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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 171023999-8440-02]

RIN 0648-BH31

Magnuson-Stevens Act Provisions; Fisheries off West Coast States; Pacific Coast Groundfish Fishery; Annual Specifications and Management Measures for the 2018 Tribal and Non-Tribal Fisheries for Pacific Whiting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS issues this final rule for the 2018 Pacific whiting fishery under the authority of the Pacific Coast Groundfish Fishery Management Plan (FMP), the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and the Pacific Whiting Act of 2006. This final rule announces the 2018 U.S. Total Allowable Catch of 441,433 metric tons (mt) of Pacific whiting, establishes a tribal allocation of 77,251 mt, establishes a set-aside for research and bycatch of 1,500 mt, and announces the allocations of Pacific whiting to the non-tribal fishery for 2018. The catch limits in this rule are intended to ensure the long-term sustainability of the Pacific whiting stock.

DATES: Effective [*Insert date of publication in the Federal Register*].

FOR FURTHER INFORMATION CONTACT: Frank Lockhart (West Coast Region, NMFS), phone: 206-526-6142, and e-mail: *Frank.Lockhart@noaa.gov*.

Electronic Access

This final rule is accessible via the Internet at the Office of the Federal Register web site at *https://www.federalregister.gov*. Background information and documents are available at the NMFS West Coast Region website at *http://www.westcoast.fisheries.noaa.gov/fisheries/management/whiting/pacific_whiting.html* and at the Pacific Fishery Management Council's website at *http://www.pcouncil.org/*.

The final environmental impact statement regarding Harvest Specifications and Management Measures for 2015-2016 and Biennial Periods Thereafter, and the Final Environmental Assessment for Pacific Coast Groundfish Harvest Specifications and Management Measures for 2017-2018 and Amendment 27 to the Pacific Coast Groundfish Fishery Management Plan, are available on the NMFS West Coast Region Web site at: *www.westcoast.fisheries.noaa.gov/publications/nepa/groundfish/groundfish_nepa_documents.html* and copies are available from Chuck Tracy, Executive Director, Pacific Fishery Management Council (Council), 7700 NE. Ambassador Place, Portland, OR 97220, phone: 503-820-2280.

SUPPLEMENTARY INFORMATION:

Background

This final rule announces the total allowable catch (TAC) for Pacific whiting, which was determined under the terms of the Agreement with Canada on Pacific Hake/Whiting (Agreement) and the Pacific Whiting Act of 2006 (Whiting Act). The Agreement and the Whiting Act establish bilateral bodies to implement the terms of the Agreement. The bilateral

bodies include: the Joint Management Committee (JMC), which recommends the annual catch level for Pacific whiting; the Joint Technical Committee (JTC), which conducts the Pacific whiting stock assessment; the Scientific Review Group (SRG), which reviews the stock assessment; and the Advisory Panel (AP), which provides stakeholder input to the JMC.

The Agreement establishes a default harvest policy of F-40 percent, which means a fishing mortality rate that would reduce the biomass to 40 percent of the estimated unfished level (F-40). The Agreement also allocates 73.88 percent of the TAC to the United States and 26.12 percent of the TAC to Canada. The JMC is primarily responsible for developing a TAC recommendation to the United States and Canada. The Secretary of Commerce, in consultation with the Secretary of State, has the authority to accept or reject this recommendation.

2018 Pacific Whiting Stock Assessment

The JTC completed a stock assessment for Pacific whiting in March 2018. The assessment is available at http://www.westcoast.fisheries.noaa.gov/fisheries/management/whiting/pacific_whiting_treaty.html. The assessment presents a model that depends primarily upon an acoustic survey biomass index and catches of the transboundary Pacific whiting stock to estimate the biomass of the current stock. The most recent survey, conducted collaboratively between the Canadian Department of Fisheries and Oceans and NMFS, was completed in 2017.

Pacific whiting spawning stock biomass has been relatively stable since 2013. The 2018 spawning biomass estimated to be 1.357 million mt. Relative female spawning biomass for 2018 is estimated at 66.7 percent of the unfished levels. The stock is currently estimated to be at its highest level since the 1980s, as a result of an exceptionally strong 2010 cohort and above average 2014 cohort. As with past estimates, there is a considerable range of uncertainty

associated with this estimate, because the youngest cohorts that make up a large portion of the survey biomass have not been observed for very long.

The JTC provided tables showing catch alternatives for 2018. Using the default F-40 percent harvest rate identified in the Agreement (Paragraph 1 of Article III), the coastwide TAC for 2018 would be 725,984 mt. Projections setting the 2018 and 2019 catch equal to the 2017 TAC of 597,500 mt show the estimated median relative spawning biomass decreasing from 67 percent in 2018 to 59 percent in 2019 and to 50 percent in 2020, with a 36 percent chance of the spawning biomass falling below 40 percent of estimated historic biomass levels in 2020. There is an estimated 73 percent chance of the spawning biomass declining from 2018 to 2019, and an 82 percent chance of it declining from 2019 to 2020 under this constant catch level. However, the 2018 estimate of median stock biomass is well above the overfished threshold, and fishing intensity is below the F-40 percent target. This indicates that the coastal Pacific whiting stock is not overfished and that overfishing is not occurring.

Scientific and Management Reviews

The SRG, a bilateral body created under the Agreement, met in Lynnwood, Washington on February 26–March 1, 2018, to review the draft stock assessment document. The SRG determined that the 2018 Pacific whiting assessment report and appendices present the best available scientific information for the management of Pacific whiting. During the meeting, however, the SRG raised a concern that the model results and corresponding estimates of spawning stock biomass are strongly affected by the choice of weights-at-age used in estimating fecundity. To consider the variability in stock status estimates, the SRG requested that the JTC analyze two approaches using different weights-at-age (Appendix A in the stock assessment report). The first approach is consistent with previous assessments, and includes time-invariant

fecundity-at-age based on the average vector of weights-at-age over all years. The second approach is derived from an alternative model using time-varying fecundity-at-age calculated with annual estimates of mean weights-at-age. The range of uncertainty of each model includes the median estimate of current spawning biomass estimated by the other model. However, the alternative model estimates that 2018 spawning stock biomass is lower and much closer to the reference point (B40) than the base-case model. The SRG's analysis suggested that this may be because weights-at-age are important to calculating unfished spawning biomass (B0), and the alternative model estimates a higher B0 as a consequence of using higher mean weights-at-age in the early years of the time series (1975-1979). The probability that 2018 spawning biomass is below the B40 reference point is estimated as 7 percent by the base-case model and 48 percent by the alternative model. Despite substantial discussion, the SRG was unable to offer advice on which model is more plausible, and requested additional work in the coming year from the JTC to address the issue.

The AP and JMC met on March 5-6, 2018, in Lynnwood, Washington, to develop advice on a 2018 coastwide TAC. The AP provided its 2018 TAC recommendation to the JMC on March 6, 2018. The JMC reviewed the advice of the JTC, the SRG, and the AP, and agreed on a TAC recommendation for transmittal to the United States and Canadian Governments.

The Agreement directs the JMC to base the catch limit recommendation on the default harvest rate unless scientific evidence demonstrates that a different rate is necessary to sustain the offshore Pacific whiting resource. After consideration of the 2018 stock assessment and other relevant scientific information, the JMC did not use the default harvest rate, and instead agreed on a more conservative approach, using the same catch limits as 2017. There were three primary reasons for choosing a TAC below the default level of F-40 percent. First, the growth of the 2010

year class is slowing, which the recent historic-high catch has in part depended on, and JMC members wanted to extend the harvest available from this year class. Second, the 2018 stock assessment estimated a lower abundance than last year's assessment for the 2014 year class, which comprised more of the 2016 fall catch than the large 2010 cohort, so the JMC did not want to increase mortality on this year class, which is anticipated to be important to the fishery over the next several years. Finally, the overall abundance of Pacific hake/whiting is projected to begin declining from its recent historic high levels, and the JMC did not want to accelerate this decline by increasing the TAC. This conservative TAC setting process, endorsed by the AP, resulted in a TAC that is less than what it would be using the default harvest rate under the Agreement.

The recommendation for an unadjusted 2018 U.S. TAC of 382,532 mt, plus 58,901 mt carryover of uncaught quota from 2017 results in an adjusted U.S. TAC of 441,433 mt for 2018 (73.88 percent of the coastwide TAC). This recommendation is consistent with the best available scientific information, provisions of the Agreement, and the Whiting Act. The recommendation was transmitted via letter to the United States and Canadian Governments on March 6, 2018. NMFS, under delegation of authority from the Secretary of Commerce, approved the adjusted TAC recommendation of 441,433 mt for U.S. fisheries on April 23, 2018.

Tribal Fishery Allocation

This final rule establishes the tribal allocation of Pacific whiting for 2018. NMFS issued a proposed rule regarding this allocation on January 24, 2018 (83 FR 3291). This action finalizes the tribal allocation. Since 1996, NMFS has been allocating a portion of the U.S. TAC of Pacific whiting to the tribal fishery. Regulations for the Pacific Coast Groundfish Fishery Management Plan specify that the tribal allocation is subtracted from the total U.S. Pacific whiting TAC. The

tribal Pacific whiting fishery is managed separately from the non-tribal Pacific whiting fishery, and is not governed by limited entry or open access regulations or allocations.

The proposed rule described the tribal allocation as 17.5 percent of the U.S. TAC, and projected a range of potential tribal allocations for 2018 based on a range of U.S. TACs over the last 10 years (plus or minus 25 percent to capture variability in stock abundance). As described in the proposed rule, the resulting range of potential tribal allocations was 17,842 to 96,563 mt. Applying the approach described in the proposed rule, NMFS is establishing the 2018 tribal allocation of 77,251 mt (17.5 percent of the U.S. TAC) in this final rule. In 2009, NMFS, the states of Washington and Oregon, and the tribes with treaty rights to harvest whiting started a process to determine the long-term tribal allocation for Pacific whiting; however, no long-term allocation has been determined. While new scientific information or discussions with the relevant parties may impact that decision, the best available scientific information to date suggests that 77,251 mt is within the likely range of potential treaty right amounts.

As with prior tribal Pacific whiting allocations, this final rule is not intended to establish precedent for future Pacific whiting seasons, or for the determination of the total amount of whiting to which the Tribes are entitled under their treaty right. Rather, this rule adopts an interim allocation. The long-term tribal treaty amount will be based on further development of scientific information and additional coordination and discussion with and among the coastal tribes and the states of Washington and Oregon.

Harvest Guidelines and Allocations

In addition to the tribal allocation described in the proposed rule, this final rule establishes the fishery harvest guideline (HG), called the non-tribal allocation, which had not yet been determined at the time the proposed rule was published. Although this was not part of the

proposed rule, the environmental assessment for the 2017-2018 harvest specifications rule (see ELECTRONIC ACCESS) analyzed a range of TAC alternatives for 2018, and the final 2018 TAC falls within this analyzed range. In addition, via the 2017-2018 specifications rulemaking process, the public had an opportunity to comment on the 2017-2018 TACs for whiting, just as they did for all species in the groundfish FMP. NMFS follows this process because, unlike for all other groundfish species, the TAC for whiting is decided in a highly abbreviated annual process from February through April of every year, and the normal rulemaking process would not allow for the fishery to open with the new TAC on the annual season opening date of May 15.

The HG is allocated among the three non-tribal sectors of the Pacific whiting fishery. The 2018 fishery HG for Pacific whiting is 362,682 mt. This amount was determined by deducting the 77,251 mt tribal allocation and the 1,500 mt allocation for scientific research catch and fishing mortality in non-groundfish fisheries from the total U.S. TAC of 441,433 mt.

NMFS did not include the HG in the tribal whiting proposed rule published on January 24, 2018 (83 FR 3291), for two reasons related to timing and process. First, a recommendation on the coastwide TAC for Pacific whiting for 2018, under the terms of the Agreement with Canada, was not available during development of the proposed rule. NMFS, under delegation of authority from the Secretary of Commerce, approved a U.S. TAC on April 23, 2018. Second, the fishery HG is established following deductions from the U.S. TAC for the tribal allocation, mortality in scientific research activities, and fishing mortality in non-groundfish fisheries. The Council recommends to NMFS the research and bycatch set-aside on an annual basis, based on estimates of scientific research catch and estimated bycatch mortality in non-groundfish fisheries.

The regulations further allocate the fishery HG among the non-tribal catcher/processor (C/P) Coop Program, Mothership (MS) Coop Program, and Shorebased Individual Fishing Quota (IFQ) Program sectors of the Pacific whiting fishery. The C/P Coop Program is allocated 34 percent (123,312 mt for 2018), the MS Coop Program is allocated 24 percent (87,044 mt for 2018), and the Shorebased IFQ Program is allocated 42 percent (152,326.5 mt for 2018). The fishery south of 42° N. lat. may not take more than 7,616 mt (5 percent of the Shorebased IFQ Program allocation) prior to May 15, the start of the primary Pacific whiting season north of 42° N. lat.

Table 1. 2018 Pacific Whiting Allocations

Sector	2018 Pacific whiting allocation (mt)
Tribal	77,251
Catcher/Processor (C/P) Coop Program	123,312
Mothership (MS) Coop Program	87,044
Shorebased IFQ Program	152,326.5

In 2018, NMFS published a final rule changing the management of darkblotched rockfish and Pacific ocean perch from a total catch limit allocation to a set-aside (January 8, 2018; 83 FR 757). These set asides as well as the allocations of canary and widow rockfish to the Pacific whiting fishery are described in the footnotes to Table 2.b to part 660, subpart C and are not changed in this rulemaking.

Comments and Responses

On January 24, 2018, NMFS issued a proposed rule for the allocation and management of the 2018 tribal Pacific whiting fishery (83 FR 3291). The comment period on the proposed rule

closed on February 23, 2018. No relevant comments were received, and no changes were made from the proposed allocation and management measures for the 2018 tribal Pacific whiting fishery.

Classification

The Annual Specifications and Management Measures for the 2018 Tribal and non-Tribal Fisheries for Pacific Whiting are issued under the authority of the Magnuson-Stevens Act, and the Whiting Act of 2006. The measures are in accordance with 50 CFR part 660, subparts C through G, the regulations implementing the Pacific Coast Groundfish FMP, and NMFS has determined that this rule is consistent with the national standards of the Magnuson-Stevens Act and other applicable laws.

Pursuant to 5 U.S.C. 553(b)(B) and (d)(3), the NMFS Assistant Administrator finds good cause to waive prior public notice and comment and delay in effectiveness for those provisions in this final rule that were not included in proposed rule (83 FR 3291), *e.g.*, the U.S. TAC, as delaying this rule would be impracticable and contrary to the public interest. The annual harvest specifications for Pacific whiting must be implemented by the start of the primary Pacific whiting season, which begins on May 15, 2018, or the primary Pacific whiting fishery will effectively remain closed.

Every year, NMFS conducts a Pacific whiting stock assessment with participation from U.S. and Canadian scientists. The 2018 stock assessment for Pacific whiting was prepared in early 2018, and included updated total catch, length and age data from the U.S. and Canadian fisheries from 2017, and biomass indices from the 2017 Joint U.S.-Canadian acoustic/midwater trawl surveys. Because of this late availability of the most recent data for the assessment, and the need for time to conduct the treaty process for determining the TAC using the most recent

assessment, a determination on TAC could not be completed before April 23, 2018. Thus, it is not possible to allow for notice and comment before the start of the primary Pacific whiting season on May 15.

A delay in implementing the Pacific whiting harvest specifications to allow for notice and comment would be contrary to the public interest because it would require either a shorter primary whiting season or development of a TAC without the most recent data. A shorter season could prevent the tribal and non-tribal fisheries from attaining their 2018 allocations, which would result in unnecessary short-term adverse economic effects for the Pacific whiting fishing vessels and the associated fishing communities. A TAC determined without the most recent data could fail to account for significant fluctuations in the biomass of this relatively short-lived species. To prevent these adverse effects and to allow the Pacific whiting season to commence, it is in the best interest of the public to waive prior notice and comment.

In addition, pursuant to 5 U.S.C. 553(d)(3), the NMFS Assistant Administrator finds good cause to waive the 30-day delay in effectiveness. Waiving the 30-day delay in effectiveness will not have a negative impact on any entities, as there are no new compliance requirements or other burdens placed on the fishing community with this rule. Failure to make this final rule effective at the start of the fishing year will undermine the intent of the rule, which is to promote the optimal utilization and conservation of Pacific whiting. Making this rule effective immediately would also serve the best interests of the public because it will allow for the longest possible Pacific whiting fishing season and therefore the best possible economic outcome for those whose livelihoods depend on this fishery. Because the 30-day delay in effectiveness would potentially cause significant financial harm without providing any corresponding benefits, this final rule is effective upon publication in the Federal Register.

The Office of Management and Budget has determined that this final rule is not significant for purposes of Executive Order 12866. This rule is not an Executive Order 13771 regulatory action because this rule is not significant under Executive Order 12866.

Final Regulatory Flexibility Analysis

The description of this action, its purpose, and its legal basis are described in the preamble to the proposed rule and are not repeated here. A final regulatory flexibility analysis (FRFA) was prepared and incorporates the initial regulatory flexibility analysis (IRFA). NMFS also prepared a Regulatory Impact Review (RIR) for this action. A copy of the RIR/FRFA is available from NMFS (see ADDRESSES). A summary of the FRFA, per the requirements of 5 U.S.C. 604 follows.

A Summary of the Significant Issues Raised by the Public in Response to the IRFA, a Summary of the Agency's Assessment of Such Issues, and a Statement of Any Changes Made in the Final Rule as a Result of Such Comments

NMFS published a proposed rule on January 24, 2018 (83 FR 13291), for the allocation of the 2018 tribal Pacific whiting fishery. The comment period on the proposed rule closed on February 23, 2018, and no comments were received from either the public or the Small Business Administration on the initial regulatory flexibility analysis (IRFA) or the economic impacts of this action generally.

Description and Estimate of Number of Small Entities to Which the Rule Would Apply

The FRFA describes the impacts on small entities, which are defined in the IRFA for this action and not repeated here.

The current Shorebased IFQ Program is composed of 180 Quota Share permits/accounts, 154 vessel accounts, and 47 first receivers, only a portion of which participate in the Pacific

whiting fishery. These regulations also directly affect participants in the MS Coop Program, a general term to describe the limited access program that applies to eligible harvesters and processors in the MS sector of the Pacific whiting at-sea trawl fishery. This program currently consists of six MS processor permits, and a catcher vessel fleet currently composed of a single coop, with 34 Mothership/Catcher Vessel (MS/CV) endorsed permits (with three permits each having two catch history assignments).

These regulations also directly affect the C/P Coop Program, composed of 10 C/P endorsed permits owned by three companies that have formed a single coop. These coops are considered large entities from several perspectives; they have participants that are large entities, and have in total more than 750 employees worldwide including affiliates.

Although there are three non-tribal sectors, many companies participate in two sectors and some participate in all three sectors. As part of the permit application processes for the non-tribal fisheries, based on a review of the Small Business Administration size criteria, permit applicants were asked if they considered themselves a “small” business, and to provide detailed ownership information. After accounting for cross participation, multiple quota share account holders, and affiliation through ownership, NMFS estimates there are 103 non-tribal entities directly affected by these final regulations, 89 of which are considered “small” businesses.

Description of the Steps the Agency Has Taken to Minimize the Significant Economic Impact on Small Entities Consistent with the Stated Objectives of Applicable Statutes

Sector allocations in 2018 are the same as those in 2017. NMFS concludes that this rule will have similar outcomes as 2017 for both large and small entities, and will not disproportionately affect small entities. The U.S. portion of the TAC is divided between tribal, at-sea mothership, at-sea catcher processors, and shoreside whiting sectors at fixed percentages described above.

Within the non-tribal sectors, a catch share program allocates whiting to the individual vessel level based on history in the shoreside and mothership sectors. The catcher-processor coop harvests according to a coop agreement with agreed upon allocations to each company, which have not changed in the past eight years. With allocation determined down to the individual level in each sector, the TAC should benefit both large and small entities equal to the proportion of the individual level, and small entities would not feel disproportionate effects relative to large entities. With the high 2018 TAC, small entities are expected to benefit, and experience no adverse effects from this rule.

NMFS considered two alternatives for this action: The “No-Action” and the “Proposed Action.” Under the Proposed Action alternative, NMFS proposed to set the tribal allocation percentage at 17.5 percent, as requested by the tribes. These requests reflect the level of participation in the fishery that will allow the tribes to exercise their treaty right to fish for Pacific whiting. Consideration of a percentage lower than the tribal request of 17.5 percent is not appropriate in this instance. As a matter of policy, NMFS has historically supported the harvest levels requested by the tribes. Based on the information available to NMFS, the tribal request is within their tribal treaty rights. A higher percentage would arguably also be within the scope of the treaty right. However, a higher percentage would unnecessarily limit the non-tribal fishery. Under the no-action alternative, NMFS would not make an allocation to the tribal sector. This alternative was considered, but the regulatory framework provides for a tribal allocation on an annual basis only. Therefore, the no-action alternative would result in no allocation of Pacific whiting to the tribal sector in 2018, which would be inconsistent with NMFS' responsibility to manage the fishery consistent with the tribes' treaty rights. Given that there is a tribal request for allocation in 2018, this alternative received no further consideration.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

There are no reporting or recordkeeping requirements associated with this final rule. No federal rules have been identified that duplicate, overlap, or conflict with this action.

Small Entity Compliance Guide

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as “small entity compliance guides.” The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. As part of this rulemaking process, a small entity compliance guide will be sent to stakeholders, and copies of this final rule and guides (i.e., information bulletins) are available from NMFS at the following Web site: http://www.westcoast.fisheries.noaa.gov/fisheries/management/whiting/pacific_whiting.html.

Consultation and Coordination With Indian Tribal Governments

Pursuant to Executive Order 13175, this final rule was developed after meaningful collaboration with tribal officials from the area covered by the FMP. Consistent with the Magnuson-Stevens Act at 16 U.S.C. 1852(b)(5), one of the voting members of the Pacific Council is a representative of an Indian tribe with federally recognized fishing rights from the area of the Council’s jurisdiction. In addition, NMFS has coordinated specifically with the tribes interested in the whiting fishery regarding the issues addressed by this final rule.

List of Subjects in 50 CFR Part 660

Fisheries, Fishing, Indian Fisheries.

Dated: May 9, 2018.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 660 is amended as follows:

PART 660—FISHERIES OFF WEST COAST STATES

1. The authority citation for part 660 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*, 16 U.S.C. 773 *et seq.*, and 16 U.S.C. 7001 *et seq.*

2. In § 660.50, revise paragraph (f)(4) to read as follows:

§ 660.50 Pacific Coast treaty Indian fisheries.

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(f) * * *

(4) *Pacific whiting*. The tribal allocation for 2018 is 77,251 mt.

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3. Table 2a to part 660, subpart C, is revised to read as follows:

Table 2a. to Part 660, Subpart C – 2018, and Beyond, Specifications of OFL, ABC, ACL, ACT and Fishery Harvest Guidelines (weights in metric tons)

Species	Area	OFL	ABC	ACL a/	Fishery HG b/
BOCACCIO c/	S. of 40°10' N. lat.	2,013	1,924	741	726
COWCOD d/	S. of 40°10' N. lat.	71	64	10	8
DARKBLOTCHED ROCKFISH e/	Coastwide	683	653	653	576
PACIFIC OCEAN PERCH f/	N. of 40°10' N. lat.	984	941	281	232
YELLOWEYE ROCKFISH g/	Coastwide	58	48	20	14
Arrowtooth flounder h/	Coastwide	16,498	13,743	13,743	11,645
Big skate i/	Coastwide	541	494	494	437
Black rockfish j/	California (South of 42° N. lat.)	347	332	332	331
Black rockfish k/	Oregon (Between 46°16' N. lat. and 42° N. lat.)	570	520	520	519
Black rockfish l/	Washington (N. of 46°16' N. lat.)	315	301	301	283
Blackgill rockfish m/	S. of 40°10' N. lat.	NA	NA	NA	NA
Cabazon n/	California (South of 42° N. lat.)	156	149	149	149
Cabazon o/	Oregon (Between 46°16' N. lat. and 42° N. lat.)	49	47	47	47
California scorpionfish p/	S. of 34°27' N. lat.	278	254	150	148
Canary rockfish q/	Coastwide	1,596	1,526	1,526	1,467
Chilipepper r/	S. of 40°10' N. lat.	2,623	2,507	2,507	2,461
Dover sole s/	Coastwide	90,282	86,310	50,000	48,406
English sole t/	Coastwide	8,255	7,537	7,537	7,324
Lingcod u/	N. of 40°10' N. lat.	3,310	3,110	3,110	2,832
Lingcod v/	S. of 40°10' N. lat.	1,373	1,144	1,144	1,135
Longnose skate w/	Coastwide	2,526	2,415	2,000	1,853
Longspine thornyhead x/	Coastwide	4,339	3,614	NA	NA
Longspine thornyhead	N. of 34°27' N. lat.	NA	NA	2,747	2,700
Longspine thornyhead	S. of 34°27' N. lat.	NA	NA	867	864
Pacific cod y/	Coastwide	3,200	2,221	1,600	1,091
Pacific whiting z/	Coastwide	725,984	z/	z/	362,682
Petrале sole aa/	Coastwide	3,152	3,013	3,013	2,772
Sablefish	Coastwide	8,329	7,604	NA	NA
Sablefish bb/	N. of 36° N. lat.	NA	NA	5,475	See Table 2c
Sablefish cc/	S. of 36° N. lat.	NA	NA	1,944	1,939
Shortbelly rockfish dd/	Coastwide	6,950	5,789	500	489
Shortspine thornyhead ee/	Coastwide	3,116	2,596	NA	NA

Shortspine thornyhead	N. of 34°27' N. lat.	NA	NA	1,698	1,639
Shortspine thornyhead	S. of 34°27' N. lat.	NA	NA	898	856
Spiny dogfish ff/	Coastwide	2,500	2,083	2,083	1,745
Splitnose rockfish gg/	S. of 40°10' N. lat.	1,842	1,761	1,761	1,750
Starry flounder hh/	Coastwide	1,847	1,282	1,282	1,272
Widow rockfish ii/	Coastwide	13,237	12,655	12,655	12,437
Yellowtail rockfish jj/	N. of 40°10' N. lat.	6,574	6,002	6,002	4,972
Minor Nearshore Rockfish kk/	N. of 40°10' N. lat.	119	105	105	103
Minor Shelf Rockfish ll/	N. of 40°10' N. lat.	2,302	2,048	2,047	1,963
Minor Slope Rockfish mm/	N. of 40°10' N. lat.	1,896	1,754	1,754	1,689
Minor Nearshore Rockfish nn/	S. of 40°10' N. lat.	1,344	1,180	1,179	1,175
Minor Shelf Rockfish oo/	S. of 40°10' N. lat.	1,918	1,625	1,624	1,577
Minor Slope Rockfish pp/	S. of 40°10' N. lat.	829	719	709	689
Other Flatfish qq/	Coastwide	9,690	7,281	7,281	7,077
Other Fish rr/	Coastwide	501	441	441	441

^aAnnual catch limits (ACLs), annual catch targets (ACTs) and harvest guidelines (HGs) are specified as total catch values.

^bFishery harvest guidelines means the harvest guideline or quota after subtracting Pacific Coast treaty Indian tribes allocations and projected catch, projected research catch, deductions for fishing mortality in non-groundfish fisheries, and deductions for EFPs from the ACL or ACT.

^cBocaccio. A stock assessment was conducted in 2015 for the bocaccio stock between the U.S.-Mexico border and Cape Blanco. The stock is managed with stock-specific harvest specifications south of 40°10' N. lat. and within the Minor Shelf Rockfish complex north of 40°10' N. lat. A historical catch distribution of approximately 7.4 percent was used to apportion the assessed stock to the area north of 40°10' N. lat. The bocaccio stock was estimated to be at 36.8 percent of its unfished biomass in 2015. The OFL of 2,013 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 1,924 mt is a 4.4 percent reduction from

the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The 741 mt ACL is based on the current rebuilding plan with a target year to rebuild of 2022 and an SPR harvest rate of 77.7 percent. 15.4 mt is deducted from the ACL to accommodate the incidental open access fishery (0.8 mt), EFP catch (10 mt) and research catch (4.6 mt), resulting in a fishery HG of 725.6 mt. The California recreational fishery has an HG of 305.5 mt.

^dCowcod. A stock assessment for the Conception Area was conducted in 2013 and the stock was estimated to be at 33.9 percent of its unfished biomass in 2013. The Conception Area OFL of 59 mt is projected in the 2013 rebuilding analysis using an F_{MSY} proxy of $F_{50\%}$. The OFL contribution of 12 mt for the unassessed portion of the stock in the Monterey area is based on depletion-based stock reduction analysis. The OFLs for the Monterey and Conception areas were summed to derive the south of $40^{\circ}10'$ N. lat. OFL of 71 mt. The ABC for the area south of $40^{\circ}10'$ N. lat. is 64 mt. The assessed portion of the stock in the Conception Area is considered category 2, with a Conception area contribution to the ABC of 54 mt, which is an 8.7 percent reduction from the Conception area OFL ($\sigma = 0.72 / P^* = 0.45$). The unassessed portion of the stock in the Monterey area is considered a category 3 stock, with a contribution to the ABC of 10 mt, which is a 16.6 percent reduction from the Monterey area OFL ($\sigma = 1.44 / P^* = 0.45$). A single ACL of 10 mt is being set for both areas combined. The ACL of 10 mt is based on the rebuilding plan with a target year to rebuild of 2020 and an SPR harvest rate of 82.7 percent, which is equivalent to an exploitation rate (catch over age 11+ biomass) of 0.007. 2 mt is deducted from the ACL to accommodate the incidental open access fishery (less than 0.1 mt), EFP fishing (less than 0.1 mt) and research activity (2 mt), resulting in a fishery HG of 8 mt. Any additional mortality in research activities will be deducted from the ACL. A single ACT of 4 mt is being set for both areas combined.

^eDarkblotched rockfish. A 2015 stock assessment estimated the stock to be at 39 percent of its unfished biomass in 2015. The OFL of 683 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 653 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC, as the stock is projected to be above its target biomass of $B_{40\%}$ in 2017. 77.3 mt is deducted from the ACL to accommodate the Tribal fishery (0.2 mt), the incidental open access fishery (24.5 mt), EFP catch (0.1 mt), research catch (2.5 mt) and an additional deduction for unforeseen catch events (50 mt), resulting in a fishery HG of 575.8 mt.

^fPacific ocean perch. A stock assessment was conducted in 2011 and the stock was estimated to be at 19.1 percent of its unfished biomass in 2011. The OFL of 984 mt for the area north of $40^{\circ}10'$ N. lat. is based on an updated catch-only projection of the 2011 rebuilding analysis using an $F_{50\%}$ F_{MSY} proxy. The ABC of 941 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) as it is a category 1 stock. The ACL is based on the current rebuilding plan with a target year to rebuild of 2051 and a constant catch amount of 281 mt in 2017 and 2018, followed in 2019 and beyond by ACLs based on an SPR harvest rate of 86.4 percent. 49.4 mt is deducted from the ACL to accommodate the Tribal fishery (9.2 mt), the incidental open access fishery (10 mt), research catch (5.2 mt) and an additional deduction for unforeseen catch events (25 mt), resulting in a fishery HG of 231.6 mt.

^gYelloweye rockfish. A stock assessment update was conducted in 2011. The stock was estimated to be at 21.4 percent of its unfished biomass in 2011. The 58 mt coastwide OFL is based on a catch-only update of the 2011 stock assessment, assuming actual catches since 2011 and using an F_{MSY} proxy of $F_{50\%}$. The ABC of 48 mt is a 16.7 percent reduction from the OFL (σ

= 0.72 / P* = 0.40) as it is a category 2 stock. The 20 mt ACL is based on the current rebuilding plan with a target year to rebuild of 2074 and an SPR harvest rate of 76.0 percent. 6 mt is deducted from the ACL to accommodate the Tribal fishery (2.3 mt), the incidental open access fishery (0.4 mt), EFP catch (less than 0.1 mt) and research catch (3.27 mt) resulting in a fishery HG of 14 mt. Recreational HGs are: 3.3 mt (Washington); 3 mt (Oregon); and 3.9 mt (California).

^hArrowtooth flounder. The arrowtooth flounder stock was last assessed in 2007 and was estimated to be at 79 percent of its unfished biomass in 2007. The OFL of 16,498 mt is derived from a catch-only update of the 2007 assessment assuming actual catches since 2007 and using an $F_{30\%} F_{MSY}$ proxy. The ABC of 13,743 mt is a 16.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.40$) as it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{25\%}$. 2,098.1 mt is deducted from the ACL to accommodate the Tribal fishery (2,041 mt), the incidental open access fishery (40.8 mt), and research catch (16.4 mt), resulting in a fishery HG of 11,644.9 mt.

ⁱBig skate. The OFL of 541 mt is based on an estimate of trawl survey biomass and natural mortality. The ABC of 494 mt is a 8.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.45$) as it is a category 2 stock. The ACL is set equal to the ABC. 57.4 mt is deducted from the ACL to accommodate the Tribal fishery (15 mt), the incidental open access fishery (38.4 mt), and research catch (4 mt), resulting in a fishery HG of 436.6 mt.

^jBlack rockfish (California). A 2015 stock assessment estimated the stock to be at 33 percent of its unfished biomass in 2015. The OFL of 347 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 332 mt is a 4.4 percent reduction from the

OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is projected to be above its target biomass of $B_{40\%}$ in 2018. 1 mt is deducted from the ACL for EFP catch, resulting in a fishery HG of 331 mt.

^kBlack rockfish (Oregon). A 2015 stock assessment estimated the stock to be at 60 percent of its unfished biomass in 2015. The OFL of 570 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 520 mt is an 8.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.45$) because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 0.6 mt is deducted from the ACL to accommodate the incidental open access fishery, resulting in a fishery HG of 519.4 mt.

^lBlack rockfish (Washington). A 2015 stock assessment estimated the stock to be at 43 percent of its unfished biomass in 2015. The OFL of 315 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 301 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 18 mt is deducted from the ACL to accommodate the Tribal fishery, resulting in a fishery HG of 283 mt.

^mBlackgill rockfish. Blackgill rockfish contributes to the harvest specifications for the Minor Slope Rockfish South complex. See footnote pp.

ⁿCabazon (California). A cabazon stock assessment was conducted in 2009. The cabazon spawning biomass in waters off California was estimated to be at 48.3 percent of its unfished biomass in 2009. The OFL of 156 mt is calculated using an F_{MSY} proxy of $F_{50\%}$. The ABC of 149 mt is based on a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a

category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 0.3 mt is deducted from the ACL to accommodate the incidental open access fishery (0.3 mt), resulting in a fishery HG of 148.7 mt.

^oCabazon (Oregon). A cabazon stock assessment was conducted in 2009. The cabazon spawning biomass in waters off Oregon was estimated to be at 52 percent of its unfished biomass in 2009. The OFL of 49 mt is calculated using an F_{MSY} proxy of $F_{45\%}$. The ABC of 47 mt is based on a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 species. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. There are no deductions from the ACL so the fishery HG is also equal to the ACL of 47 mt.

^pCalifornia scorpionfish. A California scorpionfish assessment was conducted in 2005 and was estimated to be at 79.8 percent of its unfished biomass in 2005. The OFL of 278 mt is based on projections from a catch-only update of the 2005 assessment assuming actual catches since 2005 and using an F_{MSY} harvest rate proxy of $F_{50\%}$. The ABC of 254 mt is an 8.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.45$) because it is a category 2 stock. The ACL is set at a constant catch amount of 150 mt. 2.2 mt is deducted from the ACL to accommodate the incidental open access fishery (2 mt) and research catch (0.2 mt), resulting in a fishery HG of 147.8 mt. An ACT of 111 mt is established.

^qCanary rockfish. A stock assessment was conducted in 2015 and the stock was estimated to be at 55.5 percent of its unfished biomass coastwide in 2015. The coastwide OFL of 1,596 mt is projected in the 2015 assessment using an F_{MSY} harvest rate proxy of $F_{50\%}$. The ABC of 1,526 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) as it is a category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 59.4 mt is

deducted from the ACL to accommodate the Tribal fishery (50 mt), the incidental open access fishery (1.2 mt), EFP catch (1 mt) and research catch (7.2 mt) resulting in a fishery HG of 1,466.6 mt. Recreational HGs are: 50 mt (Washington); 75 mt (Oregon); and 135 mt (California).

^rChilipepper. A coastwide update assessment of the chilipepper stock was conducted in 2015 and estimated to be at 64 percent of its unfished biomass in 2015. Chilipepper are managed with stock-specific harvest specifications south of 40°10'N. lat. and within the Minor Shelf Rockfish complex north of 40°10' N. lat. Projected OFLs are stratified north and south of 40°10' N. lat. based on the average historical assessed area catch, which is 93 percent for the area south of 40°10' N. lat. and 7 percent for the area north of 40°10' N. lat. The OFL of 2,623 mt for the area south of 40°10' N. lat. is projected in the 2015 assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 2,507 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 45.9 mt is deducted from the ACL to accommodate the incidental open access fishery (5 mt), EFP fishing (30 mt), and research catch (10.9 mt), resulting in a fishery HG of 2,461.1 mt.

^sDover sole. A 2011 Dover sole assessment estimated the stock to be at 83.7 percent of its unfished biomass in 2011. The OFL of 90,282 mt is based on an updated catch-only projection from the 2011 stock assessment assuming actual catches since 2011 and using an F_{MSY} proxy of $F_{30\%}$. The ABC of 86,310 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL could be set equal to the ABC because the stock is above its target biomass of $B_{25\%}$. However, the ACL of 50,000 mt is set at a level below the ABC and higher than the maximum historical landed catch. 1,593.7 mt is deducted from the ACL to

accommodate the Tribal fishery (1,497 mt), the incidental open access fishery (54.8 mt), and research catch (41.9 mt), resulting in a fishery HG of 48,406.3 mt.

^tEnglish sole. A 2013 stock assessment was conducted, which estimated the stock to be at 88 percent of its unfished biomass in 2013. The OFL of 8,255 mt is projected in the 2013 assessment using an F_{MSY} proxy of $F_{30\%}$. The ABC of 7,537 mt is an 8.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.45$) because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{25\%}$. 212.8 mt is deducted from the ACL to accommodate the Tribal fishery (200 mt), the incidental open access fishery (7 mt) and research catch (5.8 mt), resulting in a fishery HG of 7,324.2 mt.

^uLingcod north. The 2009 lingcod assessment modeled two populations north and south of the California-Oregon border (42° N. lat.). Both populations were healthy with stock depletion estimated at 62 and 74 percent for the north and south, respectively in 2009. The OFL is based on an updated catch-only projection from the 2009 assessment assuming actual catches since 2009 and using an F_{MSY} proxy of $F_{45\%}$. The OFL is apportioned by adding 48 percent of the OFL from California, resulting in an OFL of 3,310 mt for the area north of 40°10' N. lat. The ABC of 3,110 mt is based on a 4.4 percent reduction ($\sigma = 0.36 / P^* = 0.45$) from the OFL contribution for the area north of 42° N. lat. because it is a category 1 stock, and an 8.7 percent reduction ($\sigma = 0.72 / P^* = 0.45$) from the OFL contribution for the area between 42° N. lat. and 40°10' N. lat. because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 278.2 mt is deducted from the ACL for the Tribal fishery (250 mt), the incidental open access fishery (16 mt), EFP catch (0.5 mt) and research catch (11.7 mt), resulting in a fishery HG of 2,831.8 mt.

^vLingcod south. The 2009 lingcod assessment modeled two populations north and south of the California-Oregon border (42° N. lat.). Both populations were healthy with stock depletion estimated at 62 and 74 percent for the north and south, respectively in 2009. The OFL is based on an updated catch-only projection of the 2009 stock assessment assuming actual catches since 2009 and using an F_{MSY} proxy of $F_{45\%}$. The OFL is apportioned by subtracting 48 percent of the California OFL, resulting in an OFL of 1,373 mt for the area south of 40°10' N. lat. The ABC of 1,144 mt is based on a 16.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.40$) because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 9 mt is deducted from the ACL to accommodate the incidental open access fishery (6.9 mt), EFP fishing (1 mt), and research catch (1.1 mt), resulting in a fishery HG of 1,135 mt.

^wLongnose skate. A stock assessment was conducted in 2007 and the stock was estimated to be at 66 percent of its unfished biomass. The OFL of 2,526 mt is derived from the 2007 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 2,415 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL of 2,000 mt is a fixed harvest level that provides greater access to the stock and is less than the ABC. 147 mt is deducted from the ACL to accommodate the Tribal fishery (130 mt), incidental open access fishery (3.8 mt), and research catch (13.2 mt), resulting in a fishery HG of 1,853 mt.

^xLongspine thornyhead. A 2013 longspine thornyhead coastwide stock assessment estimated the stock to be at 75 percent of its unfished biomass in 2013. A coastwide OFL of 4,339 mt is projected in the 2013 stock assessment using an $F_{50\%F_{MSY}}$ proxy. The coastwide ABC of 3,614 mt is a 16.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.40$) because it is a category 2 stock. For the portion of the stock that is north of 34°27' N. lat., the ACL is 2,747 mt,

and is 76 percent of the coastwide ABC based on the average swept-area biomass estimates (2003-2012) from the NMFS NWFSC trawl survey. 46.8 mt is deducted from the ACL to accommodate the Tribal fishery (30 mt), the incidental open access fishery (3.3 mt), and research catch (13.5 mt), resulting in a fishery HG of 2,700.2 mt. For that portion of the stock south of 34°27' N. lat. the ACL is 867 mt and is 24 percent of the coastwide ABC based on the average swept-area biomass estimates (2003-2012) from the NMFS NWFSC trawl survey. 3.2 mt is deducted from the ACL to accommodate the incidental open access fishery (1.8 mt), and research catch (1.4 mt), resulting in a fishery HG of 863.8 mt.

^yPacific cod. The 3,200 mt OFL is based on the maximum level of historic landings. The ABC of 2,221 mt is a 30.6 percent reduction from the OFL ($\sigma = 1.44 / P^* = 0.40$) as it is a category 3 stock. The 1,600 mt ACL is the OFL reduced by 50 percent as a precautionary adjustment. 509 mt is deducted from the ACL to accommodate the Tribal fishery (500 mt), research catch (7 mt), and the incidental open access fishery (2 mt), resulting in a fishery HG of 1,091 mt.

^zPacific whiting. The coastwide stock assessment was published in 2018 and estimated the spawning stock to be at 66.7 percent of its unfished biomass. The 2018 OFL of 725,984 mt is based on the 2018 assessment with an $F_{40\%}$ FMSY proxy. The 2018 coastwide, unadjusted Total Allowable Catch (TAC) of 517,775 mt is based on the 2018 stock assessment. The U.S. TAC is 73.88 percent of the coastwide unadjusted TAC. Up to 15 percent of each party's unadjusted 2017 TAC (58,901 mt for the U.S. and 20,824 mt for Canada) is added to each party's 2018 unadjusted TAC, resulting in a U.S. adjusted 2018 TAC of 441,433 mt. From the adjusted U.S. TAC, 77,251 mt is deducted to accommodate the Tribal fishery, and 1,500 mt is deducted to accommodate research and bycatch in other fisheries, resulting in a fishery HG of 362,682 mt.

The TAC for Pacific whiting is established under the provisions of the Agreement with Canada on Pacific Hake/Whiting and the Pacific Whiting Act of 2006, 16 U.S.C. 7001–7010, and the international exception applies. Therefore, no ABC or ACL values are provided for Pacific whiting.

^{aa}Petrale sole. A 2015 stock assessment update was conducted, which estimated the stock to be at 31 percent of its unfished biomass in 2015. The OFL of 3,152 mt is projected in the 2015 assessment using an F_{MSY} proxy of $F_{30\%}$. The ABC of 3,013 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{25\%}$. 240.9 mt is deducted from the ACL to accommodate the Tribal fishery (220 mt), the incidental open access fishery (3.2 mt) and research catch (17.7 mt), resulting in a fishery HG of 2,772.1 mt.

^{bb}Sablefish north. A coastwide sablefish stock assessment update was conducted in 2015. The coastwide sablefish biomass was estimated to be at 33 percent of its unfished biomass in 2015. The coastwide OFL of 8,329 mt is projected in the 2015 stock assessment using an F_{MSY} proxy of $F_{45\%}$. The ABC of 7,604 mt is an 8.7 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.40$). The 40-10 adjustment is applied to the ABC to derive a coastwide ACL value because the stock is in the precautionary zone. This coastwide ACL value is not specified in regulations. The coastwide ACL value is apportioned north and south of 36° N. lat., using the 2003-2014 average estimated swept area biomass from the NMFS NWFSC trawl survey, with 73.8 percent apportioned north of 36° N. lat. and 26.2 percent apportioned south of 36° N. lat. The northern ACL is 5,475 mt and is reduced by 548 mt for the Tribal allocation (10 percent of

the ACL north of 36° N. lat.). The 548 mt Tribal allocation is reduced by 1.5 percent to account for discard mortality. Detailed sablefish allocations are shown in Table 2c.

^{cc}Sablefish south. The ACL for the area south of 36° N. lat. is 1,944 mt (26.2 percent of the calculated coastwide ACL value). 5 mt is deducted from the ACL to accommodate the incidental open access fishery (2 mt) and research catch (3 mt), resulting in a fishery HG of 1,939 mt.

^{dd}Shortbelly rockfish. A non-quantitative shortbelly rockfish assessment was conducted in 2007. The spawning stock biomass of shortbelly rockfish was estimated to be 67 percent of its unfished biomass in 2005. The OFL of 6,950 mt is based on the estimated MSY in the 2007 stock assessment. The ABC of 5,789 mt is a 16.7 percent reduction of the OFL ($\sigma = 0.72 / P^* = 0.40$) because it is a category 2 stock. The 500 mt ACL is set to accommodate incidental catch when fishing for co-occurring healthy stocks and in recognition of the stock's importance as a forage species in the California Current ecosystem. 10.9 mt is deducted from the ACL to accommodate the incidental open access fishery (8.9 mt) and research catch (2 mt), resulting in a fishery HG of 489.1 mt.

^{ee}Shortspine thornyhead. A 2013 coastwide shortspine thornyhead stock assessment estimated the stock to be at 74.2 percent of its unfished biomass in 2013. A coastwide OFL of 3,116 mt is projected in the 2013 stock assessment using an $F_{50\%F_{MSY}}$ proxy. The coastwide ABC of 2,596 mt is a 16.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.40$) because it is a category 2 stock. For the portion of the stock that is north of 34°27' N. lat., the ACL is 1,698 mt. The northern ACL is 65.4 percent of the coastwide ABC based on the average swept-area biomass estimates (2003-2012) from the NMFS NWFSC trawl survey. 59 mt is deducted from

the ACL to accommodate the Tribal fishery (50 mt), the incidental open access fishery (1.8 mt), and research catch (7.2 mt), resulting in a fishery HG of 1,639 mt for the area north of 34°27' N. lat. For that portion of the stock south of 34°27' N. lat. the ACL is 898 mt. The southern ACL is 34.6 percent of the coastwide ABC based on the average swept-area biomass estimates (2003-2012) from the NMFS NWFSC trawl survey. 42.3 mt is deducted from the ACL to accommodate the incidental open access fishery (41.3 mt) and research catch (1 mt), resulting in a fishery HG of 855.7 mt for the area south of 34°27' N. lat.

^{ff}Spiny dogfish. A coastwide spiny dogfish stock assessment was conducted in 2011. The coastwide spiny dogfish biomass was estimated to be at 63 percent of its unfished biomass in 2011. The coastwide OFL of 2,500 mt is derived from the 2011 assessment using an F_{MSY} proxy of $F_{50\%}$. The coastwide ABC of 2,083 mt is a 16.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.40$) because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 338 mt is deducted from the ACL to accommodate the Tribal fishery (275 mt), the incidental open access fishery (49.5 mt), EFP catch (1 mt), and research catch (12.5 mt), resulting in a fishery HG of 1,745 mt.

^{ss}Splitnose rockfish. A coastwide splitnose rockfish assessment was conducted in 2009 that estimated the stock to be at 66 percent of its unfished biomass in 2009. Splitnose rockfish in the north is managed in the Minor Slope Rockfish complex and with stock-specific harvest specifications south of 40°10' N. lat. The coastwide OFL is projected in the 2009 assessment using an F_{MSY} proxy of $F_{50\%}$. The coastwide OFL is apportioned north and south of 40°10' N. lat. based on the average 1916-2008 assessed area catch resulting in 64.2 percent of the coastwide OFL apportioned south of 40°10' N. lat., and 35.8 percent apportioned for the contribution of

splitnose rockfish to the northern Minor Slope Rockfish complex. The southern OFL of 1,842 mt results from the apportionment described above. The southern ABC of 1,761 mt is a 4.4 percent reduction from the southern OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is estimated to be above its target biomass of $B_{40\%}$. 10.7 mt is deducted from the ACL to accommodate the incidental open access fishery (0.2 mt), research catch (9 mt) and EFP catch (1.5 mt), resulting in a fishery HG of 1,750.3 mt.

^{hh}Starry flounder. The stock was assessed in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005 (44 percent in Washington and Oregon, and 62 percent in California). The coastwide OFL of 1,847 mt is set equal to the 2016 OFL, which was derived from the 2005 assessment using an F_{MSY} proxy of $F_{30\%}$. The ABC of 1,282 mt is a 30.6 percent reduction from the OFL ($\sigma = 1.44 / P^* = 0.40$) because it is a category 3 stock. The ACL is set equal to the ABC because the stock was estimated to be above its target biomass of $B_{25\%}$ in 2018. 10.3 mt is deducted from the ACL to accommodate the Tribal fishery (2 mt), and the incidental open access fishery (8.3 mt), resulting in a fishery HG of 1,271.7 mt.

ⁱⁱWidow rockfish. The widow rockfish stock was assessed in 2015 and was estimated to be at 75 percent of its unfished biomass in 2015. The OFL of 13,237 mt is projected in the 2015 stock assessment using the $F_{50\%}$ F_{MSY} proxy. The ABC of 12,655 mt is a 4.4 percent reduction from the OFL ($\sigma = 0.36 / P^* = 0.45$) because it is a category 1 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 217.7 mt is deducted from the ACL to accommodate the Tribal fishery (200 mt), the incidental open access fishery (0.5 mt), EFP catch (9 mt) and research catch (8.2 mt), resulting in a fishery HG of 12,437.3 mt.

^{jj}Yellowtail rockfish. A 2013 yellowtail rockfish stock assessment was conducted for the portion of the population north of 40°10' N. lat. The estimated stock depletion is 67 percent of its unfished biomass in 2013. The OFL of 6,574 mt is projected in the 2013 stock assessment using an F_{MSY} proxy of $F_{50\%}$. The ABC of 6,002 mt is an 8.7 percent reduction from the OFL ($\sigma = 0.72 / P^* = 0.45$) because it is a category 2 stock. The ACL is set equal to the ABC because the stock is above its target biomass of $B_{40\%}$. 1,030 mt is deducted from the ACL to accommodate the Tribal fishery (1,000 mt), the incidental open access fishery (3.4 mt), EFP catch (10 mt) and research catch (16.6 mt), resulting in a fishery HG of 4,972.1 mt.

^{kk}Minor Nearshore Rockfish north. The OFL for Minor Nearshore Rockfish north of 40°10' N. lat. of 119 mt is the sum of the OFL contributions for the component species managed in the complex. The ABCs for the minor rockfish complexes are based on a sigma value of 0.72 for category 2 stocks (blue/deacon rockfish in California, brown rockfish, China rockfish, and copper rockfish) and a sigma value of 1.44 for category 3 stocks (all others) with a P^* of 0.45. The resulting ABC of 105 mt is the summed contribution of the ABCs for the component species. The ACL of 105 mt is the sum of contributing ABCs. 1.8 mt is deducted from the ACL to accommodate the Tribal fishery (1.5 mt), and the incidental open access fishery (0.3 mt), resulting in a fishery HG of 103.2 mt. Between 40°10' N. lat. and 42° N. lat. the Minor Nearshore Rockfish complex north has a harvest guideline of 40.2 mt. Blue/deacon rockfish south of 42° N. lat. has a species-specific HG, described in footnote pp.

^{ll}Minor Shelf Rockfish north. The OFL for Minor Shelf Rockfish north of 40°10' N. lat. of 2,302 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the minor rockfish complexes are based on a sigma value of 0.36 for a category 1

stock (chilipepper), a sigma value of 0.72 for category 2 stocks (greenspotted rockfish between 40°10' and 42° N. lat. and greenstriped rockfish) and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 2,048 mt is the summed contribution of the ABCs for the component species. The ACL of 2,047 mt is the sum of contributing ABCs of healthy assessed stocks and unassessed stocks, plus the ACL contribution of greenspotted rockfish in California where the 40-10 adjustment was applied to the ABC contribution for this stock because it is in the precautionary zone. 83.8 mt is deducted from the ACL to accommodate the Tribal fishery (30 mt), the incidental open access fishery (26 mt), EFP catch (3 mt), and research catch (24.8 mt), resulting in a fishery HG of 1,963.2 mt.

^{mm}Minor Slope Rockfish north. The OFL for Minor Slope Rockfish north of 40°10' N. lat. of 1,896 mt is the sum of the OFL contributions for the component species within the complex. The ABCs for the Minor Slope Rockfish complexes are based on a sigma value of 0.39 for aurora rockfish, a sigma value of 0.36 for the other category 1 stock (splitnose rockfish), a sigma value of 0.72 for category 2 stocks (roughey rockfish, blackspotted rockfish, and sharpchin rockfish), and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. A unique sigma of 0.39 was calculated for aurora rockfish because the variance in estimated spawning biomass was greater than the 0.36 used as a proxy for other category 1 stocks. The resulting ABC of 1,754 mt is the summed contribution of the ABCs for the component species. The ACL is set equal to the ABC because all the assessed component stocks (roughey rockfish, blackspotted rockfish, sharpchin rockfish, and splitnose rockfish) are above the target biomass of B_{40%}. 65.1 mt is deducted from the ACL to accommodate the Tribal fishery (36 mt), the incidental open access fishery (18.6 mt), EFP catch (1 mt), and research catch (9.5 mt), resulting in a fishery HG of 1,688.9 mt.

ⁿⁿMinor Nearshore Rockfish south. The OFL for the Minor Nearshore Rockfish complex south of 40°10' N. lat. of 1,344 mt is the sum of the OFL contributions for the component species within the complex. The ABC for the southern Minor Nearshore Rockfish complex is based on a sigma value of 0.72 for category 2 stocks (blue/deacon rockfish north of 34°27' N. lat., brown rockfish, China rockfish, and copper rockfish) and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 1,180 mt is the summed contribution of the ABCs for the component species. The ACL of 1,179 mt is the sum of the contributing ABCs of healthy assessed stocks and unassessed stocks, plus the ACL contribution for China rockfish where the 40-10 adjustment was applied to the ABC contribution for this stock because it is in the precautionary zone. 4.1 mt is deducted from the ACL to accommodate the incidental open access fishery (1.4 mt) and research catch (2.7 mt), resulting in a fishery HG of 1,174.9 mt. Blue/deacon rockfish south of 42° N. lat. has a species-specific HG set equal to the 40-10-adjusted ACL for the portion of the stock north of 34°27' N. lat. (250.3 mt) plus the ABC contribution for the unassessed portion of the stock south of 34°27' N. lat. (60.8 mt). The California (*i.e.*, south of 42° N. lat.) blue/deacon rockfish HG is 311.1 mt.

^{oo}Minor Shelf Rockfish south. The OFL for the Minor Shelf Rockfish complex south of 40°10' N. lat. of 1,918 mt is the sum of the OFL contributions for the component species within the complex. The ABC for the southern Minor Shelf Rockfish complex is based on a sigma value of 0.72 for category 2 stocks (*i.e.*, greenspotted and greenstriped rockfish) and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. The resulting ABC of 1,625 mt is the summed contribution of the ABCs for the component species. The ACL of 1,624 mt is the sum of contributing ABCs of healthy assessed stocks and unassessed stocks, plus the ACL contribution of greenspotted rockfish in California where the 40-10 adjustment was applied to

the ABC contribution for this stock because it is in the precautionary zone. 47.2 mt is deducted from the ACL to accommodate the incidental open access fishery (8.6 mt), EFP catch (30 mt), and research catch (8.6 mt), resulting in a fishery HG of 1,576.8 mt.

^{pp}Minor Slope Rockfish south. The OFL of 829 mt is the sum of the OFL contributions for the component species within the complex. The ABC for the southern Minor Slope Rockfish complex is based on a sigma value of 0.39 for aurora rockfish, a sigma value of 0.72 for category 2 stocks (blackgill rockfish, roughey rockfish, blackspotted rockfish, and sharpchin rockfish) and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. A unique sigma of 0.39 was calculated for aurora rockfish because the variance in estimated biomass was greater than the 0.36 used as a proxy for other category 1 stocks. The resulting ABC of 719 mt is the summed contribution of the ABCs for the component species. The ACL of 709 mt is the sum of the contributing ABCs of healthy assessed stocks and unassessed stocks, plus the ACL contribution of blackgill rockfish where the 40-10 adjustment was applied to the ABC contribution for this stock because it is in the precautionary zone. 20.2 mt is deducted from the ACL to accommodate the incidental open access fishery (17.2 mt), EFP catch (1 mt), and research catch (2 mt), resulting in a fishery HG of 688.8 mt. Blackgill rockfish has a stock-specific HG for the entire groundfish fishery south of 40°10' N lat. set equal to the species' contribution to the 40-10-adjusted ACL. Harvest of blackgill rockfish in all groundfish fisheries counts against this HG of 122.4 mt. Nontrawl fisheries are subject to a blackgill rockfish HG of 45.3 mt.

^{qq}Other Flatfish. The Other Flatfish complex is comprised of flatfish species managed in the PCGFMP that are not managed with species-specific OFLs/ABCs/ACLs. Most of the species in

the Other Flatfish complex are unassessed and include: Butter sole, curlfin sole, flathead sole, Pacific sanddab, rock sole, sand sole, and rex sole. The Other Flatfish OFL of 9,690 mt is based on the sum of the OFL contributions of the component stocks. The ABC of 7,281 mt is based on a sigma value of 0.72 for a category 2 stock (rex sole) and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.40. The ACL is set equal to the ABC. The ACL is set equal to the ABC because all of the assessed stocks (*i.e.*, Pacific sanddabs and rex sole) were above their target biomass of B_{25%}. 204 mt is deducted from the ACL to accommodate the Tribal fishery (60 mt), the incidental open access fishery 125 mt), and research catch (19 mt), resulting in a fishery HG of 7,077 mt.

^rOther Fish. The Other Fish complex is comprised of kelp greenling coastwide, cabezon off Washington, and leopard shark coastwide. The 2015 assessment for the kelp greenling stock off of Oregon projected an estimated depletion of 80 percent. All other stocks are unassessed. The OFL of 501 mt is the sum of the OFL contributions for kelp greenling coastwide, cabezon off Washington, and leopard shark coastwide. The ABC for the Other Fish complex is based on a sigma value of 0.44 for kelp greenling off Oregon and a sigma value of 1.44 for category 3 stocks (all others) with a P* of 0.45. A unique sigma of 0.44 was calculated for kelp greenling off Oregon because the variance in estimated spawning biomass was greater than the 0.36 sigma used as a proxy for other category 1 stocks. The resulting ABC of 441 mt is the summed contribution of the ABCs for the component species. The ACL is set equal to the ABC because all of the assessed stocks (kelp greenling off Oregon) were above their target biomass of B_{40%}. There are no deductions from the ACL so the fishery HG is equal to the ACL of 441 mt.

4. Table 2b to part 660, subpart C, is revised to read as follows:

Table 2b. to Part 660, Subpart C – 2018, and Beyond, Allocations by Species or Species

Group (weight in metric tons)

Species	Area	Fishery HG or ACT		Non-trawl		
			Percent	Mt	Percent	Mt
BOCACCIO a/	S. of 40°10' N. lat.	725.6	39	283.3	61	442.3
COWCOD a/b/	S. of 40°10' N. lat.	4.0	36	1.4	64	2.6
DARKBLOTCHED ROCKFISH c/	Coastwide	575.8	95	547.0	5	28.8
PACIFIC OCEAN PERCH d/	N. of 40°10' N. lat.	231.6	95	220.0	5	11.6
YELLOW EYE ROCKFISH a/	Coastwide	14.0	NA	1.1	NA	12.9
Arrowtooth flounder	Coastwide	11,644.9	95	11,062.6	5	582.2
Big skate a/	Coastwide	436.6	95	414.8	5	21.8
Canary rockfish a/e/	Coastwide	1,466.6	NA	1,060.1	NA	406.5
Chilipepper	S. of 40°10' N. lat.	2,461.1	75	1,845.8	25	615.3
Dover sole	Coastwide	48,406.3	95	45,986.0	5	2,420.3
English sole	Coastwide	7,324.2	95	6,958.0	5	366.2
Lingcod	N. of 40°10' N. lat.	2,831.8	45	1,274.3	55	1,557.5
Lingcod	S. of 40°10' N. lat.	1,135.0	45	510.8	55	624.3
Longnose skate a/	Coastwide	1,853.0	90	1,667.7	10	185.3
Longspine thornyhead	N. of 34°27' N. lat.	2,700.2	95	2,565.2	5	135.0
Pacific cod	Coastwide	1,091.0	95	1,036.4	5	54.5
Pacific whiting g/	Coastwide	362,682.0	100	362,682.0	0	0.0
Petrale sole	Coastwide	2,772.1	95	2,633.5	5	138.6
Sablefish	N. of 36° N. lat.	N/A	See Table 2c			
Sablefish	S. of 36° N. lat.	1,939.0	42	814.4	58	1,124.6
Shortspine thornyhead	N. of 34°27' N. lat.	1,639.0	95	1,557.0	5	81.9
Shortspine thornyhead	S. of 34°27' N. lat.	855.7	NA	50.0	NA	805.7
Splitnose rockfish	S. of 40°10' N. lat.	1,750.3	95	1,662.8	5	87.5
Starry flounder	Coastwide	1,271.7	50	635.9	50	635.9
Widow rockfish f/	Coastwide	12,437.3	91	11,317.9	9	1,119.4

Yellowtail rockfish	N. of 40°10' N. lat.	4,972.1	88	4,375.4	12	596.6
Minor Shelf Rockfish a/	N. of 40°10' N. lat.	1,963.2	60	1,181.8	40	781.4
Minor Slope Rockfish	N. of 40°10' N. lat.	1,688.9	81	1,368.0	19	320.9
Minor Shelf Rockfish a/	S. of 40°10' N. lat.	1,576.8	12	192.37	88	1,384.4
Minor Slope Rockfish	S. of 40°10' N. lat.	688.8	63	433.9	37	254.9
Other Flatfish	Coastwide	7,077.0	90	6,369.3	10	707.7

a/ Allocations decided through the biennial specification process.

b/ The cowcod fishery harvest guideline is further reduced to an ACT of 4.0 mt.

c/ Consistent with regulations at §660.55(c), 9 percent (49.2 mt) of the total trawl allocation for darkblotched rockfish is allocated to the Pacific whiting fishery, as follows: 20.7 mt for the Shorebased IFQ Program, 11.8 mt is managed as a set-aside for the MS sector, and 16.7 mt is managed as a set-aside for the C/P sector. The tonnage calculated here for the Pacific whiting IFQ fishery contributes to the total shorebased trawl allocation, which is found at §660.140(d)(1)(ii)(D).

d/ Consistent with regulations at §660.55(c), 17 percent (37.4 mt) of the total trawl allocation for POP is allocated to the Pacific whiting fishery, as follows: 15.7 mt for the Shorebased IFQ Program, 9.0 mt is managed as a set-aside the MS sector, and 12.7 mt is managed as a set-aside for the C/P sector. The tonnage calculated here for the Pacific whiting IFQ fishery contributes to the total shorebased trawl allocation, which is found at §660.140(d)(1)(ii)(D).

e/ Canary rockfish is allocated approximately 72 percent to trawl and 28 percent to non-trawl. 46 mt of the total trawl allocation of canary rockfish is allocated to the MS and C/P sectors, as follows: 30 mt for the MS sector, and 16 mt for the C/P sector.

f/ Consistent with regulations at §660.55(c), 10 percent (1,131.8 mt) of the total trawl

allocation for widow rockfish is allocated to the Pacific whiting fishery, as follows: 475.4 mt for the Shorebased IFQ Program, 271.6 mt for the MS sector, and 384.8 mt for the C/P sector. The tonnage calculated here for the Pacific whiting IFQ fishery contributes to the total shorebased trawl allocation, which is found at §660.140(d)(1)(ii)(D).

g/ Consistent with regulations at § 660.55(i)(2), the commercial harvest guideline for Pacific whiting is allocated as follows: 34 percent (123,312 mt) for the C/P Coop Program; 24 percent (87,044 mt) for the MS Coop Program; and 42 percent (152,326.5 mt) for the Shorebased IFQ Program. No more than 5 percent of the Shore based IFQ Program allocation (7,616 mt) may be taken and retained south of 42° N. lat. before the start of the primary Pacific whiting season north of 42° N. lat.

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5. In § 660.140, revise paragraph (d)(1)(ii)(D) to read as follows:

§ 660.140 Shorebased IFQ Program.

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(d) * * *

(1) * * *

(ii) * * *

(D) For the trawl fishery, NMFS will issue QP based on the following shorebased trawl allocations:

IFQ species	Area	2017 Shorebased trawl allocation (mt)	2018 Shorebased trawl allocation (mt)
Arrowtooth flounder	Coastwide	11,050.6	10,992.6
BOCACCI	South of 40° 10' N. lat.	302.4	283.3
Canary rockfish	Coastwide	1,014.1	1,014.1

Chilipepper	South of 40°10' N. lat.	1,920.8	1,845.8
COWCOD	South of 40°10' N. lat.	1.40	1.40
DARKBLOTCHED ROCKFISH	Coastwide	507.6	518.4
Dover sole	Coastwide	45,981.0	45,981.0
English sole	Coastwide	9,258.6	6,953.0
Lingcod	North of 40°10' N. lat.	1,359.7	1,259.32
Lingcod	South of 40°10' N. lat.	558.9	510.75
Longspine thornyhead	North of 34°27' N. lat.	2,699.8	2,560.2
Minor Shelf Rockfish complex	North of 40°10' N. lat.	1,148.1	1,146.8
Minor Shelf Rockfish complex	South of 40°10' N. lat.	192.2	192.4
Minor Slope Rockfish complex	North of 40°10' N. lat.	1,268.8	1,268.0
Minor Slope Rockfish complex	South of 40°10' N. lat.	432.7	433.9
Other Flatfish complex	Coastwide	7,455.4	6,349.3
Pacific cod	Coastwide	1,031.4	1,031.4
PACIFIC OCEAN PERCH	North of 40°10' N. lat.	198.3	198.3
Pacific whiting	Coastwide	152,326.5	152,326.5
Petrale sole	Coastwide	2,745.3	2,628.5
Sablefish	North of 36° N;. lat.	2,416.4	2,521.9
Sablefish	South of 36° N. lat.	780.8	814.4
Shortspine thornyhead	North of 34°27' N. lat.	1551.3	1,537.0
Shortspine thornyhead	South of 34°27' N. lat	50.0	50.0
Splitnose rockfish	South of 40°10' N. lat.	1661.8	1,662.8
Starry flounder	Coastwide	630.9	630.9
Widow rockfish	Coastwide	11,392.7	10,661.5
YELLOWEYE ROCKFISH	Coastwide	1.10	1.10
Yellowtail rockfish	North of 40°10' N. lat.	4,246.1	4,075.4

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