FOLLOW-ON ACTIONS—ISSUES, ALTERNATIVES, AND ANALYSIS

This document provides a summary of the follow-on actions based on Council direction from the September 2017 Council meeting, purpose and need statements, listings of alternatives, data and analysis previously provided and some new preliminary data and analysis. Table 1 is a key reference on issues, alternatives, and process.

Table 1. Summary of topics/issues, alternatives, and processes.

Topic/Issue	Alternatives	Spex	Follow-on	Omni	Process Notes	Purpose and Need Statement Approved
1. At-Sea Whiting Fishery Bycatch Needs						***Yes***
a. Set-aside management—making it permanent for all species.	**Alt 1:** Status quo. **Alt 2:** Set aside management for all cap species.		X			
b. Increasing amounts available for harvest	Provide relief where Council policies may be overly conservative (e.g. set asides).	X				
c. Between sector quota pound trading	**Alt 1:** Status quo. **Alt 2:** Individual Transfers (by participants). **Alt 3:** Sector transfers (by Council).			X		
d. Changing within trawl and trawl/nontrawl FMP allocations	Base alternatives on the intersector allocation review. Limit reallocation to at-sea fishery bycatch allocation species (currently widow and canary). [Note: Darkblotched and POP are set-aside species for which 5% is allocated to nontrawl gear under the Amendment 21 formulas (if those remain in place). There is a 9% nontrawl allocation of widow rockfish. Canary is allocated in the biennial specifications (spex) process.]		X		Refer to a meeting of the GAC.	
e. Carryover of at-sea set-asides	Develop policy and alternatives that would carryover at-sea set-aside from one year to the next.	X			ACL Carry-over Package (report due to the Council in November under 2019-2020 Spex management measures)	
2. Trawl Sablefish Area Management and Gear Switching						***No***
Eliminate 36° line for trawl sablefish and limit gear switching	**Alt 1:** Status quo. **Alt 2:** Eliminate line. **Alt 3:** Eliminate line and mitigate. Mitigation Suboption Limit the amount of ~~QS~~ quota that could be used by gear switching vessels (or ensure a certain amount of ~~QS~~ quota is available for use by trawl gear). **Alt 4:** Restrict gear switching. Control date for limitations on gear switching: 9/15/17. Further explore GAP options from September 2017 GAP report.		X			
3. Shorebased IFQ Accumulation Limits (Control and Vessel Limits)						***Yes***
a. Aggregate nonwhiting control limits	**Alt 1:** Status quo. **Alt 2:** No limit (effectively 5.84% - the sum of individual species limits).		X			

Topic/Issue	Alternatives	Spex	Follow-on	Omni	Process Notes	Purpose and Need Statement Approved
b. Individual species vessel QP limits	Review limits and original analysis. Consider for target and bycatch species. Consider adjusting limits based on attainment.	X				
c. Daily QP limit (overfished species & P. halibut)	**Alt 1**: Status quo. **Alt 2:** Eliminate daily limits.	X				
d. Weightings used to calculate aggregate limit	No alternatives identified. (CAB note: elimination of aggregate limits would eliminate need for these calculations).		X			
4. Shorebased IFQ Sector Harvest Complex Needs						***Yes***
a. Enhance fleet's ability to use quota within the trawl allocation	**Alt 1:** Status quo. **Alt 2:** Allow post season trading (include an annual end date). **Alt 3:** Raise annual vessel QP limits. **Alt 4:** Eliminate Sept 1st QP expiration (applies to QP not transferred to vessel accounts).		X			
	Alt 5: Increase carryover.	X			ACL Carry-over Package (report due to the Council in November under 2019-2020 spex management measures) (see 1.e)	
b. Vessels with deficits in excess of vessel QP limits (including lightning strike situations)	**Alt 1:** Status quo. **Alt 2:** Relief from vessel QP limits in post-season trading – for all species. **Suboption A:** – only for certain species. **Suboption B:** NMFS converts unused ACL to QP and sells to vessels with deficits – for all species. **Suboption B-1:** only for nontarget species. **Suboptoin B-2:** Set price to above market price. (Suboptions are not mutually exclusive)		X			
5. Catcher-Processor Sector Accumulation Limits						***Yes***
a. CP Permit ownership Limit	**Alt 1:** Status quo – No control limit. **Alt 2:** Control limit – 4 CP permit limit. (Control date for alternatives 6/13/17)		X			
b. Processing limit	**Alt 1:** Status quo – No processing cap **Alt 2:** Processing limit – 45% (Control date for alternatives 6/13/17)		X			
6. AMP QP Pass-through						***No***
Decide on continuation of pass-through	**Alt 1:** Status quo – Interpretation uncertain. **Alt 2:** Continue the pass-thru.	X				

Purpose and Need Statements

For these purpose and need statements, the "need" is identified as the condition which is requiring a response. The purpose then relates to the objective for the action which is intended to address the need.

The purpose and need statements are framed in the affirmative "action is needed," while the purpose leaves open the possibility that the action will not be taken ("the purpose of this action *would* be…").

The analysis will evaluate and verify the statement of need and impacts of the proposed action. Additionally, part of the assessment of impacts of a proposed action is an evaluation of whether or not the action is likely to achieve its purpose in a manner that addresses the identified need and results in an overall improvement in fishery management.

1. At-Sea Whiting Fishery Bycatch Needs

Proposed Purpose and Need (Council, Sept, 2017): Action is needed to allow the at-sea sector to more fully and efficiently harvest its allocation to the benefit of industry (harvesters and processors), communities, and consumers. The at-sea sectors' allocation of bycatch species occasionally prevent the fleets from taking their entire allocation, while simultaneously reducing their flexibility, increasing their costs, and hampering their ability to avoid protected or prohibited species, such as salmon. The purpose of this action would be to reduce the bycatch constraints.

2. Trawl Sablefish Area Management and Gear Switching

[Underlining and strike out indicate revision to address September NMFS Report 2 guidance, per direction of the Council (September 2017 Agenda Item E.7, Supplemental NMFS Report 2). Shaded text indicates revisions proposed for CAB consideration to address the combination of the management line and gear switching issues. Note that in its previous report, the CAB had not reached a consensus on a purpose and needs statement for gear switching.]

Proposed Purpose and Need (Council, Sept, 2017, not including grey text on gear switching): Action may be needed to allow the shorebased trawl sector to reduce costs and more fully harvest its allocation to the benefit of industry (harvesters and processors), communities, and consumers. Currently, the trawl southern sablefish allocation is going largely unharvested while the northern sablefish allocation is nearly fully harvested. At the same time, it is possible that the amount of sablefish QP available in the north might be limiting the harvest of multispecies complexes of which sablefish is a part. The management boundary at 36° N. latitude is not needed for conservation purposes. The trawl sablefish in the south is being harvested primarily by vessel using fixed gear (vessels gear switching) that ~~come~~ travel down from the north. ~~and it has been stated in public comment that this is resulting in a conflict between those vessels and vessels from other sectors that use line gear in that area (gear interaction and grounds and market competition)~~. The purpose of this action would be to create a coastwide sablefish allocation for the trawl sector and/or limit gear switching.

Background: The ability to fish in the north on sablefish quota that was previously available only if used south of 36º N. latitude would reduce associated harvest costs and thereby likely increase effort and quota attainment. Coastwide access to the quota would reduce the travel cost barrier that inhibited many vessels from accessing sablefish quota restricted to southern areas and actual transit costs for vessels that previously travelled south would be alleviated. Additionally, much of the southern sablefish quota goes unharvested, representing an opportunity cost that would be reduced by increased quota attainment.

3. Shorebased IFQ Accumulation Limits (Control and Vessel Limits)

Purpose and Need (Council, Sept, 2017): Action is needed to allow the shorebased sector to reduce costs and more fully harvest its allocation to benefit the industry (harvesters and processors), communities, and consumers. The MSA requires that participants in catch share programs not be allowed to acquire an excessive share. NMFS guidance on catch share programs (NMFS, 2007) points out that limits on excessive shares imposed to address management objectives other than limiting market power may impose costs that reduce the efficiency of the system (e.g. distributional objectives). During the catch share program review, concern has been expressed about lower than expected gains in net benefits and efficiency and the under-attainment of sector allocations. The purpose of this action would be to adjust limitations on excessive shares (QS control limits, vessel QP limits, and vessel daily QP limits).

4. Shorebased IFQ Sector Harvest Complex Needs

Purpose and Need (Council, Sept, 2017): Action is needed to allow the shorebased sector to more fully and efficiently harvest its allocation to the benefit of industry (harvesters and processors), communities, and consumers. For some species, the amount of QP available is so limited that it inhibits the harvest of multispecies complexes, either because of actual catch rates for co-occurring species or because of excessive precaution on the part of vessels' trying to avoid species for which the amount of QP is limited. Sometimes individual vessels are limited by unexpected high catches of bycatch species, so large that they exceed annual vessel limits. These constraints on harvesting also adversely impact processors and markets. The purpose of this action would be to relieve the limiting species constraints including constraints for individual vessels encountering unexpectedly high bycatch in excess of annual vessel limits.

5. Catcher-Processor Sector Accumulation

Purpose and Need (Council, Sept, 2017): Action is needed to ensure that limited access privilege holders in the catcher-processor sector do not acquire an excessive share of the total limited access privileges in the program, as required by Section 303(c)A(5)(D) of the Magnuson-Stevens Act. Accumulation of excessive shares and the associated market power can inhibit efficient market function and impacts other management objectives including those related to the distribution of benefits from the program. Amendment 20 established accumulation limits for other trawl sectors, but not for the catcher-processor sector. The

purpose of this action would be to address for the catcher-processor sector the MSA mandate to ensure that program participants do not acquire excessive shares.

6. AMP Pass-through

The following purpose and need statement has not been presented to the Council.

Purpose and Need (Council Staff Prepared): The need for this action is to clarify the interpretation of the regulations under which the AMP QP are distributed to QS holders each year. There is a disconnect between the Council's record and the NMFS record regarding 2014 changes to the pass-through provisions of the Adaptive Management Program (AMP). Specifically, whether or not pass-through of AMP quota pounds will continue indefinitely (e.g. until new AMP-specific regulations supersede the pass-through), or would end after regulatory changes occurring subsequent to the 5-year review (e.g. sunset automatically after any new regulation resulting from the 5-year review, even if unrelated to the AMP). AMP QP must be distributed in order to provide the fleet the greatest opportunity to harvest its allocation. The purpose of this action is to address and resolve the differences between the Council and NMFS records.

Alternatives, Process, and Notes

At its September 2017 meeting, the Council provided guidance on alternatives and process. It generally identified one of three possible processes for each issue: inclusion in the biennial specifications, development as an independent follow-on action, and deferral for prioritization as part of the biennial specifications process. In a few instances, the Council combined further consideration on an issue with another topic on its active calendar (the ACL Carry-over package). It also moved consideration of preliminary and final recommendations for follow-on actions from its spring of 2018 meetings to its September and November 2018 meetings.

1. At-Sea Whiting Fishery Bycatch Needs

a. Set Aside Management

Process

Follow-on package.

Alternatives

At-sea Set-Aside Alternative 1: Status quo. A plan amendment to manage Pacific ocean perch and darkblotched rockfish as set-asides (currently in progress).
At-sea Set-Aside Alternative 2: Set aside management for all cap species. A plan amendment to add widow rockfish and canary rockfish to the species managed with set-asides and to continue such management for all four cap species indefinitely (until changed).

Notes

This issue and the following (increasing amounts available for harvest) are viewed as the most expedient way to begin to address the at-sea sectors' bycatch needs.

At its September 2016 meeting, the Council recommended set-aside management for the darkblotched rockfish and Pacific ocean perch that are allocated to the at-sea whiting sectors as total catch limits (Alternative 1, as provided in Agenda Item F.7.a, WDFW Report). Plan amendment language on this action was and approved by the Council at the September 2017 Council meeting. That language does not include a sunset date or trigger and without a specific sunset the accompanying National Environmental Protection Act analysis is expected to evaluate the action as being in effect indefinitely. Given these circumstances, making the set-asides for these two species permanent may only require a policy statement from the Council, and conversion from a set-aside back to a hard cap would require a plan amendment. The Council's September 2016 action leaves widow rockfish and canary as the two nonwhiting species for which the at-sea sector is allocated a total catch limit. Further action would be required to make these set-aside species.

See September 2016 agenda item on at-sea sector set-asides final action.

Agenda Item F.7: Amendment 21 At-Sea Sector Set-Asides Final Action

- Agenda Item F.7.a, WDFW Report: Assessment of Managing Darkblotched Rockfish and Pacific Ocean Perch as Set Asides in the At-Sea Sectors
- Agenda Item F.7.a, Supplemental WDFW PowerPoint
- Agenda Item F.7.a, Supplemental GMT Report
- Agenda Item F.7.a, Supplemental GAP Report
- Agenda Item F.7.b, Supplemental Public Comment

b. Increasing the Amounts Available for Harvest

Process

Biennial specifications process

Alternatives

With respect to increasing fishery harvest guidelines, during the biennial specifications process evaluate the degree to which current policy is overly conservative and provide relief in those areas. For example, to the degree that the calculation of amounts for set-asides are based on the maximum observed mortalities over the last ten years a less conservative approach might be taken.

Notes

This issue and the previous (set-aside management) are viewed as the most expedient way to begin to address the at-sea sectors' bycatch needs.

The GMT recommended consideration of changes only in those areas that would not require a groundfish fishery management plan (FMP) amendment for the upcoming biennial process (Agenda Item E.7, Supplemental GMT Report).

In considering whether set-aside policies have been overly conservative, the CAB recommended considering whether it is likely that research and incidental open access set-asides will all be at that maximum in any one year and the degree to which set-aside amounts been fully taken in the past (Agenda Item E.7, CAB Report).

Data and Analysis (Provided at the September Council Meeting)

There are three places where uncertainty is taken into account in setting groundfish sector harvest guidelines (see following figure).

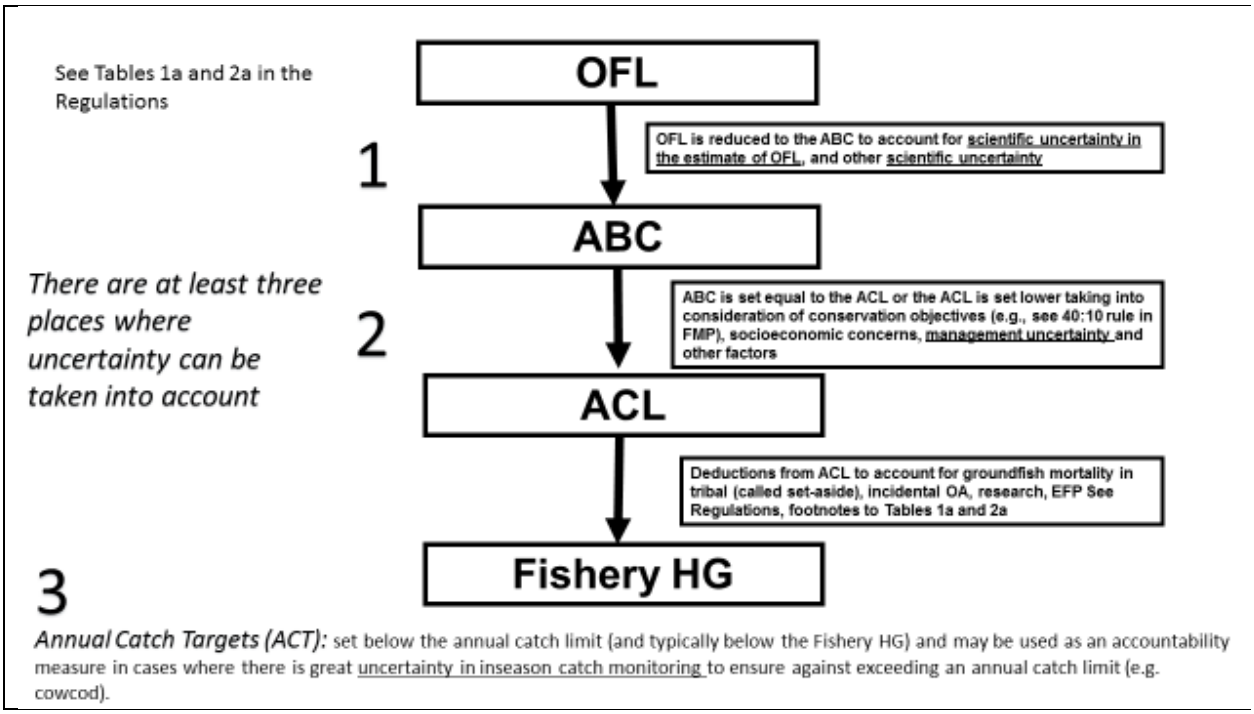

Figure 1. Taking uncertainty into account in setting groundfish sector harvest guidelines.

The primary opportunities for increasing the acceptable biological catch (ABC) would be to increase the P* values (the probability of overfishing based on uncertainty in the overfishing limit). The Council harvest policy, defined in the Fishery Management Plan (FMP), is not to set a P* above 0.45. The P* values for all of the allocated at-sea sector bycatch species are set at the maximum (see following table).

Table 2. Harvest control rules and set-asides for at-sea bycatch species (2017/2018 specifications).

At-Sea Bycatch Spp	Harvest Control Rule (17/18)	Tribal	EFP	Research	OA	Buffer	Set-aside Total	Fishery HG	Set Aside as % of Fishery HG
Canary	ACL = ABC (P* = 0.45)	50.0	1.0	7.2	1.2	188.0	247.4	1466.6	17%
Darkblotched	ACL = ABC (P* = 0.45)	0.2	0.1	2.5	24.5	50.0	77.3	563.8	14%
POP	ABC (P* = 0.45); 281 mt ACL in 2017 and 2018; ACL (SPR = 86.4%) thereafter	9.2		5.2	10.0	25.0	49.4	231.6	21%
Widow	ACL = ABC (P* = 0.45)	200.0	9.0	8.2	0.5		217.7	13290.3	2%

Another approach might be to look at ways to increase fishery harvest guidelines. ACLs are reduced by off-the-top deductions and tribal set-asides to determine the fishery harvest guidelines. The GMT generally recommends off-the-top deductions for research and incidental open access that are at the maximum observed in the several previous years. A less conservative approach might be taken. Additional analysis can be done to evaluate the degree to which actual harvests have reached the amounts deducted off the top for research and incidental open access fisheries. The off-the-top deductions also include buffers which are established to help mitigate adverse impacts to any sector that reaches its allocation (including the at-sea sector). Buffers between the ACL and the harvest guideline provide an opportunity to reallocate to the sector in

need without putting those amounts through the allocation formulas. Thus, reducing the buffers could increase the probability of the need to constrain the at-sea sector.

c. Between Sector Quota Pound Trading

Process

Omnibus prioritization.

Alternatives

Between Sectors Alternative 1. Status quo. Trading of quota between sectors is not allowed.
Between Sectors Alternative 2. Individual transfers (by participants). Allow transfer of allocations between quota pound holders across limited entry trawl sectors. This alternative would allow shorebased QP holders to transfer their non-whiting quota pounds to any mothership (MS) or catcher-processor (CP) co-op and allow MS and CP co-ops to transfer their non-whiting quota in the form of QP to accounts in the shorebased IFQ system.
Between Sectors Alternative 3. Sector transfers (by Council). Move quota at a higher level via Council action and rebalance score card in-season. This alternative would provide the Council the ability to move species allocations to another sector in-season based on current fishery data trends, sector needs, and willingness for sectors to allow excess to be transferred. Transfers between the MS and CP sector could be conducted in a similar manner as was done in October, 2014. Transfers to the shorebased sector from the MS or CP sector could be done, but transfers from the shorebased sector to the MS or CP sectors could not be done because QPs cannot be taken out of individual accounts.

The above alternatives were drawn from the September 2016 analysis of between-sector quota pound trading (Agenda Item F.4, Attachment 1, September 2016) and forwarded to the Council as CAB recommendation at the September 2017 Council meeting.

Notes

For Alternative 2, NMFS recommended consideration of a sector-wide cap on transfers to limit negative reallocative impacts (Agenda Item E.7.a, Supplemental NMFS Report 2, September 2017). NMSF also noted that a clarification is needed on when the trading period would open and the species that could be traded. For Alternative 3, NMFS recommends betweewn sector transfers occur at regulatory scheduled Council meetings, to maximize the opportunity for public input.

The CAB noted in its September 2017 report that while there is interest in a market approach (e.g. Alternative 2), there is also concern about situations where quota can only be transferred in one direction and that the needs of non-harvest sectors (e.g. processors) that are dependent on the allocations may not be fully accounted for.

See September 2016 agenda item on intersector quota trading:

Agenda Item F.4: Scoping Trawl Sector Quota Pound Trading
- Agenda Item F.4, Supplemental Staff Agenda Item Overview PowerPoint
- Agenda Item F.4, Attachment 1: Scoping Trawl Sector Quota Pounds Trading
- Agenda Item F.4.a, Supplemental GMT Report
- Agenda Item F.4.a, Supplemental GAP Report

d. Changing Within Trawl and Trawl/Nontrawl Allocations

Process

The Council recommended a follow-on process in which Ad Hoc Groundfish Allocation Committee be convened to address this issue.

Alternatives

The Council decided that this issue would be limited to the reallocation of at-sea fishery bycatch allocation species. Of the four at-sea bycatch species, darkblotched and Pacific ocean perch are currently managed as set asides, canary rockfish is allocated through the biennial specifications process, and widow rockfish is formally allocated in the FMP. There is a 9 percent allocation of widow rockfish to the nontrawl fishery.

Notes

The CAB had recommended that alternatives to be considered be as identified in the intersector allocation review.[1] The review identifies the possibility of employing set-aside management for the nontrawl sector species for which there is a relatively small allocation. Nine percent of the widow rockfish is allocated to the nontrawl sector. Less than 20% of that 9% was taken in any single year from 2011 through 2015, and as little as less than 5% in some years.

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[1] The following are the intersector allocation issues and alternatives inferred from the intersector allocation review document.

> **Nontrawl Set-Aside Management:** Use set-asides to manage non-trawl impacts of trawl-dominant stocks – initially focus on those stocks where the trawl fishery has a more pressing need: darkblotched rockfish, POP, petrale sole, longspine thornyhead north of 40º 10' N. lat.
>
> **Trawl/Nontrawl Allocation**: Evaluate the trawl/nontrawl allocation of lingcod south of 40º 10' N. lat., given the under attainment of catch by the trawl fishery and the full/over attainment by the trawl fishery.
>
> **Amendment 6 Allocations:** Evaluate the need for and appropriateness of the Amendment 6 allocations for nearshore and shelf rockfish complexes (the allocation of other species allocated by Amendment 6 have been superceded: lingcod, chilipepper rockfish, yellowtail rockfish, slope rockfish north, slope rockfish south, and shortspine thornyhead north of the Concpetion area). [The need for allocations will probably shift with upcoming EFH/RCA changes.]
>
> **Sablefish Area Management:** Consider moving the 36º N. lat sablefish line to 34º 27' N. lat or eliminate the line at 36º N. lat. with respect to trawl management.

e. Carryover of At-sea Set Asides

Process

The Council wrapped this issue together with the issue of flexibility in annual catch limit management and carry-over issue. A report on this issue is due to the Council under the biennial specifications agenda item at the November 2017 Council meeting.

Alternatives

The Council moved forward the CAB alternatives, which at this time is just a general description: include carryover of the at-sea set-asides from one year to the next, along with carryover for the shorebased trawl program quota pounds.

Notes

Under one way of implementing the at-sea carryover, the at-sea set-asides would remain unchanged. With at-sea carryover, the at-sea set aside could be funded by carryover from a previous year, effectively increase the amount of the ACL available for the shorebased trawl sector.

The absence of carryovers means that available allocations are under-harvested because unused QP cannot be used in a following year (Agenda Item E.7, CAB Report). With respect to set-asides, providing enough fish to ensure that one sector's bycatch needs are met will likely result in some of that fish going unharvested in years when actual bycatch is lower.

NMFS requested further discussion of how the carryover would be implemented, since this would be a different process than the IFQ account system.

Data and Analysis (Provided at the September Council Meeting)

Based on current legal interpretation, for any species for which the ABC is set equal to the ACL (see previous table), a carryover provision will first require policy adjustments to allow ABC/ACL carryover, in order to open the door for carryover within the catch share program. At the November 2017 meeting, this issue will be addressed under the biennial specifications management measure agenda item, (Agenda Item F.9). Recently, the Council Coordination Committee (a committee comprised of representatives from all eight Councils) submitted questions to NMFS on National Standard 1 and its guidelines (http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/documents/ccc-ns1-questions.pdf). Questions about implementing carryover provisions are addressed starting on page 11 of that document.

The new carryover policies could allow carryover from one year to the next even if the ACL is set equal to the ABC; however, establishing a carryover contingency appears to require some advance specification and impact analysis. For example, the ACL might be specified as variable based on carryover amounts, but that variability would have to be analyzed.

In general, there are questions as to how it might be possible to implement the new carryover policy. First, to be fully effective, the policy would have to be set up to work both between the first and second year of the biennium and from one biennium to the next. The latter has not yet received much discussion or consideration.

Second, there is the question of the time at which the data on a previous year would be available (i.e. whether there is unused allocation) and whether there would be enough time left in the year to make the carryover worthwhile. For species for which the ACL is set equal to the ABC, the carryover policy will require an adjustment to the ABC. On the one hand, the ABC will have to be adjusted based on an assessment of the harvest of all sectors (not just trawl) and so may be dependent on the data availability for the sector that is slowest to report. On the other hand, if other sectors take a relatively minor amount it may be possible to make a carryover decision prior to finalization of the previous year's data (or carryover might be finalized based on historic patterns of harvest for other sectors).

Carryover of set-aside may complicate the management system and may not be in line with the way in which set-asides were originally intended to be used. In a sense, it turns them back into an allocation which is being managed. For example, if there is a policy to carryover set-aside underages, would the rationale for underages lead the Council to a position of having to do something similar for overages?

2. Trawl Sablefish Area Management and Gear Switching

Process

The Council directed that the area management issue be combined with what was previously a separate gear switching issue and taken up in a follow-on package.

Alternatives

Sablefish Conflicts Alternative 1: Status Quo. Trawl allocation is divided north and south of 36º N. latitude. Vessels with a trawl permit can use any legal groundfish gear to harvest their trawl allocation.

Sablefish Conflicts Alternative 2: Eliminate Line. For trawl sablefish, eliminate the management line at 36º N. lat. After determining all allocations as required under the FMP (including tribal, open access, and limited entry fixed gear) merge the trawl northern and southern sablefish allocations into a single management unit.

Sablefish Conflicts Alternative 3: Eliminate Line and Mitigate. Same as Alternative 2, but as a mitigation measure, designate certain ~~QS and related QP~~ quota as eligible for gear switching and certain ~~QS/QP~~ quota as only eligible for use with trawl gear.

Sablefish Conflicts Alternative 4: Restrict gear switching (leave the 36º N. lat. line in place). A limit on gear switching itself might potentially address the purpose and need for action (rather than a gear switching limitation as a mitigation measure for elimination of the line).

The Council established September 15, 2017 as a control date for a limitation on gear switching. Such a control date provides public notice that if the Council adopts restrictions on gear switching, in establishing that limitation it may or may not provide credit for gear switching related activity after that date. A Federal Register notice will be published with a full explanation of the control date. While the explicit alternatives developed by the Council thus far focus on limiting the amount of quota used by vessels that are gear switching, in its discussion of the control date the Council also referenced the possibility of using the control date to limit the number of participants.

SubOptions: Control and Vessel Limits

If action is taken to eliminate the 36^{o} N. lat.line for trawl gear, effectively combining northern and southern sablefish into a single coastwide trawl allocation, the current differences between the northern and southern accumulation limits would have to be resolved.

	Control Limit	Vessel Limit
Sablefish Limit Alt 1: Status Quo (No Action)		
Northern Limit	3.0%	4.5%
Southern Limit	10.0%	15.0%
Sablefish Limit Alt 2	TBD	TBD

The GAP has suggested a 3.4% coastwide vessel limit.

Another sablefish area alternative identified by the CAB might be to allow southern sablefish to be fished north of the line, but only with trawl gear. Under that approach, vessels currently gear switching could be grandfathered in (allowing them to fish the southern sablefish in the north with nontrawl gear).

The CAB requested an analysis of the likely mix of catch between trawl and nontrawl if quota from the south can be fished in the north and the degree to which sablefish constrains harvest of other species.

At its September 2017 meeting when the Council provided guidance on gear switching, it noted that there were several gear switching options in the GAP report that might also be developed further (Agenda Item E.7.a, Supplemental GAP Report, September 2017). With respect to putting a cap on the amount of QS used in gear switching (or specifying certain quota as trawl gear only), the GAP included an option that would implement the cap as a quota designation applying to every QS holder (each year, each QS holder would receive a certain percentage of their QP as trawl only and a certain percentage as eligible for use with fixed gear). Another variation on the caps approach would be to taper the caps over time. In its report, the GAP also included for Council consideration the following options: an endorsement that would limit the number of permits able to gear switch, alone or in combination with a gear switching related cap; a minimum catch requirement to qualify for the endorsement; limiting vessels use of nontrawl gears to 50% of the vessel QP cap; a requirement that only vessels designated as active trawlers be allowed to gear switch (including a grandfather clause to provide an exemption for some vessels); and sunsetting gear switching for nontrawl vessels over time, possibly combined with

an increase in the stacking limits for the limited entry fixed gear fishery. The GAP also suggested an allocation period of 2011-2017, or some shorter period. Further options and details can be found in the GAP report.

Notes

One reason for the combination of the area management and gear switching issue is concern that while elimination of the line at 36º N. would provide more sablefish for northern fisheries, the additional sablefish might be absorbed by expansion of gear switching.

With respect to the combination of sablefish areas, the GMT noted the need to evaluate localized impacts (Agenda Item E.7, Supplemental GMT Report).

NMFS advised the Council that any changes to classification and limiting use of quota pounds would require an overhaul of the vessel accounting system as well as increased enforcement complexity, which would add to the costs of implementing the program(Agenda Item E.7.a, Supplemental NMFS Report 2, September 2017). Changes to permit classification, including adding endorsements, would be relatively straightforward and present fewer challenges and costs to implement. NMFS also suggested that the Council may wish to consider whether or not endorsements would be transferable or would not be extended beyond the time that a permit owner permanently leaves the fishery.

The Council has hypothesized that Sablefish Alternative 3 would cap the price of the quota designated as trawl only. Consider the impacts of the caps on the price for each new type of quota created under this option.

A July 28, 2107 control date (recommended in the CAB report based on the date of the CAB recommendation) was also considered but rejected.

Data and Analysis (Provided at the September Council Meeting)

Sablefish Area Management

What is the nature of the gear conflict problem?

The draft catch share review document (Agenda Item F.2.a, Catch Share Analysts Report, June 2017) discusses the gear conflicts occurring in the south. Documentation of the performance of the gear switching provision starts on page 3-129 and discussion of the southern allocation and its utilization on page 3-130. Discussion of the conflicts south of 36º N. Lat. starts in the "Conflicts with Other Fisheries" section on page 3-178, and additional discussion of the interactions between fisheries can be found in the communities section starting on page 3-289 (esp., p. 3-291). In the section on environmental performance see starting on page 3-352.

How active have northern vessels been in the southern sablefish fishery?

Over the first six years of the catch share program, landings by a cumulative total of 11 vessels that also participated in the north accounted for between about 50 and 60 percent of the trawl southern sablefish landings (690 mt out of a total of 1,291 mt caught and 3,808 mt allocated in the south; landing data summarized from PacFIN fish tickets). In any one year, no more than four vessels with northern landings also landed trawl southern sablefish. A more careful consideration of the likelihood that sablefish currently caught and landed in the south will be caught and landed in the north would include identifying not only whether a vessel is active in the north but whether its main area of activity is in the north (in which case it may be less likely that it would travel south to harvest its quota, if the 36^{o} line is eliminated for the trawl fishery).

Where is southern sablefish landed?

While vessels from the north participate in the south, almost all the landings by these vessels are into the port of Morro Bay. On average, over 92 percent of the southern sablefish is landed in Morro Bay and none of the harvest from this area is landed further north than Monterey. Landings in ports other than Morro Bay are sporadic with no port showing landings in more than 3 of 6 years (from 2011 through 2016).

How much sablefish QP might become available in the north?

The sablefish QP that might become available for use in the north is a combination of the amount by which the southern sablefish is underharvested and the amount of southern sablefish harvested by vessels that would instead fish in the north (see discussion in previous pargraphs).

Over the last four years of the program (2013-2016), the southern sablefish trawl allocation has generally been underharvested by about three quarters (see following table). If that unharvested amount had been available in the north, it would have increased the northern allocation by about a quarter.

Table 2. Assessment of unused trawl sablefish allocation south of 36° N. Lat (mt).

	Northern Allocation	Southern Allocation	Southern Harvest	Unused Southern Allocation	Attainment of Southern Allocation	Unused Southern Allocation as a Percent of Northern Allocation
2011	2,546	531	446	85	84%	3%
2012	2,467	514	223	291	43%	12%
2013	1,828	602	86	516	14%	28%
2014	1,988	653	197	456	30%	23%
2015	2,199	720	145	574	20%	26%
2016	2,411	788	182	605	23%	25%

Possible Need to Adjust Sablefish Accumulation Limits

The regulations provide a process for the combination of quota share (QS) units from different areas and reallocation of the associated QS such that an individual receives the same amount of annual QP after the combination as they would if the combination did not take place (in this case the proposed action would combine southern and northern sablefish QS). However, there is no provision for an automatic adjustment to the QS control limits or vessel QP limits.

Using 2016 allocations, the following table displays the existing accumulation limits and metric ton equivalents and the coastwide limits that would be required to allow control or vessel harvest of the same maximum amount of coastwide metric tons.

Table 3. Existing accumulation limits, equivalent coastwide limits, and comparison to 2016 fleet.

	2016 Trawl Allocation (Mt)	Accumulation Limit	Mt equiv	Minimum Number of Entities to Fully Harvest Allocation
QS Control Limit				
Sablefish North	2,400	3.0%	72	34
Sablefish South	788	10.0%	79	
Total			151	
Coastwide Equivalent (neutral opportunity)	3,188	**4.7%**	151	22
Q: After combination of north and south quota, would the northern limit (3%) accommodate 2016 levels of QS control? A: Uncertain. Requires further analysis, and, ultimately, a definitive answer may not possible because only limited information on control is available in government data bases. A limit of 4.7 percent would accommodate anyone currently in compliance with the control limits.				
Vessel QP Limit				
Sablefish North	2,400	4.5%	108	23
Sablefish South	788	15.0%	118	
Total			226	
Coastwide Equivalent (neutral opportunity)	3,188	**7.1%**	226	15
Q: After combination of north and south quota, would the northern limit (4.5%) accommodate 2016 levels of vessel QP usage. A: Yes (for both trawl and gear switched vessels; additionally, the 2016 maximum for a trawl vessel is also less than the 3% control limit).				

Impacts

If the southern sablefish line is eliminated and vessels from the north choose to harvest in the north instead, gear conflicts are likely to be reduced but southern landings of trawl sector sablefish might also decline by between 50 and 60 percent—reducing revenue for first receivers/processors in the area and personal income generated in local communities.

Gear Switching

With the development of the trawl rationalization program, vessels with trawl permits were able to use fishpot and longline gear (fixed gear) to catch sablefish. In some cases, vessels which had been using trawl gear tried switching and catching some of their harvest with other gears ("switchers"), and in other cases vessels that traditionally participate in the fixed gear fishery acquired trawl permits and entered the trawl sector using fixed gear to take trawl allocations ("enterers"). Documentation of the performance of the gear switching provision starts on page 3-132 of the catch share review.

Analyses requested and assessment of its production.

- Amounts of capital investment by sector – results will be misleading because they cannot be disaggregated, and investments that occurred before a vessel entered the fishery may not be reflected.
- Assessment of the Steiner Holland Paper – this paper is still in the peer review process.
- Evaluation of the expansion of gear switching, impacts on lease prices and economic stability of harvesters and process – some of this can be done next winter.
- Evaluation of impacts on stock productivity – this analysis has been requested.

The Council also requested the assessment of an approach that would establish an amount of sablefish QS/QP that could only be used with trawl gear.

New Information (Since September Council Meeting) and Planned Analysis

In the first year of the trawl catch share program, there were about 27 trawl permits that gear-switched to target on sablefish ((north or south of 36º N. lat.). By partway through 2017, that number had grown to 52 with at least one year of gear switching (Figure 2). Most permits have participated in gear switching for only one year but a few of gear switched for as many as six or seven of the seven years over which the catch share program has been in place (Figure 3). Between 15 and 27 permits have participated in any one year (Figure 4), on average harvesting about 29 percent of the trawl allocation north of 36º N lat. and 21 percent to the south Table 3.

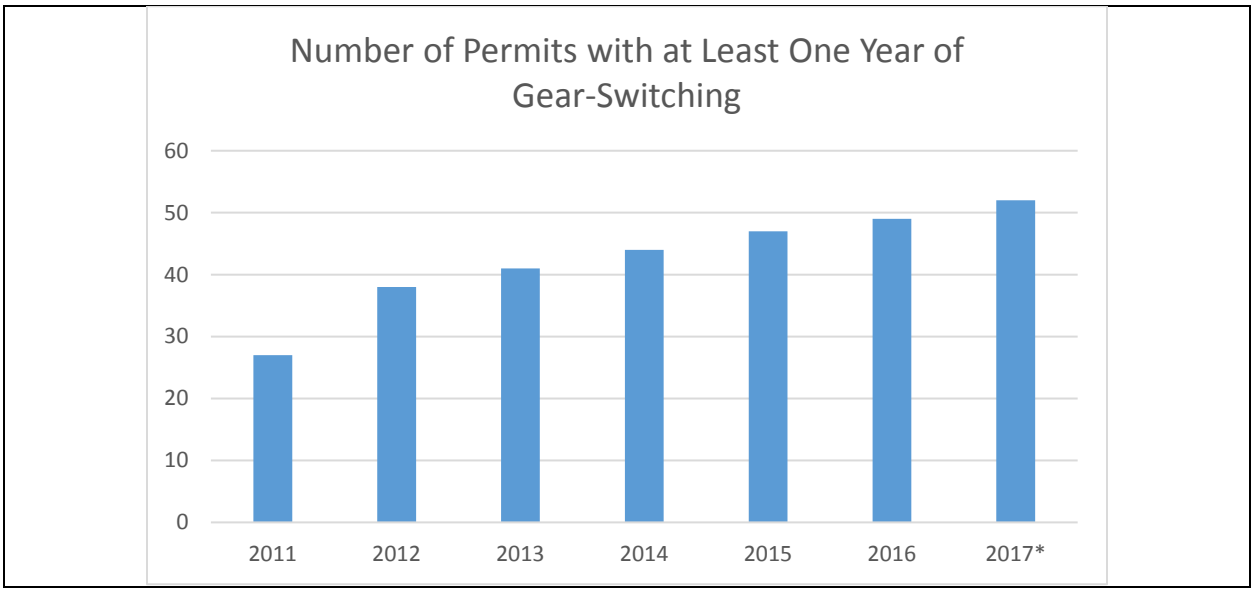

Figure 2. Number of permits with at least one year of gear switching (2011-2017). *Partial year of data. Data source: PacFIN. Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Fixed Gear_N&S]

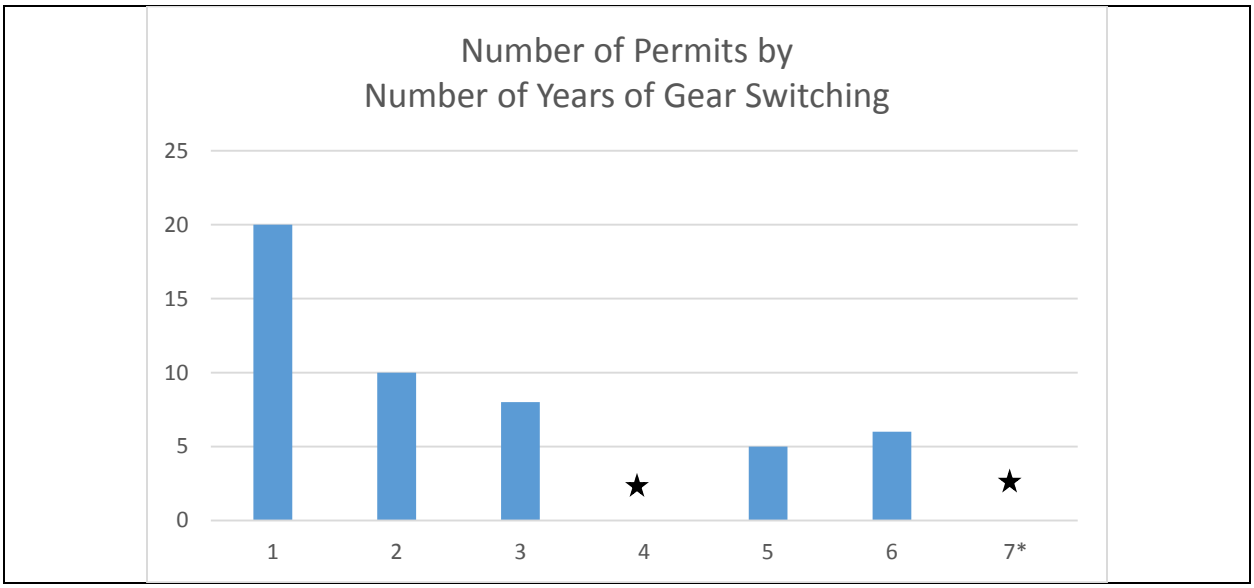

Figure 3. Number of permits by number of years of gear switching (2011-2017). *Partial year of data. ★Potentially confidential data. Data source: PacFIN. Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Fixed Gear_N&S]

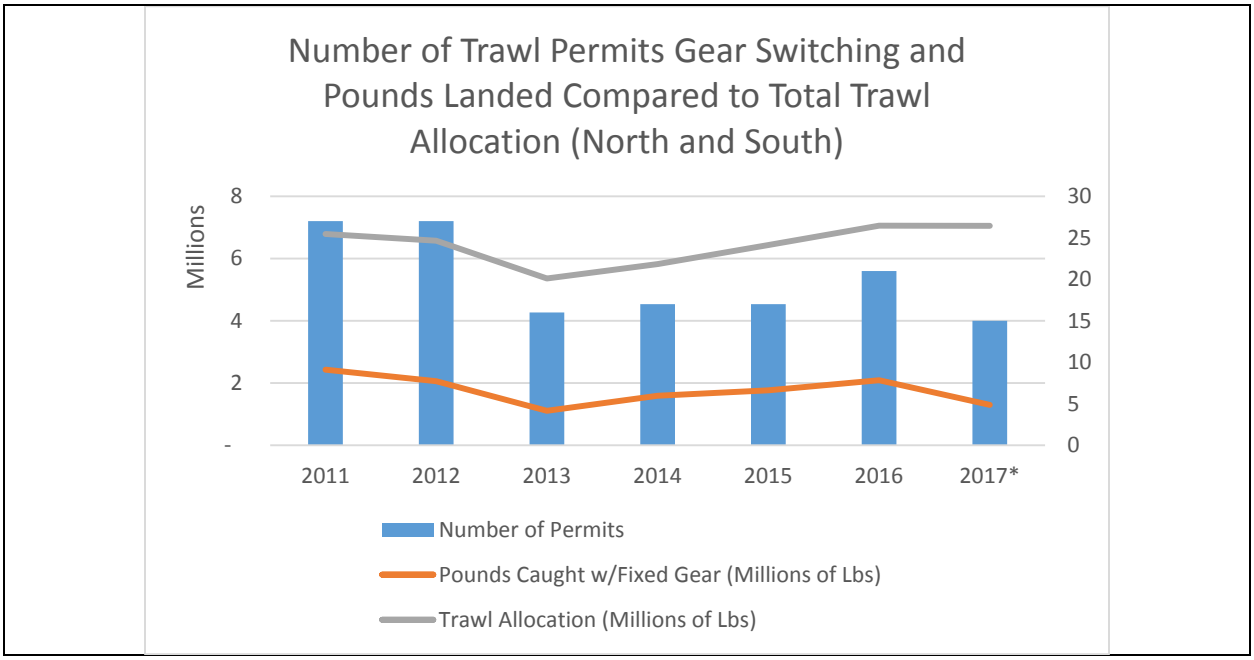

Figure 4. Number of trawl permits gear switching by year, pounds of sablefish caught with fixed gear and the trawl allocation (2011-2017).). *Partial year of data. Data source: PacFIN. Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Fixed Gear_N&S]

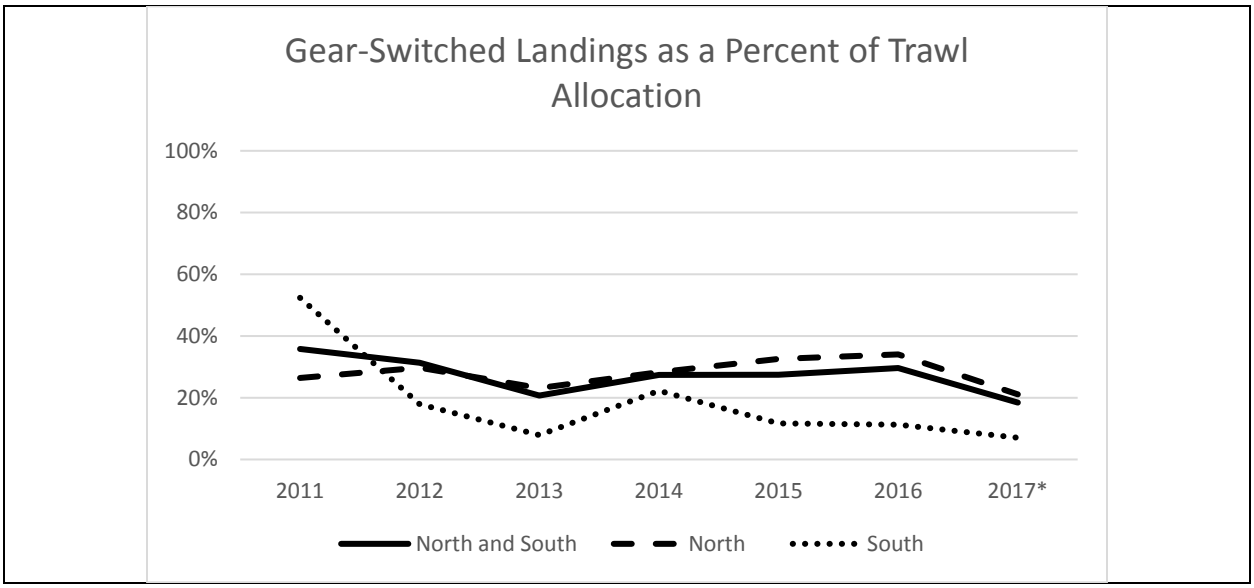

Figure 5. Percent of sablefish allocations harvested by vessels gear switching (2011-2017). *Partial year of data. Data source: PacFIN and groundfish regulations. Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Fixed Gear_N&S]

Table 3. Percent of sablefish allocations harvested by vessels gear switching (2011-2017). .

	2011	2012	2013	2014	2015	2016	2017	2011-2016 (average)
North and South	36%	31%	21%	27%	27%	30%	18%	29%
North	26%	30%	23%	28%	33%	34%	21%	29%
South	52%	18%	8%	22%	12%	11%	7%	21%

Some alternatives discussed have included the concept of a gear-switching endorsement for vessels that have gear-switched prior to September 15, 2017. The following table provides an initial exploration of a range of possible qualifying requirements based on number of years of landing above some minimum level. The data is provided for permits rather than vessels because, in general, this Council has considered history to move with the permit rather than the vessel. This is intended as some initial data to help with preliminary discussion.

Table 4. Shorebased trawl sector sablefish allocations north and south of 36^{o} N. Lat (2011-2017).

MT (from regs)	2011	2012	2013	2014	2015	2016	2017
Trawl Allocation (N)	2,547	2,467	1,828	1,988	2,199	2,411	2,416
Trawl Allocation (S)	531	514	602	653	720	788	781

Table 5. Number of permits that had at least the indicated number of pounds of sablefish landings (north and south of 36° N. Lat.) for at least the indicated number of years.

	Number of Years (At Least)						
Pounds (At Least)	1	2	3	4	5	6	7
>0	53	32	22	14	11	7	<3
1,000	48	30	20	14	11	7	<3
5,000	46	30	19	13	10	7	<3
25,000	37	24	17	11	10	5	<3
50,000	32	21	11	8	6	3	<3
100,000	24	11	6	4	3	<3	<3

Source: PacFIN data. Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Fixed Gear_N&S]

At least one alternative under discussion would require some minimum amount of use of trawl gear in order for a vessel to gear switch. To inform further discussion of such an alternative, the following two figures provide the distribution of annual trawl landings ordered from least to most. In these figures, there is a data point for each year a vessel participated (thus there are multiple data points for each vessel). Figure 7 is a subset of Figure 6.

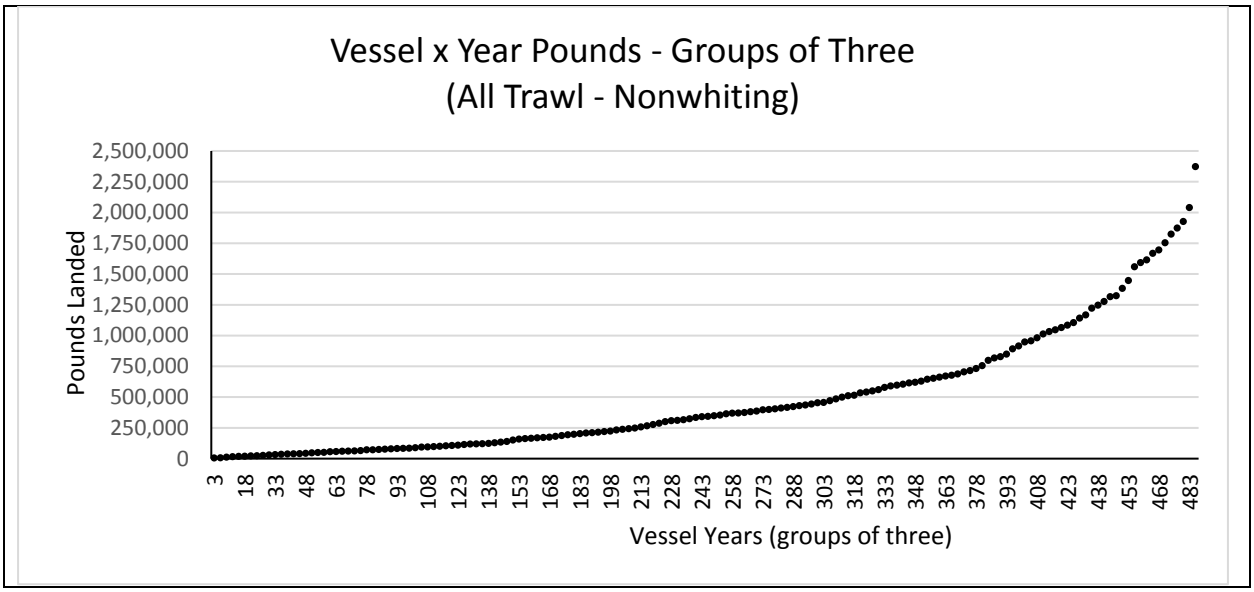

Figure 6. Annual nonwhiting trawl landings per vessel, ordered from least to most in groups of three (2011-2016). Data Source: PacFIN. [Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Trawl Qualification Breakpoints]

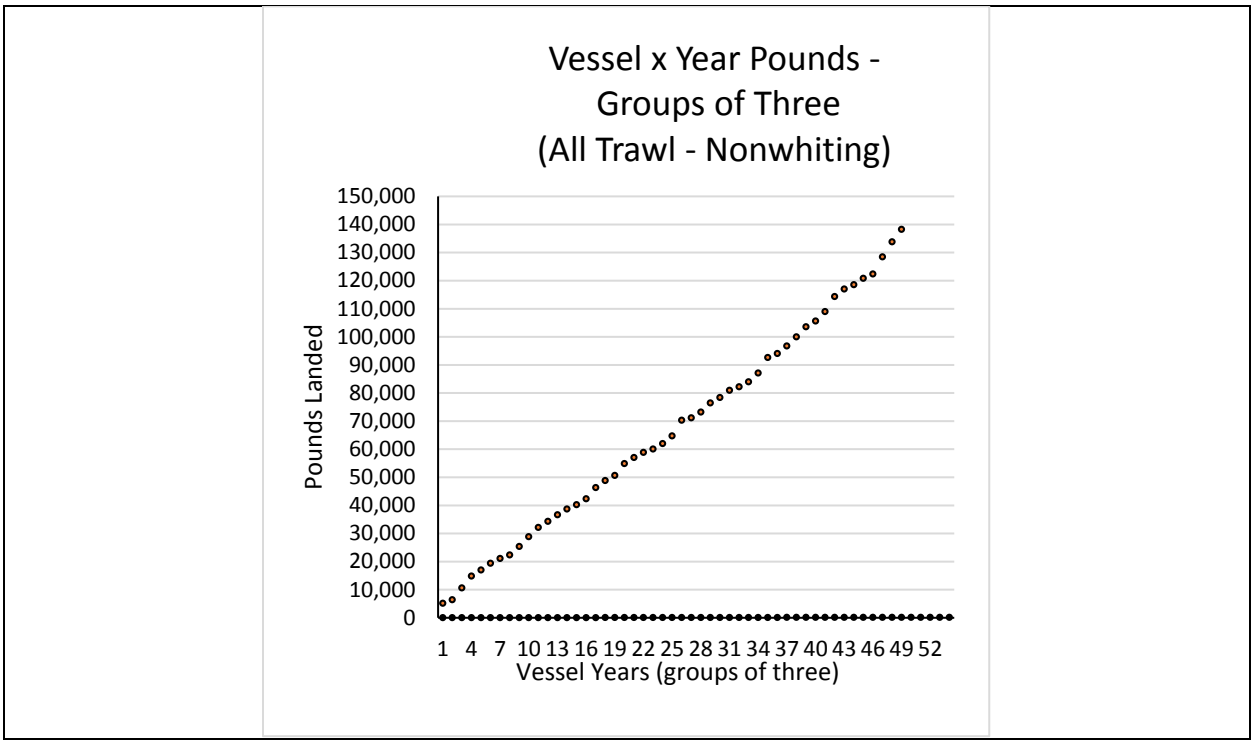

Figure 7. Annual nonwhiting trawl landings per vessel, ordered from least to most in groups of three (truncated at a maximum of 150,000 pounds) (2011-2016). Data Source: PacFIN. [Intenal Source Reference: GS_Qualifying_Req_2017_Oct_18B_GMTSF_Analysis - FIXED.xlsx: Trawl Qualification Breakpoints]

During discussions, one of the concerns with imposing a limit on gear switching that has been articulated is that some vessels that trawl also want to maintain the options to gear switch.

Table 6. Number of vessels in each year that participate with both trawl gear (nonwhiting) and gear-switch and total nonwhiting landings by those vessels (2011-2017).

	2011	2012	2013	2014	2015	2016	2017 (part.)	Total
Number of Vessels	4	4	3	4	<3	7	<3	19
Thousands of Pounds	414	660	1212	988	*	1745	*	26,568

Data source: PacFIN. [: CAB_Tasks_10-12-2017_ECW_Corrected.xlsx: All_IFQ_Lands_by_DS_&_Spp (2)]

While sablefish is the primary species taken by vessel that gear switch, there are small amounts of other species that are also harvested (Table 7)

3. Shorebased IFQ Accumulation Limits (Control and Vessel Limits)

a. Aggregate nonwhiting control limits

Process

Follow-on package.

Alternatives

The Council recommended the following alternatives be considered as bookends.

> **Aggregate QS Control Limit Alternative 1 - Status Quo:** 2.7 percent aggregate nonwhiting control limit.
> **Aggregate QS Control Limit Alternative 2:** No aggregate nonwhiting control limit (based on individual species limits, no one would be able to control more than 5.84 percent).

Notes

The September 2017 NMFS report suggested the development of a third alternative, intermediate between status quo and the elimination of the aggregate cap.

Some of the preliminary analysis provided at the September 2017 Council meeting was based on a "one vessel, one owner" view of the fishery. The GMT advocated for a quota share holder evaluation of the aggregate limits.

While the GAP recommended consideration of an aggregation analysis based on the Herfindahl-Hirschman Index (HHI) and a microeconomic welfare distribution analysis, the GMT cautioned that that an independent review of a previous application of the HII to a fishery in the northeast had concluded that the results had a number of weaknesses and did not "meet the standards for research in social sciences." The GMT concluded that "replication of such a study" might not lead to defensible results. Also, see the discussion below in the "New Information" section.

Data and Analysis (Provided at the September Council Meeting)

There are three types of accumulation limits:

> ***QS control limits*** limit the amount of QS an entity can control. Control limits impact the distribution of revenue from quota share ownership, but do not directly limit vessel harvest. There are control limits on individual species and an aggregate nonwhiting control limit. The aggregate nonwhiting QS control limits were set at levels that were expected to allow the generation of exvessel revenue equivalent to twice what was projected for efficient harvesters in a fleet rationalized under a trawl catch share program ($1.4 million compared to $700,000).
>
> ***Vessel QP limits*** limit the amount of fish an individual vessel can harvest (the amount of QP a vessel can use). Like QS control limits, vessel QP limits apply to individual species and nonwhiting species in aggregate (the nonwhiting aggregate vessel limit). Vessel QP limits are set higher than the QS control limits to accommodate crew or cooperation between QS owners.

Daily vessel limits limit the amount of unused QP that can be registered to a vessel at any particular time. Daily limits originally applied only to overfished species and Pacific halibut but some of those species have been rebuilt and, so far, the daily limit has been removed only for widow rockfish.

Table 4. Control and vessel limits.

Species Category	Vessel Limit (Applies to all QP in a Vessel Account, Used and Unused)	Vessel Unused QP Limit	QS Control Lim
Nonwhiting Groundfish Species	3.2%		2.7%
Lingcod – N. of 40°10 N. lat	5.3%		2.5%
Lingcod - S. of 40°10 N. lat	13.3%		2.5%
Pacific Cod	20.0%		12.0%
Pacific whiting (shoreside)	15.0%		10.0%
Sablefish			
N. of 36° (Monterey north)	4.5%		3.0%
S. of 36° (Conception area)	15.0%		10.0%
PACIFIC OCEAN PERCH	6.0%	4.0%	4.0%
Widow Rockfish *	8.5%		5.1%
Canary Rockfish	10.0%	4.4%	4.4%
Blackgill Rockfish N. of 40°10'N. Lat	9.0%		6.0%
Chilipepper Rockfish S. of 40°10 N. lat	15.0%		10.0%
BOCACCIO S. of 40°10 N. lat	15.4%	13.2%	13.2%
Splitnose Rockfish	15.0%		10.0%
Yellowtail Rockfish	7.5%		5.0%
Shortspine Thornyhead			
N. of 34°27'	9.0%		6.0%
S. of 34°27'	9.0%		6.0%
Longspine Thornyhead			
N. of 34°27'	9.0%		6.0%
COWCOD S. of 40°10 N. lat	17.7%	17.7%	17.7%
DARKBLOTCHED	6.8%	4.5%	4.5%
YELLOWEYE	11.4%	5.7%	5.7%
Minor Rockfish North			
Shelf Species	7.5%		5.0%
Slope Species	7.5%		5.0%
Minor Rockfish South			
Shelf Species	13.5%		9.0%
Slope Species*	9.0%		6.0%
Dover sole	3.9%		2.6%
English Sole	7.5%		5.0%
Petrale Sole	4.5%		3.0%
Arrowtooth Flounder	20.0%		10.0%
Starry Flounder	20.0%		10.0%
Other Flatfish	15.0%		10.0%
Pacific Halibut	14.4%	5.4%	5.4%

For analysis of the accumulation limits provided in the catch share review document (Agenda Item F.2.a, Catch Share Analysts Report, June 2017) see page 3-14 through 3-18, p. 3-152 through 3-163, p. 3-240 through 3-241. The following is some additional discussion and analysis of the current accumulation limits that will be further developed in the coming months.

Demonstrated Revenue Possibilities under Existing Nonwhiting Accumulation Limits

The original aggregate nonwhiting control limits were developed with the intent of allowing a single entity to acquire an amount of QS with a nonwhiting exvessel revenue equivalent of $1.4 million (twice the amount of revenue projected for the average vessel in an optimized fleet). Further, the vessel QP limit is 18 percent above the QS control limit, theoretically allowing another $400,000 of exvessel revenue. One question that can be examined here is whether

vessels are achieving the maximum levels of exvessel revenue anticipated when the program was designed.

The following table shows that when looking at the coastwide revenues for each fishing vessel, it is possible to achieve exvessel revenues at the anticipated $1.4 million level. It also shows that vessels fishing in the north and south are not achieving the $700,000 level projected for the average vessel in the optimized fleet, although this table does not assess whether some vessels fishing in these areas may be attaining a higher level when their coastwide landings are considered.

Table 5. Average nonwhiting exvessel revenue per vessel caught with trawl gear (millions of dollars) for the top three vessels fishing in a geographic area (only includes revenue from that geography area) and coastwide (includes vessels that also participate in the whiting fishery but only their nonwhiting revenue).

	2011	2012	2013	2014	2015	2016
Northern Washington	0.197	0.409	0.239	0.167	0.240	0.178
Westport WA to Newport OR	0.927	0.986	1.004	1.088	1.346	1.048
Coos Bay OR to Fort Bragg CA	0.836	0.604	0.872	0.982	1.073	1.086
San Francisco to Monterey	0.268	0.224	0.300	0.405	0.149	0.093
South of Monterey	0.281	0.397	0.583	0.509	0.515	0.539
Coastwide	1.011	1.032	1.024	1.181	1.388	1.196

While the above table establishes a lower bound for the maximums possible under existing vessel QP limits, many vessels are not achieving that level of evessel revenue, as indicated in the following graphic.

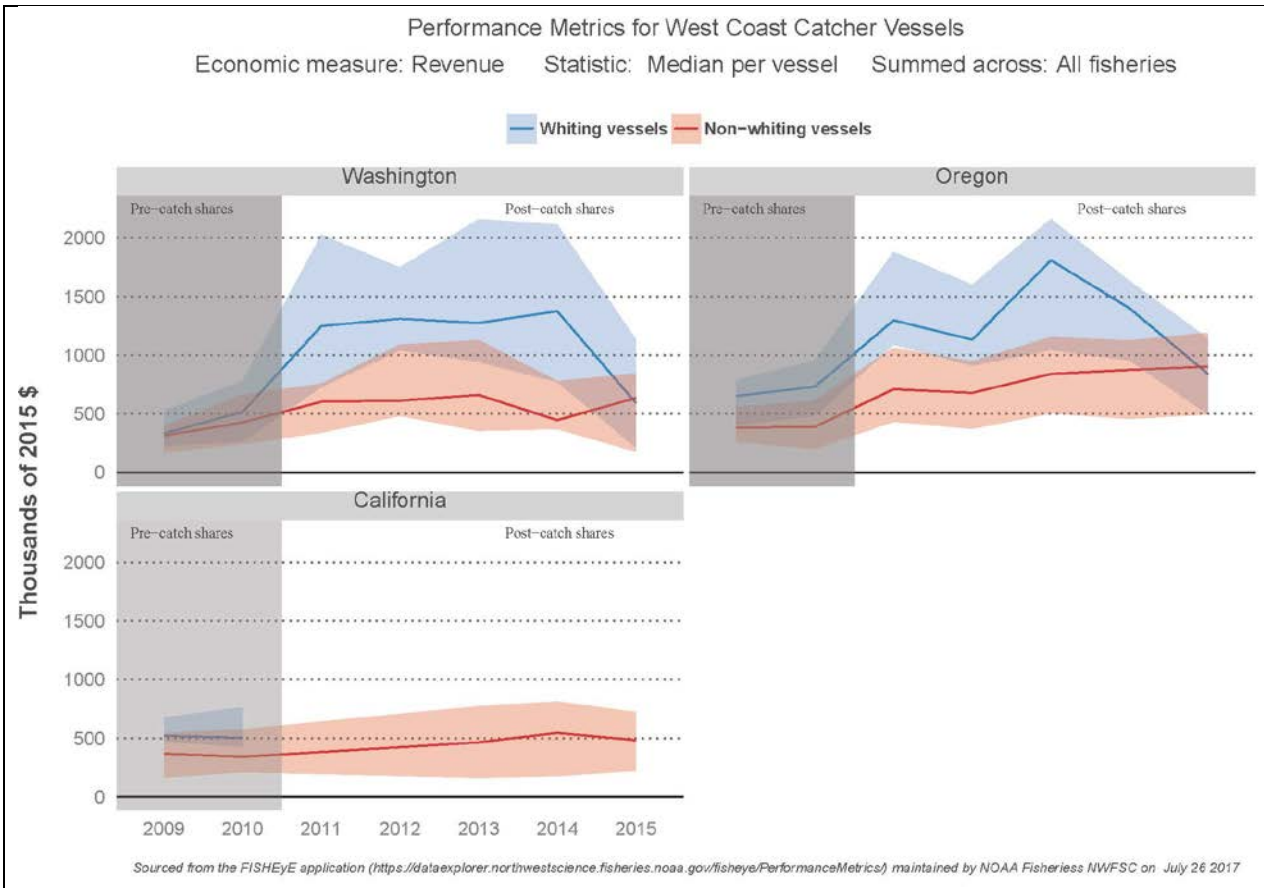

Figure 2. Per vessel average exvessel revenue for whiting and nonwhiting vessels by state.

The above graphic does indicate that many vessels are likely achieving the $700,000 revenue level inferred for the average vessel in the optimum fleet, particularly in Oregon. However, vessels are not necessarily achieving the levels of profit expected to be associated with the gross revenue amounts. The analysis on which the aggregate nonwhiting limits were based indicated that the average vessel in the optimized fleet would have around $500,000 of nonwhiting fishery profits. The following graphic indicates that level is not being achieved by most vessels but that it is possible that some vessels are achieving such profits. The upper bounds of these graphs show the 75th percentile values. Twenty-five percent of the vessels are receiving amounts in excess of those values.

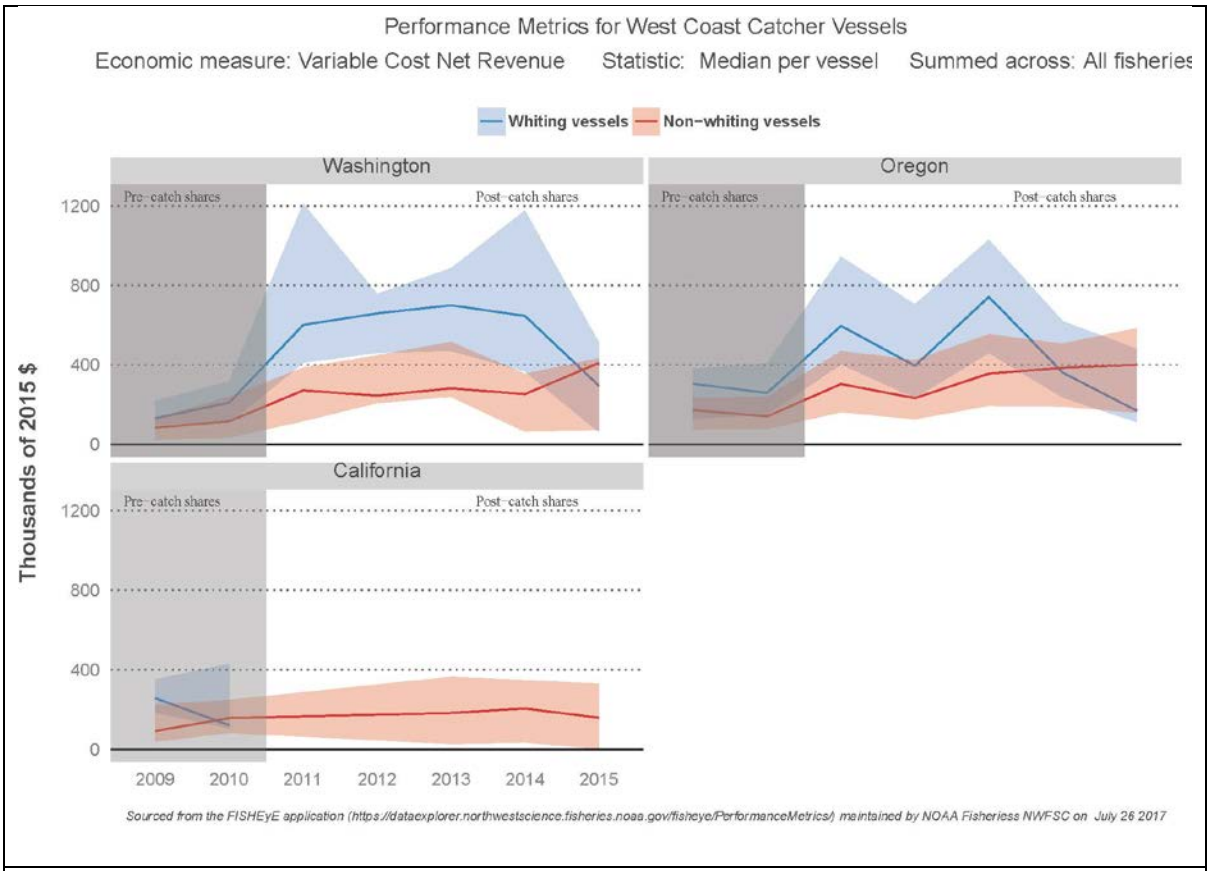

Figure 3. Per vessel average variable cost net revenue for whiting and nonwhiting vessels by state.

Additional analysis can be done to assess the theoretical limits achievable under current conditions in the fishery (reapplying the original GMT analysis from March 2009 to current fishery conditions) and evaluate whether the originally expected profit levels are achievable within the aggregate nonwhiting accumulation limits. Whether vessels are able to achieve the originally anticipated efficiencies is also a function of complete implementation of the program, including regulatory relief.

New Information (Since September Council Meeting) and Planned Analysis

Assuming the Council moves this issue ahead, over the winter analysts will take a close look at the original Lian, Singh, and Weninger (2015) paper on which the current aggregate nonwhiting accumulation limit was largely were based. The NWFSC has contracted for a reprise of that analysis based on data collected through the EDC. Additionally, discussion will be provided about the concept of a "reasonable level of profits." Amendment 20 discussed a level of about a half million dollars as a reasonable level of profit for a trawl vessel but there was not a careful discussion of the term and this did not mean that other levels of profit might also be "reasonable"

A discussion will also be provided regarding the criteria on which the aggregate limits nonwhiting are set and the types of analyses appropriate for the different criteria. These criteria generally fall into two categories "Market Power Excessive Share" and Management Objective

Excessive Share" (Holliday and Anderson, 2007). In the NMFS catch share program design guidance ("The Design and Use of Limited Access Privilege Programs") Holliday and Anderson identify that market power and management objective excessive shares "address completely different issues, and ***are, for the most part, independent of each other***" (emphasis added, p. 52).

Market Power Excessive Share (MP Limit): As quota accumulation levels increase, there is a possibility that inefficiencies will be introduced as participants use market power to influence prices. Indexes such as the Herfindahl Hirschman Index (HHI) are indicators of the likelihood of market power excessive shares. There are two markets of concern in considering these limits, the markets for quota and the markets for fish. Lower accumulation limits help reduce the risk of accumulation of excessive shares from the market power perspective.

Management Objective Excessive Share (MO Limit): Aside from concerns over market power, there are other management objectives which accumulation limits might usefully addressHolliday and Anderson identify that, "Councils are … given considerable latitude to determine the management objectives for any FMP and to choose the subsequent management measures to achieve those objectives" so long as national standards are addressed (p. 52). In relation to the concept of management objective excessive shares, they focus in particular on National Standard 8.

> (8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

Management objective excessive shares are generally less easy to measure market power excessive shares. "There is no body of theory, economic or otherwise, upon which to base the determination of the MO share limit." (Holliday and Anderson, 2007, p. 53). However, NMFS LAPP guidance advises that MO share limits should be less than the levels at which excessive market power would be accumulated. Holliday and Anderson point out that "if a relatively small operational MO share limit is chosen, it will likely preclude the necessity of rigorously determining s* [s* = maximum percentage of quota that can be controlled by a single entity without encountering market power issues]" (p. 53). While high accumulation limits might introduce inefficiency due to market power excessive share, limits which are too low may constrain efficiency, or, as has been of expressed concern in the catch share review, may possibly constrain the full harvest of the allocation. Thus, there is a potential cost to setting lower limits to address management objectives. Holliday and Anderson caution that MO Limits "should be used with care and only when the perceived benefits are greater than potential costs, and only then where there are no less costly or less intrusive ways to achieve the same objective" (p. 53). To help analysts determine how rigorous an analysis of the MP limit is required, at some point prior to the development of that analysis it would be useful to have an indication from the Council of the maximum accumulation limit they would be willing to consider based on other management objectives. In the extreme, Holliday and Anderson note: "If the Council has

management objectives that it deems can only be achieved by a quite low MO limit, it will not be necessary to perform all the analysis to define the MP limit. It is only necessary to show that the chosen MO limit will for all practical purposes prevent market power abuses as well" (p. 55).

b. Individual Species QP Limits

Process: Biennial Specifications Process

While this issue has been referred to the biennial specifications process, there is still a considerable amount to be determined with respect to the scope of issues covered in that process. For example, the scope could be limited to a simple evaluation of the number of vessels in an area and their ability to fully attain the allocation given the limits; or it could go into a species-by-species evaluation of multiple mechanisms by which individual species limits may be constraining efficiency, attainment of allocations, or otherwise having a negative influence on program performance.

Alternatives

In its September 2017 report, the CAB did not develop specific alternatives but made a general recommendation: "Individual species annual vessel QP limits should also be evaluated and further analyzed (including a review of the original analysis used to develop the limits)."

Notes

None.

Data and Analysis (Provided at the September Council Meeting)

A question has been raised about whether attainment of some allocations is being limited because the number of vessels active in an area is very small, such that even if every vessel took its maximum amount, the allocation of a particular species could not be attained. The following tables indicate that this problem may exist for some species, primarily in the south (see values in bold).

Table 7. Vessel QP limits, number of vessels required to take the entire allocation, and number of vessels in the area catching each species (2011-2016.

			Nonwhiting Trawl Only		Nonwhiting Trawl and Fixed Gear	
	Vessel Limit	Min Number of vessels required to harvest the IFQ sector's allocation	Minimum Number Active in One Year	Maximum Number Active in One Year	Minimum Number Active in One Year	Maximum Number Active in One Year
Arrowtooth flounder	20.0%	5	55	65	63	69
Bocaccio rockfish South of 40°10' N.	**15.4%**	**7**	**8**	**13**	8	16
Canary rockfish	10.0%	10	29	36	32	39
Chilipepper rockfish South of 40°10' N.	**15.0%**	**7**	**8**	**13**	8	17
Cowcod South of 40°10' N.	17.7%	6	3	10	3	11
Darkblotched rockfish	6.8%	15	45	52	48	57
Dover sole	3.9%	26	38	44	38	47
English sole	7.5%	14	54	66	54	66
Lingcod North of 40°10' N.	5.3%	19	46	49	53	58
Lingcod South of 40°10' N.	**13.3%**	**8**	**8**	**13**	10	17
Longspine thornyheads North of 34°27' N.	9.0%	12	50	62	58	68
Minor shelf rockfish North of 40°10' N.	7.5%	14	45	53	50	60
Minor shelf rockfish South of 40°10' N.	**13.5%**	**8**	**8**	**12**	9	16
Minor slope rockfish North of 40°10' N.	7.5%	14	49	54	58	64
Minor slope rockfish South of 40°10' N.	**9.0%**	**12**	**8**	**13**	12	22
Other flatfish	15.0%	7	59	71	61	73
Pacific cod	20.0%	5	16	26	17	28
Pacific ocean perch North of 40°10' N.	6.0%	17	45	52	48	57
Petrale sole	4.5%	23	56	69	62	73
Sablefish North of 36° N.	4.5%	23	58	70	72	84
Sablefish South of 36° N.	**15.0%**	**7**	**1**	**2**	7	11
Shortspine thornyheads North of 34°27' N.	9.0%	12	56	65	71	82
Shortspine thornyheads South of 34°27' N.	**9.0%**	**12**	**0**	**0**	1	5
Splitnose rockfish South of 40°10' N.	**15.0%**	**7**	**6**	**13**	6	13
Starry flounder	20.0%	5	11	16	11	16
Widow rockfish	8.5%	12	38	44	38	47
Yelloweye rockfish	**11.4%**	**9**	**10**	**14**	11	18
Yellowtail rockfish North of 40°10' N.	7.5%	14	23	31	25	34

Data source: PacFIN. [: CAB_Tasks_10-12-2017_ECW_Corrected.xlsx: All_IFQ_Lands_by_DS_&_Spp (2)]

New Information (Since September Council Meeting) and Planned Analysis

The number of nonwhiting vessels active in an area helps provide an indication of the degree to which a local or coastwide fleet might be constrained from attaining the full trawl allocation because the individual vessel QP limits (Table 8). However, in some cases there may be an opportunity for the effort of gear switched vessels to also contribute to the attainment of the trawl allocation for species other than sablefish. Numbers of active nonwhiting vessels (trawl gear switched) have been added to and the species for which gear switched vessels harvested more than 1,000 pounds is provided in Table 7. Whiting-only vessels are not included in these tables because they target whiting and take non-whiting species only as unintended bycatch. Whiting vessels are included to the degree that they use other gears to harvest their trawl QP allocations.

c. Daily QP Limits (Overfished Species and Halibut)

Process: Follow-on Package

While the Council specified removal of the daily QP limits as an item for the follow-on package, individual species have previously been removed from the list as they have become rebuilt. This practice might be continued with the 2019-2020 biennial specifications process while at the same time complete elimination of the provision is considered through a follow-on package.

Alternatives

> **Daily Vessel QP Limits Alternative 1: Status quo.** Maintain individual species daily vessel QP limits for overfished species and Pacific halibut.
> **Daily Vessel QP Limits Alternative 2: Eliminate daily limits.**

The GMT November report on this issue will likely recommend respecifying the alternatives as follows:

> **No Action:** Daily vessel limits exist for bocaccio rockfish south of 40°10' N. latitude (13.2 percent), cowcod south of 40°10' N. latitude (17.7 percent), darkblotched rockfish (4.5 percent), POP (4 percent), widow rockfish (5.1 percent[2]), yelloweye rockfish (5.7 percent), and Pacific halibut (5.4 percent).
>
> **Status Quo:** Under status quo procedures, when a stock is declared rebuilt, the daily vessel limit is removed through a Council action. As such, it would be expected that the limits for bocaccio rockfish south of 40°10' N. latitude, darkblotched rockfish, and POP would be removed, leaving vessel limits for only Pacific halibut, yelloweye rockfish, and cowcod south of 40°10' N. latitude.
>
> **Alt 1:** Eliminate daily limits

Notes

The daily QP limit was removed for canary rockfish and is scheduled to be removed for widow rockfish with publication of the final widow QS reallocation rule. This leaves the following species with daily QP limits: bocaccio (south); cowcod (south); darkblotched; Pacific halibut; Pacific ocean perch; yelloweye rockfish, and Pacific halibut.

Full evaluation of the current impacts of this provision is difficult because it requires an assessment of the QP account balances in every account for each day of the year and for those accounts that were at the daily limit and later acquired additional QP, a determination of the source of that additional QP. One step might be simply to get a count of those vessels for which the annual QP usage for the year exceeded the daily limits. The daily limits are set equal to the control limits.

[2] The proposed rule (81FR42295) for widow rockfish QS reallocation and divestiture deadlines proposes to remove the daily vessel limit since widow rockfish is rebuilt.

Data and Analysis (Provided at the September Council Meeting)

Daily QP limits attempt to limit a person's ability to acquire additional QP from others before those QP are needed. They have no effect on those who only use QP from their own QS account.

Vessel daily limits limit QP trading between entities because QP can only be transferred directly to a vessel account, and those accounts are subject to the daily limits which are equivalent to the QS control limits and substantially lower than the annual vessel QP limits. However, there are a few work arounds. First, sales contracts can be signed but the QP transfers not implemented until a vessel account has room under the daily limit. Second, entities can temporarily acquire trawl permits and use them to establish a second vessel account in which they can store QP (similar to what risk pools do). Assessment of the degree to which the daily QP limits are effective is complicated by weak links between QS accounts and vessel accounts.

Daily QP limits are an administrative burden for both the agency and individual vessels. It is not clear whether they are meeting their original purpose: to encourage availability of QP in the market. Additionally, they were originally intended to apply only to overfished species, and in the next biennium only two species for which trawl IFQ is required will remain overfished: cowcod and yelloweye rockfish. Daily QP limits also apply for Pacific halibut individual bycatch quota QP.

d. Weightings Used to Calculate Aggregate Limits

Process

Follow-on Package

Alternatives

In its September 2017 report, the CAB did not develop an alternatives for weighting the calculations of the aggregate nonwhiting control limit but instead noted that if the aggregate nonwhiting control limit is eliminated, there would no longer be a need for such weighting calculations.

Notes

None.

Data and Analysis (Provided at the September Council Meeting)

Currently, 2010 shoreside trawl allocations are used to convert individual species quota into aggregate nonwhiting quota equivalents for the purposes of evaluating a person's or vessel's holding against the aggregate nonwhiting limits. Since the weightings are from 2010, they vary from the actual shoreside allocations of more recent years. The following table compares the original weightings to the weightings that would be in place based on 2017 allocation levels.

Table 7. Current weightings for determining nonwhiting QS holdings (based on 2010 allocations) and weightings based on 2017 allocations.

		A	B	C	D	Difference:	
IFQ Species	**2010 Shorebased Trawl Allocation (lbs)**	**2010 Shorebased Trawl Allocation (mt)**	**Individual Spp weighting in Agg Non-wh QS based on 2010 TWL Alloc**	**2017 Trawl Allocations (mt)**	**Individual Spp weighting in Agg Non-wh QS based on 2017 TWL Alloc**	**(D-B)**	**(D-B)/B**
Arrowtooth flounder	21,156,441	9596.4	0.160	11120.6	0.098	-0.063	-39%
Bocaccio rockfish South of 40°10' N.	113,287	51.4	0.001	302.4	0.003	0.002	210%
Canary rockfish	34,294	15.6	0.000	1060.1	0.009	0.009	3486%
Chilipepper rockfish South of 40°10' N.	4,046,034	1835.3	0.031	1920.8	0.017	-0.014	-45%
Cowcod South of 40°10' N.	4,409	2.0	0.000	1.4	0.000	0.000	-63%
Darkblotched rockfish	655,071	297.1	0.005	535.6	0.005	0.000	-5%
Dover sole	34,546,436	15670.0	0.262	45986.0	0.405	0.143	54%
English sole	20,398,822	9252.8	0.155	9263.6	0.082	-0.073	-47%
Lingcod North of 40°10' N.	3,494,084	1584.9	0.026	1374.7	0.012	-0.014	-54%
Lingcod South of 40°10' N.	1,283,443	582.2	0.010	558.9	0.005	-0.005	-49%
Longspine thornyheads North of 34°27' N.	4,544,278	2061.3	0.034	2704.8	0.024	-0.011	-31%
Minor shelf rockfish North of 40°10' N.	543,925	246.7	0.004	1183.1	0.010	0.006	152%
Minor shelf rockfish South of 40°10' N.	133,526	60.6	0.001	192.2	0.002	0.001	67%
Minor slope rockfish North of 40°10' N.	1,950,209	884.6	0.015	1368.8	0.012	-0.003	-19%
Minor slope rockfish South of 40°10' N.	869,459	394.4	0.007	432.7	0.004	-0.003	-42%
Other flatfish	9,646,547	4375.6	0.073	7475.4	0.066	-0.007	-10%
Pacific cod	3,340,003	1515.0	0.025	1036.4	0.009	-0.016	-64%
Pacific ocean perch North of 40°10' N.	377,577	171.3	0.003	220.0	0.002	-0.001	-32%
Petrale sole	2,502,247	1135.0	0.019	2750.3	0.024	0.005	28%
Sablefish North of 36° N.	6,606,862	2996.8	0.050	2416.0	0.021	-0.029	-58%
Sablefish South of 36° N.	1,164,834	528.4	0.009	780.8	0.007	-0.002	-22%
Shortspine thornyheads North of 34°27' N.	3,288,084	1491.5	0.025	1571.3	0.014	-0.011	-45%
Shortspine thornyheads South of 34°27' N.	110,231	50.0	0.001	50.0	0.000	0.000	-47%
Splitnose rockfish South of 40°10' N.	965,514	438.0	0.007	1661.8	0.015	0.007	100%
Starry flounder	1,176,166	533.5	0.009	635.9	0.006	-0.003	-37%
Widow rockfish	713,178	323.5	0.005	12094.2	0.106	0.101	1867%
Yelloweye rockfish	406	0.2	0.000	1.1	0.000	0.000	214%
Yellowtail rockfish North of 40°10' N.	8,189,203	3714.6	0.062	4546.1	0.040	-0.022	-36%

4. Shorebased IFQ Sector Harvest Complex Needs

a. Enhance Fleet's Ability to Use Quota Within the Trawl Allocation

Process

The Council eliminated some alternatives from consideration but recommended that several of the alternatives be moved forward as part of a follow-on package. Additionally, the possibility of increasing the carryover, should be included in the ACL carry-over package. A staff report on the ACL carryover package is due for the November Council meeting under the agenda item on 2019-2020 management measures.

Alternatives

Fleet Constraint Alt 1: Status quo.
Fleet Constraint Alt 2: Allow Post Season Trading. Allow post season trading to cover the deficit (also an element on alternatives for lightning strikes). ***Include in this alternative a post-season trading end-date.***
Fleet Constraint Alt 3: Raise Annual Vessel QP Limits. (also addressed under accumulation limits)

Raise the vessel cap for vessels that participate in risk pools (define qualifying risk pool). ***Other alternatives to be developed.***

Fleet Constraint Alt 4: Eliminate September 1st QP expiration. Eliminate the September 1st QP expiration for QP not transferred to vessel accounts.
Fleet Constraint Alt 5: Increase Carry-Over. Raise the carryover amount from 10 percent to as much as 100 percent (particularly for non-target species with low ACLs).

Notes

In response to the September 2017 NMFS report, the Council also added an alternative to eliminate the requirement that all QP be transferred to vessel accounts by September 1st of each year. This September 1st provision was resulting in some QP expiring unused, reducing the total amount of QP available to the fleet.

NMFS noted that any provisions that include risk pools would require a definition for risk pools implementable by NMSF in its vessel accounting system.

The Council eliminated the following alternatives from consideration.

Increase Quota Issued: Raise the amount of QP issued to the point where the modelling would suggest that the trawl allocations would be taken.
Change Management Tools for Some Species

Alternative 1: Status quo. Non-IFQ management for certain species seldom caught by trawlers, e.g. nearshore rockfish are managed with cumulative trip limits.

Alternative 2: Convert yelloweye and cowcod from IFQ management to set-aside management. Take into account that existing closures are protecting the resource and its habitat, but also identify the specific areas that should remain closed to ensure the resource is protected.

Suboption: Create a new management line at 34º 27' N. and make cowcod a monitored (set-aside) species between 34º 27' N. and 40º 10' N. (Management north and south of this area would not change).

b. Vessels with Deficits in Excess of Vessel QP Limit

Process

Biennial specifications process.

Alternatives

Vessel Constraint Alternative 1: Status quo.

Vessel Constraint Alternative 2: Relief from QP limits: After the end of the year, all vessels with deficits in their account would be allowed to buy previous year QP to cover their deficit, up through a certain date. In covering their previous year deficits, vessels would not be limited by the annual vessel QP use limits for all species.

Suboption A: In covering their previous year deficits, vessels would not be limited by the annual vessel QP use limits for certain non-target species. [This replaces second sentence in main alternative]

Suboption B: If the deficits are not covered by that certain date, NMFS would also convert unfished amounts from the previous year's ACLs and sell the QP to trawl sector vessels that are in deficit, up to the amount of that deficit.

Suboption B-1: Limit the NMFS sale to non-target species.

Suboption B-2: Set the NMFS sale price to above market rate.

[Suboptions are not mutually exclusive]

Notes

The CAB's September 2017 report noted that relief from high bycatch events needs to be balanced with disincentives for risking high bycatch events, since such events may impact the entire fleet. Additionally, while some alternatives were designed to address the situation of vessels with amounts of catch in excess of the annual vessel QP limits, the provisions could benefit vessels with any levels of deficit. The CAB noted the importance of minimizing the opportunities for abuse and considered possibilities such as a two-strike system and allowing only risk pools to cover amounts a vessel take in excess of vessel QP limits. The NMFS report also voiced the need to consider the impact of some of the alternatives on vessel incentives and consequent potential impacts on the fleet.

The Council eliminated the following alternative from consideration.

> **Area Restriction Alternative.** Vessels that are in deficit by amounts in excess of the annual vessel QP use limits may continue to fish in areas where that deficit species is not caught (species/area relationships to be defined).

The GMT recommended against this alternative due to the large analytical and implementation burdens that would be associated with it. NMFS also expressed concern about the costs of this alternative and the potential for a group of vessels encountering high bycatch to impact the rest of the fleet.

The CAB also considered but rejected elimination of surplus QP carryover. The surplus QP would instead have gone to the pool for NMFS to sell to vessels with deficits. However, the elimination of the surplus carryover would have reduced the fleet and individual vessel opportunity to harvest available quota.

5. Catcher Processor Sector Accumulation Limits

The September 2017 NMFS report indicated that establishing accumulation limits is within the purview of the Council (contrary to the September 2017 CAB report). In its September 2017 report, the CAB also indicated that there had not been major consolidation and that only one company had left the sector since the start of the program. The GAP expressed concern that accumulation limits might hinder flexibility that has been important to the success of the sector. Both the CAB and the GAP expressed concern that this issue would take time away from other important issues.

The Council is considering accumulation limits that pertain to catcher-processor permit ownership.

a. Catcher Processor Permit Ownership Limit

Process

Follow-on package.

Alternatives

CP Permit Limit Alternative 1: Status Quo
CP Permit Limit Alternative 2: Establish a Four-Permit Limit. No individual or entity may own or control more than four CP permits

The June 13, 2017 control date adopted by the Council may be used to establish a grandfather clause that would allow the continuation of any pre-existing concentrations of permits.

New Information (Since September Council Meeting) and Planned Analysis

As in the all other trawl sectors, neither the original license limitation program nor Amendment 20 placed a limit on the number of catcher-processor permits a single entity can own. Available data on permit ownership (Table 1) indicates that since implementation of the catch share program in 2011 there has not been an increase in the concentration of permit ownership (note that there was a reorganization of the business structure of American Seafood part way through 2015, while this has not resulted in a shift of permit ownership at the holding company level or in terms of participating vessels, the impact on entity control of the permits is unknown).

Table 8. Catcher-processor permit ownership, by company (2011-2017).

Permit	Year '11	'12	'13	'14	'15	'16	'17		Associated Vessel(s)
	Glacier Fish Company LLC								
GF0030	x	x	x	x	x	x	X		Alaska Ocean, Northern Glacier
GF0101	x	x	x	x	x	x	X		Pacific Glacier
	Trident Seafoods Corp.								
GF0007	x	x	x	x	x	x	X		Island Enterprise
GF0062	x	x	x	x	x	x	X		Seattle Enterprise
GF0108	x	x	x	x	x	x	X		Kodiak Enterprise
	Northern Jaeger LLC				American Seafoods Group LLC				
GF0119	x	x	x	x	P	p	x	X	Northern Jaeger
	American Dynasty LLC								
GF0092	x	x	x	x	P	p	x	X	American Dynasty
	American Triumph LLC								
GF0048	x	x	x	x	P	p	x	X	American Triumph
	Northern Eagle LLC								
GF0142	x	x	x	x	P	p	x	X	Northern Eagle
	American Seafoods Company LLC								
GF0298	x	x	x	x	p	p	x	X	Katie Ann

Data: Permit owner company names, addresses, and vessel information are publicly available on the Pacific Coast Fisheries Permit System, and summarized here.

Amendment 20 is structured in a fashion that might provide an entity with even just a single permit considerable power in the co-op. Specifically, if the co-op is unable to develop an agreement that includes all permit owners, then the entire system reverts from a co-op to an IFQ program in which each permit would be allocated 10% of the QS.

The Economic Data Collection Program has published an extensive report on the economic performance of the catcher-processor sector annually since 2014. The most recent report highlights data collected for participants for the 2015 fiscal year, in addition to summaries of all data collected for 2009-2015, and a description of the sector and history of the fishery and program (NMFSa, 2017). Economic Data Collection results for the catcher-processor sector are also easily accessible on the FISHEye data exploration tool.

The Public Review draft of the Five-year Review contains additional information about the performance of the catcher-processor sector during the first five years of the catch share program, including net benefits, efficiency, distribution of harvest revenue, and quartile distributions of net revenue.

b. Processing Limit

Process

Follow-on package.

Alternatives

Processing Limit Alternative 1: Status Quo
Processing Limit Alternative 2: 45% limit. No individual or entity owning a CP permit(s) may process more than 45 percent of the total CP sector whiting allocation.

The June 13, 2017 control date adopted by the Council may be used to establish a grandfather clause that would allow the continuation of any pre-existing consolidation.

Notes

See notes on the CP permit limit.

New Information (Since September Council Meeting) and Planned Analysis

The alternatives for Amendment 20 included the possibility of implementing an IFQ program for the catcher-processor sector, including IFQ control limits and limits on catch and processing for vessels. In addition to limits for catcher-processors, there was also consideration of a limit for all whiting sectors combined.

Table 9. Catcher-processor control limit and vessel limit options considered in the Amendment 20 IFQ alternative.

	Option 1	Option 2	Option 3
Control Limit	50%	55%	60%
Vessel Limit	65%	70%	75%

Analysis at the time showed that the most restrictive vessel processing limit options (Option 1) were at least 70 percent above the 90th percentiles for the 1994-2003 and 2004-2006 historic periods and 30 percent above the vessel maximums for the same periods. Accumulation limits were not included in the co-op alternative the Council adopted for catcher-processors.

The current processing limit option is proposed not for the vessel but for the entity owning the vessel. Each year co-ops are required to submit annual reports that include information on annual allocations and harvest agreements. Those reports show that harvest allocation has not changed between the participating companies during the course of the catch share program. Actual harvest percent is typically lower for each company, reflecting the sector average 92% attainment of allocation from 2011-2016. These annual report data show that all entities would be well below the Amendment 20 vessel limit options (the lowest option was 65%) that were a part of the IFQ alternative of Amendment 20.

Table 10. Percent attainment of sector allocation by each processing company, by year.

Year	American % of Allocation (% Harvest)	Glacier % of Allocation (% Harvest)	Trident % of Allocation (% Harvest)	Sector % Attainment of Allocation	Harvest (1,000s mt)
2011	45 (48)	20 (21)	30 (31)	95	72
2012	49 (50)	21 (21)	29 (29)	99	55
2013	51 (52)	19 (20)	28 (28)	98	78
2014	51 (51)	20 (20)	29 (29)	100	103
2015	29 (43)	15 (21)	24 (35)	68	68
2016	51 (54)	18 (19)	26 (27)	95	109
Average	46 (50)	19 (20)	27 (30)	92	81

Data:
*http://www.pcouncil.org/wp-content/uploads/2017/03/Sup_IR2_2017_PWCC_Rpt_re2016_Apr2017BB.pdf
http://www.pcouncil.org/wp-content/uploads/2016/06/IR2_CoopRep_CP_2015_PWCC_JUN2016BB.pdf
http://www.pcouncil.org/wp-content/uploads/2015/03/IR3_2014_Co-op_Annual_Rpt_CP_APR2015BB.pdf
http://www.pcouncil.org/wp-content/uploads/IR2_2013_Final_PWCC_Am20_AnnualRpt_JUNE2014BB.pdf
http://www.pcouncil.org/wp-content/uploads/INFO_SUP_RPT_2_Co_opAnnualRept_2013_preliminary_CP_NOV2013BB.pdf
http://www.pcouncil.org/wp-content/uploads/D2b_ATT2_CP_RPT_APR2013BB.pdf
http://www.pcouncil.org/wp-content/uploads/INFO_RPT3_PWCC_Am20_-NOV2012BB.pdf
2011 Catcher Processor Annual Report (not published on web)

6. AMP QP Pass-Through

Process

Follow-on package.

Alternatives

Pass-thru Alternative 1: Status quo. Council decision record indicates pass-through terminates while NMFS decision record indicates the pass-through continues until changed (interpretation uncertain).
Pass-thru Alternative 2: Continue pass-through. Continue the pass-through until an alternative use of AMP is implemented.

Notes

The September 2017 CAB report stated support for continuation of the pass-through and that the continuation "is not intended to foreclose discussions on the longer term resolution" of the disposition of AMP QP.

Previous Council Action – June 2017

The Council requested more analysis on

- Impacts of accumulation limits (including evaluation of changing or eliminating them).
- The nature and extent of gear switching and sablefish access issues.
- Factors influencing sablefish quota lease prices.

- Impacts of sablefish lease price and availability on economic stability of harvesters and processors.
- Understanding the implications of a continuing increase in the ratio of leasing to owner-on-board use of QS/QP.

At its June 2017 meeting, the Council did not move forward the following issues (which had been identified in the CAB report).

- Reduction in Participation Costs
    - Loosening catch monitor educational requirements
    - Providing credit for cost recovery as part of observer payments
    - Cost recover credit for risk pool collectives
    - Reducing costs by reducing the duration over which EM video must be stored.

Instead of moving these forward, the Council requested that NMFS explore options for reducing observer and catch monitor costs and report back to the Council.

Appendix: Council Consideration of Auctions for the Trawl Catch Share Program

Summary: The Magunuson-Stevens Act (MSA) requires that the Council consider an auction in the development of a trawl rationalization program. The Council went through such a consideration, including a full analysis by a contractor, and rejected auctions. However, in the Amendment 20 program adopted by the Council—in the section that covers program duration, modification, and catch share reviews—the Council committed to considering an auction or charging royalties if quota becomes available after initial allocation, including "any quota that becomes available as a result of the initial or subsequent reviews of the program" (Section A.2.3.4 of Appendix E to the groundfish FMP). At this time, it does not appear that quota is necessarily becoming available, however, one of the Community Advisory Board (CAB) options for meeting the needs of vessels with end-of-year deficits includes the possibility of government sale of surplus quota to those vessels (Issue 4.b, p. 38). Such a provision would amount to the charging of a royalty and might potentially be implemented as an auction.

MSA Requirement

As part of the development of the catch share program, the Council considered allocation through an auction as required by the MSA:

> MSA303A(d) AUCTION AND OTHER PROGRAMS.—In establishing a limited access privilege program, a Council s hall consider, and may provide, if appropriate, an auction system or other program to collect royalties for the initial, or any subsequent, distribution of allocations in a limited access privilege program. . . .

Council Deliberation on Auctions in Amendment 20

The Council developed and evaluated a fixed term option for quota share (QS) that included an auction:

> Fixed Term Option: The term of all QS issued will be limited to 15 years (except that the Term-1 QS may last 15 or 16 years, depending on when the biennial specification period ends). Starting with Term-2 of the program, Reallocation Option 1: QS will be reallocated to holders at the end of the term, unless the program is otherwise modified. Reallocation Option 2: Starting with Term-2 of the program, every two years up to 20 percent of all QS will be returned to NMFS for reissuance via an auction, unless the program is otherwise modified.
>
> The specific form of the auction will be decided by the Council in the period between trawl rationalization implementation and the first auction. It will be designed to achieve the goals of the trawl rationalization program, including reducing bycatch, increasing operation flexibility, measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry. (Amendment 20, Appendix A, Section A-6, page A-417)

The following are the related rationale and policy issues summarized in Appendix A of the Amendment 20 analysis.

> An initial auction is not proposed because of the need for a transition during a period of economic stress. It is unlikely that many of the participants in the current fishery have structured their operations financially in a manner that would allow them to effectively compete in an auction. After 15 years, the fishery should be in much better shape, and 15 years would provide fishermen a long time to get used to the IFQ [individual fishing quota] program without having to pay for the QS. It would also provide a substantial amount of advance notice to allow existing firms an opportunity to position themselves financially to effectively compete in an auction. The general reason for 15 years is to provide a substantial amount of stability for industry to make fishing decisions. The term of 15 years was also chosen because of the rebuilding periods for overfished species. Within 15 years, Boccaccio, canary, POP [Pacific ocean perch] and widow would all be rebuilt. With the exception of darkblotched, the other species are not projected to rebuild for a substantially longer period. An auction should not be included in the period during which the Council is exploring how it will handle allocation when species are rebuilt.
>
> Holding an auction every year would result in too much annual change and increased administrative costs; therefore, it was proposed that the auction occur every two years in conjunction with the biennial specifications. There should be a transition at the end of the 15 years; therefore, an auction of 20 percent of the QS every two years was specified. The Council could choose to auction less than 20 percent, and that decision could come out of the analysis conducted when the auction is designed. The auction could be designed to provide for new entrants and protect communities by setting aside specific amounts to go to small fishermen, communities, etc.
>
> The 15-year limit and auction were also intended to add to the assurance that IFQ would not be viewed as property rights. The largest investors in the fishery are the citizens of the U.S., and that had to be more strongly recognized, at least as an option for analysis. There are various other public natural resources for which use rights are auctioned. Funds collected in the auction would go into the new fund specified in the MSA, which, subject to appropriations, could come back to the fishery. (p. A-417 to A-418)

An independent contractor analyzed this option for the Council and that analysis, together with the SSC review, is provided Appendix F, of the EIS.

Under Section A-2.3.4 of Appendix A, the Council specified its policy for conducting reviews and that it would consider an auction if quota becomes available.

> The Council will consider the use of an auction or royalties as required by the Magnuson-Stevens Act, along with other nonhistory based methods when distributing quota share that may become available after initial allocation. This may include quota created when a stock transitions from overfished to nonoverfished status, quota not used by the adaptive management program, quota forfeited to “use it or lose it” provisions, and any quota that becomes available as a result of the initial or subsequent reviews of the program.

> The specific form of the auction or other method of distribution shall be designed to achieve the goals of Amendment 20, specifically including minimizing the adverse effects from an IFQ program on fishing communities to the extent practical. (p. A-417)

The following rationale was provided in support of including this provision in Amendment 20:

> This [provision] promotes the idea that the fisheries resources are the property of the citizens of the United States and not perpetual grants to the QS holders. This also recognizes that we are not developing the perfect system. It puts the QS holders on notice that there may be changes to the program that could involve their QS and affect them. There will be a review in four or five years. At that point in time, the Council could consider what is going on in the fishery, including whether there are adverse effects on communities, new entrants are effectively prohibited due to costs of entry, or there are other adverse affects. If the adaptive management program is not adequate, the Council could consider an auction of some of the QS to correct these things or to deal with other results of the review. There are concerns that under the auction those with the deepest pockets will get it all. The last paragraph [2nd paragraph above in the discussion of rationale and policy issues] addresses ways to limit the auction so as to not disrupt communities, e.g., limiting the auction to small vessels. The motion does not require the Council to have an auction; *it is a specific item that the Council would consider after the initial review* . . . . The earliest the auction that might be implemented would likely be six to eight years after implementation. There would be no additional action or analysis at this time. (Appendix F of the EIS, p. F-iv, emphasis added)