED.....	Environmental Defense
FMA.....	Fishermen’s Marketing Association
IPHC.....	International Pacific Halibut Commission
MTC.....	Midwater Trawlers Cooperative
PCFFA.....	Pacific Coast Federation of Fishermens Associations
PMCC.....	Pacific Marine Conservation Council
POORT.....	Port Orford Ocean Resource Team
Survey (ED).....	Results from survey work done by Environmental Defense
UASC.....	United Anglers of Southern California
WCSPA.....	West Coast Seafood Processors Association

Overview of Decisions Needed on Trawl Sector Dedicated Access Privileges

IQ (DAP) EIS:

- Develop Management Regime Alternatives
1. Design the Tools (Scoping Information Document Section 2.1.1)
 2. Decide on the Species to Which the Tools Apply (Scoping Information Document Section 2.1.2)
- Settle Allocation Issues Between Trawl Sectors (Scoping Information Document Section 2.1.3)

Allocation EIS:

Settle Intersector Allocation Issues, as Necessary - the management regime (Status Quo, IFQs, Sector Caps or other) does not fix the intersector allocations.

Public comments:

Include recreational fisheries and allow cross sector transfers.	UASC
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Public Comments: Process Concerns

Should the Council be considering IFQs now?

Consideration of IFQs is premature	
Intersector allocation should be handled first	CJC, PMCC, PCFFA, WCSPA, one individual, Survey (ED)
There should be a programmatic EIS first	PMCC, UASC
The bycatch EIS should be implemented first	PMCC
National standards should be developed first	PMCC, PCFFA, UASC
Buyback effects need to be evaluated first	PMCC, PCFFA
Proceed only through a double referendum requiring two-thirds majority (1st referendum would be on whether or not to consider, second on whether or not to adopt)	PMCC
Justification for considering the policy is not strong enough	PCFFA
The West Coast groundfish trawl fishery does not fit under the NRC criteria for fisheries for which IFQs should be considered.	PMCC
Move the IFQ process forward	FMA, ED, CBTA, MTC and 1 individual

Other process concerns.

The recreational fishery should be included in the design of the intersector allocation	UASC
TIQC membership should include	
recreational representation	UASC
all stake holders	ED, Survey (ED)
coastal community representation	ED
Community concerns are not being addressed	Survey (ED)
Conduct an open process	ED
Move forward soon with intersector allocation	ED
The notice of intent for an EIS was deficient and misleading	PMCC
The process leading to public scoping was flawed	PMCC
Consult with IPHC if halibut retention by trawl is to be proposed	IPHC
There is a high cost to participate in the process	Survey (ED)

Design of the Tools

Tools in the scoping information document and related provisions for the Council recommended alternative from the programmatic bycatch EIS.

Tools	Council Recommended Bycatch Alternative(Alt 7)
Status Quo (Trip Landing Limits and Seasons)	“establishing landings limits for target species based on co-occurrence ratios with overfished stocks”
IFQs	“ future use of IFQ programs for appropriate sectors of the fishery” “incorporate the Strategic Plan’s goal of reducing overcapacity in all commercial fisheries”
Trip Catch Limits	
Sector Limits	“sector-specific caps for overfished and depleted groundfish species”

Public comments.

Community Development Quotas	CJC, POORT, ED, Survey (ED)
CDQs Opposed	Individual (1)
Individual Processor Quotas	
IPQs Opposed	Individual (1)
Trip Landing Limits with Extended Periods (3, 4, or 6 months)	PMCC
Reduce Season Length	Individual (1)
Consider Marine Reserves and Reduce Quotas (50% in first year and 10% in each year thereafter)	Individual (1)

Decide on the Species to Which the Tools Apply

Species to which tools apply from the public information document.

Non-Whiting Fishery				
	IFQs	Cumulative Catch Limits	Sector Catch Caps	Prohibited Species
Alt 1. Status Quo (Trip Landing Limits)	None	None	None	Halibut, Salmon Etc.
Alt 2	Species Targeted Only by Trawl and Species for Which There is a Trawl Allocation	Most Other Species with OYs	Rebuilding Spp or Spp with Very Low OY	Halibut, Salmon Etc.
Alt 3	OY Species (except as noted under “Sector Catch Caps”)	Non-OY Species	OY Species with Extremely Low OYS	Halibut, Salmon Etc.
Alt 4	All Groundfish Species	None	None	Halibut IBQs (Suboption: Allow Retention).

Whiting Fishery				
	IFQs	Cum Catch Limits	Sector Catch Caps	Prohibited
Alt 1 Status Quo (Seasons)	None	None	None	Halibut, Salmon Etc.
Alt 2	Whiting	None	Bycatch Species (rollover unused catch to other whtg sectors, allow IFQ purchase from non-whgt sectors)	Halibut, Salmon Etc.
Alt 3	Whiting and Bycatch Species Managed With OYs	None	Pooling of IFQ in Co-ops Allowed (no transfers between whtg and nonwhgt sectors)	Halibut, Salmon Etc.
Alt 4	Whiting and Bycatch Species	None	Pooling of IFQ in Co-ops Allowed (transfers between whtg and nonwhgt sectors allowed)	Halibut IBQs (Suboption: Allow Retention).

Public comments:

Bycatch caps for overfished species	ED, PMCC (see Bycatch Cap Design Elements)
IFQ for All species	WCSPA

Bycatch Cap Design Elements

Public comments.

Sector Bycatch Caps for Overfished Species <ul style="list-style-type: none"> • Caps for the trawl fleet or possibly subdivisions of the trawl fleet (explicit allocation of an amount of overfished species) • Sector stops fishing on attainment of the cap. • Adequate monitoring (not necessarily 100% monitoring) • Opt out option: Vessels opting out <ul style="list-style-type: none"> ○ receive a “proportionate” share of the cap for their individual use. ○ must carry an at-sea compliance monitor or otherwise assure 100% accounting of catch. ○ receive higher cumulative limits for nonoverfished species ○ can continue fishing even if their sector is shut-down due to exceeding a cap ○ can pool caps with others who have opted out. • No action recommended with respect to nonoverfished species. 	PMCC
Sector Bycatch Caps - Nontransferable	PMCC
Sector Bycatch Caps - Transferable	ED

IFQ Design Elements

A.1.0 Portion of the LE Trawl Fleet Allocation for Which IFQs are Required

Summary of Options from Public Information Document:

IFQ Program Scope - Option 1: Require IFQ for all catch by LE trawl vessels. For landings LE trawl vessel landings with OA gear	
SubOption A	Apply open access fishery cumulative limit and other harvest regulations.
SubOption B	Allow landings in excess of open access fishery cumulative limits, so long as landings are completely covered by IFQ.
IFQ Program Scope - Option 2: Require IFQ only for groundfish trawl catch by LE trawl vessels	
SubOption A	<ul style="list-style-type: none"> • Split the trawl allocation between IFQ and nonIFQ harvest • Manage groundfish harvest by trawl vessels using open access gears to stay within the suballocation.
SubOption B	<ul style="list-style-type: none"> • Maintain the same LE allocation • Change the accounting system such that catch of LE trawl vessel’s using open access gears counts against the open access allocation. • Determine whether or not to make similar changes with respect to LE longline and fishpot vessels.
SubOption C	<ul style="list-style-type: none"> • Reallocate a portion of the LE allocation • Change the accounting system such that catch of LE trawl vessel’s using open access gears counts against the open access allocation. • Determine whether or not to make similar changes with respect to LE longline and fishpot vessels.

Public Comments: None

A.2.0 Area Restrictions

Summary of Options from Public Information Document:

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Option 1:	Area restrictions based solely on the need to address stock conservation concerns. Suboption: If some IFQ are to be catch area specific, all landings should occur in ports within the catch area, unless catch is kept separate and monitored at-sea.
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The TIQC recommended not adopting IFQs with landing area restrictions.

Public Comments:

Landing or catch area specific IFQ based on biological and socio-economic need	ED, Survey (ED)
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A.3.0 IFQ and LE Permit Holding Requirements

Summary of Options from Public Information Document:

Option 1	Register IFQ to the vessel - vessels must cover the species with IFQ at the time of landing.
Option 2	Register IFQ to the vessel - vessels must cover the species within 24 the time of landing.
Option 3	Register IFQ to the vessel - vessels must cover the species with IFQ within 30 days of landing - no more fishing until covered.

These options may be combined with a suboption that requires that some threshold amount of unused IFQ be held at the time a vessel departs from port. The TIQC recommended not adopting an option that would require that all IFQ needed to cover a landing be held prior to departing from a port.

Public Comments: None

A.4.0 Transfer Rules

A.4.1 Transfer of IFQ to a Different Sector for Use

Summary of Options from Public Information Document:

IFQ Option 1	IFQ must be used within the trawl sector for which it was issued (e.g. establish separate IFQ classes for the whiting and nonwhiting fleets).
IFQ Option 2	IFQ may be traded between trawl sectors managed under the IFQ program.

Sector specific IFQs need to be considered for the following sectors and subdivisions

		At Sea
Trawl	Whiting	Shoreside
	Nonwhiting	
Nontrawl		

IBQ Option 1	Prohibit transfers outside the trawl sector.
IBQ Option 2	Allow transfers to gears that are legal for the species and allow those gears to retain catch taken under IBQ when operating in compliance with the IBQ program.

Public Comments: None

A.4.2 Eligible Owners/holders (Who May Own/hold)

Summary of Options from Public Information Document:

Option 1	Anyone eligible to own a US documented vessel.
Option 2	Stakeholders: include owners and lessees of LE permits or vessels, skippers/crew, processors, buyers, communities. (NOTE: If ownership is restricted to these classes, criteria will need to be established to identify membership in these groups.)

Public Comments:

Allow communities to form nonprofits and acquire IFQs	ED
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A.4.3 Leasing - Duration of Transfer

Summary of Options from Public Information Document:

Option 1	Permanent transfers only
Option 2	Leasing and permanent transfers. Suboption: Prohibit all permanent transfers (leasing only) during the first year of the program.

Public Comments:

Compel quota holders who have historically leased their permits to others to continue to lease their IFQ to those individuals.	Survey (ED)
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A.4.4 Time of Sale

Summary of Options from Public Information Document:

Option 1	Allow transfers any time during year.
Option 2	Allow transfers only at the end of year.
Option 3	Quota shares should not be transferred from any account for which there is a deficit of quota pounds (i.e. any account for which landings exceed quota pounds for at least one species.

Public Comments: None

A.4.5 Divisibility

Summary of Options from Public Information Document:

Elements of Divisibility Provisions	
1.	Quota Shares: nearly unrestricted divisibility - "many decimal points."
2.	Quota Pounds: divisible to the single pound

The TIQC recommended against adopting blocked shares.

Public Comments:

Blocked quota shares	ED-Survey
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A.4.6 Liens

Summary of Options from Public Information Document:

No special provisions recommended. The TIQC believed pledging IFQs as collateral is a matter of private contract, independent of the government program.

Public Comments: None

A.4.7 Accumulation Caps

Summary of Options from Public Information Document:

	Non-Whiting Groundfish			Whiting Fishery		
	Ownership	Control	Use by a Vessel	Ownership	Control	Use by a Vessel
Option 1	1%	1%	1%	5%	5%	5%
Option 2	5%	5%	5%	10%	10%	10%
Option 3	10%	10%	10%	25%	25%	25%

The TIQC recommended not adopting an option that would require persons receiving an initial allocation in excess of the caps to divest themselves of the excess.

Public Comments:

Include a no-cap option	WCSPA
Consider different caps for different types of owners (e.g. vessels, buyers, communities)	WCSPA
Apply the same caps to all types of owners	1 individual
Caps for processors should take into account any IPQ held (NOTE: applies only if there is IPQ)	1 individual

A.4.8 Vertical Integration Limit

The TIQC recommended no limits on vertical integration other than what is provided through the accumulation caps.

Public Comments: None

A.5.0 Rollover (Carryover) to a Following Year

Rollover would allow unused quota pounds to be used in a subsequent year.

Summary of Options from Public Information Document:

Option 1	No rollover.
Option 2	10% rollover (no rollover allowance for overfished species).
Option 3	20% rollover (5% rollover allowance for overfished species).
Option 4	30% rollover (full rollover allowance for overfished species).

Question: If quota pounds have been leased out to a vessel how would rollover provisions for overages be applied to quota shares?

Public Comments: None

A.6.0 Use-or-Lose Provisions

Summary of Options from Public Information Document:

Option 1	Include use-or-lose provisions (consider how to treat leases, medical exceptions, and partial
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	use).
Option 2	Do not include use-or-lose provisions.

Several questions were raised for consideration with respect to use-or-lose provisions:

- *What portion of the IFQ would have to be used in order for this provision to be applied?*
- *How would it be determined which IFQ had been used and which not used?*
- *How would use-or-lose provisions be applied if part but not all IFQ were transferred from one account to another?*

Public Comments: None

A.7.0 Entry Level Opportunities (and Other Loan Programs)

Summary of Options from Public Information Document:

Option 1	Provide a low interest loan program (qualification factors to be determined).
Option 2	Provide an opportunity for new entrants to qualify for shares revoked for program violations (qualification factors to be determined).

The TIQC recommended not considering an auction that would require IFQ holders to give back a small percentage of their IFQ each year for auction, with proceeds from the auction going back to those who gave back the IFQ.

Public Comments:

Provide low interest loans for community nonprofits organizations to purchase IFQ	ED
Provide low interest loans for new entrants and younger fishermen to purchase IFQ	Survey (ED)
Allocate to new entrants or provide IFQ for purchase from: IFQ reclaimed from IFQ already distributed, IFQ created from increasing TAC, forced sale in an auction (each year existing IFQ holders would provide a portion of their IFQ for annual auction).	Survey (ED)
Provide low interest loans to assist "lease-dependent" fishermen	Survey (ED)

A.8.0 Tracking, Monitoring, and Enforcement

Summary from Public Information Document:

Elements of Tracking Monitoring and Enforcement System	
1.	Onboard compliance monitors (20%-100%)
2.	Dockside compliance monitors (20%-100%)
3.	Hailing requirements
4.	Small vessel exemptions for onboard compliance observers
5.	Video monitoring system
6.	Full retention requirement
7.	Bycatch reporting system
8.	Electronic landings tracking system
9.	Limited delivery ports
10.	Limited delivery sites
11.	Electronic IFQ tracking systems
12.	Vessel monitoring system (VMS)

These elements have been tentatively arrayed into enforcement programs in Table 1.

Public Comments:

Require VMS and 100% observer coverage - shoreside and at-sea	ED
Analyze limits on number of ports to which deliveries are allowed	WCSPA

A.9.0 Cost Recovery/Sharing and Rent Extraction

Summary from Public Information Document:

Elements of Cost Recovery/Sharing Rent Extraction Provisions	
1.	Landings Fee (max of three percent under current Magnuson-Stevens Act).
2.	Privatization of Elements of the Management System: Monitoring IFQ Landings (e.g. industry pays for their own compliance monitors) Fishtickets Stock Assessments

Public Comments:

An IFQ Program should have discrete and secure funding.	UASC
Include cost recovery provisions with a sliding scale for those that may be disadvantaged by such provisions	ED
Split all or a portion of observer costs evenly between quota holders.	Survey (ED)

A.10 Penalties

Summary from Public Information Document:

Elements of Provisions Related to Penalties	
1.	Strong sanctions for violators.
2.	Illegal overages should forfeited on landings, debited against the IFQ holders account. Additional enforcement action should be taken, as appropriate. Fishing suspended until IFQ has been acquired to cover the overage.

Public Comments: None.

A.11 Procedures for Program Performance Monitoring, Review and Revision

Summary from Public Information Document:

Elements of Provisions Related to Performance Monitoring, Review and Revision	
1.	The program should include a review period, built in performance monitoring, and opportunity for adjustments to the program.
2.	No automatic sunset provisions.

Public Comments:

Consider a range of automatic sunset provisions (1-10 years)	PMCC
Include performance reviews	PMCC

A12.0 Data Collection

Summary Public Information Document: No data collection requirements identified.

Public Comments: None.

A13.0 Initial IFQ Allocation

Details on the IFQ options for initial allocation from the public scoping document are summarized in subsections below. The following are some general comments that did not fit neatly within one of the subsections.

Public Comments:

Establish a control date for processors.	1 individual
Don't make the shares so small that opportunity is reduced below current levels	1 individual

~~A.13.1 Qualifying Criteria: Membership in an Eligible Groups~~

Summary of Options from Public Information Document:

Option 1	Allocate IFQ to Current Permit Owners.
Option 2	Allocate IFQ to Vessel Owners.
Option 3	Allocate IFQs to Permit-Owners/Vessel-Owners/Processors (consider all combinations allocate to ownership at the time of initial allocation, where relevant).
Option 4	Allocate to High Bidder in Auction (eligibility rules for participation to be developed).

TIQC recommended not adopting options that would give initial allocation to: 1) owners of permit at time of landings; 2) lottery entrants 3); crew/skipper; 4) communities.

For each group for which there is a separate initial allocation formula, an amount of IFQ to be allocated among members of the group will need to be established.

Public Comments:

Allocate to processors which are NOT vertically integrated (do not own fishing operations)	1 individual
Allocate based on an auction	CJC, WCSPA
Allocate based on an auction tiered for different types of operations	ED
Do NOT allocate based on an auction	1 individual
Allocate 50% to permit owners and 50% to primary processors.	CJC
Allocate to permits, processors (company or facility, to be decided) and communities handling more than 1% of the annual landings	WCSPA
Allocate to permit owners, processors and communities.	CJC
Allocate to skippers who can demonstrate dependence	ED and two individuals
Allocate to crew members	Survey (ED)
Allocate to communities	Survey (ED)
Allocate to processors	Survey (ED)
Do NOT allocate to processors	Survey (ED)

A.13.2 Qualifying Criteria: Recent Participation Requirement

Summary of Options from Public Information Document:

Option 1.	No recent participation requirement
Option 2.	Recent participation (1998-2003) required to be eligible for an initial allocation (number of trips and/or number of yrs required, to be specified).
Option 3.	Same as Option 2 but the years would be 2000-2003.

Public Comments:

Have a continuing recent participation requirement so that if IFQ are issued they do not go to individuals who have left the fishery.	1 individual
---	--------------

A 13.3 Allocation “Formula”: Size of Initial Allocations

Summary of Options from Public Information Document:

Options for Vessels/Permits	
Option 1.	Auction
Option 2.	Some mix of criteria that might include: <ul style="list-style-type: none"> a. Catch history, wt (for certain species, consider allocating a portion based on an estimate of bycatch). b. Equal sharing <ul style="list-style-type: none"> i. Equally allocate QS represented by catch history of those vessels/permits bought back among those vessels/permits with catch history for the species. ii. Equally allocate incidental catch species. iii. Some other equal sharing basis.
Option 3.	Catch history (wt) only (for certain species, consider allocating a portion based on an estimate of bycatch).

TIQC recommended not adopting an option that would allocate based on vessel length.

Options for Buyers/Processors	
Option 1.	1st receiver purchase history of groundfish trawl landings (lbs)
Option 2.	Auction

Note: Processors may also receive some IFQ based on their ownership of vessels (vertical integration).

Several determinations are needed to complete the allocation option for buyers/processors based on buying history:

Does buying history accrue to a facility or to the company?

If buying history accrues to a facility, when ownership changes does it transfer to the new owners, stay with the old owners or not count toward any allocation?

If buying history accrues to a company, does it transfer to new owners of the company or “disappear” if ownership changes?

Public Comments:

Measure catch history by value of product rather than weight of catch	Survey (ED)
---	-------------

A.13.4 Catch History: Species/Species Groups to be Used for Allocation

Summary of Options from Public Information Document:

Option 1.	Allocate species IFQ based on relative total groundfish catch.
Option 2.	Allocate species IFQ based on relative catch of each species.

Public Comments: None

A.13.5 Catch History: Allocation Period

Summary of Options from Public Information Document:

Allocation Period Option	Number of Years in Allocation Period	Number of Worst Years to Drop from Catch History	
		Option A	Option B
Option 1. 1994-2003	10	None	2
Option 2. 1994-1999	6	None	1
Option 3. 2000-2003	4	None	None
Option 4. 1998-2003	6	None	1

Public Comments: None

A.13.6 Catch History: Combined Permits and Other Exceptional Situations

Summary of Options from Public Information Document:

Catch History for Combined Permits	
Option 1.	Consider all catch history of the permits that have been combined to be part of the catch history of the permit resulting from the combination.
Option 2.	The combined permit would have only the catch history associated with its permit number (catch history of other permits with which it has been combined would not accrue to the combined permit).

Other categories of catch to be considered are:

- Illegal catch - do not count toward catch history
- Catch in excess of trip limits, as authorized under an EFP - whether to count needs to be decided
- Compensation fish (fish taken as payment by vessels assisting in research) - whether to count needs to be decided

Public Comments: None

A.13.7 Initial Issuance Appeals Process

Summary of Options from Public Information Document:

No specific recommendations on appeals were identified. The TIQC enforcement group recommended that any proposed revisions to fish tickets under go review by state enforcement personnel prior to finalization of the revisions.

Public Comments: None

A.14.0 Some Other Possible Provisions

Public Comments:

Prohibit highgrading	ED
Incorporate unambiguous language to address concerns about IQs becoming property right.	ED and 1 individual
Develop measurable performance objectives	ED
Make a policy statement that IFQ program for groundfish trawl should not be considered to set a policy precedent for other sectors of the fishery.	Survey (ED)
Make a statement on the eventual need to address inter-gear transferability of IFQs	Survey (ED)
Crew	
Provide worker protections in the regulations.	Survey (ED)
Withhold 10% of quota from a vessel if a review board finds the vessel is not treating the crew well.	Survey (ED)
Tax quotas to fund crew protections such as unemployment insurance, pensions or health care.	Survey (ED)
Establish a minimum base wage in addition to any percentage based compensation.	Survey (ED)
Establish an outreach program to assist industry refugees in availing themselves to public services and making transitions to other industries.	Survey (ED)
Buyers/Processors	
IFQ shares allocated to processors diminishes over time (e.g. annual % reductions)	Survey (ED)
IFQ processor shares are valid only at the plants for which they are issued.	Survey (ED)
Hold back a percent of IFQ and allocate it annually based on fisher-processor proposals.	ED
Compensate processors through transfer payments at time of initial allocation.	Survey (ED)
Compensate processors through transfer payments on demonstration of stranded capital.	Survey (ED)
Harvesters	
Assign vessel size class endorsements to IFQ and restrict trading between size classes.	Survey (ED)
Require that the IFQ owner be on board the vessel when it is used.	Survey (ED)
Individuals leasing permits get the right of first refusal if the IFQ issued for that permit is	

sold.	
Local Businesses	
Establish a fund to assist negatively affected businesses or to fund business development.	Survey (ED)
Local Governments	
Establish a revenue sharing system among active groundfish trawl ports	Survey (ED)
Other Fishing Sectors	
Set aside IFQ from TAC increases and allocate it to low impact gears	Survey (ED)
Set aside certain areas for fishing only by non-trawl gears	Survey (ED)
Use a buyback program to offset spillover effects	Survey (ED)
Restrict use of vessels that sell IFQ and leave the fishery (make IFQ allocation contingent on this provision)	Survey (ED)
If a trawler sells IFQ to a fisher in another sector, require that a certain percentage of that IFQ be allocated among all participants in that sector (an increase in the quota for the sector)	Survey (ED)
Environment	
Set aside IFQ from TAC increases in order to address conservation concerns	Survey (ED)
Combine the IFQ system with marine reserves.	Survey (ED)
Research	
Capture some of the surplus and dedicate it to a fund for research and conservation.	Survey (ED)

Impacts to Evaluate

The following is a list of impacts for evaluation. At the end is a listing of related public comments.

Habitat and Ecosystem

Changing impact on habitat due to gear changes.
 Potential changes in ecosystem dynamics if regional or localized depletion occurs.
 Potential changes in the mix of species harvested with changes in fishing tactics, seasonality or gear.
 Environmental impacts due to economic, community, and resource management changes.

Fishery Resources

Changes in accuracy of total mortality estimates.
 Incentives for unreported highgrading.
 Incentives to under report landings.
 Improved monitoring.
 Changes in total mortality.
 Incentives to minimize take of incidental catch species to avoid IFQ costs.
 Changes in size and maturity of fish taken.
 Direct and indirect impacts on fisheries prosecuted by other gear sectors, including sport.

Socioeconomic Environment

Production Value - harvesters and processors

- Mix of species and products

- Product quality

- Market timing (special orders)

- Allowable catch (reduced uncertainty about discards with proper monitoring)

Production Costs - harvesters

- Harvest flexibility

 - opportunity to better scale harvest activities to improve operational efficiency

- Gear flexibility

- Timing flexibility

- Opportunity for more efficient investment in capital

- Asset values (permit and vessel)

Production Costs - buyers and processors

- Product recovery rates

- Operational planning

- Storage costs

- Opportunity for more efficient investment in capital

- Asset values (facilities)

- Consolidation impacts, loss of infrastructure, and indirect impacts on the businesses (e.g. shifts impacting the operation of existing businesses and their competitiveness)

Safety and Personal Security

- Vessel maintenance, repair and replacement

- Avoidance of bad weather

- Personal financial and employment security

Community Impacts

- Local income

- Employment

- Tax base and municipal revenues

- Cost recovery for fishery related public works projects

- Cultural heritage

- Business and infrastructure impacts

Fairness and Equity

- Effects on groups involved and dependent on the fishery (income and employment) for crew, skippers, vessel owners, processor labor and management, support industries

- Effects on small entities (businesses (including family businesses) local governments, organizations)

- Effects on low income and minority populations

- Effects on asset value (quotas, permits, vessels)

- Effects on adjacent fisheries (geographically adjacent fisheries, for example Alaskan fisheries)

- Effects nontrawl gear fisheries on the West Coast including sport fisheries

Nonconsumptive Values

Nonconsumptive Use
Existence Value

Initial Program Development and Implementation Costs
Ongoing Administrative Costs
Enforcement and Compliance Monitoring Costs
Research and Performance Monitoring Costs

Impacts to Consider in Addition to Those Listed in Scoping Document

Evaluate the following

Effects on bycatch..... UASC, PMCC, PCFFA
Effects on habitat UASC
Effects on competition in markets 1 Individual
Legal and constitutional issues related to CDQs PMCC
Impact on Council objective related to year-round seasons PCFFA
Impact on fleet rationalizationCJC
Effects on balance between fishers and processorsCJC
Geographic distributions of effects..... POORT, PMCC, ED
Effects on future abilities to move to area management..... PMCC
Effects of trawl halibut retention on halibut mortality rates IPHC
Ensure the effects on Port Orford are identified separate from other port areas POORT
The cumulative analysis should include all recent management changes including
 buyback and area closures PMCC
When considering Non-malleable capital, take into account all fisheries in which the
 operations participate 1 individual

TABLE A-1. TIQ Enforcement Group preliminary scoping of possible enforcement programs.

	Program 1	Program 2	Program 3	Program 4	Program 5
At-Sea Monitoring	100% (Compliance Monitors)	100% (Compliance Monitors)	100% (Compliance Monitors or Camera)	Partial Compliance Monitor Coverage	None
Retention Requirement	Full Retention	Discards Allowed	Full if Camera, Discards Allowed if Compliance Monitor Present	Discards Allowed if Compliance Monitors Present	Full Retention (ABC held in reserve)
Bycatch Reporting System Comparable to Landing Tracking System	None	System Needed (electronic)	System Needed (electronic)	System Needed (electronic)	None
Landing Tracking System	Electronic	Electronic	Parallel Electronic Federal System (maintain paper fishtickets)	Parallel Electronic Federal System (maintain paper fishtickets)	Paper Fishticket
Shorebased Monitoring	100%	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)	Monitoring Opportunity (Based on Notice)
Vessel Provides Advance Notice of Landing	Yes	Yes	Yes	Yes	Yes
Limited Landing Locations	Site Licenses	Specified Ports	Site Licenses	Specified Ports	Specified Ports
Electronic IFQ Reporting	Yes	Yes	Yes	Yes	Yes

VMS is an assumed component of the enforcement environment.

Small vessel provision: small vessels may apply for an exemption and carry a camera instead of an compliance monitors.

GROUND FISH ADVISORY SUBPANEL STATEMENT ON
TRAWL INDIVIDUAL QUOTA ENVIRONMENTAL IMPACT STATEMENT

The Groundfish Advisory Subpanel (GAP) received an update from Mr. Jim Seger of the Council staff on the trawl groundfish individual quota (TIQ) process. Since the GAP had provided comments on the scoping document in June and the public comments received during the scoping process have covered the range of issues, the GAP decided not to provide further comments on the document.

The GAP spent a considerable amount of time discussing how to begin the process of inter-sector allocations. The GAP had recommended in June that the inter-sector allocation process be expedited. The GAP examined the positive and negative aspects of using the Council's existing Ad Hoc Allocation Committee versus creating a new committee. The unanimous recommendation of the GAP is as follows:

1. Create a new ad-hoc inter-sector allocation committee with the following structure -
 - 2 limited entry trawl representatives
 - 2 limited entry fixed gear representatives
 - 2 recreational representatives
 - 1 open access representative
 - 1 processor representative
 - 1 tribal representative
 - a neutral, non-voting moderator/chairman

In choosing the trawl, fixed gear, and recreational representatives, the GAP expects the Council to provide appropriate representation within in each sector (e.g., one pot fishing and one longline fishing representative; one charter and one private sport representative).

2. The members of the committee should be chosen with the advice of the GAP.
3. The charge of the committee is to recommend inter-sector groundfish allocations on all groundfish species/complexes except sablefish and Pacific whiting. In the case of sablefish, an exhaustive allocation process has already taken place and need not be repeated. In the case of whiting, the fishery is entirely harvested by trawl, and an intra-fishery sector allocation is in place.
4. The charge of the committee is further clarified as providing recommendations on allocations between trawl and nontrawl sectors as a first priority, so allocation issues among nontrawl sectors do not hold up development of a TIQ program.

The GAP believes this new committee structure is the most appropriate path to take, as there is a need for a level of expertise and experience with each of the sectors on the committee. We strongly recommend the Council adopt this structure and process.

PFMC

09/16/04

August 19, 2004

Dr David Hanson
Chair of the Trawl IQ Committee
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220



Agendum C.11d
Public Comment
September 2004

RECEIVED

AUG 24 2004

PFMC

Dear Dr. Hanson:

The Council took an important step forward when they began the process of examining how an individual quota system could promote both the biological and economic health of our West coast trawl groundfish fishery. Studies of IFQ programs from around the world have shown that a properly designed system can enhance safety, increase the value of fishery products, reduce discards and bycatch, increase the availability of fresh seafood, improve fishing industry profits, and provide for effective harvest capacity management and sustainable fisheries. IFQs contribute to safe, stable jobs that pay living wages. They are a crucial part of a rational fishery.

We have a chance to realize these benefits in our trawl groundfish fishery, but only if all stakeholders work together in developing and discussing alternatives in a rational, analysis-driven process. As harvesting sector representatives of the Trawl Individual Quota Committee, we are committed to working with our colleagues representing the processing sector, conservation groups, and coastal communities to properly and effectively evaluate alternatives and provide advice to the Council on designing an IFQ program that balances the needs of harvesters, processors, coastal communities, and the resource. To this end, we propose that:

- The decision rules of the Trawl IQ Committee be changed so that all Committee recommendations are developed through consensus rather than by voting. If, after full deliberation, consensus is not reached, the Committee will provide the Council with position statements that identify each group's key concerns and rationale for their position, and discuss why consensus could not be achieved.
- The Council's IQ analytical committee be requested to outline what information is needed, and whether this information is available, so the impacts of a full range of harvester/processor initial harvesting quota allocation options can be assessed.
- We meet informally with processors, conservation and coastal community interests prior to the next Trawl IQ Committee to discuss what each sector believes to be essential sector-specific objectives achieved from an IQ program, as well as to discuss information that could be made available to the analytical committee to assist in their impact analysis. We hope that such a dialogue could help us focus our discussions on the relative benefits of alternatives when we next meet as a Committee. Understanding and clearly defining

these objectives – including those that may be conflicting – will aid in understanding the trade-offs between alternatives currently under discussion as well as designing new alternatives that may better address specific concerns.

We are committed to doing our part in developing an IFQ program that best meets the unique needs of West coast harvesters, processors, coastal communities, government managers, and, most importantly, the resource. We support funding this initiative, because adequately funded analysis is a critical component of our ability to fully discuss trade-offs between alternatives and provide reasoned advice to the Council. We believe it is imperative for all the stakeholders in the west coast trawl groundfish fishery -- the harvesters, processors, the coastal communities, environmental groups, and fishery managers -- to work cooperatively towards improved fisheries management. A safer, more profitable, and better managed fishery is possible, if only we can all work together.

Sincerely,

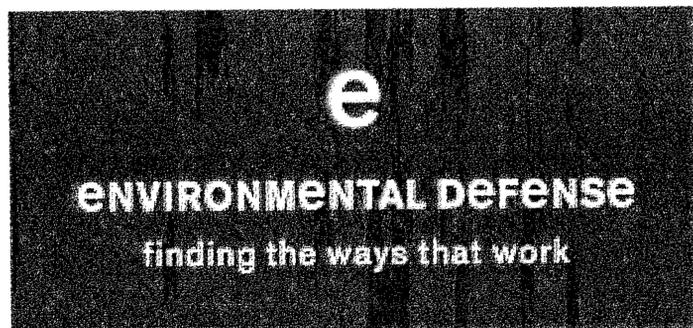
Steve Bodner
Chris Garbrick
Alan Hightower
David Jincks
Marion Larkin
Pete Leipzig
Brad Pettinger
Rich Young

cc: Don Hansen, Chair, PFMC
Don McIssac, Executive Director, PFMC
Other members of the Trawl IQ Committee
Steve Freese, NMFS, NW Region
Dr. Bill Hogarth, Assistant Administrator for Fisheries, NMFS, NOAA
West Coast Congressional delegation

Addressing Community Concerns in the
Development of Individual Fishing Quota Program
Alternatives for the Pacific Groundfish Trawl Sector

A Survey of Community Stakeholders

Submitted by Environmental Defense, Sept. 6, 2004



Preface

This report was sponsored by Environmental Defense and intended to provide objective, constructive information for the Pacific Fishery Management Council process to evaluate design elements as it considers a potential individual fishing quota program for the Pacific groundfish trawl fleet. The information in this report does not necessarily reflect our positions on the Council process or how we believe the Council should address and mitigate the community impacts of a potential quota program.

Environmental Defense is a participant on the Trawl Individual Quota Committee, which is charged with providing the Council with information for the council's alternatives analysis under NEPA. We believe a well-structured IFQ program can lead to significant environmental and economic benefits for the groundfish fishery, but only if the program addresses valid community concerns and provides sideboards to protect the interests of communities and ecosystem values. As stated in this report, "community" is an elusive term and means different things to different people. Defining this term is one of the significant challenges facing the PFMC and its stakeholders.

We encourage the broadest possible participation in this process by community activists, residents, local elected officials, and others who have a direct or indirect stake in the future of the groundfish fishery.

For additional information about this report or the individual fishing quota process, please contact:

Environmental Defense
5655 College Ave, Suite 304
Oakland, CA 94618
(510) 658-8008

September 6, 2004

0. Executive Summary

In this report, we are primarily concerned with identifying and addressing potential social costs of the transition to individual quota management in the groundfish fishery. After two months of outreach to diverse community members along the Pacific Coast from Washington through Northern California, we have documented the following concerns and observations. There is significant concern from community members, which is reflected both in specific comments about the Council process and about the IFQ program itself, regarding the transition to IFQ management. In addition, there is generalized fear of change under a new and unfamiliar management system.

PROCESS CONCERNS

- Many interviewees felt a lack of assurance that Council and IFQ committee will address community concerns in the IFQ program; several community leaders encouraged the Council to be forthcoming in acknowledging and addressing the community impact of management decisions in order to build trust.
- Several articulated the incongruity of trawl IFQ development process with the full scope of potential impacts, including impacts on other parts of the trawl fishery, other fisheries, and on communities. Parallel processes to develop recommendations for IFQ program elements to address such concerns may be needed.
- Many we spoke with expressed the difficulty of assessing IFQ program before inter-sectoral allocations are made; lack of specific program elements to address community concerns (they are too general)
- Many cited the potential high costs associated with participating in process as the reason they are not engaged
- Many of those interviewed believed there was high potential that legitimate concerns would be dismissed because addressing them would be overly complex (for example, some in favor of community quota allocations recognize the difficulty of allocation and effectively managing quotas).

PROGRAM DESIGN CONCERNS

- Several interviewees acknowledged the tension between economic evolution and personal interest, arguing that while management policy should not unduly harm

or help specific communities, neither should it stand in the way of letting markets inspire appropriate community change.

- Several observed that the line between addressing community concerns and protectionism is subtle but very important, and the Council should consider it in weighing program design issues.
- Most of the potential specific concerns are directly related to the market-forces inherent in IFQ programs, based on implicit or explicit assumptions that IFQs can be transferred freely with no constraints {?}.
- Specific concerns related to market forces included fear of excessive consolidation of IFQs in both harvesting and processing sectors; job loss and abandoned ports
- Several interviewees asserted that the IFQ program should pay for itself as a matter of principle; current limitation on fees may need to be lifted to make this possible.
- Many of those interviewed stressed that although they had concerns about localized impacts, they recognized the aggregate benefits of an IFQ program and that there were tools available to address community concerns.
- Most people felt that a strengthened fishing industry was good for fishing communities.
- Many asserted that any transition in the industry should be controlled so that effects on communities, even if unavoidable or on some level desirable, develop at a measured pace and to a reasonable extent so as to avoid real social disruption.
- Many stressed the need to clearly describe and address anticipated impacts, though more difficult, would better serve the public than ignoring the side effects of rationalization.

Program design elements exist that can mitigate or address most of these community concerns. Although numerous approaches are available, three primary tools seem to have been met with receptivity by the stakeholders we spoke with.

- First, A system of appropriately designed community quotas or alternatively, a system such as British Columbia's Groundfish Development Authority, can provide an ongoing mechanism for communities to maintain a fishing industry locally.

- Second, geographic limits on quota use, whether used to designate landing or harvesting locations, can ensure dispersion of fishing effort, continued industry distribution along the coast, and even engagement in specific ports.
- Third, quota accumulation limits can be used to prevent excessive industry consolidation, corporate control of the industry, and monopoly profit extraction.

We hope that this report provides insight into the community-related tradeoffs inherent in design of an IFQ system, and that it is helpful in showing a way forward that effectively addresses these concerns.

1. Introduction

1.1 Purpose

This report seeks to identify community interests and concerns related to the design and implementation of an Individual Fishing Quota system in the Pacific coast limited entry trawl groundfish fishery. It is intended primarily to complement the public scoping process and ensure that community concerns are adequately represented from the outset as the Pacific Fisheries Management Council decision-making process continues. Accordingly, the report contains information on both alternatives (or program design elements) that should be considered and the types of impacts that should be covered in the environmental analysis. In addition, it includes general observations based on outreach efforts that may be of value in characterizing community-related implications of fishery management decisions.

Absent community input, the alternatives are less likely to address issues of local concern. We hope that this report will be of use in informing the scoping process so that community concerns can be effectively addressed as the environmental analysis continues.

1.2 Methods

1.2.1 Defining Community

Any effort by the PFMC to describe or address community concerns must first define community. This definition will in turn direct the scope of the evaluation efforts and the weighing of comments from specific stakeholders. In addition, several methods of addressing community concerns require some body or institution to act on behalf of the community (for example by holding and managing quota shares); some agreement on a definition of community is required to implement many of the design elements included in this report.

Despite the importance of defining community, this report has made no effort to judge community membership. The Magnuson-Stevens Act specifies that a fishing community is “one that substantially depends on, or is engaged in, harvesting or processing fishery resources to meet social and economic needs.”¹ NMFS also provides guidance suggesting defining communities geographically, though others have chosen to describe community based on other criteria (such as involvement in a single supply chain or use of a specific gear type).² In deference to this uncertainty, our outreach efforts made no specific inclusions or exclusions (e.g. we did not assume that vessel owners are in the community but seafood restaurants are not) but rather attempted to listen to all concerns. Similarly, this report makes no effort to judge or rank the concerns it articulates; this effort is left to the Council and the analytical work of the EIS process.

1.2.2 Research Methods

The information contained in this report was collected during eight weeks of outreach from June 28 to August 23, 2004. During that period, we contacted nearly 100 individuals and organizations including fishermen, processors, crewmembers, port representatives, city, county, state, and federal government representatives, non-governmental organizations, and other interested parties.³ Often one interview would lead us to other contacts that would provide different perspective. In addition, we attended the Council scoping hearings in Seattle and Newport, Oregon on July 20 and 27 respectively, Environmental Defense sponsored a forum on a sustainable groundfish fishery in Newport on July 27 and, we attended community meetings sponsored by the Marine Fish Conservation Network and Pacific Marine Conservation Council in Astoria, Oregon and Port Townsend, Washington on July 13 and 14. Every effort was made to include the entire diversity of viewpoints and we regret if some concerns or policy options were not discovered by our outreach efforts. At the same time, the diversity of opinion included in this report was not the result of a scientific sampling process, and as such may not mirror the actual distribution of concerns in the community population. Infrequently expressed concerns are presented alongside concerns expressed by many individuals.

1.2.3 Validity of Claims

Many of the assertions and arguments reproduced in this report necessarily involve projections of future events. We have made every effort to accurately present interviewees’ viewpoints and to include differing opinions where present. However, we have made no attempt to evaluate the validity of individual viewpoints or to quantitatively evaluate the likelihood or magnitude of projected consequences of IQ program adoption. Instead, this report identifies impact areas that should be covered in

¹GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 16.

² *ibid.*

³ For additional information on those contacted in the course of our research, see appendix A.

the Council's full environmental analysis. Also, the presentation of a concern or potential solution should not be interpreted as an endorsement of a particular viewpoint, and Environmental Defense is not advocating that the Council adopt all of the program design elements included in this report.

1.2.4 Data and Causality

One challenge to designing and implementing community protections under an IFQ program relates to determining whether outcomes were caused by the program or merely coincident with them. Given the complex and integrated economics of fisheries, it can be difficult to determine the causes of changes in communities. For example, in the Vancouver Island town of Ucluelet, economic hardship that some attributed to the IFQ program were more likely caused by declines in the salmon and forestry industries.⁴ Clearly these difficulties assessing the scope of IFQ impacts complicate efforts to incorporate design elements to address them. Efforts are underway at the National Marine Fisheries Service to measure economic and community baseline conditions to facilitate tracking IFQ program effects, which should help in addressing this challenge.⁵

2. Findings

2.1 General Observations

2.1.1 Scope of Impacts, Scope of Process

One theme that arose frequently in the course of interviews was the incongruity of the Council's trawl IQ process with the full scope of potential program effects. In short, there was concern that while the planning process limits itself to the limited entry trawl fishery, decisions made for managing that fishery will affect other sectors of the groundfish fishery, other fisheries, and communities. Further, some fear that the scope of the present council process will preclude consideration of mitigation measures in affected communities that are not participants in the trawl fishery. Similarly, outreach and analysis efforts may overlook these impacts on areas at the periphery of the trawl fishery, reducing the likelihood that these concerns will be addressed in the EIS alternatives.

⁴ Rose Davison, statement at ED Forum on a Sustainable Groundfish Fishery, Newport, OR 7-27-04.

⁵ These efforts are being undertaken by a team including Suzanne Russell at the Northwest Fisheries Science Center. Among the initial output of their efforts will be a series of short community profiles that will include demographic data as well as information on the extent to which communities are engaged in and dependent on specific fisheries. Another effort to characterize communities engaged in fishing has been undertaken by the Pacific States Marine Fisheries Commission. Their report *West Coast Marine Fishing Community Descriptions* by Jennifer Langdon-Pollock is available at: http://www.psmfc.org/efin/docs/communities_2004/communities_entirereport.pdf.

The separation of the trawl IFQ EIS from the inter-sectoral allocation EIS is another source of tension in the process. Several participants identified the difficulty in evaluating the prospect of a trawl IFQ before allocation of the total allowable catch between sectors. This was of particular concern to participants in other fisheries and some conservation interests.

2.1.2 Lack of Assurance

A source of uncertainty in the decision-making process revolves around establishing a 'vision' for the trawl fishery under an IQ program. Tension between some goals and objectives cause concern for stakeholders. For example, goal 6 of "capacity rationalization through market forces" is potentially at odds with objective 8 to "avoid excessive quota concentration." Potentially conflicting goals and objectives leave community members unclear as to the council's vision of the fishery under IQ management. Several of the objectives that might serve to assuage community concerns have yet to be specified and remain general, including objectives 8 and 11, "avoid excessive quota concentration" and "minimize adverse effects on fishing communities to the extent practical."⁶ As a result, communities have no assurance yet that their concerns will be adequately addressed, and some community members are inclined to oppose the entire process rather than engage under these circumstances. This reflects distrust of government resource management expressed by many in economically distressed coastal communities.

Additional outreach and explanation of opportunities for public comment from community interests and actual demonstrations of a commitment to community concerns (e.g., direction from the Council to the IFQ committee) might help to assuage concerns related to a perceived incomplete 'vision,' bring those currently opposed into the management process, and result in a better crafted IQ program. We hope that this report can inform the process and ensure that community concerns are considered early in the analysis.

2.1.3 Information Gap

Perhaps the single greatest finding of our outreach was that most community members were not informed about the Council's trawl IQ process. Still others were aware of the process, but had chosen not to engage or comment based on some analysis of the cost in terms of time and effort. Several people mentioned that they anticipated weighing in once the alternatives were developed, but that until the options were formulated, they had no way of knowing how the changes would affect them. Of course, failure to voice their concerns at the scoping phase increases the likelihood that those concerns will not be addressed in the alternatives. We hope that this report can inform the scoping process and

⁶ Pacific Fishery Management Council. *Information for Public Scoping of Dedicated Access Privileges for the Pacific Coast Limited Entry Trawl Groundfish Fishery*. Portland, OR: June 2004. page 1-5

formulation of the alternatives so that the eventual outcomes will address community needs.

Though appreciative of our outreach efforts, some of those interviewed expressed disappointment that the Council did not more actively solicit community input at the scoping stage. Several community leaders encouraged the Council to be forthcoming in acknowledging and addressing the community impact of management decisions in order to build trust that has been damaged by perceived past government disregard for resource-dependent communities.

2.1.4 Management Costs

Management cost is another issue in IQ program design. While it is widely accepted that IQ management can increase the value of a fishery by rationalizing production, this increase comes with significant program management costs. These costs include not only the program design process, but also ongoing administration, monitoring, enforcement, and research. Costs incurred in efforts to address community or other concerns can also be significant. In theory, the increased economic surplus from IFQ management can be used to compensate those adversely affected by distribution of program benefits. In practice, however, at some point program costs can rival the increase in surplus afforded by IFQ management.

Several interviewees mentioned that any IFQ program should pay for its own management as a matter of principle. However, there is a statutory limit on the amount of fishery revenue that can be used for management. Some fear that the current 3% cap under the Magnuson-Stevens Act may be inadequate to fully offset program costs.⁷ The Council will need to consider this limitation when designing the quota program, especially as it weighs the additional costs imposed as community concerns are considered.

2.2 Tradeoffs

Our outreach revealed that many community concerns about IFQs are directly linked to the market-based mechanics of an IQ system. In this context, there are significant tradeoffs present in balancing efficiency and equity considerations to arrive at an appropriately 'controlled' rationalization.⁸ This finding is consistent with previous experience in this fishery.⁹ The dynamics of some of these tradeoffs are addressed below.

⁷ PL 94-265 Sec. 304 (d)(2)(B)

⁸ The concept of a 'controlled rationalization' is taken from the British Columbia Groundfish Trawl Individual Vessel Quota program, where it is used to describe a level of rationalization and fleet reduction that balances economic sustainability with community protections.

⁹ "The case studies also demonstrate that the objectives of fishery management can work against each other. Tradeoffs often exist among equity, efficiency, resilience, and

2.2.1 Complexity versus Simplicity

A significant tension in the IFQ design debate is the difficulty of capturing the diversity and volume of legitimate concerns (both community and otherwise) in a program that will be not be too complex to function. Many of those interviewed recognized that it is tempting to dismiss legitimate concerns because addressing them would be overly complex. For example, some in favor of community quota allocations recognize the difficulty of allocation and effectively managing quotas. In fact, several port managers and local government officials said that though they would like to see community quotas, they would not want to manage them. Similarly, poor information on historical participation makes allocation of community shares to crew or processing workers very difficult, though there are arguments legitimizing their claim to shares.

The council decision to proceed with an IFQ plan in the limited entry trawl sector of the fishery instead of in all sectors is seen by some of those interviewed as a triumph of pragmatism over “the economist’s dream” of an IFQ program allowing trading of IFQ between sectors. As explained above, the simplification (both political and eventually operational) won by this limited scope may make it difficult to address concerns of non-trawlers who fear program effects despite falling outside the scope of the plan. Parallel processes to develop recommendations for IFQ program elements to address such concerns may be needed. Similarly, the wider the field of community concerns the Council attempts to address, the more complex the political environment of program design will become. Again, a trade-off between the theoretical ideal and the pragmatic must be made in a way that will still accord adequate consideration to legitimate community concerns. At the same time, some are concerned that too many people are getting involved in management who are not direct stakeholders.

One important consideration within the discussion of system complexity is the distinction between one-time measures and ongoing program design features. Addressing community issues through one-time steps at program outset can be less complex than using program design elements that will perpetuate as the rules of the system. For example, a one-time initial community allocation is administratively simpler than an ongoing requirement that a quota be landed in a particular port. One-time measures also hold the potential of maximizing efficiency because ongoing market forces will be less encumbered. Further, the program design process affords an opportunity to develop complex allocations in an inclusive co-management forum that may not be available after program implementation. At the same time, despite their potential inefficiencies, ongoing design modifications can accomplish different goals than one-time measures.

stewardship.” Hanna, S.S. “User participation and fishery management performance within the Pacific Fishery Management Council.” *Ocean & Coastal Management*, Vol. 26, No. 0, pp. 19, 1995.

2.2.2 Remedial versus preemptive measures

One major issue involved with IFQ program design is the question of when to address community concerns. Some argue that it is important to address possible impact preemptively at the outset through either program design or quota allocation, while others prefer to consider and address problems *post facto* through periodic evaluations and remedial actions. Each approach has advantages and disadvantages.

2.2.2.1 Preemption

Addressing community concerns preemptively has the advantage of showing stakeholders and community interests that their needs will be met. It is a greater investment in stakeholder participation and empowerment at the outset of the process, but this initial time investment can reduce the need for analyses of impacts, program retooling, or enforcement after the program has begun.¹⁰ Further, several people expressed concern that the complex nature of these problems requires a complete discussion and should not be relegated to a secondary forum or postponed. The ability of a *post facto* review process to dynamically address socioeconomic problems in a relevant timeframe is another concern. Many of the socioeconomic concerns involve unemployment as a byproduct of consolidation or other changes under IFQs; these are rapidly developing problems that require rapid response and may be exacerbated if they are addressed by a cumbersome bureaucratic process. The need for a social safety net begins immediately when the problem develops; it is a small consolation to the community that a programmatic review will potentially address immediate problems in the future.

Inevitably, an effort to identify, quantify, and address all conceivable community concerns when designing a program will demand a huge investment of time and resources. Even given a real commitment to solve all problems, it will still be necessary to address new or unanticipated effects as the program is underway. Several interviewees pointed out that the fishing industry is very unpredictable and that efforts to anticipate future industry conditions would be, inevitably, incorrect to some extent. In this context, preemptive efforts to address community concerns can be seen as having clear efficiency cost but uncertain benefit because the anticipated problems they aim to solve may not develop. While I agree with this, it seems like an editorial comment that might antagonize some]

Preemptive addressing of community impacts also is in direct tension with several council goals because most methods of addressing community impacts are by definition restrictions of market forces. At the extreme, preemptive addressing of all community concerns (including, for example, preventing all job loss through consolidation) would

¹⁰ "A co-management process is associated with high *ex ante* and low *ex post* transaction costs." in Hanna, Susan S. "Co-management." in *Limiting Access to Marine Fisheries: Keeping the Focus on Conservation*. Karyn L. Gimbel, ed. Center for Marine Conservation and World Wildlife Fund US, Washington, D.C.

lock in the industry status quo and represents a failure to achieve several Council goals, including those of providing a viable and efficient groundfish industry, increasing net benefits that arise from the fishery, and rationalizing capacity.¹¹ Conversely, maximizing the market incentives to capacity rationalization would entail ignoring some if not all community concerns. In sum, the goals of addressing community concerns and allowing market forces to enable fishery rationalization are somewhat at odds, and the Council will need to struggle with where in the continuum a 'controlled rationalization' appropriate to this fishery lies.¹²

2.2.2.2 Remediation

Addressing community concerns through reviews after program implementation has the major advantage of using resources to address actual rather than potential problems. At the same time, this approach may reduce stakeholder and community buy-in and participation, creating conditions conducive to failure. In addition, problems may be more difficult to address once they have actually been realized (consider excessive consolidation or unemployment). Also, *post facto* rule changes to address community problems could have an efficiency cost. Investments made absent any new conditions, would change values.

Addressing concerns *post facto* could lead some to believe that the Council is expediting IQ program implementation without ensuring that communities are protected, and might reduce community support for an IQ program. There is a fear that postponing difficult and controversial issues would both preclude adequate discussion and restrict the possible response options. (For example, if it is decided after initial allocation that some quotas should be allocated to communities, where do managers obtain those quotas?) Given the difficulty of addressing these issues, some feel that leaving them until a program is operational would mean they would never be addressed. An ongoing mechanism for redress, such as British Columbia's mandatory three-year review process and GDA (see section 2.3.1 Community Quotas), is one approach to ensuring that *post facto* impacts are considered.

The question of whether to address community concerns preemptively or remedially is closely linked to other issues of the decision-making process, tradeoffs between equity protections and efficiency, and definition of community and what constitutes a valid community concern. Again, the Council will have to decide where it would like the IFQ program to lie on the continuum between these two poles, balancing preemptive measures with processes for program review, evaluation, and remedial action.

¹¹ Pacific Fishery Management Council. *Information for Public Scoping of Dedicated Access Privileges for the Pacific Coast Limited Entry Trawl Groundfish Fishery*. Portland, OR: June 2004. page 1-4.

¹² GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 7.

2.2.3 Addressing Concerns Versus Protectionism

A final tradeoff that pervades all discussion of addressing community concerns is the question of when community security becomes protectionism. Several of those contacted for this report acknowledged the tension between economic evolution and personal interest, arguing that while management policy should not unduly harm or help specific communities, neither should it stand in the way of letting markets inspire appropriate community change. One harbormaster mentioned that though it was unfortunate that commercial fishing boats are leaving his port and negatively impacting the finances of both the port and local ancillary businesses, it would not be appropriate to protect the ports by requiring the boats to stay. Similar themes underlie many of the community concerns in this report. While most agreed that it is important to recognize community needs even if the eventual goal is to transition out of fishing in a certain place, measures extended into perpetuity begin to look like protectionism. As such, their short-term community value is offset by their long-term harm to efficiency.

Several general strategies emerged as possible ways of addressing community concerns while avoiding ongoing economic distortions. The first is to have all structural protections of specific communities slowly disintegrate. Under such a system, for example, the number of quota shares restricted to community X would decrease by 5% annually so that though there would be no initial exodus of fishing vessels, the community would not be unduly protected from competition into the future. Another means of avoiding protectionism while still addressing community concerns is to use one-time transfers rather than ongoing rules so that efficiency is safeguarded. The transfers, whether of quotas or in the form of a payment, would not effect behavior in the same way as a landing restriction and thus would not hinder efficiency. Lastly, an ongoing forum for addressing community development and concerns could be created, similar to the Groundfish Development Authority (GDA) in the British Columbia Individual Vessel Quota program (see section 2.3.1 Community Quotas). Annual consideration of community development by the GDA helps guard against protectionism by allowing protections to evolve with market conditions, as reflected in joint fisherman-processor marketing proposals.

The line between addressing community concerns and protectionism is subtle but very important, and the Council should consider it in weighing program design issues.

2.3 Solution Strategies

There are four primary approaches to addressing community concerns under IFQ programs: community quotas, geographically limited quotas, accumulation limits, and transfer payments. Principle aspects of each of these approaches are presented below.

2.3.1 Community Quotas

Community Quotas are programs designating that some fishing quota be used to benefit communities. The most straightforward community quota system involves allocating quotas directly to a community. The community, in turn, can then use the quotas as it pleases to safeguard its interest. Typical uses include outright sale of the quotas (in which case the quota allocation is essentially a transfer payment), sale or lease of the quotas upon certain conditions (for example local landing and processing of fish), and community operation of fishing vessels and/or processing plants using the quotas. In addition, the quotas can be used to leverage fishermen to bring their own individual quotas to fish in the local port, thus providing the seed to grow or maintain a local fishing fleet. Some governing body must manage quotas assigned to communities. Possible administrators include port districts, city or county governments, or local non-profit corporations established express for the purpose. For example, in the Chatham Islands of New Zealand, quotas were assigned to a community trust and are in turn leased to fishermen to keep the fishing industry in the community.¹³

There are arguments against community quotas. First, some question the premise that communities deserve quotas, primarily based on recent perceived antipathy to commercial fishing in some ports. In this context, they view community quotas as rent seeking and a resource grab. Others point out that many communities do not want quotas, because their economic development strategies involve transitioning out of commercial fisheries. Another argument against community quotas is that it makes no sense, on efficiency grounds, to tie quota to communities, especially as time passes. The assumption behind this argument is that community governance of quotas will not provide sufficient profit motive to efficiently use the resource, perhaps because of competing goals. In any event, if the goal is to safeguard communities against rapid, socially disruptive changes due to IQs, then some sort of disintegration of community quotas may be appropriate to guard against enshrining the local fishing industry in perpetuity. Finally, some are concerned that community quotas are a first step towards processing quotas, especially considering that they are often managed with a single processor. The Chignik cooperative in Alaska was cited as an example of this, where, according to one observer, the co-op marketing plan amounted to an unwarranted gifting of the fishery landings to a single processor.

Alternatives to Quota

An alternative to community quotas is the British Columbia Groundfish Development Quota (GDQ) program. Under that system, a portion (10%) of each individual quota is withheld and is available to the fishermen based on the merits of joint fishermen-processor proposals in meeting the community development vision of the program. Each

¹³ GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 9.

proposal is judged by the Groundfish Development Authority (GDA); a governing body with representation from community and labor interests. Similarly, another 10% of each individual quota is available contingent on fair treatment of crew, as arbitrated by the GDA. These shares, known as Code of Conduct Quota (CCQ), can be withheld from the vessel if crewmembers bring complaints about treatment to the GDA. An initial review of the BC program concludes that “the GDA, through GDQ and CCQ advice, serves as a “conscience” for the industry- causing the industry to plan ahead and be mindful of the broader impacts of quota usage decisions”¹⁴, including community concerns, employment, labor conditions, and sustainable fishing practices. An ongoing forum for addressing community and labor concerns, such as the GDA, can be an effective alternative to attempting to address all potential concerns during initial program design.

Alternatively, an IQ program could incorporate a community right of first refusal, ensuring that local fishermen had the opportunity to purchase any shares before they are transferred out of a community, but not assigning any quotas to public ownership. This feature was used in the Iceland IVQ program.¹⁵ Clearly a demarcation of community standing is necessary prior to implementing such an approach.

2.3.2 Geographically Limited Quotas

Limits on quotas can be used to control geographic distribution of fishing effort. There are three general approaches to geographic restrictions. Quotas can restrict where one harvests, lands, or both harvests and lands fish. As with many other program design elements, greater limitation of quotas allows more control of outcomes but at greater efficiency cost. Restriction of harvest area only controls dispersion of fishing effort, and can encourage distribution of landing ports. Restriction of landing ports can ensure distribution of landings and encourage dispersion of fishing effort. A dual restriction approach can ensure both dispersion of fishing and distribution of landings.

Geographic limitations on fishing can be made based on either biological or socioeconomic criteria. Whichever approach is used in delineating fishing boundaries, it is likely that the distribution will partially serve both conservation and socioeconomic goals. Several interviewees mentioned that they were in favor of delimitations based on biological criteria only, because socioeconomic restrictions are contrary to a market-based approach, and can result in inefficiently low levels of harvest in certain areas. At the same time, many people acknowledged that there was inadequate biological data to

¹⁴ Review of the Groundfish Trawl Individual Vessel Quota/ Groundfish Development Authority Plan: Discussion Paper. Groundfish Trawl Special Industry Committee, 29 September 1999.)

¹⁵ GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 10.

accurately delineate separate stocks. Still others were involved in research efforts that could eventually provide the scientific basis for geographic harvest limitations to protect certain stocks.¹⁶

Others advocate geographic restrictions by region even absent biological data. They point out that such restrictions can still have significant conservation and social benefits even when not based on perfect information.

Similar concerns led one interviewee to point out the need to shape quota in response to varied species biomass along the coast. He argued that it makes no sense to establish a quota system that treats all areas as equal, resulting in unusable quotas of different species in different areas. Indeed, participants in the British Columbia IVQ groundfish fishery have reported that it is difficult to assemble a package of quotas that directly corresponds to the species mix actually fished.¹⁷ Separate quotas for each species could allow trade to address this imbalance, though regional restrictions should certainly take varied biomass into account when inter-area allocations are contemplated.

Geographic limits on quota can be imposed either by the council at time of program design, or by quota holders themselves as a condition of lease, sale, or use. This use of independent contracts to limit quotas may be of particular interest in the case of community quotas (see section 2.3.1 above). Further, some feel that provisions of the Magnuson-Stevens Act requiring equal treatment between states may limit council authority to implement geographic restrictions.¹⁸ In this case, private contractual restrictions could be an alternative approach.

2.3.3 Accumulation Limits

Accumulation limits place a cap on the total amount of quota a single entity can possess. They are designed to guard against excessive industry consolidation, and serve to encourage decentralization of fishing along the coast, protect local economies, prevent corporate or investor takeover of the resource, and guard against monopoly rent extraction or abuse of market power. As the NRC explains, antitrust provisions alone have not been adequate to ensure optimal share distribution.¹⁹ In this context, ownership caps may be appropriate.

¹⁶ These efforts have been undertaken by the Port Orford Ocean Resources Team

¹⁷ Bruce Turris and Ron Gorman, Environmental Defense Forum on a Sustainable Groundfish Fishery, Newport, OR, July 27, 2004.

¹⁸ PL 94-265 sec. 301 (a) (4).

¹⁹ Committee to Review Individual Fishing Quotas: National Research Council. *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas*. National Academy Press, Washington, D.C.: 1999. page 209.

The council's scoping document contemplates caps of 1, 5, or 10% in the non-whiting groundfish fishery. At the same time, it alludes to some of the practical difficulties of cap implementation and enforcement by contemplating separate caps for ownership, control, and use by a vessel.²⁰ In particular, there is concern that trusts, partnerships, subsidiary structures, or other legal arrangements could be used to skirt accumulation caps. Indeed, a recent GAO report on the Surfclam and Ocean Quahog IQ program found that "different quota holders of record are often part of a single corporation or family business that, in effect, controls many holdings."²¹ This highlights the importance of continued attention to this issue.

Finally, there are questions of accumulation limits and allocation. In particular, an allocation formula could assign quotas to one entity in excess of accumulation caps. This is an especially strong possibility for vertically integrated operations if quota allocation considers both harvesting and processing capacity. The council will have to consider this eventuality when formulating both allocation and accumulation policy. Two initial options include forced disposal of quotas in excess of accumulation caps (perhaps through an auction) or allocation based on some formula up to the accumulation caps.

2.3.4 Transfer Payments

A fourth approach to addressing distributional impacts and community concerns is through the use of transfer payments as a means of compensation. This is the approach used frequently in other contexts, including litigation, insurance claims, tax credits, and some social programs. In the context of a quota program, transfers can be either made outright to address some known concern or be contingent upon future events. An example of the latter would be a trust fund program distributing loans or grants to assist displaced workers, small business, or public works projects made less solvent by industry changes under quotas.

The funding of transfer payments can be accomplished in different ways. A levy on quotas or fishery revenues could be used to allow the industry to fund a program. A portion of the increases in TAC could be auctioned as quotas to raise money. Another option is to direct compliance fines from fishery participants into dedicated accounts. Alternatively, assistance from local, state, or federal government could provide financing.

Regardless of the precise fundraising mechanism, transfer payments tend to attract skepticism for the same reason they may be effective; they allow an easy way to widely distribute compensation in varying amounts to diverse parties. Some view this as an open

²⁰ Pacific Fishery Management Council. *Information for Public Scoping of Dedicated Access Privileges for the Pacific Coast Limited Entry Trawl Groundfish Fishery*. Portland, OR: June 2004. page A-9.

²¹ GAO-03-159. *Individual Fishing Quotas: Better Information Could Improve Program Management*. United States General Accounting Office, Washington, D.C.: December 2002, page 3.

invitation to rent seeking as peripheral interests attempt to get a 'piece of the pie.' Oppositely, many argue that because the negative effect of an IQ program on some party is small, transfer payments are the appropriate mechanism to provide due compensation, and that to ignore concerns simply because they are minor is inequitable. Others prefer non-monetary compensation and resist being 'bought out.' Structurally, payments funded by quota sales or levies on quota use are equivalent to distribution of quotas in lieu of dollars, because quota recipients can always convert their allocation to cash through sale.

A central point is that even though transfer payments may leave quotas untouched, they are a real cost of program administration. The economic surplus created by an IQ program is limited and this should be taken into account when incorporating transfer payments in program design. Many people feel strongly that all aspects of program operation, including mitigation of community impacts, should be self-funding, though some fear that this will not likely be possible initially. There is the possibility that the industry could increase its share of program funding as stocks rebuild and profits increase. This would avoid imposing large initial costs on a struggling fishery.

Transfer payments have an efficiency benefit over other design elements because they do not affect behavior or alter economic incentives in the future. Thus, they can be used to address community concerns without compromising the market-based goals of the program.

Finally, some form of governance body is required to administer payments. In the case of transfers that accompany initial allocation, the Council could play this role. However, programs to manage trust funds or grant programs could use a special committee or non-profit organization for this goal. Clearly, broad stakeholder representation on any such board would be beneficial.

2.4 Specific Community Concerns and Potential Solutions

Individual Fishing Quotas are widely acknowledged by community members to hold exceptional potential to stabilize groundfish trawling and make the industry more profitable. Several community leaders prefaced their discussion of their concerns by stating that programs that help the fishing industry are good for fishing communities, and thus it is appropriate to preface our discussion of their concerns with the same comment. There is significant agreement that quotas represent a promising opportunity to correct some fundamental problems in groundfish management, and support of the program is widespread contingent upon ensuring a measured transition that adequately addresses community concerns. The issues discussed in this section should be viewed in this context.

This section identifies community concerns as expressed by those interviewed and then mentions potential ways of addressing them, if any. Concerns are grouped first between the trawl fishery and outside of the trawl fishery and then ordered by general topic. Potential solutions to the concerns follow the description of the concern and can be

grouped into two generic categories.²² Solutions either involve transfers or allocations, in which a party is given something (a quota, money, job training, information) to offset the effect of the IQ on them or rules in which system design features protect community interests. Examples of rules include requirements that owners be on board a boat while it is fishing quota or restrictions on where a boat can land its fish. For the few concerns related primarily to misunderstanding or abstract interests, a symbolic policy response, such as a clarifying statement, may be appropriate.

2.4.1 Impacts within the trawl fishery and related communities.

These concerns are presented by topic area.

2.4.1.1 Labor

1. Concern: The social structure between crew and boat owners needs to be maintained.

Crewmembers and others are concerned that the establishment of quota will disrupt the traditional social structure on board vessels, skewing the power balance unduly towards the owners of quotas (assumed to be the boat owners/captains). There is a widespread desire to recognize crew participation in the industry, though many acknowledge that a distribution of quotas to crew would be complicated. Oppositely, some question the commitment of crew to the industry, and imply that they do not deserve any special concessions. Further, they argue, good crewmembers are always in high demand, and therefore no specific protections are required. Finally, one interviewee mentioned that “the crew can drown just as well as the captain”, and that they should not be penalized for limited past dedication to what was at times a marginal industry offering inadequate compensation and great risk. In addition, crewmembers have traditionally engaged in much unpaid labor in repairing and maintaining boats and gear in preparation for the fishing season. This labor brought only the chance to work for a percentage of the catch, and if harvests were low, went uncompensated. There is fear that with a change in market power wrought by quota, crew might find themselves treated as sharecroppers.

Potential Solutions:

Crew quota allocation: Although undoubtedly complicated to establish, an initial allocation to crew could ensure that labor has some leverage in negotiating working conditions on boats.

Labor stipulations on quota use: Quotas could be distributed to boat owners but qualified with worker protections. These could either be explicitly regulatory or provide some incentive to treat crew well. In British Columbia, 10% of quota allocations can be

²² GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 3.

withheld from the vessel if a board that which includes labor representation finds the quota holder is treating the crew unfairly. Also, quotas could be taxed to fund crew protections such as unemployment insurance, pensions, or health care. Alternatively, a minimum base wage could be required in addition to any percentage-based compensation to ensure some safeguard against unpaid labor in the event of poor harvests. (See sections 2.3.1 Community Quotas and 2.3.4 Transfer Payments).

2. Concern: Fishery workers need to be protected.

There is widespread concern that seafood industry workers be protected from shifts in the industry due to quota introduction. Most people recognize that a quota system will make the industry more profitable and will allow for better jobs, although there may be some job losses as rationalization and capacity reduction occurs. In this context, many communities are concerned both about safeguarding jobs and ensuring that the unemployed have access to appropriate social services. There is a major community concern that these impacts are made clear to the public and be addressed at the outset.

Potential Solutions:

Geographic restrictions on quotas: Geographic limits on quotas, whether in the form of landing restrictions or harvest areas, can help ensure that the industry and its benefits do not become overly concentrated in small areas. This can maintain an equitable distribution of fishing jobs, and ensure that no single community is disproportionately affected. (See section 2.3.2 Geographically Limited Quotas)

Concentration limits on quotas: The fear of reduction in jobs is once aspect of a larger concern about excessive industry concentration, which though it may maximize efficiency, might not distribute benefits in a socially desirable way. One of the primary means of ensuring that rationalization is controlled is to establish limits on quota share accumulation. (See section 2.3.3 Accumulation Limits)

Worker protection fund: Some portion of the increased surplus from industry rationalization could be reserved in a fund to assist those who become unemployed. Possible uses for funds include as unemployment insurance, worker retraining, health care, and pension funds. One problem with this approach is that the unemployment is likely to occur before the surplus funds are available to address it. A specific industry fund is particularly appropriate due to the structure of employment in fishing where many employees, especially crew, are technically independent contractors who do not have the same access to unemployment insurance as corporate or government employees.

Outreach program: A further problem related to unemployment is that some unemployed workers have had difficulty in the past accessing existing social services. An outreach program could be established to assist industry refugees in availing themselves to public services and making the transition to other industries. This approach enjoys a successful

precedent in the Groundfish Disaster Outreach Program, and there is no reason why a similar approach could not work in the context of IQs.²³

2.4.1.2 Capital

1. Concern: Non-mobile capital must be protected

Although advocated primarily by processors, this is a concern held also by ports and other local support businesses. There is a fear that establishing quota could allow trawl fishermen, who would then control the catch, to leave certain ports in favor of other landing locations. In this event, the significant fixed investments of the processing and other sectors would lose value. In addition to this distributional problem, the precedent of disregard for processing stability could decrease incentives to future investment, damaging the industry as a whole. Further, in some fisheries, there is evidence of an economic overcapacity in the processing sector parallel to that of harvesters; in these cases the arguments about the need to allow fleet rationalization in a manner that avoids widespread bankruptcy apply to processing.²⁴ This is arguably the case with surimi production in the whiting sector of the groundfish trawl fishery. Others argue that because processors are diversified in other fisheries and there will be a continuing market for fish processing, no action is required to safeguard processing capital.

Potential Solutions:

Quota allocation to processors: An initial allocation of quotas to processors based on their capital investment (and its potential to be stranded) offers one solution. These quotas would give processors the ability to attract fishermen with additional quota, and would ensure that they could continue operations. There is some concern that an allocation in perpetuity would be protectionist and could shield processors from competition, causing inefficiency. This could be addressed by reducing the allocation as time progresses (disintegrating quota) or by limiting the original allocation so that it does not confer undue market power. Alternatively, processor quotas could be issued contingent on their use at original facilities, to ensure that a processor will not choose to consolidate operations with assistance from a program designed to protect non-mobile capital.

Transfer payments: Transfer payments to processors to compensate for stranded capital are an alternative to quota allocation. They could be distributed at quota allocation or *post facto* based on evidence of stranded capital. Transfer payments have the major advantage

²³ More information on the Groundfish Disaster Outreach Program is available on the GDOP website at: www.heads-up.net/gdop/

²⁴ See Matulich, Scott C. and Murat Sever. "Reconsidering the Initial Allocation of ITQs: The Search for a Pareto-Safe Allocation Between Fishing and Processing Sectors." *Land Economics*. May 1999. 75(2):203-19.

of not distorting market power by conferring ongoing protection to recipients. (See section 2.3.4 Transfer Payments)

Geographic restrictions on quota: Geographic restrictions on quota can ensure that capital is not stranded, by requiring continued landings in traditional ports. Thus, processors can be assured that processing would continue in the ports where they are invested. (See section 2.3.2 Geographically Limited Quotas)

2.4.1.3 Consolidation

1. Concern: Distribution of fleet could become overly concentrated in certain areas under quota.

Several community members mentioned concern that the current distribution of vessels (and therefore effort, processing, and environmental impact) along the coast was appropriately dispersed, but that quotas might lead to geographic concentration.

Potential Solutions:

Geographic restrictions on quota: Restrictions could address the concern directly, by forcing landings in certain ports or regions, or indirectly, by forcing harvesters to fish in specific areas, thus creating an incentive to remain in ports near their fishing grounds. (See section 2.3.2 Geographically Limited Quotas)

2. Concern: IQ system will impede new entry into the fishery.

Some community members feared that the advent of a quota system would erect an additional financial barrier to entry in the fishery due to the cost of purchasing quotas. This in turn could be a drain on the vitality of ports, fishing communities, and local businesses. Some feel that this price barrier is exacerbated because quotas are inflationary, perhaps intrinsically, but also due to expanding demand created by allowing communities, processors, and others to hold quota and to the establishment of a lien registry. The council should be cognizant of this possibility when considering who can own quotas.

On the other hand, some have pointed out that under the present management regime, there is already a financial barrier to entry because a prospective fisherman needs to purchase a limited entry permit to participate. In this context, they argue, an IQ will not pose an additional significant barrier. Also, the increased economic security afforded by a quota-managed fishery will be attractive to new entrants, even if at some additional cost. Finally, some note that barriers to new entry are entirely consistent with the program goal of reducing overcapitalization.

Potential Solutions:

The US General Accounting Office report *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation* (GAO-04-277) discusses several ways of facilitating new entry into a quota managed fishery including:

Blocking quota: Ownership limits can be placed on certain packages or blocks of quota so that a fisherman can only own a single block. Because the blocked quota cannot be combined with other quotas (unblocked quota), it is worth less and is less expensive for new entrants to purchase.

Set asides for new entry: Some quotas can be made available for new entrant purchase or grant. Quotas could be obtained by reclaiming already distributed quotas, creating new quotas from increases in TAC, forcing quota holders to sell a portion of their quotas in an annual auction.

Loans: Loans or grants can assist certain groups (new entrants, younger fishermen) in buying quota. (See section 2.3.4 Transfer Payments)

Community quotas: Community quotas can be managed to assist new fishery entrants. (See section 2.3.1 Community Quotas)

3. Concern: Small vessel viability may be threatened under an IQ system.

Small boat owners and ports that serve primarily small boats have expressed concern that an IQ system might disproportionately impact these vessels. These concerns exist for small boat owners within and outside the trawl sector. Both groups are concerned that consolidation and economies of scale made possible by quotas could leave small vessels less competitive. Also, for participants in the trawl fleet, there is concern that if boats were forced to cover their own management costs (as under some versions of 100% on-board observer coverage), these costs in percentage terms would have a greater impact on small vessels.

Potential Solutions:

Blocked quota shares: Blocked quota shares, as in the Alaskan IQ system, can protect small boat participation by ensuring that blocks of shares appropriate to small vessel use are less expensive, on a per pound basis, than quotas available to large vessels.²⁵ This is accomplished by restricting ownership of blocked shares so that a person can only own one block. The blocks are generally too small to meet the needs of larger boats so are

²⁵ For additional discussion of blocked quota shares, see GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 11.

sought only by the small boat market. Lower demand for these shares reduces their price, giving small boat owners an advantage.

Observer cost sharing: Concerns about disproportionate observer costs for small boats could be addressed by cost sharing programs. Total costs could be split evenly between all quota holders, or some combination of sharing and personal financing could be created to ensure that observer costs are considered in planning decisions to safeguard efficiency.

Small boat allocation: Quotas could be divided into different classes with restrictions based on boat length. This would ensure that small boats were not outbid for quotas by reserving a pool of shares for use only by small boats. This approach has been used in Iceland to maintain vessel size diversity.²⁶

4. Concern: Investors or corporations will control the fishery

There is significant fear that the advent of a quota system will allow outside investors or corporation to buy the fishery and manage it from afar on a 'sharecropper' model.

Potential Solutions:

Accumulation limits: Regulatory limits on the amount of quotas an entity can hold can prevent excessive control of the fishery by a single actor. (See section 2.3.3 Accumulation Limits)

Owner-on-board requirement: A requirement that the quota owner be on board the vessel when the quotas are being harvested can safeguard against outside investor control of the fishery. This has been used in the Alaskan Halibut and sablefish IFQ program as a requirement for those who entered the program by purchasing quotas (rather than receiving an initial allocation of quotas). The intent was to ensure that new purchasers were interested in fishing rather than in holding the quota as a financial asset.²⁷ In practice, this regulation can proved cumbersome and difficult to enforce.

5. Concern: Consolidation in the processing sector

Concerns about excessive consolidation in the processing sector have been raised on dual grounds. First, several people are concerned about the effects of market power that they perceive as ascendant in the processing sector. They argued that any IQ program should either be neutral on this issue or should actively reduce processor control. Second, some

²⁶ For additional discussion of blocked quota shares, see GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 10.

²⁷ GAO-04-277, *Individual Fishing Quotas: Methods for Community Protection and New Entry Require Periodic Evaluation*. United States General Accounting Office, Washington, D.C.: February 2004, page 11.

recognized the unique circumstances in this fishery that may be used to justify a significant processor allocation or some other approach to recognition of investment/stranded capital, but feared that it will be inappropriately exported to set a bad precedent in other IFQ programs.

Potential Solutions:

Avoid quota allocation to processors: Avoiding the allocation of quota to processors (potentially opting instead for transfer payments or another way of recognizing stranded capital) would safeguard against increasing processor market power.

Accumulation limits: Strict accumulation limits could also safeguard against excessive gains in market power. (See section 2.3.3 Accumulation Limits)

Explicit policy statement: The Council could issue an explicit statement discouraging the use of any fishery specific measures (including, in this case, a large allocation of quotas to processors) as a precedent in other fisheries, instead explaining that this policy was a response to a local special case.

2.4.1.4 Ports

1. Concern: IQs might lead fishermen or processors to leave ports.

This generic concern has several variations, all of which share some solutions (though other solutions are problem specific). General solutions are discussed here, with more specific measures addressing the specific concerns below.

Potential Solutions:

Community quotas: Community quotas could maintain a local fishing industry. (See section 2.3.1 Community Quotas)

Geographic restrictions on quotas: Geographic restrictions on quotas could encourage fishermen and processors to stay in a given port. (See section 2.3.2 Geographically Limited Quotas)

1a. Concern: Cost recovery for fishery related public works projects could be jeopardized if IQs lead fishermen or processors away from ports.

Several people expressed concern that if the fishing industry leaves a port, fishery related infrastructure, often publicly financed, could become insolvent. Examples include ice machines, port improvements, and processing plant water supplies. In addition, port managers pointed out that in some cases fishermen abandon their old boats and leave them to sink in harbors. This imposes legal or boat removal costs on ports.

Potential Solution:

Stranded capital grant program: A fund could be to be distributed as grants to assist capital projects that struggle due to IQs. (See section 2.3.4 Transfer Payments)

1b. Concern: IQ could cause fishermen to leave ports and this would hurt local business.

There is widespread fear that if an IQ program prompted the fishing industry to leave a port, this would be bad for local business in general. At the same time, the aggregate effect of an IQ should increase the value of the fishery, and thus may increase the multiplier in the regional economy. Also, some ports are transitioning to tourism and might see little or no impact from the departure of a fishery, especially if new redevelopment occupies areas formerly used by commercial fishing (bay-front condos, recreational boating in ports).

Potential Solution:

Local business grant program: A fund could be established to assist either specific business affected negatively by IQs or to fund business development. (See section 2.3.4 Transfer Payments)

1c. Concern: IQs could cause the industry to leave town and impact the local tax base.

The departure of fishermen or processors from a town could harm the local tax base.

Potential Solution:

Municipal revenue sharing: A revenue sharing arrangement between currently active groundfish trawl ports could potentially mitigate this problem.

1d. Concern: IQ could cause the fishing industry to leave ports and this would impact community culture/tourism.

There is some concern that the value of a commercial fishing industry in creating atmosphere of value in tourism could be lost if the fishing industry leaves town. Oppositely, some feel that proximity to a harbor, even if filled with sailboats, has the same value. Eliminating fishery related odors could also positively affect tourism.

1e. Concern: IQ could lead fishermen to leave the industry or community and would leave a civic leadership vacuum.

2.4.1.5 Conservation

1. Concern: Coast wide quotas will not protect specific areas from overexploitation

Community members representing diverse interests expressed concern about the inadequacy of coast wide quotas in safeguarding specific areas from overexploitation. This was of particular concern given the expectation of some consolidation of quotas, and harvest, under IQs.

Potential Solutions:

Geographic restrictions on quota: Geographic restrictions on quota, whether applied to landing or harvest locations, have the potential to limit concentrated fishing effort and control its effects. (See section 2.3.2 Geographically Limited Quotas)

2. Concern: A quota system will not adequately protect the marine environment.

Some community members are concerned that a quota system, in attempting to maximize the economic value of the fishery, may not adequately protect the marine environment. This reflects the perception that there is no council vision for a sustainable fishery and no consensus on the eventual goal fishery beyond capacity reduction. Others are specifically interested in ensuring that the environment captures some of the surplus resulting from a quota program through enhanced research or conservation.

Potential Solutions:

100% observer coverage: Concerns about over-harvesting, high grading, and dumping of by-catch species can be alleviated by establishing a program of 100% observer coverage.

Environmental sharing of TAC increases: Several people expressed concern about what would happen in the fishery as harvest levels increase, unclear as to how the additional available fish would be managed. Solutions that dedicate a portion of trawl TAC increases to either lower impact gears or environmental set asides can address conservation concerns.

Marine reserves: One way to ensure the protection of the marine environment is to combine a quota system with the creation of marine reserves closed to fishing. This would have the effect of creating geographically dispersed refuge for older fish that are increasingly seen as key in reproduction due to sporadic successful recruitment of rockfish.²⁸

²⁸ Berkeley, Steven A., Mark A. Hixon, Ralph J. Larson, and Milton S. Love. "Fisheries Sustainability via Protection of Age Structure and Spatial Distribution of Fish Populations." in *Fisheries*. August 2004.

Input controls: Traditional input controls can be combined with the personal accountability of an IQ system to prioritize resource conservation in the fishery. There is a concern that under quotas the disincentives to over harvest (having to buy more quotas to cover harvest and excess by-catch) also could operate as a license to over fish for the right price. Gear restrictions, area closures, and other effort controls combined with quotas could discredit this view.

Long term quotas: Ensuring that quotas are assigned on a long-term basis can help foster resource stewardship among fishermen. "When tenure is long term, incentives for rates of use become more compatible with the timeframes of ecological systems and are protected from the tyranny of short-term decisions."²⁹ This long-term view can reduce the incentives to exploit and then abandon a resource.

Research or conservation fund: Using part of the surplus from IQ establishment or increases in the TAC, a fund could be established to fund ongoing work in environmental research and conservation. (See section 2.3.4 Transfer Payments)

2.4.1.6 Allocation

1. Concern: Allocation should accurately reflect participation in the fishery

Some fishing communities are comprised of boat owners who do not own permits, but rather lease them in order to participate in groundfish trawling. There is a concern that if allocation accrues to the permit owner based on permit history, then the actual participants in the fishery may not receive any allocation while the permit owners will receive a significant windfall. An additional concern is that leasing of quotas will be prohibitively expensive for these fishermen, and they will be forced to stop fishing, negatively impacting local economies.

Potential Solutions:

Allocations based on participation: Quota allocation could be based in whole or in part on actual participation in the fishery, ensuring that non-permit holder participants will receive quotas.

Allocation lease guarantees/ right of first refusal: Allocation provisions could compel permit holders who have historically leased their permits to others to continue doing so for a time. Alternatively, leasers could be given right of first refusal either to the lease or sale of quotas allocated to the holder of a permit they have historically leased.

²⁹ Hanna, Susan. "Designing Institutions for the Environment." *Policy Forum*. January 24, 1996. page 124.

Grant or loan programs: A program of grant or loan assistance could be established to ensure that lease-dependent fishermen are able to secure quotas. (See section 2.3.4 Transfer Payments)

2.4.2 Impacts outside of the trawl fishery and related communities

These concerns are presented by topic area.

2.4.2.1 Other Fisheries

1. Concern: Quotas will exacerbate spillover into other fisheries.

There is widespread community concern that IQs, while reducing overcapitalization and enhancing profitability in the groundfish trawl fishery, will cause a spillover of effort into other fisheries. This spillover will exacerbate overcapitalization problems in those fisheries and reduce profitability, impacting communities. Spillover, it is argued, will come both through capacity reduction that frees boats to participate in other fisheries and new wealth that trawlers will have available to invest from quota sales. Others counter that while spillover is real and the need to rationalize fisheries is not confined to groundfish trawling, a trawl quota program is an important step in an ongoing effort to reduce capacity in fisheries coast wide.

Potential Solutions:

Restrictions on use of trawl boats that leave the industry: A restriction could be used to limit the extent to which effort could be transferred out of the groundfish trawl sector. Some portion of an individual's quota allocation could be contingent accepting these limitations.

Buyback in other fisheries: A buyback could be used in other fisheries to offset the spillover effect.

2.4.2.2 Process

1. Concern: The trawl IQ process is being expedited by the council at cost of 'inadequate consideration of concerns.'

Some community members feel that the council is being too hasty in its consideration of a trawl IQ, and is expediting the process by artificially limiting the scope of its analysis to trawl-only concerns. The argument is that there are many inter- and ex-sector concerns that will not be considered due to this approach. Further, some feel that this is being done under the false pretense of a safety emergency in the trawl fleet.

Potential Solutions:

Expand the process to consider other sectors: The council could expand the scope of the IQ analysis to include the entire groundfish fishery.

Add non-trawl and other fishery representation to the TIQC: In recognition of the impact a trawl IQ is likely to have on other sectors of the groundfish fishery and other fisheries, the TIQC could be expanded to include representation from these sectors.

2.4.2.3 Ports

2. Concern: Changes in the trawl industry under IQs will negatively impact other commercial fishing ports.

There is concern that increased fishing pressure due to consolidation made viable by IQs could harm other fisheries that occur in proximity to groundfish trawling. Further, some ports (Port Orford, for example) do not have the ability to replace a displaced commercial fishing fleet with recreational boats; this poses a financial problem for local port districts.

Potential Solutions:

Geographic restrictions on quota: Restricting trawl quotas geographically can help prevent concentration of harvesting efforts in specific areas, reducing localized impacts on other fleets. (See section 2.3.2 Geographically Limited Quotas)

Community quotas: Several communities concerned about trawl IQ impacts on their non-trawl fishery were enthusiastic about the concept of community quotas that could ensure a continuing commercial fishery in their ports. Inter-sectoral transferability seems to be prerequisite to an allocation to non-trawl communities, unless such an allocation was seen as a transfer payment that would in turn be sold by the community. (See section 2.3.1 Community Quotas)

Transfer payments: Proven impacts to other ports could be mitigated with transfer payments, though this might prove both complicated and unsatisfactory to impacted communities who prefer to continue to fish rather than be “bought out”. (See section 2.3.4 Transfer Payments)

Trawl closure areas: Certain areas could be set aside for fishing only with non-trawl gear, to ensure the viability of non-trawl fisheries in specific areas.

2.4.2.4 Conservation

1. Concern: The trawl IQ rewards high impact trawlers, when as a policy matter lower impact fishing techniques should be promoted.

Although the trawl IQ process is by most accounts a major step towards individual accountability, reduction of by-catch, and lower impact fishing, some members of non-trawl communities feel that the council should establish incentives for fishermen to fish in other ways.

Potential Solution:

Set-asides for other gear types: If the council wishes, as a policy matter, to promote non-trawl fishing, this can be accomplished in many ways. Some portion of increases in the TAC could be set aside to increase allocations to other gear types. For example, when the TAC increases, 50% of this increase could be retained by trawl quota holders and 50% could be used to increase the number of tons allocated to other gears.

2.4.2.5 Allocation

1. Concern: Equity of allocation outside of the trawl fleet

Several people from communities and fisheries outside the trawl fleet had equity concerns about the trawl IQ allocation. By allocating a quota of certain species, such as Lingcod, to the trawl sector to cover by-catch, critics argue that the council is rewarding a dirty fishery that cannot avoid impacting over-fished species. They feel that hook and line and other gear types, who will get no such by-catch allocation, are being penalized for having the ability to fish cleanly.

There is a perception that by establishing a trawl IQ before quota systems in other gears, the trawl fleet will have a guaranteed share of the coast wide TAC and any reductions in harvest will only affect other gear types. This may reflect an assumption that quotas will be allocated as tons of fish rather than as a percentage of the TAC.

An additional fear of participants in other gear sectors and fisheries is that an IQ based on catch histories will give trawlers an advantage if there ever is a transition to quota that are transferable between sectors. That is, trawlers will receive large allocations based on their catch volumes and will then be able to switch to other gears, and enjoy an inequitably large share of the fishery. This fear is exasperated by the feeling that productivity declines caused by trawl-inflicted habitat degradation has resulted in decreased recent harvests in other gear sectors that could eventually translate into lower catch allocations to those boats.

Potential Solutions:

Although the structure of the EIS process, in dealing with trawl gear first, precludes several means of addressing inter-sectoral concerns (it is hard to imagine the trawl IQ assigning quotas to hook and line boats, for example), there are still some ways that these concerns can be mitigated.

Set asides of TAC increases for other gear types: A percentage of TAC increases could be used to transfer some of the inter-sectoral allocation to other gear types. This is appropriate if the council wishes to make promoting these gear types a priority. The

question of whether to use increases in TACs of over fished species to expand trawling or make an allocation to other gears is important and should be addressed in advance. Besides conservation and equity concerns, there are economic arguments for redistributing certain by-catch species to other sectors. Participants in other fisheries (e.g. salmon troll) have argued that rockfish are more valuable as by-catch facilitating expansion of other fisheries.

Trawl exposure areas: Certain areas could be set aside for fishing only with non-trawl gear.

Statement on eventual inter-gear transferability: Although no policy can address concerns about transferability between gears until that effort is undertaken, the council could make some statement acknowledging the issue.

Redistribution of some quotas upon inter-gear transfer: Another viable eventual policy option could require redistribution of a portion of quotas to existing quota holders in some sector when trawl quotas are transferred to that sector. For example, a trawler whose quota is worth 1% of the TAC might transfer .1% of the TAC to existing hook-and-line fishermen as a condition of his transferring his quota to that sector. This could help ensure some continuity of market structure in the event that barriers between gear sectors are removed, although there would likely be some efficiency cost because such an approach amounts to a tax on inter-sector transfers.

Value-based quotas: Originally proposed as a safeguard against high grading, value based IQs could also work to protect value-added harvest methods such as hook-and-line live harvest. By awarding quotas based on the value of the catch, high-value but small volume fisheries (such as live rockfish) would be advantaged when compared to an allocation based on catch volume alone.

2. Concern: Allocation based on past history prevents other gear types from fishing for traditionally trawl caught fish.

There is a concern that some species that are traditionally caught predominantly by the trawl fleet (e.g. Dover sole), will be allocated in their entire TAC to the trawl fleet, precluding the opportunity for other gear types to develop fisheries for those species.

Potential Solution:

Potential Solution:

Reallocate some of the fish in the inter-sectoral allocation: Although this solution does not pertain to the Trawl IQ EIS, the issue could be addressed in the inter-sectoral allocation EIS by not allocating the entire catch of some species to a particular gear.

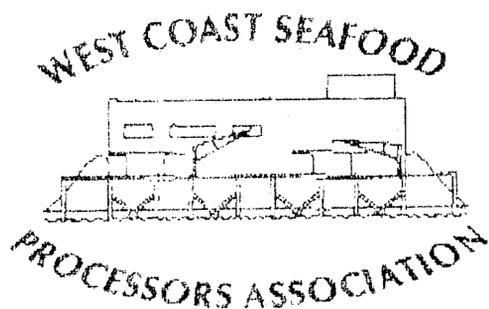
**Addressing Community Concerns in the Development of Individual Fishing Quota
Program Alternatives for the Pacific Groundfish Trawl Sector: A Survey of
Community Stakeholders
Submitted by Environmental Defense**

Appendix A: Additional information on those contacted for this report.

We contacted over 100 individuals or representatives of organizations in the course of our outreach efforts. Initially, we used a list of coastwide community contacts compiled by the Ginny Goblirsch, community representative on the Trawl Individual Quota Committee. As we contacted those on that list, many interviewees referred us to other contacts. In addition, we met several other community members at the events listed in section 1.2.2. On the other hand, there were some individuals or groups we were unable to speak with due to logistical difficulties.

The matrix below represents an effort to characterize the breadth of our outreach efforts without providing specific information on individuals. Contacts are described by primary role and location.

	Fishermen	Crew	Processors	Port Officials	Elected Officials	Agency Staff	NGO	Extension Academic
United States						4		
Pacific Coast			3			1	2	
Washington State					12			
Cities								
Bellingham	2							
Pt Townsend	1							
Neah Bay	1							
Westport	1			2	1			
Willapa Harbor				1				
Ilwaco				1	1			
Long Beach					1			
Counties								
Pacific					1			
Grays Harbor					3			
Oregon State					11	1	3	1
Cities								
Astoria				2	1			1
Garibaldi				1	1			
Pacific City	1							
Newport	2	4		1	2			1
Coos Bay				2	1			
Port Orford							1	
Brookings	2			1	1			
Counties								
Lincoln					1			
Coos					1			
Curry				1	2			
California State								
Cities								
Crescent City				1	1			
Eureka				1	2			
Fort Bragg				1	1			
Counties								
Del Norte					1			
Humbolt					1			
Mendocino					1			
British Columbia	1		1	1		2		



West Coast Seafood Processors Association

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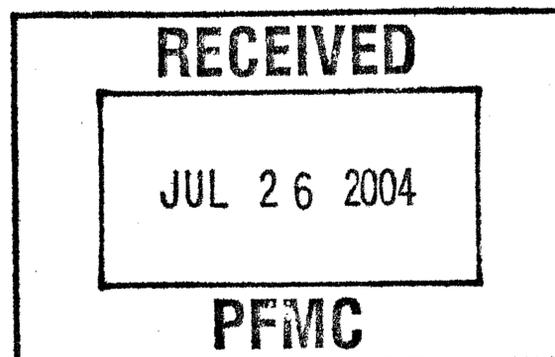
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*Serving the shore based seafood processing industry in
California, Oregon and Washington*

July 26, 2004

Dr. Donald McIsaac
Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Dear Dr. McIsaac:



The following comments are submitted on behalf of the West Coast Seafood Processors Association (WCSPA) in response to the notice of intent to prepare an environmental impact statement on dedicated access privileges published in the *Federal Register* on May 24, 2004. WCSPA members harvest, process, transport, and sell Pacific groundfish which would be included in a dedicated access program.

Before discussing alternatives and options to be considered in a dedicated access (DA) program, we want to express serious concern about the process chosen by the Pacific Fishery Management Council for developing a program. We believe that the issue of allocating harvest percentages among fisheries groups needs to take precedence over designing a system that might fail once allocations are made. The Council has already allocated the harvest of sablefish and Pacific whiting; some limited allocation has been made between limited entry and open access sectors; and a preliminary allocation system was established between sport and commercial harvest of lingcod and bocaccio rockfish. However, any single fishery sector could harvest enough of a single species (e.g., canary rockfish) to close down every fishery on the west coast.

It is impractical, verging on impossible, to adequately analyze the social and economic effects of a DA program when there is no way to predict on an annual basis whether any fishing will be allowed (see canary rockfish example, above). Before providing resources to analyzing and developing a program that might not be implemented, the Council needs to take the necessary step of establishing firm inter-sector allocations.

Once the necessary inter-sector allocations have been established, the Council should consider the following alternatives:

Species considered: We believe that all species of Pacific groundfish covered under the Pacific Groundfish Fishery Management Plan and legally available for harvest by limited entry trawl vessels should be included in any DA program. As a sub-option, we believe that separate DA programs should be developed, one for all Pacific groundfish *except* Pacific whiting and one for Pacific whiting

The limited entry trawl groundfish fishery is a mixed stock fishery which remains economically viable because fishermen have a variety of fishing strategies to pursue. Providing DA privileges to some, but not all, of the species harvested will negate the economic benefits of a DA program, as well as reducing any positive impacts of bycatch reduction.

The sub-option of separating most Pacific groundfish from Pacific whiting recognizes that the whiting fishery is subject to a separate international treaty, has already been the subject of allocation between harvesting sectors, and is conducted under specific seasonal and gear restrictions; in effect, it is a separate fishery.

Initial allocation of privileges: The Council should consider three groups for initial allocation of privileges - owners of limited entry trawl permits; processing companies that purchased limited entry trawl-caught groundfish, with a sub-option of processing facilities, rather than companies; and communities where at least 1% of the annual landings of limited entry trawl-caught groundfish were made. By looking at these three groups of entities, the Council can analyze the effects on the listed objectives.

Means of allocation: The Council should consider at least two alternatives - allocating directly to recipients through a regulatory process, and distributing privileges via an auction system. Including an auction system achieves the stated goal of rationalizing capacity through market forces.

Caps on ownership: At a minimum, the Council should consider having no caps on quota ownership in order to allow maximum economic flexibility. The Council should also consider having different caps for different privilege holders. For example, if the initial allocation is made to harvesters, processors, and communities, as suggested above, a single cap (i.e., limit on total privileges that can be owned in order to avoid excessive quota concentration) might not fit each of the groups. The same might be true if Pacific whiting is considered separately from other Pacific groundfish, especially if the existing allocation within the whiting fishery is maintained.

Enforcement concerns: The Council should analyze an option that limits the number of ports where trawl-caught groundfish may be landed. This is analogous to a similar provision that is included in the Alaska halibut/sablefish individual quota program. Enforcement of a complex system involving over 80 species of fish and 100+ vessels can be facilitated if the vessels are confined to certain specific landing areas.

Thank you for allowing us the opportunity to comment. We believe that including these alternatives in the environmental impact statement will lead to a more useful and defensible document.

Sincerely,



Rod Moore
Executive Director



UNITED ANGLERS
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August 2, 2004

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place
Portland, OR 97220

RE: Scoping Comments for Dedicated Access Privileges (Including Individual Fishing Quotas) for the West Coast Limited Entry Trawl Groundfish Fishery

Dear Dr. McIsaac:

United Anglers of Southern California is the state's largest association of recreational anglers. We represent approximately 50,000 affiliated sportfishermen throughout California dedicated to ensuring quality fishing today and tomorrow. We are deeply concerned about the impacts that dedicated access privileges for the trawl fishery will exact on sustainable fisheries.

UASC believes it is essential to only design dedicated access privilege programs for fisheries when fishery problems are well understood and all commercial sectors of the fishery are included. We recommend that the council complete a complete programmatic EIS for the groundfish fishery including bycatch and essential fish habitat prior to considering dedicated access privilege programs. It has been clear from public testimony that the purpose of a dedicated access program is to provide an economic shot in the arm to the trawl fishery. UASC is not opposed to management measures that provide economic benefits for fishermen; however, such measures need to be carefully considered in light of the known caveats regarding dedicated access privileges and their effects on other sectors and other fisheries. Providing extraordinary economic stability for only one sector increases the likelihood of economic instability for other sectors.

UASC believes a great risk exists in building economic value and economic certainty in a fishery for long term or indefinite term periods when that fishery uses heavy mobile equipment to scrape the seafloor. Such decisions should not be lightly considered and should not be considered until such time that the impacts of this gear on the benthic habitats that support all our fisheries are well understood. .

UASC believes that any dedicated access program needs to provide for transferability of quota within the full range of approved gears and future gears established through experimental programs. Only in this way can the council ensure our resources are being utilized at their highest and best use.

UASC believes that the hard allocation of quota for an indefinite period of time is unfair for open access fisheries. The rights of public to catch a reasonable number of fish for their own use should not be abridged. Any dedicated access program considered should at a minimum provide within the program a mechanism at no cost to the public to reclaim adequate quota over a reasonable period of time for the purpose of ensuring the public's direct access to fish. National Standard 8 states: "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." It quite simply is unfair to design a hard allocation system that places all the economic burdens of increasing demand for fish on participants in the open access sectors while granting the equivalent of assured property rights to a percentage of the resource to a privileged class of individuals.

UASC believes that any time long-term economic benefits are granted to a sector, these benefits are a cost to the public sector in that there will be some probability that there will be a cost to the public to retrieve or cancel those benefits. Therefore, any such program should have reasonable expectations of providing conservation and habitat benefits for the resources over the course of the program. Those expectations should be modeled and mechanisms installed to adjust the program to ensure that conservation and habitat goals are being achieved. 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."

UASC believes that the expectation of conservation benefits from a dedicated access program is closely coupled to the expectation that the dedicated access fishery will use the economic certainty arising from the program to commit capital to conservation. Careful financial analysis should be conducted prior to the implementation of a dedicated access program to determine the likelihood of a reasonable investor investing additional capital in the futures of slow growing and low productivity resources such as is found in our groundfish fisheries.

Consideration should be given to a program that sunsets the dedicated access program or as part of the program withdraws quota on a regular periodic basis and disposes of that quota in a way to satisfy the needs of the public trust.

UASC believes that consideration within the dedicated access program needs to be given to unexpected events such as disaster tows and in the case of open access fisheries, increases in participation that exhausts allocated quota and how those events will require adjustments to allocations both within and outside of the dedicated access fishery so as to treat all individual fishermen fairly. National Standard 6 states: Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

UASC believes that dedicated access fisheries should not be considered until standards have been established. As one member of the current Groundfish Trawl Individual Quota Committee said: "This is an opportunity to set those standards". We agree, however, note that all sectors need representation on any committee establishing standards for dedicated access programs that have the potential of affecting them. National Standard 4 states: "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." UASC notes that this standard specifically includes more than allocation and encompasses the assignment of fishing privileges.

Thank you for the opportunity to comment on the initial scoping documents.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Osborn", with a long horizontal flourish extending to the right.

Bob Osborn, Fishery Consultant
For Tom Raftican
President, United Anglers of Southern California

Cc: Dr. William Hogarth, Assistant Administrator for Fisheries, NMFS