

FOLLOW-ON ACTIONS—ISSUES, ALTERNATIVES, AND ANALYSIS

This document provides a summary of the status of trawl catch share review follow-on actions, including: purpose and need statements, alternatives, and preliminary data and analysis. “Notes” sections document key comments from advisory body statements provided at previous Council meetings and, in some cases, provide links to previous Council briefing materials on a topic. The notes section also track rejected alternatives.

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Introduction and Overview

At its September and November 2017 meeting, the Council provided guidance on alternatives and processes for trawl catch share program review follow-on actions (Table 1). It generally identified one of three possible processes for each issue: inclusion in the biennial specifications, development as part of the follow-on action package, or deferral for prioritization as part of the omnibus process. In a few instances, the Council assigned a topic issue to a separate agenda item and process (gear switching and trawl sablefish area management; and increasing carryover as part of annual catch limit flexibility). 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.

Table 1. Summary of topics/issues, alternatives, and processes (Agenda Item F.2, Attachment 6, Nov 2017, revised based on Council Nov 2017 action under F.2 and F.9).

| Topic/Issue | Alternatives | Spex | Follow-on | Omni | Other Process | November 2017 Action |
|--|---|------|-----------|------|---------------|--|
| 1. At-Sea Whiting Fishery Bycatch Needs | | | | | | |
| a. Set-aside management—making it permanent for all species. | <p>Alt 1: No Action.</p> <p>Alt 2: Remove POP and darkblotched set-aside distribution from the FMP and eliminate automatic action.</p> <p>Alt 3: Expand set aside management to cover all four co-op managed species and eliminate automatic action.</p> <p>Alt 4: Set-aside management for all four species; remove at-sea set-aside distributions from the FMP; and eliminate automatic action.</p> <p>NOTE: If Alternative 1, 2 or 3 are selected, in the future the Council may consider further action to modify within trawl allocations/distributions in the FMP. For Alternative 2, only the widow rockfish allocation would remain in the FMP.</p> | | X | | | Move forward as a priority. Proceed with analysis for widow and canary. |
| b. Increasing amounts available for harvest | Provide relief where Council policies may be overly conservative (e.g. set asides). See Spex. | X | | | | This was addressed to the degree that it will be in adopting the final harvest specifications and preliminary set-asides |
| c. Between sector quota pound trading | <p>Alt 1: No Action.</p> <p>Alt 2: Individual Transfers (by participants).</p> <p>Alt 3: Sector transfers (by Council).</p> | | | X | | Keep on the omnibus list (same as in September) |
| d. Changing within trawl and trawl/nontrawl FMP allocations | <p>The species for possible within trawl reallocation have been limited to those subject to at-sea bycatch caps or set asides, given this, development of alternatives for issue is dependent on the outcome of set-aside management (see note under 1.a.).</p> <p>Trawl/nontrawl allocation alternatives, to be developed..</p> | | X | | X | <p>Within Trawl: Remove within trawl allocations from the spex for darkblotched, POP and widow put in follow-on.</p> <p>Trawl/Nontrawl Allocations: move to the omnibus list. ^a</p> |
| 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 | | Move to the omnibus list |

| Topic/Issue | Alternatives | Spex | Follow-on | Omni | Other Process | November 2017 Action |
|--|---|-------------|------------------|-------------|----------------------|---|
| 2. Trawl Sablefish Area Management and Gear Switching | | | | | | |
| Eliminate 36° line for trawl sablefish and limit gear switching. | <p>Alt 1: No Action.</p> <p>Alt 2: Eliminate line.</p> <p>Alt 3: Eliminate line and mitigate. Mitigation Suboption Limit the amount of quota that could be used by gear switching vessels (or ensure a certain amount of quota is available for use by trawl gear).</p> <p>Alt 4: Restrict gear switching. Control date for limitations on gear switching: 9/15/2017 Further explore GAP options from September 2017 GAP report, plus proposals in the November 2017 CAB Report</p> | | | | X | <p>Consider process for moving forward at the March 2018 Council meeting, as a separate agenda item. As part of this action, the Council may also be considering revising the annual vessel QP limit for sablefish.</p> <p>The Council discussion generally indicated that while it was not ready to move forward at this time, it also may not want to wait until a larger problem develops.</p> |
| 3. Shorebased IFQ Accumulation Limits (Control and Vessel Limits) | | | | | | |
| a. Individual species vessel QP limits | No alternatives identified. Consider for target and bycatch species. Consider adjusting limits inseason or between years based on attainment. | | X | | | Move forward as planned (all November 2017 Agenda Item F.2 Attachment 6 alternatives). ^b |
| b. Daily QP limit (overfished species & P. halibut) | <p>Alt 1: No Action.</p> <p>Alt 2: : Eliminate daily limits for remaining species: Pacific halibut, yelloweye rockfish, and cowcod south of 40°10' N. latitude.</p> <p>Also, see Spex</p> | X | X | | | Move forward as planned (all Attachment 6 alternatives). [Pacific halibut, cowcod and yelloweye were dopped from the spex due to work load constraints and are therefore being addressed as a follow-on action.] |
| c. Aggregate nonwhiting control limits | <p>Alt 1: No Action.</p> <p>Alt 2: No limit (effectively 5.84% - the sum of individual species limits).</p> | | | X | | Move forward all Attachment 6 alternatives but delay to the omnibus process. |
| d. Weightings used to calculate aggregate limit | No alternatives identified. (CAB note: elimination of aggregate nonwhiting QS control and annual vessel QP limits would eliminate need for this calculation). | | | X | | Move forward all Attachment 6 alternatives but delay to the omnibus process. |

| Topic/Issue | Alternatives | Spex | Follow-on | Omni | Other Process | November 2017 Action |
|---|---|------|-----------|------|---------------|--|
| 4. Shorebased IFQ Sector Harvest Complex Needs | | | | | | |
| a. Enhance fleet's ability to use quota within the trawl allocation | <p>Shorebased Needs Alternative 1: No Action.</p> <p>Shorebased Needs Alternative 2: Allow Post Season Trading for Accounts in Deficit (include an annual date for end of trading).</p> <p>Suboption A: In covering their previous year deficits, vessels would not be limited by the annual vessel QP use limits for all species or certain non-target species (<i>species covered to be determined</i>)</p> <p>Suboption B: If the deficits are not covered by that certain date, NMFS would also convert unused QP not eligible for carryover from the previous year and/or 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 (<i>species covered to be determined</i>).</p> <p>Suboption B-1: Set the NMFS sale price to above market rate.</p> <p>Suboption B-2: When there are more deficits than there are QP available NMFS will develop a means for allocating the QP fairly.</p> <p>Additional text for this suboption needs to be reviewed [Suboptions are not mutually exclusive]</p> <p>Shorebased Needs Alt 3: Eliminate September 1st QP expiration for QP not transferred to vessel accounts.</p> | | X | | | Combine post season trading, September 1 st expiration, and relief from annual QP limits under a single topic and eliminate consideration of changes to annual vessel QP limits as part of this topic (it is covered under Topic 3). ^c |
| | Alt X: Increase carryover. | | | | X | Move forward in combination with consideration of ACL flexibility. ^d |
| 5. Catcher-Processor Sector Accumulation Limits | | | | | | |
| a. Implementation Alternatives | <p>CP Implementation Alt 1: No action.</p> <p>CP Implementation Alt 2: Vacate the June 13, 2017 control date (no new accumulation limits).</p> <p>CP Implementation Alt 3: Apply accumulation limits to the existing cooperative program.</p> <p>CP Implementation Alt 4: Apply accumulation limits only if the co-op dissolves and IFQ program is implemented for the CP Sector</p> | | X | | | Replace with CAB alternatives and move forward (new issue under this topic) |
| b. CP Permit ownership Limit | <p>CP Permit Limit Alt 1: No action – No control limit.</p> <p>CP Permit Limit Alt 2: Establish a four-permit limit.</p> <p>CP Permit Limit Alt 3: Establish a seven-permit limit.</p> <p>(Control date for alternatives: 6/13/17)</p> | | X | | | Replace with CAB alternatives and move forward. |

| <i>Topic/Issue</i> | <i>Alternatives</i> | <i>Spex</i> | <i>Follow-on</i> | <i>Omni</i> | <i>Other Process</i> | <i>November 2017 Action</i> |
|--|--|-------------|------------------|-------------|----------------------|--|
| c. Processing limit | Processing Limit Alt 1: No action – no processing cap Processing Limit Alt 2: 60% limit. Processing Limit Alt 3: 80% limit. (Control date for alternatives: 6/13/17) | | X | | | Replace with CAB alternatives and move forward. |
| 6. AMP QP Pass-through (see 2019-2020 Biennial Management Measures) | | | | | | |
| Decide on continuation of pass-through | See Spex | X | | | | Move forward as planned (all Attachment 6 alternatives). |
| 7. New Data Collections | | | | | | |
| a. Catcher Processor Ownership Data | Alt 1: No action. Detailed ownership information not collected from catcher-processors. Alt 2. Collect Detailed Catcher-Processor Ownership Data Annually. Submission of ownership data would occur through the catcher-processor permit renewal process. | | X | | | Newly added based on catch share review Section 4. |
| b. Quota Costs, Earnings and Share Owner Participation | Alt 1: No action. Information from QS owners collected from QS owners and first receivers Alt 2: Collect QS owner information through a new “QS Owner Survey.” Alt 3: Collect QS owner information through a supplement the QS renewal form. | | X | | | Newly added based on catch share review Section 4. |

^a 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.

^b Attachment 6 indicates alternatives are yet to be developed.

^c More specifically, the direction was to combine 4.a. Alt 2 with 4.b Alt 2 and include the CAB elaborations of 4.b Alt 2.

Eliminate Alt 3 (this is covered under Topic3).

^d The original Council direction under the follow-on agenda item was to move carryover forward as a follow-on action (not in spex) (all Attachment 6 alternatives). However, ultimately it was decided to combine this issue with the ACL flexibility issue.

Alternatives, Process, and Notes

1. At-Sea Whiting Fishery Bycatch Needs and Set-Aside Management

Proposed Purpose and Need

The following language was adopted by the Council at its September 2017 meeting.¹

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.

Background

When the Council designed the catch share program (Amendment 20), it recommended that co-op bycatch caps be established for four species taken in the at-sea whiting sectors (mothership and catcher-processor) and that the co-ops for these sectors be held responsible for ensuring that their members did not exceed these caps. The amounts of fish available for these caps were specified in the FMP—for darkblotched, POP, and widow—or determined through the biennial specifications process—for canary (Amendment 21). The trawl sector as a whole is allocated over 90 percent of these species (Table 2).

Table 2. Trawl/nontrawl allocations of at-sea bycatch species that were initially managed with bycatch caps under the trawl catch share program.

| Stocks | Intersector Allocations | |
|------------------|-------------------------|-------------------|
| | Trawl Sectors | Non-Trawl Sectors |
| Darkblotched | 95.0% | 5.0% |
| POP N. of 40°10' | 95.0% | 5.0% |
| Widow | 91.0% | 9.0% |

¹ For the purpose and need statements contained in the following, 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.

During each biennial specifications cycle, after the trawl allocations are determined, amounts for the whiting fishery are set (shorebased, mothership and catcher-processor sectors). The following are the FMP specifications of those amounts.

Darkblotched Rockfish

Allocate 9% or 25 mt, whichever is greater, of the total LE trawl allocation of darkblotched rockfish to the whiting fisheries (at-sea and shorebased combined). . . .

Pacific Ocean Perch

Allocate 17% or 30 mt, whichever is greater, of the total LE trawl allocation of Pacific ocean perch to the whiting fisheries (at-sea and shorebased combined)

Widow Rockfish

Initially allocate 52% of the total LE trawl allocation of widow rockfish to the whiting sectors if the stock is under rebuilding or 10% of the total LE trawl allocation or 500 mt of the trawl allocation to the whiting sectors, whichever is greater, if the stock is rebuilt. If the stock is overfished when the initial [quota share] allocation is implemented, the latter allocation scheme automatically kicks in when it is declared rebuilt. . . .

The amounts available for the whiting fishery are divided among the shorebased, mothership, and catcher-processor sectors in proportion to the whiting allocation to each sector (42 percent to the shorebased IFQ sector, 24 percent to the mothership sector, and 34 percent to the catcher processor sector).²

Under the original catch share program, at-sea co-ops and sectors were required to stop fishing immediately if their allocation for any bycatch species was reached or exceeded. There was some flexibility for addressing overages in that NMFS could make an at-sea sector's remaining allocations available to another at-sea sector's, if that sector had reached its whiting allocation or made clear that it did not intend to continue fishing. Additionally, the Council could take routine inseason actions to augment the at-sea sectors' allocations by transferring to them some of the "off-the-top deductions" that were determined to be in excess of the needs of the activities the deductions were intended to cover (before the ACL for a species is allocated, off-the-top deductions are made to cover research, exempted fishing permits, and the incidental open access fishery).

The bycatch cap allocations to the at-sea sector and management provisions proved to be constraining on the at-sea fishery. As stated in the purpose and need section for [WDFW's 2016 analysis](#) of a Council action to change the management of darkblotched and POP from bycatch caps to set-asides:

In recent years, both sectors have approached or exceeded their initial allocation of darkblotched rockfish—the CP [and MS] sectors in 2011 and the MS sector in 2014 [Table 7], with the latter resulting in an emergency Council meeting in order to re-open the fishery. The risk of an inseason closure remains high. The MS sector again raised concern over darkblotched catches in 2015 and

² The amounts for the shorebased whiting fishery are then combined with other amounts allocated for that fishery and issued as QP for the shorebased fishery (available for whiting or nonwhiting trips).

then for POP in 2016.³ Other solutions to address this problem, such as allowing transfer of quota between sectors, have been discussed, but they have been deemed too complex to be analyzed and implemented in time for the 2017 fishing season.⁴ During the upcoming five year review of the trawl rationalization program, it is the intention to review these allocations (among the other Individual Fishing Quota [IFQ] species) and determine what more appropriate (i.e., fair and equitable) allocations are for each of the sectors as well as consider other long-term solutions.

The final plan amendment language related to managing darkblotched and POP with set-asides was not approved by the Council until its September 2017 meeting ([Amendment 21-3](#)), and final regulations were published January 8, 2018. The action on darkblotched and POP left widow and canary as the two nonwhiting species managed with bycatch caps.

Although the management tool for darkblotched and POP was changed, the amount designated for the set-asides is still specified in the FMP (unlike other set-aside amounts, which are determined during biennial specification processes). While sector allocations can be augmented by inseason transfers of off-the-top deductions, there is not a routine process for augmenting set-asides. Therefore, in some ways, set aside management may be less flexible than bycatch caps. This is particularly the case because the Council direction and implementing regulations included the automatic authority and requirement for NMFS to close a sector when the set-aside for the sector and the available reserve for unforeseen catch events is reached. These reserves (buffers) provided some flexibility, but buffers have not been included in the 2019-2020 specifications—leaving the at-sea sectors constrained by automatic actions taken upon reaching set-asides.

Alternatives

The following action alternatives elaborate on the initial alternatives developed by the CAB and approved by the Council at the September 2017 Council meeting. Since that time, at-sea bycatch management issues have been moving forward in several different processes, including adoption of the Amendment 21-3 language related to removal of darkblotched and POP from the group of bycatch cap species (at the September 2017 Council meeting) and the consideration of removal of automatic closure actions (as part of the biennial specifications for 2019-2020). The following alternatives address three main questions: first, will the original at-sea bycatch cap species be managed as caps or set-asides (decision has already been made to manage darkblotched and POP as set-asides); second, will the original allocation formulas for the bycatch species remain in the FMP; and third, will the regulatory language that requires automatic closure of an at-sea sector when the set-aside for the sector and the available reserve for unforeseen catch events is reached be revised/removed. Since the last of these is also being considered as part of the 2019-2020 biennial specifications, if it is addressed there it will be dropped from these alternatives. The alternatives are summarized in Table 3. The language for these alternatives has not been reviewed and adopted by the Council.

At-sea Set-Aside Alternative 1: No Action. Pacific ocean perch (POP) and darkblotched rockfish are managed as set-asides and the set-aside amounts are determined in the FMP.

³ In September 2016, POP that was not needed for the research deduction was transferred to the mothership sector to increase its bycatch cap.

⁴ This issue has now been put on the omnibus list for prioritization at the September 2018 Council meeting.

Automatic action to close a sector is required when the set-aside for the sector and the available reserve for unforeseen catch events is reached. Widow rockfish and canary rockfish are managed as bycatch caps for which the at-sea co-ops are responsible. Widow rockfish cap allocations are determined in the FMP while the canary cap allocation is determined during each biennial specifications process.

At-sea Set-Aside Alternative 2: Remove POP and darkblotched set-aside distribution from the FMP and eliminate automatic action. Remove from the FMP the formulas for determining at-sea set-aside amounts for POP and darkblotched rockfish, both of which are managed as set-asides (requires an FMP amendment). These amounts will be determined in the biennial specifications process. Also, remove from regulation the requirement that NMFS take automatic action to close a sector when the set-aside for the sector and the available reserve for unforeseen catch events is reached.

At-sea Set-Aside Alternative 3: Expand set-aside management to cover all four co-op managed species and eliminate automatic action. Add widow rockfish and canary rockfish to the other two species managed with set-asides (requires an FMP amendment). Also, remove regulations that require automatic NMFS action to close a sector when the set-aside for the sector and the available reserve for unforeseen catch events is reached.

At-sea Set-Aside Alternative 4: Set-aside management for all four species; remove at-sea set-aside distributions from the FMP; and eliminate automatic action. Add widow rockfish and canary rockfish to the other two species managed with set-asides (requires an FMP amendment). Remove from the FMP the formulas for determining at-sea set-aside amounts (requires an FMP amendment). These amounts will be determined in the biennial specifications process. Also, remove regulations that require automatic NMFS action when the set-aside for a sector and the available reserve for unforeseen catch events is reached.

NOTE: If Alternative 1, 2 or 3 are selected, in the future the Council may consider further action to modify within trawl allocations/distributions in the FMP. For Alternative 2, only the widow rockfish allocation would remain in the FMP.

Table 3. Summary of at-sea bycatch species alternatives.

| Bycatch Species | Alternative 1 No Action | | Alternative 2 | | Alternative 3 | | Alternative 4 | |
|--------------------------|----------------------------|-------------------------|--------------------------------------|--|--------------------------------------|-------------------------|--------------------------------------|--|
| | Management Tool | Allocation/Distribution | Management Tool | Allocation/Distribution | Management Tool | Allocation/Distribution | Management Tool | Allocation/Distribution |
| Canary | Cap | Biennial Allocation | Same as no Action | Same as No Action | Set-aside | Same as no Action | Set-aside | Remove allocations/distribution formulas from FMP and determine biennially |
| Darkblotched | Set-aside | FMP Distribution | | Remove distribution formulas from FMP and determine biennially | Set-aside | | Set-aside | |
| POP | Set-aside | FMP Distribution | | Same as No Action | Set-aside | | Set-aside | |
| Widow | Cap | FMP Allocation | | Same as No Action | Set-aside | | Set-aside | |
| Management of Set Asides | Automatic closure | | Eliminate automatic closure language | | Eliminate automatic closure language | | Eliminate automatic closure language | |

Notes

The CAB viewed this issue and increasing amounts available for harvest as the most expedient way to begin to address the at-sea sectors' bycatch needs ([CAB Report November 2017](#)). The CAB's November report also recommended that if at-sea bycatch species set asides are established during the biennial specifications process, they should be managed as is traditional for other set-aside species: Automatic authority for closing the fishery should not be included in future Council recommendations because NMFS always has the discretion to close the fishery for conservation concerns.

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](#)

See [Amendment 21-3](#) on the Council website for final FMP language and related regulatory actions.

Preliminary Data and Analysis

Total set-aside amounts and allocations of the original four at-sea bycatch cap species increased dramatically in 2017 and 2018 (Table 4). At the same time, whiting allocations have increased in more recent years, with the 2017 allocation being 83 percent higher than in 2011 (Table 5). Overall, trawl sector catch for these four species has been less than 50 percent of the trawl allocation (with the exception of canary catch in 2015, Table 6). At the same time, there have been a few years in which the non-trawl sectors in aggregate have exceeded their allocations (Table 6). While the trawl sector as a whole has generally caught less than 50 percent of its allocations for these species, for individual trawl sectors the percent of allocation caught has been higher (Table 7), and, as discussed in the Background section, constraining for the at-sea sectors. The degree of constraint is not fully reflected in the percentage attainments provided here because allocations were increased inseason to provide an opportunity for a sector to continue (as reflected in the differences between the initial and final allocation amounts in Table 7).

Table 4. Set-asides and allocations for the original at-sea bycatch cap species (2011-2018).a/

| Species/Year | Set Asides | | | | | | Shoreside | Trawl | | | Non-Trawl | Recreational (Part of Non-Trawl Allocation) |
|---------------------|------------|------------------------|------|----------|--------|----------------|-------------|-------------------|-------|----------|-----------|---|
| | Tribal | Incidental Open Access | EFP | Research | Buffer | Total SetAside | | At-Sea | | Total | | |
| | | | | | | | Mother-ship | Catcher-Processor | | | | |
| Canary | | | | | | | | | | | | |
| 2011 | 9.5 | 2.0 | 1.3 | 7.2 | | 20.0 | 25.9 | 3.4 | 4.8 | 34.1 | 29.8 | 23.5 |
| 2012 | 9.5 | 2.0 | 1.3 | 7.2 | | 20.0 | 26.2 | 3.6 | 5.0 | 34.8 | 29.8 | 23.5 |
| 2013 | 9.5 | 2.0 | 1.5 | 4.5 | | 17.5 | 39.9 | 5.2 | 7.4 | 52.5 | 46.0 | 36.3 |
| 2014 | 9.5 | 2.0 | 1.5 | 4.5 | | 17.5 | 41.1 | 5.4 | 7.6 | 54.1 | 47.4 | 37.3 |
| 2015 | 7.7 | 2.0 | 1.0 | 4.5 | | 15.2 | 43.2 | 5.7 | 8.0 | 56.9 | 49.9 | 38.5 |
| 2016 | 7.7 | 2.0 | 1.0 | 4.5 | | 15.2 | 44.5 | 5.8 | 8.2 | 58.5 | 51.3 | 38.5 |
| 2017 | 50.0 | 1.2 | 1.0 | 7.2 | 188.0 | 247.4 | 1,014.1 | 30.0 | 16.0 | 1,060.1 | 406.5 | 260.0 |
| 2018 | 50.0 | 1.2 | 1.0 | 7.2 | | 59.4 | 1,014.1 | 30.0 | 16.0 | 1,060.1 | 406.5 | 260.0 |
| Darkblotched | | | | | | | | | | | | |
| 2011 | 0.1 | 15.0 | 1.5 | 2.1 | | 18.7 | 250.5 | 6.0 | 8.5 | 265.0 | 14.0 | |
| 2012 | 0.1 | 15.0 | 1.5 | 2.1 | | 18.7 | 250.5 | 6.0 | 8.5 | 265.0 | 14.0 | |
| 2013 | 0.1 | 18.4 | 0.2 | 2.1 | | 20.8 | 266.7 | 6.1 | 8.6 | 281.4 | 14.8 | |
| 2014 | 0.1 | 18.4 | 0.2 | 2.1 | | 20.8 | 278.4 | 6.3 | 9.0 | 293.7 | 15.5 | |
| 2015 | 0.2 | 18.4 | 0.1 | 2.1 | | 20.8 | 285.6 | 6.5 | 9.2 | 301.3 | 15.9 | |
| 2016 | 0.2 | 18.4 | 0.1 | 2.1 | | 20.8 | 292.8 | 6.7 | 9.4 | 308.9 | 16.3 | |
| 2017 | 0.2 | 24.5 | 0.1 | 2.5 | 50.0 | 77.3 | 507.6 | 11.6 | 16.4 | 535.6 | 28.2 | |
| 2018 | 0.2 | 24.5 | 0.1 | 2.5 | 50.0 | 77.3 | 518.5 | 11.8 | 16.7 | 547.0 | 28.8 | |
| POP | | | | | | | | | | | | |
| 2011 | 10.9 | | 0.1 | 1.8 | | 12.8 | 119.6 | 7.2 | 10.2 | 137.0 | 7.0 | |
| 2012 | 10.9 | 0.1 | 0.1 | 1.8 | | 12.9 | 119.6 | 7.2 | 10.2 | 137.0 | 7.0 | |
| 2013 | 10.9 | 0.4 | | 5.2 | | 16.5 | 109.4 | 7.2 | 10.2 | 126.8 | 6.7 | |
| 2014 | 10.9 | 0.4 | | 5.2 | | 16.5 | 112.3 | 7.2 | 10.2 | 129.7 | 6.8 | |
| 2015 | 9.2 | 0.6 | | 5.2 | | 15.0 | 117.6 | 7.2 | 10.2 | 135.0 | 7.2 | |
| 2016 | 9.2 | 0.6 | | 5.2 | | 15.0 | 124.2 | 7.2 | 10.2 | 141.6 | 7.5 | |
| 2017 | 9.2 | 3.0 | | 5.2 | 25.0 | 42.4 | 191.3 | 12.5 | 16.2 | 220.0 | 11.6 | |
| 2018 | 9.2 | 10.0 | | 5.2 | 25.0 | 49.4 | | 9.0 | 12.7 | 220.0 | 11.6 | |
| Widow | | | | | | | | | | | | |
| 2011 | 45.0 | 3.3 | 11.0 | 1.6 | | 60.9 | 343.1 | 61.2 | 86.7 | 491.0 | 49.0 | |
| 2012 | 45.0 | 3.3 | 11.0 | 1.6 | | 60.9 | 343.1 | 61.2 | 86.7 | 491.0 | 49.0 | |
| 2013 | 60.0 | 3.3 | 18.0 | 7.9 | | 89.2 | 994.0 | 120.0 | 170.0 | 1,284.0 | 127.0 | |
| 2014 | 60.0 | 3.3 | 18.0 | 7.9 | | 89.2 | 994.0 | 120.0 | 170.0 | 1,284.0 | 127.0 | |
| 2015 | 100.0 | 3.3 | 9.0 | 7.9 | | 120.2 | 1,421.0 | 120.0 | 170.0 | 1,711.0 | 169.0 | |
| 2016 | 100.0 | 3.3 | 9.0 | 7.9 | | 120.2 | 1,421.0 | 120.0 | 170.0 | 1,711.0 | 169.0 | |
| 2017 | 200.0 | 0.5 | 9.0 | 8.2 | | 217.7 | 11,392.7 | 290.3 | 411.2 | 12,094.2 | 1,196.1 | |
| 2018 | 200.0 | 0.5 | 9.0 | 8.2 | | 217.7 | 10,661.5 | 271.6 | 384.8 | 11,317.9 | 1,119.4 | |

a/ From the following versions of the groundfish regulations (pink pages): September 2, 2011, November 1, 2012, July 25, 2014, May 15, 2015, May 16, 2017.

Table 5. Initial and final allocations of Pacific whiting (mt, 2011- 2017).

| | Shoreside IFQ | | Catcher-Processor | | Mothership | | Total Trawl | | Final Total Trawl Allocation | |
|------|---------------|-----------|-------------------|-----------|------------|----------|-------------|-----------|----------------------------------|-------------------------|
| | Initial | Final | Initial | Final | Initial | Final | Initial | Final | Change Relative to Previous Year | Change Relative to 2011 |
| 2011 | 92,817.8 | 92,817.8 | 75,138.0 | 75,138.0 | 53,039.0 | 53,039.0 | 220,994.8 | 220,994.8 | - | - |
| 2012 | 56,902.0 | 68,661.9 | 46,046.0 | 55,584.0 | 32,515.0 | 39,235.0 | 135,463.0 | 163,480.9 | -26% | -26% |
| 2013 | 85,697.0 | 98,296.9 | 69,373.0 | 79,573.0 | 48,970.0 | 56,170.0 | 204,040.0 | 234,039.9 | 43% | 6% |
| 2014 | 108,935.0 | 127,835.0 | 88,186.0 | 103,486.0 | 62,249.0 | 73,049.0 | 259,370.0 | 304,370.0 | 30% | 38% |
| 2015 | 112,007.0 | 124,607.3 | 90,673.0 | 100,873.0 | 64,004.0 | 71,204.0 | 266,684.0 | 296,684.3 | -3% | 34% |
| 2016 | 126,727.0 | 141,007.0 | 102,589.0 | 114,149.0 | 72,415.0 | 80,575.0 | 301,731.0 | 335,731.0 | 13% | 52% |
| 2017 | 152,327.0 | 169,547.0 | 123,312.0 | 137,252.0 | 87,044.0 | 96,884.0 | 362,683.0 | 403,683.0 | 20% | 83% |

Table 6. West coast groundfish sector allocations (trawl and nontrawl) and catches (in mt) for the original at-sea bycatch cap species (2011-2016) (highlighted cells indicate attainment rates $\geq 90\%$). Source: Amendment 21 Intersector Allocation Review Document, June 2017—updated with the addition of canary for all years and addition of 2016 based on regulations and WCGOP mortality report.

| Stocks | Intersector Allocations | | | | | | | | | | | | | | | |
|------------------|-------------------------|-------------------|------------|---------------|-------|----------|-------------------|-------|----------|------------|---------------|-------|----------|-------------------|-------|----------|
| | Trawl Sectors | Non-Trawl Sectors | Fishery HG | Trawl Sectors | | | Non-Trawl Sectors | | | Fishery HG | Trawl Sectors | | | Non-Trawl Sectors | | |
| | | | | Alloc | Catch | % Attain | Alloc | Catch | % Attain | | Alloc | Catch | % Attain | Alloc | Catch | % Attain |
| | | | | 2011 | | | | | | | 2012 | | | | | |
| Canary | Determined in Spex | | 63.9 | 34.1 | 4.3 | 12.6% | 29.8 | 35.4 | 118.9% | 64.6 | 34.8 | 7.7 | 22.1% | 29.8 | 25.1 | 84.1% |
| Darkblotched | 95.0% | 5.0% | 279 | 265 | 103 | 38.8% | 14 | 16 | 113.3% | 277 | 263 | 88 | 33.6% | 14 | 9 | 65.9% |
| POP N. of 40°10' | 95.0% | 5.0% | 144 | 137 | 54 | 39.3% | 7 | 1 | 9.3% | 144 | 137 | 53 | 38.8% | 7 | 0 | 5.7% |
| Widow | 91.0% | 9.0% | 539 | 491 | 174 | 35.6% | 49 | 2 | 4.1% | 539 | 491 | 232 | 47.3% | 49 | 6 | 13.3% |
| | | | | 2013 | | | | | | | 2014 | | | | | |
| Canary | | | 98.5 | 52.5 | 10.9 | 20.8% | 46.0 | 27.8 | 60.5% | 101.5 | 54.1 | 11.2 | 20.7% | 47.4 | 24.7 | 52.2% |
| Darkblotched | | | 296 | 281 | 122 | 43.5% | 15 | 4 | 27.0% | 309 | 294 | 108 | 36.9% | 15 | 5 | 32.9% |
| POP N. of 40°10' | | | 134 | 127 | 55 | 43.7% | 7 | 0 | 3.9% | 137 | 130 | 45 | 34.6% | 7 | 0 | 3.6% |
| Widow | | | 1,411 | 1,284 | 443 | 34.5% | 127 | 20 | 15.6% | 1,411 | 1,284 | 710 | 55.3% | 127 | 20 | 15.7% |
| | | | | 2015 | | | | | | | 2016 | | | | | |
| Canary | | | 106.8 | 56.9 | 45.0 | 79.1% | 49.9 | 54.5 | 109.3% | 109.8 | 58.5 | 20.2 | 34.5% | 51.3 | 45.3 | 88.4% |
| Darkblotched | | | 317 | 301.0 | 103.0 | 34.1% | 16.0 | 4.0 | 23.2% | 317 | 301.0 | 103.0 | 34.1% | 16.0 | 4.0 | 23.2% |
| POP N. of 40°10' | | | 143 | 136.0 | 40.0 | 29.4% | 7.0 | 1.0 | 7.1% | 143 | 136.0 | 40.0 | 29.4% | 7.0 | 1.0 | 7.1% |
| Widow | | | 1880 | 1,711.0 | 338.0 | 19.8% | 169.0 | 7.0 | 4.2% | 1,880 | 1,711.0 | 338.0 | 19.8% | 169.0 | 7.0 | 4.2% |

a/ The Fishery HG for sablefish north of 36° N lat. is the commercial fishery HG (recreational impacts are managed as set-asides). Therefore, only commercial allocations and catches are depicted for non-trawl sectors. The allocation percentages are revised from those specified in the FMP to break down the formal allocations for trawl vs. commercial non-trawl sectors.

Table 7. West coast groundfish trawl sector allocations and impacts (in mt) for the original at-sea bycatch cap species (2011-2016) (highlighted cells indicate attainment rates $\geq 90\%$). Source: Amendment 21 Intersector Allocation Review Document, June 2017—updated with the addition of 2016 based on 2016 regulations and WCGOP mortality report.

| Stocks | Shoreside IFQ | | | | Catcher-Processors | | | | Motherships | | | |
|-------------------------------------|----------------|--------------|----------|-----------|--------------------|--------------|-----------|-----------|----------------|--------------|----------|-----------|
| | Initial Alloc. | Final Alloc. | Catch | % Attain. | Initial Alloc. | Final Alloc. | Catch | % Attain. | Initial Alloc. | Final Alloc. | Catch | % Attain. |
| 2011 | | | | | | | | | | | | |
| Pacific Whiting | 92,817.8 | 92,817.8 | 91,185.8 | 98.2% | 75,138.0 | 75,138.0 | 71,522.4 | 95.2% | 53,039.0 | 53,039.0 | 50,049.8 | 94.4% |
| Canary Rockfish | 25.9 | 25.9 | 3.7 | 14.3% | 4.8 | 8.1 | 0.5 | 5.6% | 3.4 | 0.1 | 0.1 | 78.6% |
| Darkblotched Rockfish | 250.8 | 250.8 | 90.9 | 36.2% | 8.5 | 12.8 | 10.3 | 80.4% | 6.0 | 1.7 | 1.7 | 100.0% |
| Pacific Ocean Perch | 119.6 | 119.6 | 46.7 | 39.0% | 10.2 | 16.7 | 6.5 | 39.0% | 7.2 | 0.7 | 0.7 | 94.6% |
| Widow Rockfish | 342.7 | 342.7 | 137.6 | 40.2% | 86.7 | 135.0 | 24.1 | 17.8% | 61.2 | 12.9 | 12.8 | 99.6% |
| 2012 | | | | | | | | | | | | |
| Pacific Whiting | 56,902.0 | 68,661.9 | 65,661.5 | 95.6% | 46,046.0 | 55,584.0 | 55,694.6 | 100.2% | 32,515.0 | 39,235.0 | 38,215.5 | 97.4% |
| Canary Rockfish | 25.9 | 25.9 | 7.2 | 27.6% | 4.8 | 4.8 | 0.3 | 5.6% | 3.4 | 3.4 | 0.2 | 4.4% |
| Darkblotched Rockfish | 248.9 | 248.9 | 85.7 | 34.4% | 8.5 | 8.5 | 1.4 | 16.9% | 6.0 | 6.0 | 1.3 | 21.0% |
| Pacific Ocean Perch | 119.5 | 119.5 | 48.6 | 40.7% | 10.2 | 10.2 | 3.2 | 31.0% | 7.2 | 7.2 | 1.4 | 19.0% |
| Widow Rockfish | 342.7 | 342.7 | 152.6 | 44.5% | 86.7 | 86.7 | 42.0 | 48.4% | 61.2 | 61.2 | 37.3 | 61.0% |
| 2013 | | | | | | | | | | | | |
| Pacific Whiting | 85,697.0 | 98,296.9 | 97,621.3 | 99.3% | 69,373.0 | 79,573.0 | 78,041.0 | 98.1% | 48,970.0 | 56,170.0 | 52,522.3 | 93.5% |
| Canary Rockfish | 39.9 | 39.9 | 10.2 | 25.6% | 7.4 | 7.4 | 0.2 | 2.4% | 5.2 | 5.2 | 0.5 | 9.2% |
| Darkblotched Rockfish | 266.7 | 266.7 | 116.0 | 43.5% | 8.6 | 8.6 | 2.1 | 24.2% | 6.1 | 6.1 | 4.2 | 69.6% |
| Pacific Ocean Perch | 109.4 | 109.4 | 50.0 | 45.7% | 10.2 | 10.2 | 4.3 | 41.9% | 7.2 | 7.2 | 1.1 | 15.8% |
| Widow Rockfish | 994.0 | 994.0 | 411.6 | 41.4% | 170.0 | 170.0 | 15.7 | 9.3% | 120.0 | 120.0 | 15.5 | 13.0% |
| 2014 | | | | | | | | | | | | |
| Pacific Whiting | 108,935.0 | 127,835.0 | 98,714.0 | 77.2% | 88,186.0 | 103,486.0 | 103,266.3 | 99.8% | 62,249.0 | 73,049.0 | 62,038.3 | 84.9% |
| Canary Rockfish | 41.1 | 41.1 | 10.5 | 25.5% | 7.6 | 7.6 | 0.3 | 3.7% | 5.4 | 5.4 | 0.4 | 6.5% |
| Darkblotched Rockfish ^{a/} | 278.4 | 278.4 | 97.8 | 35.1% | 9.0 | 6.0 | 3.4 | 56.8% | 6.3 | 9.3 | 7.2 | 77.5% |
| Pacific Ocean Perch | 112.3 | 112.3 | 41.0 | 36.5% | 10.2 | 10.2 | 0.3 | 3.1% | 7.2 | 7.2 | 3.6 | 50.0% |
| Widow Rockfish | 994.0 | 994.0 | 654.3 | 65.8% | 170.0 | 170.0 | 16.6 | 9.7% | 120.0 | 120.0 | 39.6 | 33.0% |
| 2015 | | | | | | | | | | | | |
| Pacific Whiting | 112,007.0 | 124,607.3 | 58,383.7 | 46.9% | 90,673.0 | 100,873.0 | 68,483.9 | 67.9% | 64,004.0 | 71,204.0 | 27,660.4 | 38.8% |
| Canary Rockfish | 43.2 | 43.2 | 44.8 | 103.7% | 8.0 | 8.0 | 0.1 | 0.9% | 5.7 | 5.7 | 0.1 | 2.5% |
| Darkblotched Rockfish | 285.6 | 285.6 | 122.4 | 42.9% | 9.2 | 9.2 | 5.6 | 60.4% | 6.5 | 6.5 | 2.4 | 36.6% |
| Pacific Ocean Perch | 117.6 | 117.6 | 49.9 | 42.4% | 10.2 | 10.2 | 7.0 | 68.2% | 7.2 | 7.2 | 1.7 | 24.2% |
| Widow Rockfish | 1,421.0 | 1,421.0 | 814.6 | 57.3% | 170.0 | 170.0 | 17.4 | 10.3% | 120.0 | 120.0 | 17.2 | 14.3% |
| 2016 | | | | | | | | | | | | |
| Pacific Whiting | 126,727.0 | 141,007.0 | 85,756.6 | 60.8% | 102,589.0 | 114,149.0 | 108,803.6 | 95.3% | 72,415.0 | 80,575.0 | 65,017.9 | 80.7% |
| Canary Rockfish | 45 | 45 | 13 | 30.1% | 8 | 8 | 0 | 1.2% | 6 | 6 | 0 | 7.2% |
| Darkblotched Rockfish | 293 | 293 | 121 | 41.3% | 9 | 9 | 4 | 37.4% | 7 | 7 | 2 | 23.6% |
| Pacific Ocean Perch | 124 | 124 | 55 | 43.9% | 10 | 10 | 3 | 30.3% | 7 | 10 | 7 | 70.6% |
| Widow Rockfish | 1,421 | 1,421 | 801 | 56.4% | 170 | 170 | 112 | 66.0% | 120 | 120 | 74 | 62.0% |

a/ The original allocation of darkblotched to the Mothership sector (6.3 mt) was increased to 9.3 mt with a transfer of yield from the Catcher-Processors sector by automatic action on October 17, 2014.

2. Trawl Sablefish Area Management & Gear Switching (See Agenda Item H.2)

This issue is being addressed under Agenda Item H.2 at the March 2018 Council meeting.

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

Proposed Purpose and Need

The following language was adopted by the Council at its September 2017 meeting (“QS control limits” is struck through based on the scope of the current package).

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).

Background

Accumulation limits restrict the aggregation of quota by persons and vessels. There are three types of accumulation limits

QS control limits “Control limits means the maximum amount of QS or IBQ that a person may own or control” (50 CFR §660.111(1)(i)). 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 “means the maximum amount of QP a vessel can hold, acquire, and/or use during a calendar year, and specify the maximum amount of QP that may be registered to a single vessel during the year Compliance with the QP vessel limit (annual limit) is calculated as all QPs transferred in minus all QPs transferred out of the vessel account.” (50 CFR §660.111(1)(ii)). The vessel QP limits on both used and unused pounds in a vessel account effectively 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 as well as 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 maximum amount of unused QP registered to a vessel account at any one time” (50 CFR §660.111(1)(ii)). Daily limits apply only to overfished species and Pacific halibut. As overfished species have been rebuilt, the daily limits have been removed.

The public has expressed concern that these limits may be hampering full attainment of the trawl allocations or otherwise generating inefficiencies in the trawl program.

National Guidance on Criteria for Limiting Excessive Shares

The criteria by which accumulation limits are set 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. 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 address. Holliday 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 than 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 if MO based share limits are established they should be less than the levels at which excessive market power would be accumulated.⁵ At the same time, 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).

⁵ Holliday and Anderson (2007) 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).

With respect to Council process, modification of the individual species vessel QP limits and complete elimination of the daily limits policy are currently slated for inclusion in this follow-on package (Table 8). In the meantime, removal of rebuilt species from the list of overfished species to which daily limits apply is being considered in the 2019-2020 biennial specifications package. Modification of the aggregate nonwhiting QS control limits and the weightings given to individual species in determining a person's aggregate nonwhiting holdings have been deferred to the omnibus prioritization process. Modification of individual species QS control limits and aggregate nonwhiting vessel QP limits are currently not slated for reconsideration.

Table 8. Processes for reconsidering accumulation limits.

| Types of Accumulation Limit | Species Covered By Limits | |
|--|--|--|
| | Aggregate Nonwhiting | Individual Species |
| QS Control Limits | Address during omnibus prioritization (including weightings used to assess aggregate holdings) | Not slated to be addressed. |
| Annual Vessel QP Limits | Not slated to be addressed. | Address in follow-on package. |
| Daily QP Limits (overfished species and halibut) | There are no daily limits. | Elimination of policy slated for follow-on package. Removal of QP limits for rebuilt species slated for consideration in biennial specs (boccacio, darkblotched, and POP). |

While the individual species QS control limits are not currently slated for reconsideration, there are interdependencies. Control limits are generally greater than the corresponding vessel limit. IF that policy is to be maintained, an increase in those vessel limits could lead to a need to increase in the corresponding QS control limits (depending on the size of the increase). In turn, the alternatives for the aggregate nonwhiting control limit, slated for later consideration, may be affected by Council action on individual species limits.

Thus far, the Council has identified the following alternatives be considered as bookends for the aggregate nonwhiting control limits.

Aggregate QS Control Limit Alternative 1 - No action: 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).

The effects of Aggregate QS Control Limit Alternative 2 will be modified if the individual species QS limits are modified. The follow-on action document provided at the November Council meeting ([Agenda Item F.2, Attachment 6, November 2017](#), starting at the bottom of page 27) provides an assessment of the degree to which vessels are achieving the exvessel revenues expected in the analysis on which the original aggregate limit was based. This analysis shows that while many vessels are not reaching the projected half million dollars of profits expected in the original analysis, some vessels are (both whiting and nonwhiting).

If increases in vessel limits result in increases in individual species control limits, the viability of Alternative 2 could be diminished, which would in turn impact choices around the weightings used to evaluate an entity's aggregate nonwhiting QS holdings. The original weightings for determining a person's aggregate nonwhiting holdings were based on the 2010 trawl allocations. Trawl allocations have changed substantially since then but altering the weightings might push some people above the existing control limits, creating the need for another divestiture period meeting ([Agenda Item F.2, Attachment 6, November 2017](#), page 36). Alternatives were not developed for these weightings, however, the CAB noted that under Alternative 2 there would no longer be need for such a weighting.

Individual Species QP Limits

Alternatives

This issue was to be included as part of the biennial specifications process but was removed from that package at the November 2017 Council meeting. To date, specific alternatives have not been developed. In its [November 2017 report, the CAB](#) provided the following guidance for development of alternatives for revising individual species QP limits.

The CAB supports increasing the individual species annual vessel QP limits where the trawl allocation is significantly under attained and full attainment of the annual limit is being achieved by some vessels (see Table 3-7 of the catch share review document) and for species in the south, where it is not mathematically likely that the number of vessels operating in an area will be able to take the full allocation. Examples, include: shortspine thornyheads south, lingcod north, cowcod, Dover sole, slope rockfish south and shelf rockfish south. As the Council considers changing these limits, it should keep in mind that situations will be changing and there may be unintended consequences. For example, the fleet's ability to attain the available lingcod allocations may change with increasing allocations of yelloweye and rockfish conservation area re-openings.

The following table provides the existing annual vessel QP limits, space for the addition of action alternatives, and the QS control limits for reference.

Table 9. Annual vessel QP limit alternatives.

| Species Category | Annual Vessel QP Limit | | | QP Control Lim |
|---|------------------------|----------------|----------------|----------------|
| | Alt 1 No Action | Alt 2 (TBD) | Alt 3 (TBD) | |
| Arrowtooth Flounder | 20.00% | | | 10.00% |
| Bocaccio S. of 40°10 N. lat | 15.40% | | | 13.20% |
| Canary Rockfish | 10.00% | | | 4.40% |
| Chilipepper Rockfish S. of 40°10 N. lat | 15.00% | | | 10.00% |
| COWCOD S. of 40°10 N. lat | 17.70% | | | 17.70% |
| Darkblotched | 6.80% | | | 4.50% |
| Dover sole | 3.90% | | | 2.60% |
| English Sole | 7.50% | | | 5.00% |
| Lingcod – N. of 40°10 N. lat | 5.30% | | | 2.50% |
| Lingcod - S. of 40°10 N. lat | 13.30% | | | 2.50% |
| Longspine Thornyhead N. of 34°27' | 9.00% | | | 6.00% |
| Minor Shelf Rockfish North | 7.50% | | | 5.00% |
| Minor Shelf Rockfish South | 13.50% | | | 9.00% |
| Minor Slope Rockfish North | 7.50% | | | 5.00% |
| Minor Slope Rockfish South | 9.00% | | | 6.00% |
| Other Flatfish | 15.00% | | | 10.00% |
| Pacific Cod | 20.00% | | | 12.00% |
| Pacific Halibut | 14.40% | | | 5.40% |
| Pacific Ocean Perch | 6.00% | | | 4.00% |
| Pacific whiting (shoreside) | 15.00% | | | 10.00% |
| Petrale Sole | 4.50% | | | 3.00% |
| Sablefish N. of 36° (Monterey north) | 4.50% | | | 3.00% |
| Sablefish S. of 36° (Conception area) | 15.00% | | | 10.00% |
| Shortspine Thornyhead N. of 34°27' | 9.00% | | | 6.00% |
| Shortspine Thornyhead S. of 34°27' | 9.00% | | | 6.00% |
| Splitnose Rockfish | 15.00% | | | 10.00% |
| Starry Flounder | 20.00% | | | 10.00% |
| Widow Rockfish * | 8.50% | | | 5.10% |
| YELLOWEYE | 11.40% | | | 5.70% |
| Yellowtail Rockfish | 7.50% | | | 5.00% |
| Nonwhiting Groundfish Species | 3.20% | | | 2.70% |

The annual vessel QP limits are sometimes referred to as “annual vessel QP usage limits” however, *usage* is defined to include both the acquisition of QP and fishing against that QP. In other words, the annual limit is actually a limit on the amount of QP a vessel can have in its account, both used and unused, and so is independent of the amount of QP the vessel actually catches. At the same time, the vessel QP limit does restricts a vessel’s annual catch.

Preliminary Data and Analysis

This preliminary analysis provides the following

1. Identification of those species for which the fleet under attains its allocation.
2. An assessment of the degree to which the fleet’s catch appears to be constrained by existing QP limits.
 - a. Based on individual vessel catches
 - b. Based on number of vessels active in an area relative to the limits
3. An assessment of the degree to which an increase in existing QP limits might increase overall fleet attainment of the trawl allocation.
4. An assessment of the degree to which individual vessel revenue might be increased by an increase in vessel QP limits.

In general, the fleet reaches near full attainment (greater than 80 percent) on sablefish,⁶ Petrale sole, and Pacific whiting, though in more recent years attainment of Pacific whiting has been variable (Table 10). Attainment levels for three other species were above 50% in 2017: yellowtail rockfish, Pacific halibut, and widow rockfish. The fleet attained 50 percent of its arrowtooth flounder allocation twice, once in 2013 and once in 2015, and reached 50% attainment in one year for the following five species: shortspine thornyheads south, bocaccio south, longspine thornyheads north, canary, and sablefish south. For no other species or species group has the fleet reached more than 50% attainment. Thus for most of the 29 categories of species and species groups, the industry and communities would benefit from higher levels of attainment (Pacific halibut is not included in this list since it cannot be retained by vessels fishing in the trawl sector).

Table 10. Shorebased trawl sector attainment of its allocations (values 90% or above are shaded values between 80% and 90% are in bold).

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------|------|------|------|------|------|------|
| Arrowtooth flounder | 20% | 26% | 63% | 50% | 52% | 47% | 12% |
| Bocaccio rockfish South of 40°10' N. | 9% | 15% | 17% | 11% | 47% | 51% | 30% |
| Canary rockfish | 14% | 28% | 26% | 26% | 104% | 48% | 25% |
| Chilipepper rockfish South of 40°10' N. | 21% | 22% | 36% | 29% | 16% | 6% | 6% |
| Cowcod South of 40°10' N. | 1% | 5% | 22% | 20% | 26% | 21% | 27% |
| Darkblotched rockfish | 36% | 36% | 44% | 35% | 43% | 42% | 36% |
| Dover sole | 35% | 33% | 36% | 29% | 14% | 16% | 16% |
| English sole | 1% | 2% | 3% | 5% | 4% | 6% | 3% |
| Lingcod (coastwide) | 16% | 21% | | | | | |
| Lingcod North of 40°10' N. | | | 28% | 21% | 16% | 24% | 46% |
| Lingcod South of 40°10' N. | | | 3% | 4% | 7% | 6% | 4% |
| Longspine thornyheads North of 34°27' N. | 49% | 48% | 59% | 50% | 26% | 23% | 30% |
| Minor shelf rockfish North of 40°10' N. | 3% | 8% | 6% | 7% | 3% | 3% | 21% |
| Minor shelf rockfish South of 40°10' N. | 3% | 15% | 25% | 12% | 5% | 2% | 1% |
| Minor slope rockfish North of 40°10' N. | 17% | 27% | 25% | 23% | 19% | 13% | 13% |
| Minor slope rockfish South of 40°10' N. | 14% | 33% | 31% | 26% | 16% | 12% | 13% |
| Other flatfish | 17% | 16% | 19% | 20% | 11% | 14% | 10% |
| Pacific cod | 22% | 35% | 14% | 15% | 37% | 37% | 4% |
| Pacific halibut (IBQ) North of 40°10' N. | 28% | 43% | 31% | 26% | 43% | 38% | 55% |
| Pacific ocean perch North of 40°10' N. | 39% | 45% | 45% | 36% | 42% | 44% | 47% |
| Pacific whiting | 98% | 96% | 99% | 83% | 47% | 61% | 87% |
| Petrале sole | 93% | 100% | 92% | 97% | 98% | 95% | 100% |
| Sablefish North of 36° N. | 94% | 91% | 101% | 95% | 100% | 95% | 105% |
| Sablefish South of 36° N. | 86% | 44% | 15% | 32% | 24% | 26% | 14% |
| Shortspine thornyheads North of 34°27' N. | 50% | 50% | 60% | 50% | 45% | 48% | 48% |
| Shortspine thornyheads South of 34°27' N. | 17% | 1% | 7% | 5% | 2% | 4% | 0% |
| Splitnose rockfish South of 40°10' N. | 3% | 4% | 3% | 4% | 2% | 1% | 1% |
| Starry flounder | 2% | 1% | 0% | 2% | 1% | 2% | 1% |
| Widow rockfish | 40% | 45% | 41% | 66% | 57% | 59% | 52% |
| Yelloweye rockfish | 10% | 6% | 6% | 6% | 4% | 5% | 15% |
| Yellowtail rockfish North of 40°10' N. | 24% | 32% | 27% | 40% | 32% | 26% | 58% |

Data source: WCR IFQ database January 8, 2018. [VA_Balances_2011-2017_2017_dec_07: All_IFQ_Lands_by_DS_&_Spp (2): Sector Attainment]

In some cases, interpretation of attainment levels is benefited by the context of changing levels of trawl allocation and harvest policy. For example, the widow 2017 attainment went down by a

⁶ In 2017, the fleet reached 105% attainment of sablefish due to a combination of carryover of unused sablefish QP from 2016 to 2017 and carryover of sablefish QP deficits from 2017 to 2018.

small amount (from 59 percent to 52 percent), however, the 2017 trawl allocation of widow QP was substantially greater than in 2016 and 475 percent above the 2011-2017 average allocation (Figure 1). The 2017 gear trawl EFP may have helped keep attainment levels high and a similar but more expansive gear EFP in 2018 may continue to contribute to higher attainment. If the gear provisions included in this EFP are implemented as regulations, attainment may continue to be benefited. Similarly, if the Council reduces the extent of the trawl RCAs, attainment may also be positively effected, depending on the degree to which overfished or constraining shelf species are encountered in the newly reopened areas.

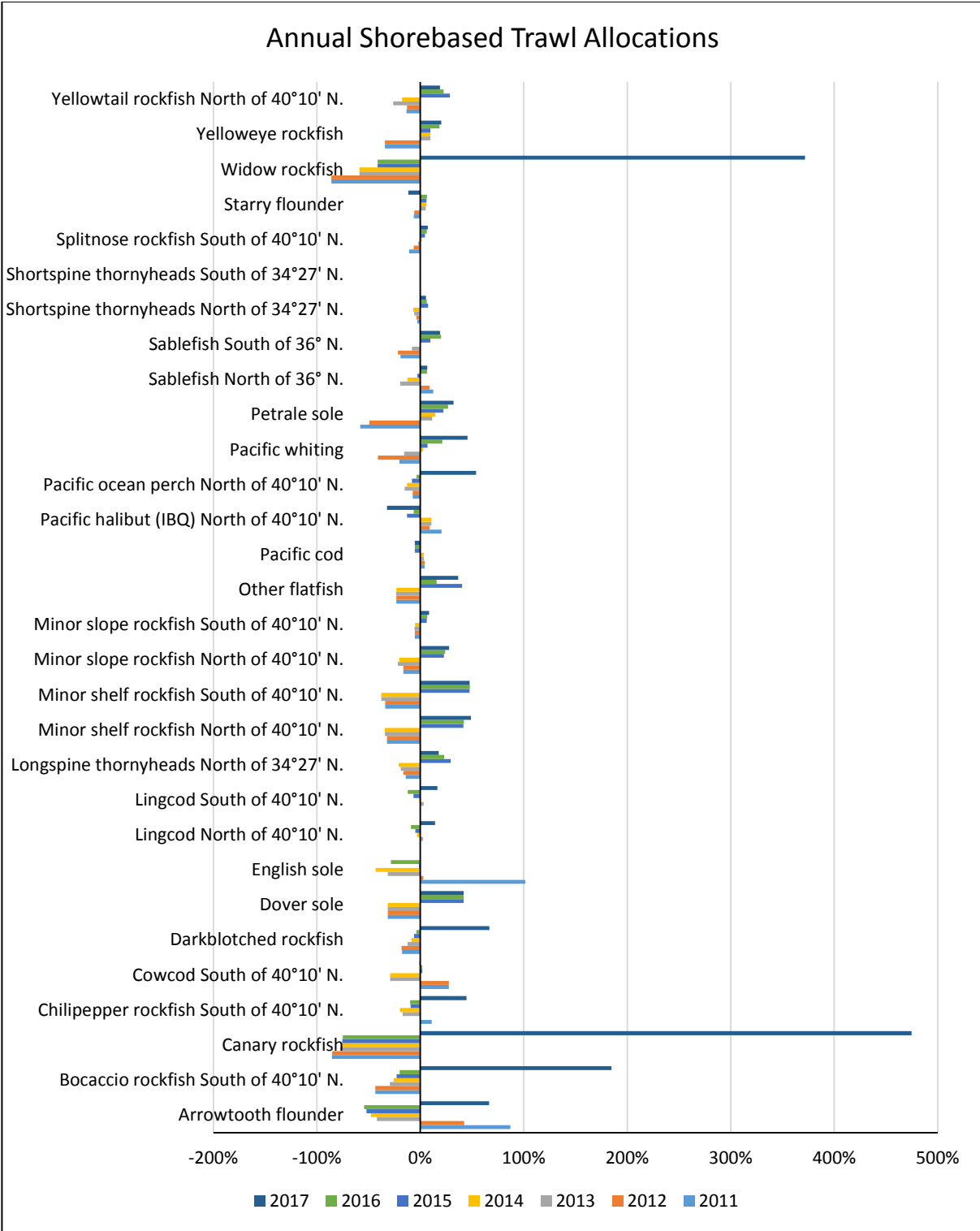


Figure 1. Shorebased trawl allocations of QP as the percent difference between individual year trawl allocations and 2011-2017 average. Data source: WCR IFQ Database.

[VA_Balances_2011-2017_2017_dec_07: All_IFQ_Lands_by_DS_&_Spp (2): Sector Attainment]

To evaluate the degree to which limits might be constraining of the current fleet, the occurrences of individual vessel catches within 10 percent of the current vessel limits is evaluated (i.e. occurrences of a vessel reaching 90 percent of the annual limit for a particular QP species). This approach may under estimate the degree to which the limits are constraining the current fishery, as indicated by the SSC at its June 2017 meeting⁷. The approach used here assesses one aspect of the degree of short-term constraint imposed by the limits, not taking into account possible effect the QP limits may have on dampening the purchase of larger vessels. QP limits may constrain efficiency of the fleet, but how fleet efficiency might impact total attainment is another question and depends on the causes of under attainment. For example, if attainment is limited because of limited markets or the limited amount of quota available for a constraining species in a mixed-stock fishery, then it is not clear that increasing the vessel limits would have a substantial impact on attainment.

The assessment of vessel catch in comparison to vessel QP limits is conducted based on vessel accounts, since it is the vessel account that is held to the limits.⁸ Not more than a dozen vessels have come within 10% of a vessel limit for at least one species in any given year and in most cases, when they do so, they only come that close for one species (Table 12). A total of 32 vessels have come

Vessel Length

Data on the fishery indicates that thus far there has not been a move to larger vessels. In general, the average length of vessels in the non-whiting fleet increased by about 2 feet as the number vessels declined with implementation of the program but since program implementation, size has varied with no clear trend (Table 11). The change in average size with program implementation may be the result of smaller vessels dropping out. Whether the stability in vessel size over the course of the program is caused by annual QP limits is uncertain. For the whiting fleet there appears to be some indication of a possible trend toward larger vessels. The variability in participation in the fixed gear fleet makes a trend difficult to discern.

Table 11. Trend in number and length (feet) of vessels participating in the shorebased IFQ fishery with nonwhiting bottom trawl, whiting midwater trawl, and fixed gear.

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| Nonwhiting Groundfish Trawl | | | | | | | |
| Number | 118 | 106 | 73 | 67 | 70 | 64 | 62 |
| Average length | 68.30 | 69.00 | 70.25 | 70.00 | 69.50 | 70.12 | 70.92 |
| Whiting Groundfish Trawl | | | | | | | |
| Number | 34 | 35 | 26 | 24 | 24 | 25 | 22 |
| Average length | 83.42 | 85.41 | 85.78 | 87.45 | 87.45 | 87.00 | 88.95 |
| Fixed Gear | | | | | | | |
| Number | N/A | N/A | 26 | 26 | 19 | 21 | 18 |
| Average length | N/A | N/A | 57.16 | 64.00 | 56.00 | 61.00 | 59.16 |

Source: Summarized from FishEyeE, January 12, 2018.

⁷ “While the fact that not many vessels have come close to aggregation limits is suggestive that the limits are not very constraining, it is not conclusive. We do not know, and there is nothing in the draft analysis to indicate, how many firms might have exceeded QP or QS aggregation limits, and by how much, if these constraints were not there. This is an important caveat that should be noted and may be an area where further research is needed.” ([SSC June 2017, draft minutes](#), page 8-10)

⁸ When ownership of a vessel changes a new vessel account must be established. Compliance with annual QP limits is determined based on the vessel account. Thus, if ownership changes mid-year it would be possible for the vessel to exceed the limits over the course of the year, but not the individual accounts and their owners.

close to encountering a limit, and individually each of these 32 vessels have approached a limit an average of 2.3 times from 2011 to 2017. Thus, vessels with multiple close approaches to the limits tended to do so across years rather than with multiple species within a single year.

Table 12. Number of vessels (vessel accounts) coming within 10% of the vessel annual QP limit for at least one species in a year and the number of vessel/species combinations approaching the limit within each year.

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total | Avg |
|---|------|------|------|------|------|------|------|-------|------|
| Total Vessels | 6 | 8 | 8 | 9 | 11 | 11 | 12 | 32 | 9.3 |
| Total Instances (vessel/species combinations approaching the limit) | 6 | 13 | 9 | 9 | 12 | 12 | 13 | 74 | 10.6 |

Data source: WCR IFQ Database. [VA_Balances_2011-2017_2017_dec_07: All_IFQ_Lands_by_DS_&_Spp (2): VA Account Attainment of 90%]

Petrale sole and sablefish north are the species for which vessels most often attain more than 90 percent of the annual vessel limits (Table 13). These species are also the two for which the fleet regularly approaches full attainment of its allocation (Table 10). Petrale and sablefish are followed in order by yellowtail, POP and widow, all of which had an annual average of between 0.5 and 1.0 vessels per year coming to within 10 percent of the limit. Species and species groups with an average of less than 0.5 vessels coming within 10 percent of the limit were minor slope south, sablefish south, bocaccio south, canary, darkblotched and Pacific cod. No vessel came within 10 percent of the vessel QP limit for any of the other species.

Table 13. Averaged annual (2011-2017) maximum, median, average vessel account attainment of accumulation limits and number of accounts at the indicated attainment levels.

| | Averages of Annual 2011-2017 (Percent of Annual QP Limit) | | | Average Number of Vessels Achieving Indicated Percent Attainment of QP Limit | | | | Avg of Total Vessels Per Year |
|--|---|--------|---------|---|------------------|------------------|---------------------|---|
| | Max | Median | Average | Less than 50% | 50% to 75% | 75% to 90% | More than 90% | |
| Arrowtooth flounder | 19.0% | 0.4% | 2.1% | 92.1 | | | | 92.1 |
| Bocaccio rockfish South of 40°10' N. | 53.1% | 11.0% | 16.2% | 11.4 | 0.6 | 0.1 | 0.3 | 12.4 |
| Canary rockfish | 116.7% | 2.3% | 7.0% | 55.9 | 0.3 | 0.1 | 0.3 | 56.6 |
| Chilipepper rockfish South of 40°10' N. | 46.1% | 4.5% | 9.9% | 11.6 | 0.6 | 0.1 | | 12.3 |
| Cowcod South of 40°10' N. | 45.0% | 7.2% | 11.6% | 7.3 | 0.6 | 0.1 | | 8.0 |
| Darkblotched rockfish | 59.5% | 2.1% | 6.7% | 83.7 | 1.0 | | 0.1 | 84.9 |
| Dover sole | 40.2% | 3.9% | 7.1% | 91.0 | 0.3 | | | 91.3 |
| English sole | 6.4% | 0.1% | 0.7% | 66.0 | | | | 66.0 |
| Lingcod (Coastwide and Combined) ^{a/} | 80.9% | 0.1% | 4.1% | 84.4 | 1.0 | 0.9 | 0.6 | 86.9 |
| Longspine thornyheads North of 34°27' N. | 50.7% | 1.9% | 6.4% | 68.9 | 0.9 | | | 69.7 |
| Minor shelf rockfish North of 40°10' N. | 26.2% | 0.2% | 1.4% | 69.0 | 0.1 | | | 69.1 |
| Minor shelf rockfish South of 40°10' N. | 19.1% | 2.2% | 4.5% | 12.9 | 0.1 | | | 13.0 |
| Minor slope rockfish North of 40°10' N. | 24.9% | 1.3% | 3.3% | 78.1 | | | | 78.1 |
| Minor slope rockfish South of 40°10' N. | 76.9% | 2.7% | 12.9% | 16.1 | 0.9 | 0.4 | 0.4 | 17.9 |
| Other flatfish | 10.7% | 0.4% | 1.2% | 82.3 | | | | 82.3 |
| Pacific cod | 50.5% | 0.1% | 3.8% | 31.9 | 0.3 | 0.1 | 0.1 | 32.4 |
| Pacific halibut (IBQ) North of 40°10' N. | 31.8% | 1.2% | 3.5% | 73.4 | 0.1 | | | 73.6 |
| Pacific ocean perch North of 40°10' N. | 98.0% | 2.8% | 10.2% | 66.4 | 2.3 | 0.1 | 0.7 | 69.6 |
| Pacific whiting | 46.1% | 0.0% | 6.2% | 86.7 | 0.6 | | | 87.3 |
| Petrale sole | 100.4% | 22.1% | 29.3% | 56.6 | 9.6 | 4.1 | 3.3 | 73.6 |
| Sablefish North of 36° N. | 98.3% | 15.9% | 22.9% | 81.7 | 8.7 | 1.4 | 2.7 | 94.6 |
| Sablefish South of 36° N. | 66.4% | 17.4% | 23.6% | 7.6 | 1.0 | 0.1 | 0.4 | 9.1 |
| Shortspine thornyheads North of 34°27' N. | 48.0% | 2.8% | 6.1% | 91.4 | 0.4 | | | 91.9 |
| Shortspine thornyheads South of 34°27' N. | 38.6% | 30.5% | 31.3% | 2.1 | 0.4 | 0.1 | | 2.7 |
| Splitnose rockfish South of 40°10' N. | 6.8% | 0.5% | 1.4% | 11.7 | | | | 11.7 |
| Starry flounder | 3.2% | 0.0% | 0.5% | 13.9 | | | | 13.9 |
| Widow rockfish | 84.8% | 1.0% | 9.4% | 61.4 | 1.6 | 1.3 | 0.7 | 65.0 |
| Yelloweye rockfish | 13.5% | 2.6% | 3.8% | 16.1 | | | | 16.1 |
| Yellowtail rockfish North of 40°10' N. | 87.8% | 1.6% | 9.1% | 46.7 | 1.1 | 0.6 | 0.9 | 49.3 |

a/ The 90% level is approached only for lingcod north.

Data source: WCR IFQ database from January 8 2018. [VA_Balances_2011-2017_2017_dec_07: Summary of Species Results]

One reason to raise the vessel QP limits might be a demonstration that vessels are encountering the limits in such a manner that results in unanticipated consequences, such as underattainment of the trawl allocation. Another might be that there are not enough vessels operating in an area to fully harvest an allocation, even if most vessels were harvesting near the vessel QP limits. 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 14). While vessels are not restricted from moving into the area in which there is a demand for more landings, if the typical number of vessels operating in an area is not sufficient to harvest the trawl allocation then there might be reason to raise the QP limits. 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. Therefore, numbers of active nonwhiting vessels (trawl and gear switched) are also included in Table 14. Vessels that only have shoreside whiting trips are not included because they target whiting and take non-whiting species only as unintended bycatch. Whiting vessels are included to the degree that they use make nonwhiting trips to harvest their trawl QP allocations. Table 14 indicates that unless there is a redistribution of vessels, if vessel harvests increase to approach the annual vessel QP limits a shortage of vessels operating in an area could be a problem for some species, primarily in the south (see species and values in bold).

Table 14. Vessel QP limits, number of vessels required to take the entire allocation, and number of vessels in the area catching each species (2011-2016).

| | Vessel Limit | Min Number of vessels required to harvest the IFQ sector's allocation | Nonwhiting Trawl Only | | Nonwhiting Trawl and Fixed Gear | |
|--|--------------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | | | 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 |
| Petrable 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)]

As one indication of the potential for an increase in the vessel QP limit to increase sector attainment of its allocation, a 30 percent increase in limits was assumed and multiplied by the average number of vessels (vessel accounts) reaching within 90 percent of the limit for a particular species (rounded up to the next whole vessel). The result was then applied to the 2017 trawl allocations and actual catches for comparison. For example, if an average of 0.3 vessels per year reach near the QP limit, it was assumed that one vessel reaches near the limit and that if the QP limit were increased by 30 percent that vessel would take the full amount of the increase. The results of this exercise are provided in Table 15. Data are not provided for Petrale sole or

sablefish since these species are generally fully attained. For all other species, on average, fewer than one vessel account came to within 10% of the QP limit, therefore the estimates of the increase are all based on increased attainment by a single vessel. As measured against the trawl allocations, the degree of increased attainment is estimated at around 2 or 3 percent for most species (Table 15). When evaluated in terms of a percentage increase in sector catch, the increases are larger—particularly for Pacific cod, for which the allocation attainment level is very low (only 4%). Sablefish south, minor rockfish south, and bocaccio rockfish south are the three species with the next highest increases. The higher percent increases in catch for some species is due to a combination of relatively low attainment levels and current QP limits that are relatively high (such that a 30 percent increase results in a greater absolute increase in the limit).

Table 15. Estimate of potential increases in attainment and catch from a 30 percent increase in QP limits.

| | 2017 QP Allocation | 2017 Catch | Percent of Alloc Caught | Num of Ves Accts (rnded up) | QP Limit | | | Increase in Harvest (pounds) | Increase as a Percent of | |
|---|--------------------|------------|-------------------------|-----------------------------|----------|-----------|------------------|------------------------------|--------------------------|-------|
| | | | | | Percent | 2017 QP | Increased by 30% | | Allocation | Catch |
| Bocaccio rockfish South of 40°10' N. | 666,673 | 202,154 | 30% | 1 | 15.4% | 102,668 | 20.0% | 30,800 | 5% | 15% |
| Canary rockfish | 2,235,704 | 559,313 | 25% | 1 | 10.0% | 223,570 | 13.0% | 67,071 | 3% | 12% |
| Darkblotched rockfish | 1,119,064 | 400,729 | 36% | 1 | 6.8% | 76,096 | 8.8% | 22,829 | 2% | 6% |
| Lingcod North of 40°10' N. | 2,997,625 | 1,364,805 | 46% | 1 | 5.3% | 158,874 | 6.9% | 47,662 | 2% | 3% |
| Minor slope rockfish South of 40°10' N. | 953,881 | 123,562 | 13% | 1 | 9.0% | 85,849 | 11.7% | 25,755 | 3% | 21% |
| Pacific cod | 2,273,789 | 94,842 | 4% | 1 | 20% | 454,758 | 26.0% | 136,427 | 6% | 144% |
| Pacific ocean perch North of 40°10' N. | 437,116 | 206,893 | 47% | 1 | 6% | 26,227 | 7.8% | 7,868 | 2% | 4% |
| Sablefish South of 36° N. | 1,721,321 | 249,530 | 14% | 1 | 15% | 258,198 | 19.5% | 77,459 | 5% | 31% |
| Widow rockfish | 25,116,596 | 13,050,983 | 52% | 1 | 8.5% | 2,134,911 | 11.1% | 640,473 | 3% | 5% |
| Yellowtail rockfish North of 40°10' N. | 9,361,037 | 5,437,061 | 58% | 1 | 7.5% | 702,078 | 9.8% | 210,623 | 2% | 4% |

Data source: WCR IFQ database. [VA_Balances_2011-2017_2017_dec_07: Summary of Species Results]

Among other factors, vessel limits are set to allow greater operational efficiency than would be the case if the control limits (which are lower than vessel limits) were applied to the vessel. At the same time, vessel QP limits are intended to encouraging broader distribution of benefits among vessel owners, and possibly among communities, than would occur if there were no such limits. For the species for which vessel accounts approached the QP limits (Table 13) and those for which there may not be enough vessels in an area to take the allocation even if limits were fully harvested (Table 14) Table 16 shows how a 30% increase in vessel limits would impact the minimum number of vessels required to harvest an allocation. The specific circumstances for each of these species should be considered in evaluating whether or not they are appropriate for an increase in the QP limits. For example, relatively few vessels have been landing yelloweye rockfish. However, because this is an overfished species and there is a very limited amount of QP available, vessels have been trying to avoid catching it.

Table 16. The minimum number of vessels that the fleet could shrink to while still taking the full allocation, for those species/species groups for which sector allocation attainment levels are low and either vessel limits were approached by at least one vessel or there may not be enough vessels harvesting the fish to fully attain the allocation (because vessel QP limits would not allow it).

| Species | Vessel(s) Approach QP Limits (Table 13) | Not Enough Vessels in the Area (Table 14) | Minimum Number of Vessels to Take the Full Allocation | |
|---|---|---|---|----------------------------------|
| | | | With Current QP Limits | With a 30% Increase in QP Limits |
| Bocaccio rockfish South of 40°10' N. | Y | Y | 7 | 5 |
| Canary rockfish | Y | | 10 | 8 |
| Chilipepper rockfish South of 40°10' N. | | Y | 7 | 6 |
| Darkblotched rockfish | Y | | 15 | 12 |
| Lingcod North of 40°10' N. | Y | | 19 | 15 |
| Lingcod South of 40°10' N. | | Y | 8 | 6 |
| Minor shelf rockfish South of 40°10' N. | | Y | 8 | 6 |
| Minor slope rockfish South of 40°10' N. | Y | Y | 12 | 9 |
| Pacific cod | Y | | 5 | 4 |
| Pacific ocean perch North of 40°10' N. | Y | | 17 | 13 |
| Sablefish South of 36° N. | Y | Y | 7 | 6 |
| Widow rockfish | Y | | 12 | 10 |
| Yelloweye rockfish | | Y | 9 | 7 |
| Yellowtail rockfish North of 40°10' N. | Y | | 14 | 11 |

Data source: Summaries of WCR IFQ database. [VA_Balances_2011-2017_2017_dec_07: Summary of Species Results]

The impacts of an increase in the vessel QP limit might be more important for individual vessels than it is for the fleet, processors, and communities which rely on those vessels. To provide a sense of the impact of a 30 percent increase in the vessel limit, the 2017 exvessel revenue for those vessels that approached the QP limits were examined. Of the 32 vessels that approached the limit in at least one year from 2011-2017, 27 were active in 2017 (summarized from WCR IFQ database). Those 27 vessels averaged \$1.1 million in exvessel revenue (PacFIN data query, January 17, 2017).⁹ Of the 27, only three had revenues of less than one half million. Those three vessels averaged 272 thousand dollars. These exvessel revenues per vessel can be contrasted with the amount of additional revenue that might be possible with a 30 percent increase in the annual vessel QP limits. For the 6 of the 14 species covered in Table 16, a 30 percent increase in the vessel QP limit for a species would mean an opportunity for a vessel to increase revenue from that species by less than 15 thousand dollars (Table 17). However, for three of the species the opportunity would be between 30 and 50 thousand dollars and for three others it would be between 75 and 100 thousand dollars. Finally, for two species, sablefish south and widow rockfish, a 30 percent increase could each provide an opportunity for a vessel to increase its revenue by over \$150 thousand. In evaluating these results, it should be kept in mind first that these values do not include any co-occurring species that might be harvested due to the increase in the accumulation limit, and second that there is an average of about 10 to 11 close encounters with individual species limits each year, and finally that these encounters are spread across an average of about 9 to 10 vessels (Table 12). (This is a preliminary analysis using 2017 coastwide average prices for shorebased trawl caught groundfish in the nonwhiting fishery).

⁹ Data summary location: VA_Balances_2011-2017_2017_dec_07: VA Attainment of 90%

Table 17. The exvessel value equivalent of a 30 percent increase in QP limits (using 2017 approximate prices for trawl caught fish), for those species/species groups for which sector allocation attainment levels are low and vessel limits were approached by at least one vessel or there may not be enough vessels harvesting the fish to fully attain the allocation (because vessel QP limits would not allow it).

| Species | Vessel(s) Approach QP Limits (Table 13) | Not Enough Vessels in the Area (Table 14) | Exvessel Value (\$) | |
|---|---|---|------------------------------|---|
| | | | Assumed Price Per Pound (\$) | Equivalent to 30% Increase in Vessel QP Limits (\$) |
| Bocaccio rockfish South of 40°10' N. | Y | Y | 0.46 | 14,260 |
| Canary rockfish | Y | | 0.48 | 32,393 |
| Chilipepper rockfish South of 40°10' N. | | Y | 0.49 | 93,942 |
| Darkblotched rockfish | Y | | 0.44 | 10,089 |
| Lingcod North of 40°10' N. | Y | | 0.94 | 44,626 |
| Lingcod South of 40°10' N. | | Y | 0.94 | 46,031 |
| Minor shelf rockfish South of 40°10' N. | | Y | 0.44 | 7,548 |
| Minor slope rockfish South of 40°10' N. | Y | Y | 0.48 | 12,236 |
| Pacific cod | Y | | 0.57 | 78,281 |
| Pacific ocean perch North of 40°10' N. | Y | | 0.45 | 3,579 |
| Sablefish South of 36° N. | Y | Y | 2.09 | 162,044 |
| Widow rockfish | Y | | 0.31 | 196,585 |
| Yelloweye rockfish | | Y | 0.62 | 51 |
| Yellowtail rockfish North of 40°10' N. | Y | | 0.41 | 86,326 |

Data source: Summaries of WCR IFQ database and PacFIN. [VA_Balances_2011-2017_2017_dec_07.xlsx: Summary of Species Results and IFQ_Prices_2017.xlsx:Sheet 2]

Daily QP Limits (Overfished Species and Halibut)

Alternatives

Removal of the daily QP limit is slated for possible inclusion as a management measure in the 2019-2020 biennial specifications package, however, analysts have indicated that due to workload only the issue of removing newly rebuilt species (bocaccio, darkblotched rockfish and Pacific ocean perch) from the list of those to which daily limits apply will be part of the specifications package. Daily QP limits for the now rebuilt canary and widow rockfish have already been removed. For the follow-on package, the following alternatives address the complete elimination of the daily QP limit policy from regulation.

Daily Vessel QP Limits Alternative 1: No action: Under status quo procedures, when a stock is declared rebuilt, the daily vessel limit is removed through a Council action. Therefore, it is expected that the limits for bocaccio rockfish south of 40°10' N. latitude, darkblotched rockfish, and POP will be removed through the biennial specifications process, leaving vessel limits for only Pacific halibut, yelloweye rockfish, and cowcod south of 40°10' N. latitude.

Daily Vessel QP Limits Alternative 2: Eliminate daily limits for remaining species: Pacific halibut, yelloweye rockfish, and cowcod south of 40°10' N. latitude.

Preliminary Data and Analysis

While the annual vessel QP limit limits the amount of used and unused QP in a vessel account, the daily limit limits the amount of unused QP that can be in a vessel account at any one time. Daily limits attempt to limit a person's ability to acquire additional QP from others before those QP are needed. Theoretically, QP that would be in excess of the daily limit are left on the market for others to acquire. Because daily limits are set at the level of the QS control limits (Table 18) they have no effect on those who only use QP from their own QS account.

Table 18. Accumulation limits for species for which there is a daily QP limit.

| | QP Limit | | QS Control Limit | Daily QP Limit | |
|---|----------|-------------|------------------|----------------|-------------|
| | Percent | 2017 Pounds | Percent | Percent | 2017 Pounds |
| Remaining Overfished Species and Pacific Halibut | | | | | |
| Cowcod South of 40°10' N. | 17.7% | 546 | 17.7% | 17.7% | 546 |
| Pacific halibut (IBQ) North of 40°10' N. | 14.4% | 20,860 | 5.4% | 5.4% | 7,822 |
| Yelloweye rockfish | 11.4% | 276 | 5.7% | 5.7% | 138 |
| Recently Rebuilt Species (Expected to be Removed from the Daily QP Limit List) | | | | | |
| Bocaccio rockfish South of 40°10' N. | 15.4% | 102,668 | 13.2% | 13.2% | 88,001 |
| Darkblotched rockfish | 6.8% | 76,096 | 4.5% | 4.5% | 50,358 |
| Pacific ocean perch North of 40°10' N. | 6.0% | 179,858 | 4.0% | 4.0% | 119,905 |

Data source: WCR IFQ database. [VA_Balances_2011-2017_2017_dec_07: Daily Limit Results]

For cowcod, because all of the accumulation limits are set at the same level (QP, QS, and daily) it is not clear that the daily limit has any effect. Additionally, for any daily limit, there are a few work arounds which limit the policies effectiveness in encouraging QP to remain on the market until needed. 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).

If a vessel does not land more than the daily limit during the year, then the daily limit is not constraining. Table 19 indicates that for the remaining overfished species and Pacific halibut, from 2011 through 2017 there has been only one instance of a vessel landing more than the daily limit. With respect to recently rebuilt species, there has generally been at least one vessel landing more than the daily limit each year for Pacific ocean perch but far less for bocaccio and darkblotched rockfish. The greatest number of encounters occurred for widow rockfish, for which daily limits were removed on December 26, 2017.

Because daily limits do not constrain the total catch during a year but just the process of QP transfer, if in the future there is a need to reinstate the policy that action could be taken without substantially disrupting the fishery.

Table 19. Total number of vessels with catch of daily limits species and number of vessels with annual deliveries in excess of the daily limits.

| | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total Encounters with Daily Limit (2011-2017) |
|---|-------------------------|------|------|------|------|------|------|------|---|
| Remaining Overfished Species and Pacific Halibut | | | | | | | | | |
| Cowcod South of 40°10' N. | Total # Vessels | 4 | 7 | 11 | 11 | 8 | 7 | 8 | |
| | # Vessels > Daily Limit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific halibut (IBQ) North of 40°10' N. | Total # Vessels | 79 | 76 | 76 | 68 | 70 | 72 | 74 | |
| | # Vessels > Daily Limit | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Yelloweye rockfish | Total # Vessels | 14 | 14 | 16 | 19 | 11 | 15 | 24 | |
| | # Vessels > Daily Limit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Recently Rebuilt Species (Expected to be Removed from the Daily QP Limit List) | | | | | | | | | |
| Bocaccio rockfish South of 40°10' N. | Total # Vessels | 10 | 13 | 19 | 16 | 10 | 8 | 11 | |
| | # Vessels > Daily Limit | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Darkblotched rockfish | Total # Vessels | 86 | 91 | 86 | 81 | 85 | 79 | 86 | |
| | # Vessels > Daily Limit | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pacific ocean perch North of 40°10' N. | Total # Vessels | 70 | 73 | 69 | 64 | 69 | 69 | 73 | |
| | # Vessels > Daily Limit | 1 | 3 | 0 | 1 | 1 | 1 | 2 | 9 |
| Species Previously Removed from the Daily QP Limit List | | | | | | | | | |
| Canary rockfish | Total # Vessels | 56 | 54 | 55 | 59 | 53 | 53 | 66 | |
| | # Vessels > Daily Limit | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 6 |
| Widow rockfish | Total # Vessels | 63 | 68 | 67 | 61 | 62 | 63 | 71 | |
| | # Vessels > Daily Limit | 1 | 0 | 2 | 3 | 4 | 4 | 2 | 16 |

Data source: WCR IFQ database, Jan 8, 2018. [VA_Balances_2011-2017_2017_dec_07: Daily Limit Results]

4. Shorebased IFQ Sector Harvest Complex Needs

Proposed Purpose and Need

The following purpose and need was adopted by the Council at its September 2017 meeting.

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.

Background

Prior to the trawl catch share program, many species were underharvested due to the rigidity of the trip limit system used for the shorebased fishery. This system provided a set of species and species group limits for all vessels operating in an area and there was no way for vessels to adjust the limits in response to the actual catch taken. At the same time, vessels were regulated on landings and so could continue to fish while discarding species for which they had reached their limits (so long as the fish that they were able to retain still provided for an economically viable trip). With implementation of the catch share program with its transferable individual quota that applied to catch rather than landings, it was hoped that the flexibility would both increase attainment of sector allocations and reduce bycatch.

While implementation of the catch share program appears to have substantially reduce bycatch, attainment of the trawl allocations has not improved. A retrospective evaluation of attainment for a number of significant groundfish species (arrowtooth flounder, canary rockfish, Dover sole, English sole, lingcod, petrale sole, sablefish north, and widow rockfish) showed that from 2011 through 2015 the attainment of related harvest allowances changed little relative to the years prior ([Matson, 2016](#)). For most species there was a slight but not statistically significant decline in attainment after the trawl catch share program went into place. Substantial increases in the Dover sole harvest allowances were accompanied by a more substantial decline in the percent of those allowances actually harvested. The shorebased sector's level of attainment of its allocations from 2011 through 2017 is provide in Table 10.

Further study is needed to determine whether attainment is being limited by factors such as markets or the limited availability of certain species that are taken as part of a stock complex (e.g. northern area sablefish). Another factor affecting attainment may be precautionary fishing by vessels concerned about encountering high levels of bycatch for species for which the QP available is limited or for which the catch level might readily exceed the annual vessel QP limit. In the case of exceeding an annual vessel QP limit, a vessel would no longer be able to

participate in the fishery until it has covered its deficit. In the event of a deficit several times the annual limit, a vessel might have to forgo fishing for several years.

An increase in the availability of quota for constraining co-occurring species or a decrease in the negative impacts from exceeding annual limits might help to increase the shorebased sector's ability to harvest complexes of groundfish species. A number of possible sources of relief have been identified. First, at the end of every year there are vessels accounts with leftover unused QP and accounts with deficits. Some of these surpluses and deficits are not known until after the start of the following year because of a data lag between harvest and the time vessel accounts are debited (particularly for observer data on amounts discarded). However, after the start of the year QP cannot be traded between accounts. That means, if a vessel has a deficit it must cover it with QP issued for the subsequent year, even though unused QP for the previous year may be available in other vessel accounts. Second, on September 1st of each year, any QP that has not been transferred to a vessel account expires. While it is the individual quota share owner's responsibility to ensure that such QP are transferred in a timely fashion, other vessels, processors, communities, and fish consumers may all suffer by the expiration of unused QP. Finally, vessel QP limits can prevent a vessel from covering a large deficit, resulting in what might be highly precautionary fishing and underharvest of allocations. Some degree of post-season relief from these limits might reduce the degree of precaution, potentially encouraging higher attainment of the available QP. Each of these potential sources of relief may also have some adverse impacts that will be analyzed and considered during the course of deliberations on this issue.

Alternatives

The following alternatives have been developed and refined by the Council at its September and November 2017 meetings. Additional refinement may be helpful before the alternatives are moved forward for analysis, particularly with respect to part of the language in Alternative 2, Suboption B-2, which has not been reviewed by the Council.

Shorebased Needs Alternative 1: No action.

Shorebased Needs Alternative 2: Allow Post Season Trading for Accounts in Deficit (include an annual date for end of trading). 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.

Suboption A: In covering their previous year deficits, vessels would not be limited by the annual vessel QP use limits for all species or certain non-target species (*species covered to be determined*)

Suboption B: If the deficits are not covered by that certain date, NMFS would also convert unused QP not eligible for carryover from the previous year (for example QP in excess of individual vessel account carryover limits) and/or 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 (*species covered to be determined*).

Suboption B-1: Set the NMFS sale price to above market rate.

Suboption B-2: When there are more deficits than there are QP available NMFS will develop a means for allocating the QP fairly. These means might include *selling to all interested parties in proportion to their deficit (e.g. if only 80 percent of the deficits of interested parties can be covered, then each party would only be allowed to buy an amount equal to 80 percent of their deficit) or through an auction.* [This suboption was left incomplete in November 2017. Council staff developed the bold italics text for advisory body and Council consideration.]

[Suboptions are not mutually exclusive]

Shorebased Needs Alt 3: Eliminate September 1st QP expiration. Eliminate the September 1st QP expiration for QP not transferred to vessel accounts.

[Alternatives are not mutually exclusive]

Notes

At its July 2017 meeting, the CAB also considered but rejected elimination of surplus QP carryover. Under the rejected approach, 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. Instead, the [CAB's September 2017 report](#) recommended considering an alternative that would increase carryover to 30 percent based on the success of the BC program which uses such a value.

The [CAB's September 2017 report](#) also 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. And, NMFS noted that any provisions that include risk pools would require a definition for risk pools implementable by NMSF in its vessel accounting system.

At its September and November 2017 meetings, the Council eliminated some alternatives from consideration and recommended that several of the alternatives be moved forward as part of a follow-on package. Additionally, it grouped alternatives addressing fleet attainment of the shorebased allocation with alternatives specifically targeted on the issue of vessels that encountered lightning strike tows.

In response to a September 2017 [NMFS report](#), the Council added the 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.

Also at its September 2017 meeting, 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

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 34° 27' N. and make cowcod a monitored (set-aside) species between 34° 27' N. and 40° 10' N. (Management north and south of this area would not change).

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 the area restriction 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.

At its November 2017 meeting the Council eliminated the following alternative because it was redundant with the follow-on action pertaining to the adjustment of accumulation limits.

Raise Annual Vessel QP Limits.

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

Additionally, it grouped the following option on increasing carryover with a separate agenda item on flexibility in ACL management.

Increase Carry-Over. Raise the carryover amount from 10 percent to as much as 100 percent (particularly for non-target species with low ACLs).

In its November 2017 [report](#) to the Council, NMFS noted that implementation of a post-season trading options would mean that provisions to automatically cover previous years deficits with following year QP would have to be modified. The NMFS report also recommended that the Council consider a suboption to allow vessels with surplus QP to acquire additional QP during the post season trading period provided by Alternative 2. The GMT noted that this allowance would go beyond the intent of the provision and the Council declined to take-up the suboption.

Preliminary Data and Analysis

The primary focus of the alternatives is allowing post season trading to so that a vessel can cover its previous season deficits with previous season QP, rather than drawing down QP from the

subsequent year. For most species and years, the deficits are less than a percent of the trawl allocation (Table 20). In those instances, using a subsequent year's quota to cover a previous year deficit would have little impact on the overall fishery, though it might be more significant for individual vessels (Table 21 and Table 22)—particularly given that previous years quota would likely be available at a considerable discount. For example, even though the total Petrale sole deficit from 2012 was only 0.45% of the 2013 allocation, for one vessel there was more than a 13 thousand pound deficit. For a few species and years, the percentage carryover is more significant: Pacific whiting in 2012 and 2013, Pacific ocean perch in 2013, and canary rockfish in 2016.

A single vessel “lightning strike” in 2015 led to the carryover of a substantial deficit into 2016 and provides perhaps the best example of how covering deficit from one year impacts the availability of QP to the fleet as a whole in a subsequent year. The 2015 canary deficit carried into 2016 would have been 39% of the 2016 trawl allocation except that the 10% annual vessel QP limit prevented completely covering the deficit with 2016 QP (i.e. only 10% of the 2016 QP was used to cover the vessel's 2015 deficit). Because canary was rebuilt by 2017, the trawl allocation increased by over 20 fold, allowing the remaining 2015 deficit to be completely covered in 2017 with a relatively small impact on the available quota. Without the 2017 increase, ten percent of each years trawl allocation would have been used to cover the 2015 deficit for several more years. If after the end of the year it had been possible to use 2015 QP to cover the 2015 deficit, the vast majority of the deficit might have been covered (the total 2015 deficit represented 40 percent of the 2015 allocation and 37 percent of the 2015 QP went unused).

Table 20. Deficits carried over from previous year as a percent of trawl allocation.

| IFQ Species/Species Group Category | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|-------------|-------------|-------------|-------------|----------------------|-------------|
| Arrowtooth flounder | 0.00% | 0.00% | 0.15% | 0.06% | 0.38% | - |
| Bocaccio rockfish South of 40°10' N. | - | - | 0.00% | - | - | - |
| Canary rockfish | - | 0.02% | - | - | 10.00% ^{a/} | 1.44% |
| Chilipepper rockfish South of 40°10' N. | - | - | - | - | - | - |
| Cowcod South of 40°10' N. | - | - | - | - | - | - |
| Darkblotched rockfish | - | 0.09% | - | - | 0.00% | - |
| Dover sole | 0.00% | - | - | - | - | - |
| English sole | - | - | - | - | - | - |
| Lingcod | 0.00% | - | - | - | - | - |
| Lingcod North of 40°10' N. | - | - | - | - | - | - |
| Lingcod South of 40°10' N. | - | - | 0.00% | - | - | - |
| Longspine thornyheads North of 34°27' N. | 0.00% | 0.16% | - | - | - | - |
| Minor shelf rockfish North of 40°10' N. | 0.02% | 0.00% | - | - | - | - |
| Minor shelf rockfish South of 40°10' N. | - | - | 0.01% | - | - | - |
| Minor slope rockfish North of 40°10' N. | - | 0.29% | - | - | - | - |
| Minor slope rockfish South of 40°10' N. | - | - | 0.03% | - | - | - |
| Other flatfish | - | 0.00% | - | - | - | - |
| Pacific cod | - | 0.01% | - | - | - | - |
| Pacific halibut (IBQ) North of 40°10' N. | 0.04% | 0.38% | - | 0.00% | 0.00% | 0.00% |
| Pacific ocean perch North of 40°10' N. | 0.34% | 4.87% | 0.87% | - | - | 0.35% |
| Pacific whiting | 3.76% | 5.14% | - | 0.00% | 0.65% | - |
| Petrals sole | 0.31% | 0.63% | 0.45% | 0.28% | 0.19% | 0.00% |
| Sablefish North of 36° N. | 0.16% | 0.07% | 0.05% | 0.01% | 0.09% | 0.05% |
| Sablefish South of 36° N. | 0.00% | - | - | - | - | - |
| Shortspine thornyheads North of 34°27' N. | 0.01% | 0.01% | - | - | 0.00% | - |
| Shortspine thornyheads South of 34°27' N. | - | - | - | - | 0.02% | - |
| Splitnose rockfish South of 40°10' N. | - | - | - | - | - | - |
| Starry flounder | - | - | - | - | - | - |
| Widow rockfish | - | 0.14% | - | 0.22% | - | 0.03% |
| Yelloweye rockfish | - | - | - | - | - | - |
| Yellowtail rockfish North of 40°10' N. | - | 0.00% | - | - | - | - |

a/ The 2015 canary deficit carried into 2016 would have been 39% of the 2016 trawl allocation except that the annual vessel QP limit prevented completely covering the deficit with 2016 QP.

Table 21. Maximum QP deficit for a single vessel carried into the indicated year (QP).

| IFQ Species/Species Group Category | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Arrowtooth flounder | 335 | 267 | 11,838 | 4,560 | 17,837 | - |
| Bocaccio rockfish South of 40°10' N. | - | - | 3 | - | - | - |
| Canary rockfish | - | 21 | - | - | 38,335 | 28,529 |
| Chilipepper rockfish South of 40°10' N. | - | - | - | - | - | - |
| Cowcod South of 40°10' N. | - | - | - | - | - | - |
| Darkblotched rockfish | - | 269 | - | - | 13 | - |
| Dover sole | 204 | - | - | - | - | - |
| English sole | - | - | - | - | - | - |
| Lingcod | 17 | - | - | - | - | - |
| Lingcod North of 40°10' N. | - | - | - | - | - | - |
| Lingcod South of 40°10' N. | - | - | 1 | - | - | - |
| Longspine thornyheads North of 34°27' N. | 3 | 5,757 | - | - | - | - |
| Minor shelf rockfish North of 40°10' N. | 182 | 4 | - | - | - | - |
| Minor shelf rockfish South of 40°10' N. | - | - | 18 | - | - | - |
| Minor slope rockfish North of 40°10' N. | - | 4,865 | - | - | - | - |
| Minor slope rockfish South of 40°10' N. | - | - | 237 | - | - | - |
| Other flatfish | - | 283 | - | - | - | - |
| Pacific cod | - | 1,163 | - | - | - | - |
| Pacific halibut (IBQ) North of 40°10' N. | 555 | 8,632 | - | 3 | 4 | 4 |
| Pacific ocean perch North of 40°10' N. | 783 | 11,308 | 1,963 | - | - | 500 |
| Pacific whiting | 4,277 | 4,030 | - | 1 | 1,746 | - |
| Petrale sole | 2,739 | 7,136 | 13,192 | 6,195 | 3,973 | 1 |
| Sablefish North of 36° N. | 3,727 | 2,309 | 1,096 | 333 | 4,632 | 2,416 |
| Sablefish South of 36° N. | 13 | - | - | - | - | - |
| Shortspine thornyheads North of 34°27' N. | 200 | 228 | - | - | 49 | - |
| Shortspine thornyheads South of 34°27' N. | - | - | - | - | 17 | - |
| Splitnose rockfish South of 40°10' N. | - | - | - | - | - | - |
| Starry flounder | - | - | - | - | - | - |
| Widow rockfish | - | 2,995 | - | 6,753 | - | 6,393 |
| Yelloweye rockfish | - | - | - | - | - | - |
| Yellowtail rockfish North of 40°10' N. | - | 1 | - | - | - | - |

Table 22. Number of vessels carrying deficits into the indicated year (QP).

| IFQ Species/Species Group Category | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Arrowtooth flounder | 3 | 1 | 1 | 1 | 2 | - |
| Bocaccio rockfish South of 40°10' N. | - | - | 1 | - | - | - |
| Canary rockfish | - | 1 | - | - | 1 | 2 |
| Chilipepper rockfish South of 40°10' N. | - | - | - | - | - | - |
| Cowcod South of 40°10' N. | - | - | - | - | - | - |
| Darkblotched rockfish | - | 3 | - | - | 1 | - |
| Dover sole | 2 | - | - | - | - | - |
| English sole | - | - | - | - | - | - |
| Lingcod | 1 | - | - | - | - | - |
| Lingcod North of 40°10' N. | - | - | - | - | - | - |
| Lingcod South of 40°10' N. | - | - | 1 | - | - | - |
| Longspine thornyheads North of 34°27' N. | 1 | 3 | - | - | - | - |
| Minor shelf rockfish North of 40°10' N. | 2 | 1 | - | - | - | - |
| Minor shelf rockfish South of 40°10' N. | - | - | 1 | - | - | - |
| Minor slope rockfish North of 40°10' N. | - | 2 | - | - | - | - |
| Minor slope rockfish South of 40°10' N. | - | - | 1 | - | - | - |
| Other flatfish | - | 1 | - | - | - | - |
| Pacific cod | - | 2 | - | - | - | - |
| Pacific halibut (IBQ) North of 40°10' N. | 9 | 4 | - | 1 | 1 | 1 |
| Pacific ocean perch North of 40°10' N. | 2 | 3 | 3 | - | - | 1 |
| Pacific whiting | 8 | 12 | - | 1 | 2 | - |
| Petrale sole | 10 | 16 | 13 | 6 | 8 | 1 |
| Sablefish North of 36° N. | 12 | 4 | 6 | 4 | 2 | 1 |
| Sablefish South of 36° N. | 1 | - | - | - | - | - |
| Shortspine thornyheads North of 34°27' N. | 4 | 1 | - | - | 1 | - |
| Shortspine thornyheads South of 34°27' N. | - | - | - | - | 1 | - |
| Splitnose rockfish South of 40°10' N. | - | - | - | - | - | - |
| Starry flounder | - | - | - | - | - | - |
| Widow rockfish | - | 3 | - | 1 | - | 1 |
| Yelloweye rockfish | - | - | - | - | - | - |
| Yellowtail rockfish North of 40°10' N. | - | 1 | - | - | - | - |
| Total Instances (may include some double counting of vessels) | 55 | 58 | 27 | 14 | 19 | 7 |

Table 23. Total QP deficits carried over from previous year (pounds).

| IFQ Species/Species Group Category | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|---|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Arrowtooth flounder | 350 | 267 | 11,838 | 4,560 | 25,081 | - | 42,096 |
| Bocaccio rockfish South of 40°10' N. | - | - | 3 | - | - | - | 3 |
| Canary rockfish | - | 21 | - | - | 38,335 | 32,226 | 70,582 |
| Chilipepper rockfish South of 40°10' N. | - | - | - | - | - | - | - |
| Cowcod South of 40°10' N. | - | - | - | - | - | - | - |
| Darkblotched rockfish | - | 511 | - | - | 13 | - | 524 |
| Dover sole | 247 | - | - | - | - | - | 247 |
| English sole | - | - | - | - | - | - | - |
| Lingcod | 17 | - | - | - | - | - | 17 |
| Lingcod North of 40°10' N. | - | - | - | - | - | - | - |
| Lingcod South of 40°10' N. | - | - | 1 | - | - | - | 1 |
| Longspine thornyheads North of 34°27' N. | 3 | 6,706 | - | - | - | - | 6,709 |
| Minor shelf rockfish North of 40°10' N. | 255 | 4 | - | - | - | - | 259 |
| Minor shelf rockfish South of 40°10' N. | - | - | 18 | - | - | - | 18 |
| Minor slope rockfish North of 40°10' N. | - | 4,915 | - | - | - | - | 4,915 |
| Minor slope rockfish South of 40°10' N. | - | - | 237 | - | - | - | 237 |
| Other flatfish | - | 283 | - | - | - | - | 283 |
| Pacific cod | - | 1,169 | - | - | - | - | 1,169 |
| Pacific halibut (IBQ) North of 40°10' N. | 910 | 9,405 | - | 3 | 4 | 4 | 10,326 |
| Pacific ocean perch North of 40°10' N. | 797 | 11,534 | 2,061 | - | - | 500 | 14,892 |
| Pacific whiting | 9,906 | 12,410 | - | 1 | 1,782 | - | 24,099 |
| Petrale sole | 7,205 | 32,076 | 23,846 | 15,920 | 10,868 | 1 | 89,916 |
| Sablefish North of 36° N. | 8,940 | 2,889 | 2,106 | 706 | 4,835 | 2,416 | 21,892 |
| Sablefish South of 36° N. | 13 | - | - | - | - | - | 13 |
| Shortspine thornyheads North of 34°27' N. | 254 | 228 | - | - | 49 | - | 531 |
| Shortspine thornyheads South of 34°27' N. | - | - | - | - | 17 | - | 17 |
| Splitnose rockfish South of 40°10' N. | - | - | - | - | - | - | - |
| Starry flounder | - | - | - | - | - | - | - |
| Widow rockfish | - | 3,001 | - | 6,753 | - | 6,393 | 16,147 |
| Yelloweye rockfish | - | - | - | - | - | - | - |
| Yellowtail rockfish North of 40°10' N. | - | 1 | - | - | - | - | 1 |

Under the current program, a vessel must stop fishing until it covers any deficits in its account. If a vessel catches more than the annual limit, then it must stop fishing until the next year when it can acquire additional QP under the next year's annual limit. If the deficit is large enough, a vessel might have to remain out of the fishery for several years before it can cover its deficit (as might have been the case for the canary example just discussed). Suboption A would allow vessels with catches greater than the annual vessel QP limits to cover those deficits after the end of the year (even though it would require acquisition of QP in excess of the annual limit). On the one hand, this might reduce the disincentive for avoiding fishing into deficit—particularly at the end of the year when the amount of time off the water might be just a few days or weeks, until the start of the following year. On the other hand, this could reduce the impact of large deficits on the remainder of the fleet.

There have been 15 instances where vessels have had deficits in excess of the annual vessel QP limits (Table 24). In most instances, the amount over the annual limit has been 6% or less, providing ample opportunity for the vessels to cover the deficits at the start of the subsequent years QP with QP from that subsequent year. There have been three instances of vessels with limits of between 20 and 60 percent of the annual vessel QP limit (once for canary rockfish and

twice for Pacific ocean perch). There has only been one instance of a vessel landing more than twice the annual QP limit (canary rockfish).

Under circumstances in which stocks are declining, deficits of a size that requires multiple years to cover would be more likely. A deficit that is only a small portion of the annual vessel QP limit for a stock might exceed the limit several times over if in the subsequent year trawl allocation is substantially reduced.

Table 24. Instances of deficits in excess of annual QP limits

| IFQ Species/Species Group Category | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Canary rockfish | | | | | 1 | 1 | | 2 |
| Pacific ocean perch North of 40°10' N. | 1 | 1 | | | | 1 | 1 | 4 |
| Petrale sole | | 3 | 1 | | 2 | | | 6 |
| Sablefish North of 36° N. | | | 1 | | | | | 1 |
| Widow rockfish | | | | 1 | | 1 | | 2 |
| Total | 1 | 4 | 2 | 1 | 3 | 3 | 1 | 15 |

Each year there are substantial amounts of QP available that are not carried over from one year to the next. These amount are far greater than the deficits carried over from one year to the next (Table 25). Under Suboption B, NMFS would convert back to public control some of the QP that would not be carried over and sell it to individuals with the deficit. The suboption also includes a provision that would allow unfished amounts the previous year's ACLs to be converted and sold to trawlers with deficits. The utility of converting non-carryover QP or unused ACL to QP for sale by NMFS would be most likely with more fully utilized species such as sablefish or petrale sole, where the amounts of unused QP may be low relative to carried over deficits (Table 25). However, based on the high proportions of unused QP available at years end (relative to the total amounts of the deficits, Table 25) it appears unlikely that NMFS would need to make such conversions, since QP would likely be available on the private market (particularly if the NMFS sales would be at above market prices, as would be the case under Suboption B-1). At the same time, if vessels are allowed to cover deficits in excess of annual vessel QP limits through post season trading, the amounts of deficits may increase as vessel operators anticipate that possibility. Given the current levels of unused QP, it seems unlikely that NMFS would need to develop means of allocating in the event that deficits are in excess of the QP available (Suboption B2), however, it may be prudent to have a contingency plan in place.

Table 25. Deficits as a percent of total QP available at the end of the year (after surplus carryover is determined).

| IFQ Species/Species Group Category | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|-------|-------|--------|--------|--------|-------|
| Arrowtooth flounder | 0.00% | 0.01% | 0.31% | 0.13% | 0.71% | |
| Bocaccio rockfish South of 40°10' N. | | | 0.00% | | | |
| Canary rockfish | | 0.03% | | | 19.13% | 2.00% |
| Chilipepper rockfish South of 40°10' N. | | | | | | |
| Cowcod South of 40°10' N. | | | | | | |
| Darkblotched rockfish | | 0.16% | | | 0.00% | |
| Dover sole | 0.00% | | | | | |
| English sole | | | | | | |
| Lingcod | 0.00% | | | | | |
| Lingcod North of 40°10' N. | | | | | | |
| Lingcod South of 40°10' N. | | | 0.00% | | | |
| Longspine thornyheads North of 34°27' N. | 0.00% | 0.40% | | | | |
| Minor shelf rockfish North of 40°10' N. | 0.02% | 0.00% | | | | |
| Minor shelf rockfish South of 40°10' N. | | | 0.01% | | | |
| Minor slope rockfish North of 40°10' N. | | 0.38% | | | | |
| Minor slope rockfish South of 40°10' N. | | | 0.04% | | | |
| Other flatfish | | 0.00% | | | | |
| Pacific cod | | 0.06% | | | | |
| Pacific halibut (IBQ) North of 40°10' N. | 0.62% | 6.22% | | 0.00% | 0.00% | 0.17% |
| Pacific ocean perch North of 40°10' N. | 0.50% | 9.45% | 1.34% | | | 0.43% |
| Pacific whiting | 0.15% | 0.84% | | 0.00% | 0.00% | |
| Petrале sole | 9.02% | 7.90% | 17.77% | 19.17% | 3.83% | |
| Sablefish North of 36° N. | 3.61% | 4.52% | 1.24% | 1.37% | 6.47% | |
| Sablefish South of 36° N. | 0.00% | | | | | |
| Shortspine thornyheads North of 34°27' N. | 0.02% | 0.02% | | | 0.00% | |
| Shortspine thornyheads South of 34°27' N. | | | | | 0.02% | |
| Splitnose rockfish South of 40°10' N. | | | | | | |
| Starry flounder | | | | | | |
| Widow rockfish | | 0.26% | | 0.56% | | 0.06% |
| Yelloweye rockfish | | | | | | |
| Yellowtail rockfish North of 40°10' N. | | 0.00% | | | | |

Data Source: WCR IFQ database. [shorebased_ifq_sector_balances_2011-2017_2018_jan_18: Results]

Alternative 3 would eliminate the September 1st expiration of QP that has not been transferred from QS accounts to vessel QP accounts (Table 26). Each year in advance of the September deadline, NMFS attempts to contact QS account owners who have significant amounts of QPs in QS accounts. Despite NMSF efforts, some QS account owners still leave their QPs in the QS account, and subsequently lose them.

The original intent of the provision was to encourage movement of the QP onto vessels where it could be used. Because of underattainment for most species, the expiration of QP has likely had little impact on total harvest (and hence availability of fish to processors and to the benefit of communities). Further, historic amounts of expiration may not reflect future amounts of expiration if attainment improves substantially. This can be seen in the relatively low levels of Pacific whiting QP expiring (Table 26) in years when shoreside Pacific whiting attainment was over 95% (2011 through 2013, Table 10) and the escalating amounts that expired as attainment declined. Similarly for high attainment species such as petrale sole and sablefish, very few

pounds have expired. For species not listed in Table 26 (e.g. bocaccio) QP have never been left to expire in a QS account.

If the QS owners are allowing their QP to expire unused, elimination of the expiration provision might not increase the probability that they will enter into a transaction to sell later in the year or otherwise ensure an opportunity to use the QP. At the same time, removing the September 1 deadline would eliminate something on which both NMFS and QS holders have to take action and provide flexibility to transfer QPs from the QS account after September 1st (i.e. any time during the year).

Table 26. Amounts of quota pounds expiring in September each year due to the QP not being transferred from the QS account to a vessel account prior to the deadline.

| IFQ Species/Species Group Category | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Grand Total |
|---|-------------|----------------|----------------|------------------|------------------|-------------------|------------------|--------------------|
| Arrowtooth flounder | | 56,524 | 283 | 127,817 | 69,544 | | 353,692 | 607,860 |
| Canary rockfish | | | 73 | 431 | 1,276 | | | 1,780 |
| Chilipepper rockfish South of 40°10' N. | | | 1 | 3,084 | 8,043 | 3,164 | 10,633 | 24,925 |
| Cowcod South of 40°10' N. | | | | | 1 | | | 1 |
| Darkblotched rockfish | | | 228 | 5,913 | 3,591 | | 8,854 | 18,586 |
| Dover sole | | 142,154 | 1,090 | 724,387 | 1,736,809 | 778,298 | 1,457,546 | 4,840,284 |
| English sole | | 71,060 | 469 | 206,922 | 271,058 | 40,154 | 198,537 | 788,200 |
| Lingcod | | 7,984 | | | | | | 7,984 |
| Lingcod North of 40°10' N. | | | 211 | 59,629 | 28,624 | 9,341 | 8,421 | 106,226 |
| Lingcod South of 40°10' N. | | | 12,366 | 24,481 | 14,156 | 3,636 | 18,797 | 73,436 |
| Longspine thornyheads North of 34°27' N. | | | 91 | 34,787 | 65,048 | | 44,318 | 144,244 |
| Minor shelf rockfish North of 40°10' N. | | | 113 | 37,356 | 19,461 | | 28,051 | 84,981 |
| Minor shelf rockfish South of 40°10' N. | | 293 | 498 | 771 | 1,626 | | 1,830 | 5,018 |
| Minor slope rockfish North of 40°10' N. | | | 96 | 28,583 | 29,274 | | 67,010 | 124,963 |
| Minor slope rockfish South of 40°10' N. | | 1,673 | 1,990 | 3,440 | 3,892 | | 3,965 | 14,960 |
| Other flatfish | | | 309 | 66,006 | 187,520 | 40,530 | 83,245 | 377,610 |
| Pacific cod | | | 56 | 105,488 | 34,548 | 8,059 | 8,059 | 156,210 |
| Pacific halibut (IBQ) North of 40°10' N. | | | 2,062 | 28,414 | 3,007 | 7,573 | 17,822 | 58,878 |
| Pacific ocean perch North of 40°10' N. | | | 40 | 4,843 | 2,058 | | 8,173 | 15,114 |
| Pacific whiting | | 425,103 | 354,715 | 759,472 | 5,854,489 | 13,003,986 | 4,323,962 | 24,721,727 |
| Petrале sole | | | 115 | 22,659 | 9,096 | | | 31,870 |
| Sablefish North of 36° N. | 6 | | 135 | | 7,660 | | 6,338 | 14,139 |
| Sablefish South of 36° N. | | | 2,951 | 6,206 | 7,000 | 3,742 | 81,057 | 100,956 |
| Shortspine thornyheads North of 34°27' N. | | | 171 | 25,387 | 27,688 | | 11,492 | 64,738 |
| Shortspine thornyheads South of 34°27' N. | | | 300 | 2,384 | 13,052 | 298 | 7,577 | 23,611 |
| Splitnose rockfish South of 40°10' N. | | 4,810 | 5,392 | 10,649 | 13,286 | 5,371 | 11,235 | 50,743 |
| Starry flounder | 1 | 3,717 | 5,101 | 4,570 | 10,139 | 2,194 | 3,733 | 29,455 |
| Widow rockfish | | | 316 | 12,707 | 20,767 | | 218,686 | 252,476 |
| Yelloweye rockfish | | | 1 | 134 | 33 | 20 | 7 | 195 |
| Yellowtail rockfish North of 40°10' N. | | | 777 | 137,761 | 135,512 | | 110,772 | 384,822 |
| Grand Total | 7 | 713,318 | 389,950 | 2,444,281 | 8,578,258 | 13,906,366 | 7,093,812 | 33,125,992 |

5. Catcher Processor Sector Accumulation Limits

The Council is considering accumulation limits that pertain to catcher-processor permit ownership. There are three aspects of this action, each addressed with a separate set of alternatives:

- a. Implementation Process
- b. Permit Ownership Limit
- c. Processing Limit

The following are the main changes to this section since the November 2017 Council meeting.

- Addition of the background section.
- Addition of implementation process alternatives.
- Revision of alternatives based on Council guidance.

Proposed Purpose and Need

The following purpose and need was adopted by the Council at its September 2017 meeting.

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.

Background

The trawl catch share program, implemented in 2011 under groundfish FMP Amendment 20, created an IFQ system for the shoresbased sector and separate co-op systems for the mothership and catcher-processor sectors. For the shorebased IFQ and at-sea mothership sectors, aggregation limits were included as part of the program. The aggregation limits were in response to the MSA provision that requires that

In developing a limited access privilege program to harvest fish a Council or the Secretary shall— . . . D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—(i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges; . . .

For catcher processors, the catch share program incorporated within it a voluntary co-op under which the catcher-processor sector had been operating since 1997. That self-organized co-op did not include an aggregation limit and none was added when the co-op was incorporated as part of Amendment 20. During the catch share program five-year review, the Council began discussing whether or not the catcher-processor co-op sector should be covered by provisions which limit aggregation and adopted a June 13, 2017 control date to support its consideration of such a policy.

Notes

The September 2017 NMFS report ([Supplemental NMFS Report 2](#)) 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 indicated that there had not been major consolidation and that only one company had left the sector since the start of the program (data show that this company's departure actually happened just before implementation of the program). The [GAP's September 2017 report](#) also 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 [November 2017 CAB report](#) continued to reflect concern over whether consideration of these limits is the best use of staff, resources and funding.

If the Council accepts the CAB recommendation ([CAB Report, November 2017](#)) to not move further with this issue, the CAB recommended that the Council publish a *Federal Register* notice to vacate the June 13, 2017 control date, for the purpose of maintaining veracity of other control dates that the Council has or may wish to establish in the future

a. Implementation Alternatives

Alternatives

CP Implementation Alternative 1. No action

CP Implementation Alternative 2. Vacate the June 13, 2017 control date (no new accumulation limits).

CP Implementation Alternative 3. Apply accumulation limits to the existing cooperative program

CP Implementation Alternative 4. Apply accumulation limits only if the co-op dissolves and IFQ program is implemented for the CP sector

Preliminary Analysis

Some considerations for fully developing Alternative 4: What happens if the co-op dissolves and at that time the concentration of permits or processing exceeds what is specified in the alternatives. Would those holding excess permits be provided a divestiture period? Would those processing more than the allowed limit be provided a grace period before processing had to be reduced to the caps? Or, would those in excess of these limits have their activities grandfathered

in indefinitely. These are questions that can be addressed either when the range of alternatives is approved for analysis or as needed when the preliminary preferred alternative is selected.

b. Catcher Processor Permit Ownership Limit

Alternatives

CP Permit Limit Alternative 1: No action

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

CP Permit Limit Alternative 3: Establish a Seven-Permit Limit. No individual or entity may own or control more than seven 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.

Preliminary Data and Analysis

Neither the original license limitation program (Amendment 6) nor the catch share program placed limits on the number of vessel 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 in the catcher-processor sector. (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 27. Catcher-processor permit ownership, by company (2011-2017).

| Permit | Year | | | | | | | | Associated Vessel(s) |
|--------|-------------------------------|-----|-----|-----|-----------------------------|-----|-----|--------------------------------|----------------------|
| | '11 | '12 | '13 | '14 | '15 | '16 | '17 | | |
| | 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.

The Amendment 20 catcher-processor co-op system 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.^{10,11}

c. Processing Limit

Alternatives

Processing Limit Alternative 1: No Action (Allow a single entity to process 100 percent of the CP sector allocation, subject to anti-trust limits)

Processing Limit Alternative 2: 60% limit. No individual or entity owning a CP permit(s) may process more than 60 percent of the total CP sector whiting allocation.

¹⁰ 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 readily accessible on the [FISHEye](#) data exploration tool.

¹¹ 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](#).

Processing Limit Alternative 3: 80% limit. No individual or entity owning a CP permit(s) may process more than 80 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.

Preliminary Data and Analysis

The Council’s deliberations on Amendment 20 included an alternative that would have created an IFQ system for the catcher-processor sector, including IFQ accumulation limits and vessel limits for amounts caught and processed (Table 28). In addition to limits for catcher-processors, there was also consideration of a limit for all whiting sectors combined.

Table 28. Catcher-processor accumulation limit options considered in the Amendment 20 IFQ alternative.

| | Option 1 | Option 2 | Option 3 |
|-------------------------------------|----------|----------|----------|
| QS Control Limit | 50% | 55% | 60% |
| Vessel Harvest and Processing Limit | 65% | 70% | 75% |

Analysis at the time showed that the most restrictive vessel processing limit options were at least 70 percent above the 90th percentiles vessel production levels 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 substantially between the participating companies during the course of the catch share program. For each company, harvest as a share of allocation is typically less than or equal to the company’s share of actual harvest, because, on average, the sector has attained only 92% of its 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 for catcher-processors.

Table 29. Percent attainment of sector allocation and share of actual harvest (in parentheses) 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 (See 2019-2020 Biennial Management Measures)

This issue is being addressed through the 2019-2020 biennial specifications and management measures process.

7. New Data Collections

Catcher-Processor Ownership Data

Purpose and Need

This draft purpose and need statement has not yet been reviewed by the Council.

Attaining optimum yield from a fishery requires evaluating the performance of the fishery and managing it through adaptive adjustments based on successes and failures. The MSA requires that the Council and NMFS “ensure that limited access privilege holders do not acquire an excess share” of such privileges. Ownership information from catcher-processors needs to be collected in order to evaluate program performance with respect to this mandate. The purpose of this action would be to create a mandatory requirement for the submission ownership information from those that own catcher-processors.

Background

The trawl catch share program was implemented in 2011 under Amendment 20 to the groundfish fishery management plan (FMP) and created an IFQ program for the shoresbased sector, and separate co-op programs for the mothership and catcher-processor sectors. For the shorebased

IFQ and at-sea mothership sectors, the program required that participants submit ownership information at the time of permit issuance and renewal. The related permit application and renewal forms require that all owners with 2 percent or greater ownership interest be declared. This requirement is to facilitate monitoring of accumulation limits that were included in the catch share program for these two sectors. The accumulation limit rules are in response to the MSA provision that requires that

In developing a limited access privilege program to harvest fish a Council or the Secretary shall— . . . D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—(i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges; . . .

Ownership information was not required for the catcher processor co-op sector. The catch share program incorporated within it a voluntary co-op under which the catcher-processor sector had been operating since 1997 and did not include an accumulation limit. During the catch share program five-year review, the Council began discussing whether or not the catcher-processor co-op sector should be covered by provisions which limit accumulation and adopted a June 13, 2017 control date to support its consideration of such a policy. This action, if recommended by the Council and implemented by NMFS, would establish such a data collection.

Alternatives

Alternative 1: No Action. Owners of catcher vessel, mothership processor, and shorebased first receiver permits are required to submit ownership information when they acquire or renew permits but catcher-processors are not.

Alternative 2: Collect Detailed Catcher-Processor Ownership Data Annually. Add a requirement that catcher processors submit ownership information when they acquire permits and to a similar level of detail as required for other permits.

Preliminary Analysis

Because of cross-participation between sectors, two out of the three businesses that currently own catcher-processor permits already provide ownership information. The action alternative would require the third participant in the catcher processor sector (as well as any new entrants) to submit similar information.

Quota Costs, Earnings and Share Owner Participation

Purpose and Need

This draft purpose and need statement has not yet been reviewed by the Council

Attaining optimum yield from a fishery requires evaluating the performance of the fishery and managing it through adaptive adjustments based on successes and failures. For catch share fisheries in particular, important management objectives relate to socio-economic concerns, several of which relate to the economic health of individual fishing and processing businesses. Evaluation of the economic performance of these businesses requires complete information on costs and revenue, a portion of which are associated with the purchase and sale of quota shares and quota pounds. There has also been strong interest expressed about understanding how much of the value of quota is leaking out of the fishery and local communities. Currently, there is a mandatory data collection program that collects this information from vessel owners and first receivers but not from other types of quota owners. To accurately evaluate the program performance and make adaptive adjustments there is a need for information on quota purchases/sales from all QS owners, including those that do not own vessels or first receivers. The purpose of this action would be to create a mandatory survey for QS owners.

Notes

Initially the CAB supported this data collection but their November 2017 report to the Council the CAB stated:

. . . the CAB no longer has a consensus position in support of this survey. Some members of the CAB thought this was not a high enough priority to displace the pursuit of other follow-on actions and questioned the ultimate value of the information. Others thought the collection would be essential to tracking information that is important to understanding the performance of the program, in particular the ownership of QS and flow of benefits of the fishery to individuals who are not members of the fishing communities. It was also suggested that other methods for collecting some of this data be explored. For example, could vessel account owners be required to declare the QS accounts to which their ownership is linked including the percentage of the quota the ownership of the account is linked to? ([Agenda Item F.2.a, CAB Report, November 2017](#))

Background

The trawl catch share program was implemented in 2011 and required that participating vessel owners and first receivers (businesses buying catch share fish from vessels) submit the economic information needed to assess the performance of the program. During the recently completed catch share review, advisory bodies and the Council concluded that more information is needed about how quota costs affect the financial performance of the fleet and where quota lease payments are accruing.

Quota cost and earnings information is collected from vessel owners and first receivers through the Economic Data Collection (EDC) Program. This program indirectly collects data from quota share owners only when the quota share company is the same as the vessel company. This confluence of ownership accounts for less than half of all quota shares. Since the EDC form is

designed to collect data from vessel owners, quota earnings data are not collected from the following operation types:

- Quota share companies that do not own a vessel with a limited entry trawl permit
- Quota share companies that own multiple vessels
- Quota share companies whose owners have active vessels under other company names

Incomplete quota lease payment information results in the following:

- Financial performance of the active fleet can only be partially assessed with the current EDC data.
- An assessment of the amount and value of QS that is owned by entities that do not (or no longer) actively participate in the fishery as vessel owners or first receivers cannot be done.
- Community economic impact analysis that includes the economic impact of revenues from QS ownership cannot be done without accurate QS owner-level earnings data
- An assessment of the effects of different levels of lease-dependence cannot be performed.

The structure of the catch share program and available data make it difficult to include quota costs and revenues in analysis of the financial performance of the fleet. Quota were allocated to permit owners and not vessel owners, explicitly isolating quota leasing operations from vessel operations. Current estimates of net revenue are focused on fishing vessels and first receivers as individual entities. However, fishing vessels often do not operate as stand-alone business entities. This becomes a critical issue when attempting to assess the financial performance of the fishing fleet in a catch share system. Additional information is needed about the relationships between quota share owners and vessel owners in order to include quota related costs and revenues in the financial analysis of the fleet.

In addition to the limitations described above, the absence of a clear definition of “active participants” also restricts the ability to identify the benefactors of the catch share program.

Potential definitions of active participants include:

- 1.) Anyone that owns a share in an active vessels
- 2.) Anyone with active role in the fishery, could include Community Quota Funds, relatives of vessel owners, crew, service providers, quota share owners, etc.
- 3.) Anyone that lives in the fishing community (definition of community needs to be specified)

To conduct the analyses described above, two primary pieces of data are necessary:

- 1.) Revenue from quota share lease/quota pound sales from each quota share owner
- 2.) Characterization of the quota share permit owner and relationship to active vessels in the fishery

Alternatives

Alternative 1: No Action. QS owners that are not also owners of vessels or first receivers do not provide information.

Alternative 2: Collect QS owner information through a new “QS Owner Survey.” This survey would be sent to all QS owners and be part of the existing Economic Data Collection Programs mandatory response survey set. Questions in the current vessel and first receiver surveys that unnecessarily overlap with the new QS owner survey would be eliminated or modified in the current EDC vessel surveys.

Alternative 3: Collect QS owner information through a supplement the [QS renewal form](#).

Preliminary Data Elements for the Survey

These questions will be further revised with feedback from Council, industry, and SSC.

Alternative 1

In general, the QS owner survey would include the following data elements.

1.) What did this company do with the quota in 2018? Check all that apply.¹²

- Fished
- Leased to someone within community
- Leased it to someone outside of community
- Gifted to someone outside of your business
- Gifted to someone within your business
- Traded for quota
- Traded for non-quota

2.) What description best matches this Quota Share company? Individual can refer to a part or sole owner of the Quota Share company or trust.¹

- Community Quota Fund/Other Non-profit Owners
- At least one individual owns a vessel that fishes in the IFQ program but a hired captain is used
- At least one individual fishes (but does not own a vessel) in the IFQ program
- At least one individual owns a processing facility that buys IFQ fish
- Company owns a vessel that fishes in the IFQ program
- Company buys IFQ fish
- At least one individual whose family member currently fishes in the IFQ program
- At least one individual whose family member owns a vessel that fishes in the IFQ program
- At least one individual who is not actively participating, lives within fishing community

¹² We plan to revise these categories based on industry and Council feedback.

- At least one individual who is not actively participating, lives outside fishing community

3.) How much did this company earn from leasing quota in 2018?

\$ _____

4.) The following vessels received quota from this quota share account in 2018, please fill in the following fields

| Vessel Name | What is your relationship to this vessel? (circle one) ¹ | How much did this vessel pay for quota from this account? |
|-------------|---|---|
| MISS SUSAN | owned, affiliated, part of risk pool, ... | \$ |
| JOLLY G | | \$ |
| GOLDEN STAR | | \$ |

The following types of information requests would be eliminated from current vessel owner and first receiver surveys.

- Earnings from lease or sale of quota pounds or quota shares

Alternative 2

The following question would be added to the QS Permit/Account Application:

1.) What description best matches this Quota Share company and fishing plans for 2019?
Individual can refer to a part or sole owner of the Quota Share company. ¹

- Community Quota Fund
- At least one individual owns a vessel that fishes in the IFQ program but a hired captain is used
- At least one individual fishes in the IFQ program
- At least one individual owns a processing facility that buys IFQ fish
- Company that owns a vessel that fishes in the IFQ program
- Company that buys IFQ fish
- At least one individual whose family member currently fishes in the IFQ program
- At least one individual whose family member owns a vessel that fishes in the IFQ program
- No individual in this firm fishes or is related to someone that fishes in the IFQ program

After the end of the fishing year, the participant would be asked to certify the following statement:

5.) Based on the data recorded in the quota transactions database, please affirm that the data reported are correct, or provide revisions

| Vessel Name | What is your relationship to this vessel? (circle one) | Reported quota revenue | Put check mark to confirm, or provide revision |
|-------------|--|------------------------|--|
| MISS SUSAN | Owned, affiliate, part of risk pool, ... ¹ | \$1,423 | |
| JOLLY G | | \$120,000 | |
| GOLDEN STAR | | \$12 | |

Note: During QS renewal it is likely that data would be collected for the previous year. For example during the fall 2018 renewal for 2019 issuances, data would be collected/verified on total earnings from quota lease in 2017.

The following types of information requests would be eliminated from current vessel owner and first receiver surveys.

- Earnings from lease or sale of quota pounds or quota shares

Other Previous Council Actions on Follow-ons

At its June 2017 meeting, 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 that time, 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.

At its November 2017 meeting, the Council received a report from NMFS in which it recommended consideration of administrative changes related to two topics: consequences for not submitting QS renewal forms by the annual deadline and allowing the creation of non-vessel QP accounts. With respect to the former, NMFS suggested that for any QP account that is not renewed on time, that rather than redistributing the QP to the remainder of the QS holders those QP be held for release to the QS holders when the renewal eventually occurs. The GAP objected to this proposal on the grounds that, in the event a QS permit owner failed to renew, the change could potentially remove QP from the fishery. With respect to the latter issue, NMFS suggested the Council reconsider allowing risk pools to establish QP accounts without needing to acquire a vessel. In context of its current priorities and work load capacity, the Council declined to take-up this issue.