

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 660

[Docket No. 100804324-0489-01]

RIN 0648-BA01

**Magnuson-Stevens Act Provisions; Fisheries Off West Coast States; Pacific Coast Groundfish Fishery; 2011-2012 Biennial Specifications and Management Measures; Amendment 16-5; and Amendment 23**

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

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** This proposed action would establish the 2011-2012 harvest specifications and management measures for groundfish taken in the U.S. exclusive economic zone (EEZ) off the coasts of Washington, Oregon, and California consistent with the Magnuson-Stevens Fishery Conservation and Management Act and the Pacific Coast Groundfish Fishery Management Plan (PCGFMP). This action revises the collection of management measures in the groundfish fishery regulations that are intended to keep the total catch of each groundfish species or species complex within the harvest specifications. This action also includes regulations to implement Amendments 16-5 and 23 to the PCGFMP. Amendment 16-5 would revise existing rebuilding plans, create a new rebuilding plan for Petrale sole, which was declared overfished on February 9, 2010, and revise status determination criteria and a harvest control rule for flatfish. This action is consistent with and partially implements Amendment 23 to the PCGFMP. Amendment 23 would make the PCGFMP consistent with the revised National Standard 1 Guidelines (74 FR 3178, January 16, 2009).

**DATES:** Comments must be received no later than 5 p.m., local time on December 3, 2010.

**ADDRESSES:** You may submit comments, identified by the RIN number 0648-BA01, by any of the following methods:

- **Electronic Submissions:** Submit all electronic public comments via the Federal eRulemaking Portal at <http://www.regulations.gov>.
- **Fax:** 206-526-6736, Attn: Becky Renko.

- **Mail:** William Stelle, Administrator, Northwest Region, NMFS, 7600 Sand Point Way, NE., Seattle, WA 98115-0070, Attn: Becky Renko.

**Instructions:** All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All personal identifying information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information, or otherwise sensitive or protected information.

National Marine Fisheries Service (NMFS) will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

Information relevant to this proposed rule, which includes a draft environmental impact statement (DEIS), a regulatory impact review (RIR), and an initial regulatory flexibility analysis (IRFA) are available for public review during business hours at the office of the Pacific Fishery Management Council (Council), at 7700 NE Ambassador Place, Portland, OR 97220, phone: 503-820-2280. Copies of additional reports referred to in this document may also be obtained from the Council.

**FOR FURTHER INFORMATION CONTACT:** Becky Renko, phone: 206-526-6110, fax: 206-526-6736, or e-mail: [becky.renko@noaa.gov](mailto:becky.renko@noaa.gov).

**SUPPLEMENTARY INFORMATION:****Electronic Access**

This rule is accessible via the Internet at the Office of the **Federal Register** Web site at [http://www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html). Background information and documents are available at the NMFS Northwest Region Web site at <http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/index.cfm> and at the Council's Web site at <http://www.pccouncil.org>.

**Background**

The Pacific Coast Groundfish fishery is managed under the PCGFMP. The PCGFMP was prepared by the Council, approved on July 30, 1984, and was implemented under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Regulations at 50 CFR part 660, subparts C through G, implement the provisions of the PCGFMP.

The amount of each Pacific Coast groundfish species or species complex

that is available for harvest in a specific year is referred to as a harvest specification. The PCGFMP requires the harvest specifications and management measures for groundfish to be set at least biennially. This proposed rule, which proposes the Council's preferred alternative, would set 2011-2012 harvest specifications and management measures for the 90-plus groundfish species or species complexes managed under the PCGFMP. The groundfish fishery regulations include a collection of management measures intended to keep the total catch of each groundfish species or species complex within the harvest specifications. The management measures would be revised by this action.

The following groundfish species have been declared as overfished and are currently being managed under rebuilding plans: Bocaccio south of 40°10' north latitude; canary rockfish; cowcod south of 40°10' north latitude; darkblotched rockfish, Pacific Ocean Perch (POP), widow rockfish, and yelloweye rockfish. This action also updates the existing overfished species rebuilding plans.

Petrale sole was declared overfished on February 9, 2010. The proposed action adds a new rebuilding plan for petrale sole under Amendment 16-5 to the PCGFMP. In addition, also under Amendment 16-5, the proposed action modifies status determination criteria in the PCGFMP for flatfish and adds to the PCGFMP a new precautionary harvest control rule for flatfish.

On January 16, 2009, NMFS adopted revisions to its guidelines implementing Magnuson-Stevens Act National Standard 1 (74 FR 3178) to prevent and end overfishing and rebuild fisheries. The proposed action would implement a new fishery specification framework under Amendment 23 to the PCGFMP including: Overfishing limits (OFLs), an acceptable biological catch (ABC) that incorporates a scientific uncertainty buffer in specifications, annual catch limits (ACLs), and annual catch targets (ACTs). These new specifications are designed to better account for scientific and management uncertainty and to prevent overfishing. Amendment 23 also removes dusky and dwarf-red rockfish from the list of species in the groundfish fisheries.

On April 29, 2010, the District Court for the Northern District of California ruled that the 2009-2010 harvest specifications for three overfished species (cowcod, darkblotched, and yelloweye) violated the MSA and ordered that NMFS apply its 2008 harvest levels for these species in 2010. (*Natural Resources Defense Council v.*

*Locke* (N.D. Cal., 2010) here after referred to as *NRDC v. Locke*.) On July 8, 2010, NMFS revised the harvest specifications for yelloweye rockfish, cowcod and darkbloched rockfish to be consistent with the court order (75 FR 38030). The court further ordered NMFS to publish new specifications within one year of its ruling.

This proposed rule is based on the Council's final decisions on the 2011 and 2012 biennial specifications and management measures, and on Amendment 23 and Amendment 16–5 at its June 2010 meeting. The supporting rationale described in this proposed rule is based on the DEIS prepared by the Council and other documents developed as part of the Council's decision process. NMFS has not made its final determination regarding its approval of the two amendments or whether the proposed specifications are consistent with the PCGFMP, the Magnuson-Stevens Act, and other applicable law, including the April 29, 2010 Court Order on Remedy in *NRDC v. Locke*.

#### Specification and Management Measure Development Process

The process for setting the 2011 and 2012 biennial harvest specifications began in 2009 with the preparation of stock assessments. A stock assessment is the scientific and statistical process where the status of a fish population or subpopulation (stock) is assessed in terms of population size, reproductive status, fishing mortality, and sustainability. In the terms of the PCGFMP, stock assessments generally provide: (1) An estimate of the current biomass (reproductive potential); (2) an  $F_{MSY}$  or proxy (a default harvest rate for the fishing mortality rate that is expected to achieve the maximum sustainable yield), translated into exploitation rate; (3) an estimate of the biomass that produces the maximum sustainable yield ( $B_{MSY}$ ); and, (4) a precision estimate (*e.g.*, confidence interval) for current biomass estimate. Each stock assessment is prepared by a stock assessment scientist then reviewed by the Council's stock assessment review panel (STAR—The STAR panel is a key part of a process designed to review the technical merits of stock assessments and is responsible for determining if a stock assessment document is sufficiently complete) and the Council's Scientific and Statistical Committee (SSC).

In each biennial period, the Council and NMFS consider a number of full stock assessments, where each stock assessment model is critically examined and possibly updated. They also use stock assessment updates to update an

existing assessment by incorporating the most recent data. A stock assessment update must carry forward the fundamental structure from the model that was previously reviewed and endorsed by a STAR panel. Stock assessment updates are prepared for stocks that have been determined to have a stable model approach to data analysis and modeling.

For overfished stocks a rebuilding analysis is also prepared. The rebuilding analysis is used to project the status of the overfished resource into the future under a variety of alternative harvest strategies to determine the probability of recovering to  $B_{MSY}$  (or its proxy) within a specified time-frame. Minimum requirements for rebuilding analyses for routine situations have been established by the SSC and are applied with computer package developed by Dr André Punt (University of Washington). The SSC encourages analysts to explore alternative calculations and projections that may more accurately capture uncertainties in stock rebuilding and which may better represent stock-specific concerns. In the event of a discrepancy between the calculations resulting from Dr André Punt's program, the SSC groundfish subcommittee will review the issue and recommend which results to use. The SSC also encourages explicit consideration of uncertainty in projections of stock rebuilding, including comparisons of alternative states of nature using decision tables to quantify the impact of model uncertainty. The rebuilding analyses include: An estimation of  $B_0$  (the unfished biomass and hence  $B_{MSY}$  or its proxy); the selection of a method to generate future recruitment; the specification of the mean generation time; a calculation of the minimum possible rebuilding time ( $T_{MIN}$ ); and, the identification and analysis of alternative harvest strategies and rebuilding times.

At the Council's June, September and November 2009 meetings, new stock assessments, stock assessment updates and rebuilding analyses were made available to the Council as was an SSC report on whether the SSC considered the documents to be the "best available science" suitable for use in setting biennial harvest specifications. The Council considered the information brought forward from its advisory bodies and public comment before approving the new stock assessments, stock assessment updates and rebuilding analyses for setting the 2011 and 2012 biennial harvest specifications.

The biennial harvest specifications and management measures are developed over the course of three

Council meetings. At its November 2009 meeting the Council recommended an initial range of harvest specifications and management measures based on the new stock assessments, new rebuilding analyses, recommendations of its advisory bodies, and public comment. Using the Council's initial harvest specifications and management measure recommendations, the Council's advisory bodies developed initial alternatives for a draft Environmental Impact Statement (EIS).

A holistic or integrated approach was taken in the development of alternatives in the Draft EIS for this action. The newly adopted rebuilding analyses were used to develop a range of alternatives driven by the annual catch limits (ACLs) for overfished species. The interrelated nature of the Pacific Coast groundfish stocks makes the consideration of holistic alternatives necessary. The degree of interaction between overfished species and other stocks is such that "rebuilding as quickly as possible while taking into account the needs of fishing communities" is not possible based solely on a species-by-species approach.

At its April 2010, meeting, the Council made recommendations on overfishing limits (OFLs) for all groundfish stocks and stock complexes. At this same meeting, the Council made recommendations on preferred 2011 and 2012 acceptable biological catches (ABCs) that incorporate scientific uncertainty buffers for all groundfish stocks and stock complexes, and preferred 2011 and 2012 ACLs for all non-overfished groundfish stocks and stock complexes. A preliminary analysis of the holistic alternatives relative to the biological and socio-economic environment and consistent with the requirements of NEPA was further developed and made available to the public, the Council, and the Council's advisory bodies prior to the June 2010 meeting. Additional information that further refined the analysis was provided at the Council's June meeting. At its June 2010 meeting, the Council considered the holistic alternatives, the analysis, reports provides by its advisory bodies and public comment before making final recommendations on the groundfish harvest specifications, rebuilding plan revisions for overfished groundfish species, and groundfish fishery management measures.

The alternative actions considered by the Council were consistent with the harvest specification framework proposed under Amendment 23 to the PCGFMP, which contemplates setting an OFL, an ABC that incorporates a scientific uncertainty buffer, and an ACL for each groundfish stock and stock

complex. A final decision regarding approval of Amendment 23 is expected by January 1, 2011. The alternative actions considered by the Council were also consistent with Amendments 20 and 21 to the PCGFMP which were approved August 9, 2010 and which are expected to be fully implemented by January 1, 2011. The components of these PCGFMP amendments and the relationship of each to the biennial harvest specifications are further discussed below.

### Decision Process

To best inform the decision process, an analysis was prepared that contrasted the Council's preliminary preferred alternative against the other alternatives relative to the Council's stated goals and objectives for rebuilding. The Council's goals and objectives for rebuilding plans are identified in section 4.5.3.1 of the PCGFMP: "The overall goals of rebuilding programs are to (1) achieve the population size and structure that will support the maximum sustainable yield within a specified time period that is as short as possible, taking into account the status and biology of the stock, the needs of fishing communities, and the interaction of the stock of fish within the marine ecosystem; (2) minimize, to the extent practicable, the adverse social and economic impacts associated with rebuilding, including adverse impacts on fishing communities; (3) fairly and equitably distribute both the conservation burdens (overfishing restrictions) and recovery benefits among commercial, recreational, and charter fishing sectors; (4) protect the quantity and quality of habitat necessary to support the stock at healthy levels in the future; and (5) promote widespread public awareness, understanding and support for the rebuilding program." These overall goals are derived from and consistent with the requirements of the Magnuson-Stevens Act. The first goal mirrors Magnuson-Stevens Act National Standard 1 and the requirements for rebuilding overfished stocks found at Magnuson-Stevens Act section 304(e)(4)(A). The second goal, to minimize adverse impacts to fishing communities is required by Magnuson-Stevens Act National Standard 8. The third goal is required by Magnuson-Stevens Act section 304(e)(4)(B). The fourth and fifth goals represent additional policy preferences of the Council that recognize the importance of habitat protection to the rebuilding of some fish stocks and the desire for public outreach and education on the complexities—biological, economic, and social issue—involved with rebuilding overfished stocks.

Each rebuilding analysis is based on parameters from the stock assessment and projects the future status of the stock based on the rebuilding alternatives being considered by the Council using Monte Carlo simulation techniques. There is considerable scientific uncertainty involved with these projections, which the rebuilding analysis expresses as the probability of the stock being rebuilt in any given year. The rebuilding analysis estimates the shortest time to rebuild, referred to as  $T_{MIN}$ .  $T_{MIN}$  is the time it takes to rebuild the stock, with a 50 percent probability, if all fishing caused mortality is ceased. The Council's policy for rebuilding is established with a  $T_{TARGET}$ .  $T_{TARGET}$  is the year in which the Council expects the stock to rebuild with at least a 50 percent probability under the chosen rebuilding strategy. A particular  $T_{TARGET}$  is determined by the productivity of the stock, its current status (a.k.a. "status and biology"), and the allowable harvest associated with a particular rebuilding strategy. The target abundance for rebuilding is the biomass level that produces maximum sustainable yield ( $B_{MSY}$ ).

Section 304(e)(4) of the Magnuson-Stevens Act provides: That any fishery management plan, plan amendment, or proposed regulations for rebuilding an overfished fishery shall—"(A) specify a time period for rebuilding the fishery that shall—(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and (ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictates otherwise".

Because so many of the groundfish stocks are intermixed in different proportions, making adjustments to protect one stock may increase the impacts on other stocks. The Council's integrated rebuilding strategy, when taking into account the biology of the stocks and the needs of the fishing communities, centers on pushing fishing effort off of the more sensitive rebuilding species and on to the less sensitive rebuilding species (*i.e.*, off of species with longer rebuilding times and onto species able to rebuild more quickly). This concept was adopted in Amendment 16–4 to the PCGFMP as the best way of taking into account the

biology of the stocks and the needs of fishing communities in a holistic fashion that simultaneously considers all rebuilding species and groundfish sectors.

Section 4.5.3.2 of the PCGFMP provides the following general guidance on the needs of the fishing communities: "Fishing communities need a sustainable fishery that: Is safe, well-managed, and profitable; provides jobs and incomes; contributes to the local social fabric, culture, and image of the community; and helps market the community and its services and products."

The rockfish rebuilding plans are challenging as overfished rockfish indirectly affect fishing opportunities by constraining the harvest of target stocks; they affect multiple commercial and recreational fishery sectors; it is difficult to lessen fishing impacts on one rockfish species without affecting another; some rockfish populations are so slow growing that even small increases in the long-term harvest rate can delay rebuilding for a number of years. The Council has approached this challenging situation using a comprehensive approach to analyzing rebuilding alternatives and impacts to fishing communities.

Because the rebuilding results in revenue losses in the short-term and often in the medium-term, the communities that bear the greatest short-term and medium-term revenue impact are those most dependent on groundfish and the least resilient. To avoid disastrous short-term consequences for fishing communities, harvest levels above the  $T_{MIN}$  level were considered. The harvest specifications and management measures in the Council's preliminary preferred and final preferred alternatives considered were generally similar to those in place at the start of 2010, with some increased opportunity to the California recreational and nearshore fixed gear fisheries south of 40°10' north latitude. The remaining alternatives recommended for analysis by the Council were more restrictive, to provide a meaningful analysis of the shortest time possible to rebuild overfished stocks.

In its recommendations for overfished species rebuilding plans and groundfish harvest specifications and management measures for 2011 and 2012, the Council was clear that it did not expect fishing community needs (described in Section 4.5.3.2 of the PCGFMP) could be met by the rebuilding plans and management measures being recommended. While the Council could not meet the needs of fishing

communities, the Council took them into account as directed by the Magnuson-Stevens Act and recommended harvest specifications and management measures that could allow fishing businesses and communities to operate at a level that could provide for the continued existence of fishing businesses and communities. Opportunities for economic growth or profit would only be allowed if they were consistent with the adopted rebuilding policies. The Council expressed particular interest in seeing the success of new trawl fishery management measures (trawl rationalization) and the expected long-term benefits. The supporting draft EIS for this action assesses, through the analysis of integrated rebuilding alternatives, the needs of groundfish fishing communities, the dependence of fishing communities on overfished species, and the vulnerability of fishing communities to further near-term reductions in groundfish harvest.

The Council and fisheries science are just beginning to consider approaches for transitioning to ecosystem based fisheries management. Models for assessing impacts on the marine environment are being developed. Given that this area of marine science is in development, the respective impact of the rebuilding alternatives on ecosystem structure and function cannot be described by science at this time.

At the start of each biennial management cycle, NMFS and the Council establish fishery management measures that are expected to allow as much harvest of the healthy species ACLs as possible without exceeding allowable harvest levels for co-occurring overfished species. At the start of the biennial period, the management measures are based on the best scientific information available at the time. However, as catch data and new scientific information become available during the fishing year, NMFS and the Council's knowledge may change. Catch data vary in quality and abundance both before and during the season, and catch of the most constraining overfished species may also occur in fisheries not managed under the PCGFMP.

Managing a coastwide fishery to ensure that ACLs of overfished species are not exceeded is particularly difficult because of the low ACLs. If new information received during the season reveals that total catch is occurring at a faster pace than initially anticipated, management action would be needed to keep the harvest of healthy stocks and the incidental catch of overfished species at or below their specified ACLs. If these inseason adjustments to

management measures are dramatic, such as an early closure of a fishery, then the effects of management actions on the fishing communities can be severe. To prevent major inseason changes in management measures, the 2011–2012 overfished species ACLs account for management uncertainty in order to minimize the potential need for dramatic inseason measures. In other words, currently available scientific information is used to design management measures that are projected to result in overfished species harvest levels that are somewhat lower than their ACLs. In addition, for some overfished species (yelloweye rockfish and POP) annual catch targets (ACTs) have been proposed. ACTs provide an additional buffer to account for uncertainty and unexpected occurrences within the fishery. This additional measure helps prevent ACLs from being exceeded. Even with these safeguards, information that becomes available during the fishing year from activities within the fishery and from activities outside the fishery (*i.e.* research fishing mortality) may reveal that previously set management measures need to be revised inseason. If that is the case, management measures will be appropriately adjusted inseason.

#### **District Court Ruling in *NRDC v. Locke***

NRDC challenged the 2009–2010 groundfish harvest specifications (74 FR 9,874, March 6, 2009), asserting that the harvest specifications for seven overfished species of Pacific groundfish: darkblotched rockfish, cowcod, yelloweye rockfish, canary rockfish, bocaccio, Pacific Ocean Perch, and widow rockfish violated the Magnuson-Stevens Act, 16 U.S.C. 1801–1891, and the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C.A. 4321 *et seq.* The 2009–2010 harvest specifications revised the Amendment 16–4 rebuilding periods for four of the seven overfished species in accordance with the PCGFMP's rebuilding framework. The Court upheld the integrated approach, but determined that the 2009–2010 harvest specifications for darkblotched rockfish, cowcod, and yelloweye rockfish violated the Magnuson-Stevens Act by failing to rebuild the species in as short a time as possible and ordered the agency to develop, within one year of the Order, revised rebuilding plans for those species that are consistent with the MSA.

With respect to yelloweye rockfish, the court vacated the OY of 17 metric tons (mt) for 2009–2010 and established an OY of 14 mt for 2010, consistent with the “ramp down” strategy that the

agency adopted in the 2007–2008 specifications. The court likewise vacated the 2009–2010 cowcod OY of 4 mt and the darkblotched rockfish OYs of 285 mt and 291 mt for 2009 and 2010 stating that they do not rebuild in time periods that are as short as possible. For these two species, the court established OY levels consistent with the most recent levels in 2007–2008.

On July 8, 2010, NMFS revised the harvest specifications for yelloweye rockfish, cowcod and darkblotched rockfish to be consistent with the court order (75 FR 38030) and projected impacts to darkblotched rockfish in 2010 are being actively managed to prevent exceeding 290 mt.

The court also agreed with NRDC's argument that NMFS' decisions regarding the rebuilding plans were arbitrary and capricious because the agency relied on economic data from 1998, before any of the species at issue in the case were declared overfished, and did not use 2002 data that was available to it. The court ruled that the 1998 data was not the best available scientific information, and distorted current revenue losses by comparing them to revenues resulting from fishing losses before fishing was constrained to rebuild overfished species. The use of the 1998 data, the court opined, “weight[ed] the Agency's analysis in favor of short-term economic interests and against conservation, in violation of the MSA.” NMFS used a different approach in this biennial cycle.

#### **PCGFMP Amendment 23**

On January 16, 2009, NMFS published a final rule in the **Federal Register** to implement new requirements in the Magnuson-Stevens Reauthorization Act by amending the National Standard Guidelines (50 CFR 600.310) for National Standard 1. National Standard guidelines aid in the development and review of fishery management plans (plans), plan amendments, and regulations prepared by the regional Fishery Management Councils and the Secretary of Commerce. National Standard 1 establishes the relationship between conservation and management measures, preventing overfishing, and achieving OY from each stock, stock complex or fishery. The National Standard 1 guidelines also address the classification of stocks within a fishery management plan, and the new requirement in the MSRA that fishery management plans include annual catch limits (ACLs) to prevent overfishing. Amendment 23 to the PCGFMP is intended to modify the harvest specification framework in the PCGFMP

to be consistent with the revised National Standard 1 guidelines. An approval decision on Amendment 23 is expected prior to January 1, 2011. Therefore, the harvest specifications being considered for 2011 and 2012 are consistent with the provisions of Amendment 23.

To better account for scientific and management uncertainty and to prevent overfishing, the revised National Standard 1 guidelines introduced new fishery management concepts including: OFL, ACL, ACT, and accountability measures (AMs), and defined the term ABC. The concept of OY remains in the PCGFMP as revisions to National Standard 1 did not alter the definition of OY.

Under the Amendment 23 framework the OFL is an estimate of the maximum amount of annual catch of a stock or stock complex from all sources (includes landed and discarded catch) that does not result in overfishing. Overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the stock's capacity to produce MSY (an estimate of the largest long-term average annual catch or yield that can be taken from each stock under prevailing ecological and environmental conditions) on a continuing basis. This level is also referred to as the maximum fishing mortality threshold (MFMT) in the PCGFMP. The OFL is comparable to the ABC specification used in the Pacific Coast groundfish fishery from 1999 through 2010.

The term ABC is redefined under proposed Amendment 23 as an annual catch specification that is the stock or stock complex's OFL reduced by an amount associated with scientific uncertainty. Proposed Amendment 23 revises the descriptions of species categories used in the development of the ABC. The first category (category 1) includes those species where relatively data-rich quantitative stock assessment can be conducted on the basis of catch-at-age, catch-at-length or other data. OFLs and overfished/rebuilding thresholds can generally be calculated for these species. The second category (category 2) includes species for which some biological indicators are available, including a relatively data-poor quantitative assessment or non-quantitative assessments. The third category (category 3) includes minor species which are caught and where the only available information is on the landed biomass.

For species that have had relatively data-rich quantitative stock assessments prepared (category 1 stocks), the Council chose to determine ABC based

on the SSC-recommended framework for estimating the relative risk of overfishing the stock (referred to as the P\* approach). The SSC quantified the scientific uncertainty in the estimate of OFL ( $\sigma$ ) and presented a range of probabilities of overfishing (P\*). Each P\* value links to a corresponding fraction that is used to reduce the OFL and to derive an ABC. As the P\* value is reduced, the probability of the ABC being greater than the "true" OFL becomes lower. The Council then determines its preferred level of risk aversion by selecting an appropriate P\* value. Amendment 23 provides that the P\*-Sigma approach for quantifying scientific uncertainty will be the default approach for category 1 species unless an SSC-recommended method is adopted by the Council during the biennial specification process.

For stocks with data-poor stock assessments or no stock assessments (category 2 and 3 stocks), proposed Amendment 23 recognizes that there is greater scientific uncertainty in the estimate of OFL. Therefore, the scientific uncertainty buffer is generally greater than that recommended for stocks with quantitative stock assessments. It may be determined using straight percentage reductions (25% for category 2 or 50% for category 3) or using the P\* approach with larger sigma values. The Council adopted an upper limit on P\* for all three categories of 0.45. For category 2 and 3 species, Amendment 23 provides that either the P\*-Sigma approach or the straight percentage reduction from OFL will be used unless the Council adopts an SSC-recommended approach during the biennial specification process.

The ACL is a harvest specification set equal to or below the ABC threshold which considers conservation objectives, socio-economic concerns, management uncertainty and other factors. All sources of fishing-related mortality including landings, discard mortality, and catches in exempted fishing permit activities are counted against the ACL. In addition, research fishing catches are counted against the ACL. Sector-specific ACLs may be specified, particularly in cases where a sector has a formal, long-term allocation of the harvestable surplus of a stock or stock complex. The new ACL values are comparable to the OY specification used in the Pacific Coast groundfish fishery from 1999 through 2010.

The ACTs are management targets set below the ACL to address management uncertainty. The term "catch" includes fish that are retained for any purpose, as well as mortality of fish that are discarded. Therefore, for fisheries where

estimates are not available in a timely enough manner to manage retained and discarded catch (bycatch) inseason, targets may be specified. In addition, a sector-specific ACT may serve as a harvest guideline for a sector or used strategically in a rebuilding plan to attempt to reduce mortality of an overfished stock more than the rebuilding plan limits prescribe. These targets account for landings and bycatch estimates such that the total of landings and bycatch will not exceed the stock or stock complex's ACL. Since the annual catch target is a target and not a limit it can be used in lieu of harvest guidelines or strategically to accomplish other management objectives. Sector-specific annual catch targets can also be specified to accomplish management objectives.

The AMs are management controls that prevent ACLs or sector-ACLs from being exceeded, where possible, and correct or mitigate overages if they occur. If a stock or stock complex's catch exceeds its ACL, AMs will be invoked as specified in the PCGFMP. If ACLs are exceeded more often than 1 in 4 years, then AMs, such as catch monitoring and inseason adjustments to fisheries, need to improve or additional AMs may need to be implemented. The development of harvest specifications for 2011–2012 is discussed later in the preamble to this proposed rule, while the harvest specifications are provided in Tables 1a through 2d.

Amendment 23 adds an additional species category identified as ecosystem component (EC) species. These species are not "in the fishery" and therefore not actively managed. EC species are not targeted in any fishery and are not generally retained for sale or personal use. EC species are not determined to be subject to overfishing, approaching an overfished condition, or overfished, nor are they likely to become subject to overfishing or overfished in the absence of conservation and management measures. Amendment 23 does not propose that any species currently in the PCGFMP be designated as an EC species. Amendment 23 removes dusky rockfish and red-dwarf rockfish from the PCGFMP as there are no recorded landings of these species in the groundfish fishery.

#### PCGFMP Amendments 20 and 21

Amendment 20 established a program to "rationalize" the groundfish limited entry trawl fishery. Rationalization of a fishery is designed to create a sustainable level of fishing from both the resources conservation and economic perspective through the use of harvest shares and cooperatives. The

program being implemented under Amendment 20 to the PCGFMP uses quota shares, or catch allocation, to allow individuals to harvest specific amounts of groundfish. The trawl rationalization program is intended to increase net economic benefits, create individual economic stability, provide full utilization of the trawl sector allocation, consider environmental impacts, and achieve individual accountability of catch (retained and discarded). NMFS approved Amendment 20 on August 9, 2010, and expects to fully implement it prior to January 1, 2011, so the harvest specifications and management measures being considered for 2011 and 2012 are consistent with the provisions of Amendment 20.

For the purposes of Amendment 20, the limited entry trawl fishery has been divided into three distinct sectors (shoreside, mothership, and catcher/processor). An individual fishing quota (IFQ) program is created for the shoreside sector and harvester cooperatives are created for the catcher/processor and mothership sectors. Formal allocations (to and among the trawl sectors) necessary to support the trawl rationalization program have been adopted under Amendment 21 to the PCGFMP.

Amendment 21 to the PCGFMP modifies the PCGFMP framework by specifying formal, long term allocations for the following species: Lingcod, Pacific cod, sablefish south of 36° north latitude, Pacific ocean perch (POP), widow rockfish, chilipepper rockfish, splitnose rockfish, yellowtail rockfish north of 40°10' north latitude, shortspine thornyhead (north and south of 34°27' north latitude), longspine thornyhead north of 34°27' north latitude, darkblotched rockfish, minor slope rockfish (north and south of 40°10' north latitude), Dover sole, English sole, petrale sole, arrowtooth flounder, starry flounder, and other flatfish. Because Amendment 21 has been approved, the harvest specifications being considered for 2011 and 2012 are consistent with the provisions of Amendment 21. Long term, formal allocations are expected to provide more stability to the trawl fishery sectors by reducing the risk of the trawl sector being closed as a result of a non-trawl or recreational fishery exceeding an allocation or harvest guideline.

Species that are not formally allocated under Amendment 21 will continue to be addressed through short-term allocations that are to be decided through the biennial harvest specifications and management measure process. IFQ species with trawl and

non-trawl allocations established through the biennial harvest specifications include the following species: canary rockfish, bocaccio, cowcod, yelloweye rockfish, and minor shelf rockfish north and south. In addition to allocations specified under the Amendment 21 provisions for 2011 and 2012, trawl and non-trawl allocations are being specified through the biennial harvest specifications for the following: minor nearshore rockfish north and south, and longnose skate. Species being managed under trip limits and without trawl and non-trawl allocations are: Shortbelly rockfish, longspine thornyhead south of 34°27' north latitude, black rockfish (Washington-Oregon), California scorpionfish, cabezon (California only), kelp greenling, and the "other fish" complex.

Amendment 21 also provides for the use of fishery set-asides. Fishery set-asides are not formal allocations but rather amounts that are not available to the other fisheries during the fishing year. Set-asides for the catcher/processor and mothership sectors of the at-sea Pacific whiting fishery are deducted from the limited entry trawl fishery allocation. Set-asides for the Pacific Coast treaty Indian tribal harvest, and exempted fishing permits (EFPs) are deducted from the ACL. Set-aside amounts could change through the biennial harvest specifications and management measures process. The set-aside amounts will be specified in the footnotes to Tables 1a through 2b of this subpart.

In addition to a new groundfish allocation framework, Amendment 21 would establish Pacific Halibut trawl mortality limits to restrict the incidental catch of Pacific halibut in limited entry trawl fisheries. The trawl mortality limit may be adjusted downward or upward through the biennial harvest specifications and management measures process. Trawl individual bycatch quota (IBQ) for halibut will be issued for the Shorebased IFQ Program north of 40°10' north latitude. A portion of the overall trawl mortality limit (10 mt) is a set-aside for the at-sea whiting fisheries (catcher/processor and mothership) and the Shorebased IFQ Program south of 40°10' north latitude, where halibut IBQ is not required. The set-aside amount of Pacific halibut to accommodate the incidental catch in the trawl fishery south of 40°10' north latitude and in the at-sea whiting fishery may be adjusted in the biennial harvest specifications and management measures process. The use of a trawl mortality limit for Pacific halibut in Area 2A trawl fisheries is consistent

with the Magnuson-Stevens Act mandate to minimize bycatch, while providing increased benefits to Area 2A fishers targeting Pacific halibut.

Under Amendment 20, up to 10 percent of unused IFQ quota pounds in a vessel's account may be carried over for use in the next fishing year. Similarly, in order to cover an overage (landings that exceed the amount of quota pounds held in a vessel account) that is within 10 percent of the quota pounds that have been in the vessel account during the year, the vessel owner may use that amount from the quota pounds he will receive in the following fishing year to account for the overage in the current year. The rationale for the carryover as presented in the Amendment 20 EIS is to provide increased flexibility to fishery participants. During the biennial harvest specification and management process the Council discussed how the carry-over provision works in relationship to the 2011–2012 harvest specifications, this provision is further discussed below.

#### OFL Policy

The OFL is the MSY harvest level associated with the current stock abundance. When setting the 2011 and 2012 OFLs for category 1 species, the  $F_{MSY}$  harvest rate or a proxy was applied to the estimated exploitable biomass. A policy of using a default harvest rate as a proxy for the fishing mortality rate that is expected to achieve the maximum sustainable yield is also referred to as the  $F_{MSY}$  control rule or maximum fishing mortality threshold (MFMT) harvest rate. For category 2 species, OFLs are typically set at a constant level and monitoring is necessary to determine if this level of catch is causing a slow decline in stock abundance. It is difficult to estimate overfished and overfishing thresholds for the category 2 species a priori, but indicators of long-term, potential overfishing can be identified. Average catches are generally used to determine the OFL for category 3 species.

For 2011 and 2012, the Council maintained a policy of using a default harvest rate as a proxy for the fishing mortality rate that is expected to achieve the maximum sustainable yield ( $F_{MSY}$ ). A proxy is used because there is insufficient information for most Pacific Coast groundfish stocks to establish a species-specific  $F_{MSY}$ . In 2011 and 2012, the following default harvest rate proxies, based on the Council's SSC recommendations, were used:  $F_{30\%}$  for flatfish,  $F_{40\%}$  for Pacific Whiting,  $F_{50\%}$  for rockfish (including thornyheads), and  $F_{45\%}$  for other groundfish such as

sablefish and lingcod. The OFL for groundfish species with stock assessments are derived by multiplying the harvest rate proxy by the current estimated biomass. A rate of  $F_{40\%}$  is a more aggressive rate than  $F_{45\%}$  or  $F_{50\%}$ .

The PCGFMP allows default harvest rate proxies to be modified as scientific knowledge improves for a particular species. A fishing mortality or harvest rate will mean different things for different stocks, depending on the productivity of a particular species. For fast growing species (those with individuals that mature quickly and produce many young that survive to an age where they are caught in the fishery) a higher fishing mortality rate may be used. Fishing mortality rate policies must account for several complicating factors, including the capacity of mature individuals to produce young over time and the optimal stock size necessary for the highest level of productivity within that stock.

For flatfish, a new proxy of  $F_{30\%}$  is being used for the 2011–2012 specifications. Following the 2009 scientific peer review of the petrale sole assessment by the Council's stock STAR panel, the STAR panel prepared a report which recommended that the SSC review the estimates of  $F_{MSY}$  and  $B_{MSY}$  produced by the petrale sole assessment and investigate alternatives to the proxies of  $F_{40\%}$  and  $B_{40\%}$ . The SSCs groundfish sub-committee further considered the proxies produced by the petrale sole assessment and recommended that proxies of  $B_{25\%}$  for  $B_{MSY}$  and  $F_{30\%}$  for  $F_{MSY}$  be established for all west coast flatfish.

The overfished threshold or minimum stock size threshold (MSST) is the estimated biomass level of the stock relative to its unfished biomass (*i.e.*, depletion level) below which the stock is considered overfished. The current default proxy MSST for all the actively managed groundfish stocks and stock complexes, other than the assessed flatfish species, is 25 percent of the unfished biomass ( $B_{25\%}$ ), which is 62.5 percent of the  $B_{MSY}$  target of  $B_{40\%}$ . The default proxy MSST for the assessed flatfish species is being revised from  $B_{25\%}$  to  $B_{12.5\%}$  which is 50 percent of the  $B_{MSY}$  target of  $B_{25\%}$ .

The full SSC endorsed the groundfish subcommittee's recommendation to establish new proxies of  $B_{25\%}$  for  $B_{MSY}$  and  $F_{30\%}$  for  $F_{MSY}$  for flatfish. The values were based on a number of considerations, including evaluation of information on flatfish productivity (steepness) for assessed west coast flatfish, published meta-analyses of other flatfish stocks, and recommendations on appropriate

proxies for  $F_{MSY}$  and  $B_{MSY}$  in the scientific literature. The SSC however did not endorse the use of a species-specific estimate of  $B_{MSY}$  and  $F_{MSY}$  for petrale sole because of high variability in the estimates between repeat assessments for other stocks and the sensitivity of the estimates to assumptions concerning stock structure.

For the 2011–2012 biennial specification process, two new methodologies were evaluated for determining OFL from data-poor stocks (unassessed category 2 species and category 3 species). In January 2010, the SSC Groundfish Subcommittee and Groundfish Management Team (GMT) examined yield estimates from the Depletion-Corrected Average Catch (DCAC) and the Depletion-Based Stock Reduction Analysis (DB-SRA) for 31 groundfish stock assessments. The DCAC and DB-SRA were developed by stock assessment scientists from the Northwest Fishery Science Center (NWFSC) and the Southwest Fishery Science Center. The DCAC provides an estimate of sustainable yield (the OFL) for data-poor stocks of uncertain status. DCAC adjusts historical average catch to account for one-time "windfall" catches that are the result of stock depletion, producing an estimate of yield that was likely to be sustainable over the same time period. Advantages of the DCAC approach to determining sustainable yield for data-poor stocks include: (1) Minimal data requirements, (2) biologically-based adjustment to catch-based yield proxies with transparent assumptions about relative changes in abundance, and (3) simplicity in computing. The DB-SRA extends the DCAC by (1) restoring the temporal link between production and biomass and (2) evaluating and integrating alternative hypotheses regarding changes in abundance during the historical catch period. This method combines DCAC's distributional assumptions regarding life history characteristics and stock status with the dynamic models and simulation approach of stochastic stock reduction analysis. The SSC Groundfish Subcommittee endorsed application of DCAC and DB-SRA to derive the OFL for unassessed groundfish stocks. Although the Council would like further analysis, the Council did recognize that the DB-SRA and the DCAC methods used by the GMT were the best available scientific information for determining OFLs for category 2 and 3 stocks.

#### *Proposed OFLs for 2011 and 2012*

For the 2011 and 2012 biennial specification process, 8 stock assessments and 4 stock assessment updates were prepared. Full stock

assessments, those that consider the appropriateness of the assessment model and that revise the model as necessary, were prepared for the following stocks: Bocaccio, widow rockfish, lingcod, cabezon, yelloweye rockfish, petrale sole, splitnose rockfish and greenstriped rockfish. Stock assessment updates, those that run new data through an existing model without changing the model, were prepared for: Canary rockfish, cowcod, darkblotched rockfish, and POP. Each new stock assessment includes a base model and two alternative models. The alternative models are developed from the base model by bracketing the dominant dimension of uncertainty (*e.g.*, stock-recruitment steepness or  $R_0$ , natural mortality rate, survey catchability, recent year-class strength, weights on conflicting CPUE series, etc.) and are intended to be a means of expressing uncertainty within the model for decision makers by showing the contrast in management implications. Once a base model has been bracketed on either side by alternative model scenarios, capturing the overall degree of uncertainty in the assessment, a 2-way decision table analysis (states-of-nature versus management action) is used to present the repercussions of uncertainty. As noted above, the SSC makes recommendations to the Council on the appropriateness of using the different stock assessments for management purposes, after which the Council considers adoption of the stock assessments, use of the stock assessment for the development of rebuilding analysis, and the OFLs resulting from the base model runs of the stock assessments. Tables 1a and 2a present the specifications for each stock while the footnotes to these tables describe how the proposed specifications were derived.

For species that did not have new stock assessments or updates prepared, the Council considered an OFL derived from the most recent stock assessment or update, the results of rudimentary stock assessments, or the historical landings data approved by the Council for use in setting harvest specifications. Detailed information on how the OFLs for species without any new stock assessments were derived are provided in the footnotes to Table 1a and Table 2a. The stock assessment cycle and the process for adoption of final OFLs for Pacific whiting are detailed below.

Species that are not overfished and for which new stock assessments or stock assessment updates were prepared and recommended for use in setting harvest specifications by the Council include: Lingcod, greenstriped rockfish,

splitnose rockfish, Cabezon. Specific information on the OFLs for species associated with these new stock assessments and assessment updates are provided in the footnotes to Table 1a and Table 2a.

For the overfished species, new assessments were prepared for bocaccio, petrale sole, widow rockfish, yelloweye rockfish and stock assessment updates were prepared for canary rockfish, cowcod, darkblotched, POP. The following stock assessment summaries pertain to the new stock assessments or stock assessment updates for stocks that have been declared overfished.

#### *Bocaccio (Sebastes Paucispinis)*

A new stock assessment was prepared for the bocaccio stock between the U.S.-Mexico border and Cape Blanco, OR, using the Stock Synthesis 3.03a model. Changes in the model from the prior assessment include: A northern expansion of the modeled area from Cape Mendocino, CA, to Cape Blanco, OR; and the extension of the catch history from 1950 to 1892. Assessment scientists have treated bocaccio as independent stocks north and south of Cape Mendocino. The southern stock, which has been declared overfished, occurs south of Cape Mendocino. Although the range extends considerably further north, there is some evidence that there are two demographic clusters of bocaccio. The northern stock is found north of 48° north latitude in northern Washington and Canada, with a relative rarity of bocaccio (particularly smaller fish) in the region between Cape Mendocino and the Columbia River mouth.

Since the early 2000s, the bocaccio spawning output has been increasing steadily. Spawning output in 2009 was estimated at 2,209,900 mt (~95 percent confidence: 1,546,440—2,873,360 mt). Bocaccio depletion was estimated to be 28.12 percent (0.18—0.37 percent) of its unfished biomass in 2009. There are clear signs that the stock is rebuilding at a relatively rapid rate. Recovery may be taking place more rapidly in the south, and recovery in the central/northern California region may be dependent on an influx of fish from the southern area.

Model uncertainty regarding natural mortality rates and estimates of selectivity for the NMFS triennial trawl survey continue to be problematic. Since 2001, large scale area closures have affected the spatial distribution of fishing mortality and truncated several abundance indices (recreational CPUE indices), confounding the interpretation of survey indices as well as fishery dependent and independent length

frequency data. Data from relatively recent, short-term surveys do not yet appear to be informative with respect to trends in abundance, although they are informative with respect to cohort strength.

At the September 2009 Council meeting, the SSC endorsed the use of the 2009 bocaccio assessment for status determination and management in the Council process. The SSC supported the extension of the assessment area as biologically appropriate given the current understanding of stock structure, but also recognized that the boundary extension raises issues with respect to area management. Approximately 6 percent of the coastwide bocaccio catch has occurred historically between Cape Mendocino and Cape Blanco while only 1 percent has been taken from the California/Oregon border to Cape Blanco. The SSC indicated that there was no conservation issue north of the 40°10' north latitude management boundary at Cape Mendocino, based on these low bocaccio catches in the area. Therefore, the SSC did not recommend changing the area where bocaccio are designated as overfished. The SSC indicated that management should be based on a pro-rata allocation using the historical catch distribution north and south of 40°10' north latitude. The bocaccio OFL of 737 mt for 2011 and 732 mt for 2012 was based on the  $F_{MSY}$  harvest rate proxy of  $F_{50\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment. For setting harvest specifications, six percent of the assessed biomass was estimated to occur north of 40°10' north latitude. The projected OFLs from the assessment were adjusted accordingly.

#### *Canary Rockfish (Sebastes Pinniger)*

A stock assessment update was prepared for the coastwide canary rockfish stock using the Stock Synthesis 3.03a model. Consistent with the Terms of Reference for Groundfish Stock Assessments, fishery and survey data were updated through 2008. Data updates for earlier years were also made with most of the updates being minor, with the exception of historical catch estimates (< 1981) that were substantially revised by NMFS and CDFG scientists. The historical catch revisions resulted in a 24 percent reduction in the total estimated canary rockfish catch from 1916 to 2006, with most of this reduction occurring prior to 1968. The new data resulted in a rebuilding trajectory that was overall lower than previous projections. Although the stock has continued to progress towards the rebuilding

threshold ( $B_{40\%}$ ), the overall lowering of the trajectory means that it would take more time to reach the  $B_{40\%}$ . The new assessment estimated the 2007 depletion level for canary rockfish to have been 21.7 percent (below the estimate of 32.4 percent for 2007 from the 2007 assessment with 95 percent confidence bounds of 24–41 percent) and the 2009 depletion level to have been 23.7 percent with 95 percent confidence bounds of 17–30 percent). The SSC indicated that the broad confidence interval on the depletion level was due to a high degree of uncertainty in the parameter estimates, especially steepness. The change in the depletion level is largely due to the revised historical catch time-series for California. At the Council's September meeting, the SSC indicated that revised catches reflected the best available data, and were consistent with the Terms of Reference for Stock Assessment Documents.

The assessment update estimated the unfished spawning stock biomass to be 25,993 mt (down from the 2007 estimate of 32,561 mt). After a period of above average recruitments, recent year-class strengths (1997–2008) have generally been low, with only 4 of the 12 years (1999, 2001, 2006, and 2007) estimated to have produced larger recruitments. Because of the limited number of years they have been observed, the strengths of the 2006–2007 year classes are subject to greater uncertainty. As the larger recruitments from the late 1980s and early 1990s move through the population, the rate of recovery to  $B_{MSY}$  in future projections is estimated to slow. Because the species has a patchy distribution it is difficult to sample well with the bottom trawl gear used in the trawl survey.

The base case assessment model explicitly captures parameter uncertainty in the asymptotic confidence intervals for key parameters and management quantities. Uncertainty around the base model results is considered through integration of rebuilding trajectories over two alternate states of nature corresponding to lower and higher stock-recruitment steepness, the parameter largely governing productivity and recent rebuilding trajectory. At the Council's September meeting the SSC indicated that the canary rockfish stock assessment update represented the "best available science," and was suitable to use for Council management decisions. The canary rockfish OFL of 614 mt for 2011 and 622 mt for 2012 was based on the  $F_{MSY}$  harvest rate proxy of  $F_{50\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment update.



*Cowcod (Sebastes Levis)*

A stock assessment update was prepared for cowcod in the Southern California Bight (U.S. waters south of Point Conception—34°27' north latitude) using an age-structured production model (Stock Synthesis 2 model). The assumption of an isolated stock is untested, and no information is available regarding stock structure or dispersal across the assumed stock boundaries. No new data sources were available for this update assessment.

Cowcod is a long lived species with a mean generation time estimated at 38 years. Relative depletion was estimated at 4.5 percent in 2009 for the base model. The cowcod stock shows a slowly increasing trend in stock biomass, but given that no new data are available, this result is little more than a stock projection. Cowcod remain on a multi-decadal rebuilding timeline. Management actions since 2001, that include large scale area closures specifically to reduce fishery interactions with cowcod, have truncated data used in the assessment. Due to uncertainty in total mortality since no-retention regulations took effect, recreational and commercial mortalities have been assumed to be 0.25 metric tons per year, per fishery. A major source of uncertainty in the assessment was the assumed value of the steepness parameter in the spawner-recruit relationship. In addition, the percentage of cowcod in total rockfish landings in years prior to the 1980s is not well understood. At the Council's June 2009 meeting the SSC indicated that the updated assessment for cowcod represented the "best available science," and was suitable as the basis for Council management decisions. The 2011 and 2012 cowcod OFL contribution for the Conception area (south of 36°00' north latitude) was determined from the 2009 stock assessment update with an FMSY proxy harvest rate of F50% applied to the estimated exploitable biomass for the assessed portion of the stock in the Conception area. The OFLs for the Monterey area were determined using a DB-SRA approach. The OFLs for the Conception and the Monterey areas were summed to determine an OFL specification of 13 mt for 2011 and 2012 for the entire stock south of 40°10' north latitude.

*Darkblotched Rockfish (Sebastes Cramerii)*

In 2009, a stock assessment update was prepared for darkblotched rockfish the U.S. Vancouver, Columbia, Eureka and Monterey areas using the Stock Synthesis 3.03a model. During the

previous assessment cycle, The SSC indicated that changes to the darkblotched rockfish stock assessment model in 2007 (same model used for 2009 update) represented a substantial advancement over previous stock assessments.

The fishing mortality rate on darkblotched rockfish has been greatly reduced, and darkblotched rockfish appear to be rebuilding gradually, relatively consistent with previous rebuilding projections. The point estimate for the depletion of the spawning output at the start of 2009 is 27.5 percent. In 2009, the biomass (1+ age fish) is estimated at 12,836 mt, as compared to 5,862 mt in 2000. The recruitment pattern for darkblotched rockfish is highly variable between years. Recruitment levels between the 1980's and 1990's were generally poor when compared with average historical recruitment levels, with the exceptions being the 1999 and 2000 year-classes which appear to be two of the four largest years since 1975. The estimated increase in stock size is driven primarily by the assumption that darkblotched productivity is analogous to that of other similar species, and not on survey and fishery data indicating an upward trend.

A number of sources of uncertainty were explicitly included in the assessment. Allowance was made for uncertainty in natural mortality and the parameters of the stock recruitment relationship. Sources of uncertainty not included in the current model, included: The degree of connection between the stocks of darkblotched rockfish off British Columbia and those in the Exclusive Economic Zone (EEZ); the effect of climatic variables on recruitment, growth and survival of darkblotched rockfish; and gender based differences in survival. At the Council's June 2009 meeting the SSC indicated that the updated assessment for darkblotched rockfish represented the "best available science," and was suitable as the basis for Council management decisions. The darkblotched rockfish OFL of 508 mt for 2011 and 497 mt for 2012 was based on the F<sub>M<sub>SY</sub></sub> harvest rate proxy of F<sub>50%</sub> as applied to the estimated exploitable biomass from the 2009 stock assessment update.

*Petrale Sole (Eopsetta Jordani)*

A new coastwide stock assessment was prepared for petrale sole using the Stock Synthesis 3.03a model. There is currently no genetic evidence suggesting distinct biological stocks of petrale sole off the U.S. coast. Given the lack of clear information regarding the status of

distinct biological populations, the assessment treats the U.S. petrale sole resource from the Mexican border to the Canadian border as a single coastwide stock.

Petrale sole were lightly exploited during the early 1900s. By the 1950s, the petrale sole fishery was well developed and showing clear signs of depletion and declines in catches and biomass. The base model indicates that the spawning biomass has been below B<sub>25%</sub> continuously since 1953. The petrale sole spawning stock biomass is estimated to have increased slightly from the late 1990s, peaking in 2005, in response to above average recruitment. However, this increasing trend has reversed since the 2005 assessment and the stock has been declining, most likely due to strong year classes having passed through the fishery. The estimated relative depletion level for 2009 is 11.6 percent. Unfished spawning stock biomass was estimated to be 25,334 mt.

The base case assessment model includes within model uncertainty (assessment parameter uncertainty) from a variety of sources, but it likely underestimates the uncertainty in recent trend and current stock status. For this reason, in addition to asymptotic confidence intervals, results from models that reflect alternate states of nature regarding the estimate of 2009 spawning biomass are presented as a decision table within the stock assessment document.

At the Council's June 2009 meeting, the SSC reviewed the new petrale sole assessment and, based on a number of concerns, was unable to endorse the assessment at that time. While the petrale sole assessment appeared to be technically sound and thoroughly reviewed by the STAR panel, the SSC was concerned that certain assessment results were so extreme that the overall plausibility of the assessment was called into question. Attention focused primarily on the estimated catchability of the NWFSC survey, the estimate of stock-recruit steepness (0.95), and confounding of estimated model parameters. The Council's STAR Panel recommended that the estimates of F<sub>M<sub>SY</sub></sub> and B<sub>M<sub>SY</sub></sub> produced by the petrale sole assessment be investigated as alternatives to the currently used proxies for F<sub>40%</sub> and B<sub>40%</sub>. The SSC developed a list of analytical requests for the Council's petrale sole Stock Assessment Team to address. The SSC's groundfish subcommittee and the Council's Stock Assessment Team reviewed the model and proxies of F<sub>40%</sub> and B<sub>40%</sub>. After further consideration by the SSC's groundfish subcommittee, the full SSC endorsed the petrale sole stock

assessment model approved by the Council's STAR panel, and recommended that proxies of  $B_{25\%}$  for  $B_{MSY}$  and  $F_{30\%}$  for  $F_{MSY}$  be established for all flatfish not only petrale sole.

The SSC agreed that the base petrale sole model represents the best available scientific information, and endorsed its use for status determination and management in the Council process. The SSC concluded that there is no basis for rejecting the assessment based on the estimated catchability coefficient (q) for NWFSC trawl survey. However the SSC encouraged further investigation of the catchability coefficient of the survey by experimental evaluation of trawl performance, quantification of trawlable and untrawlable habitat off the west coast, or by synthesis of available information and expert knowledge through development of an informative prior, as had been anticipated from the 2008 survey catchability workshop. The SSC also endorsed further evaluation of fishery CPUE data in the next petrale sole assessment. The petrale sole OFL of 1,021 mt for 2011 and 1,279 mt for 2012 was based on the  $F_{MSY}$  harvest rate proxy of  $F_{30\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment.

#### *POP (Sebastes Alutus)*

A stock assessment update was prepared for POP in the combined U.S. Vancouver and Columbia areas using the same forward projection age-structured model used in the previous stock assessment. Consistent with the Terms of Reference for Groundfish Stock Assessments, fishery, survey, and observer data were updated to include the years since the last assessment. Only minor updates to the data from earlier years were made.

There were no significant changes in the view of stock status between the 2007 and 2009 assessment updates. The estimate of depletion of the spawning biomass at the start of 2009 is estimated to be 28.6 percent. The POP biomass shows an increasing trend. Poor recruitment has been seen in recent years, compared with the 1950s and 1960s, although the 1999 year class appears to be larger than any other since the 1960's. The 2000 year class also appears to be relatively large; however, this may be due to some small amount of overall bias in ageing.

A number of sources of uncertainty are explicitly included in this assessment such as uncertainty in natural mortality, the parameters of the stock-recruitment relationship, and the survey catch ability coefficients. There are also other sources of uncertainty that

are not included in the current model. These include the degree of connection between the U.S. and Canadian stocks; the effect of climatic variables on recruitment, growth and survival; gender differences in growth and survival; and the relationship between individual spawner biomass and effective spawning output and age and maturity.

At the Council's June 2009 meeting the SSC indicated that the updated assessment for POP represented the "best available science," and would be suitable as the basis for Council management decisions. The POP OFL of 1,026 mt for 2011 and 1,007 mt for 2012 was based on the  $F_{MSY}$  harvest rate proxy of  $F_{50\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment update.

#### *Widow Rockfish (Sebastes Entomelas)*

A new coastwide stock assessment was prepared for widow rockfish in the U.S. Vancouver, Columbia, Eureka, Monterey, and Conception areas. The 2009 assessment differed from the previous assessment in several respects: The assessment used the Stock Synthesis 3 model rather than an age-based population model; the catch history was revised and extended back to 1916; catch, age structure, and survey data were updated through 2008; and data from the NWFSC trawl survey were included in the assessment.

The widow rockfish spawning biomass steadily declined from 1980 to 2003, when widow rockfish was targeted in a major commercial fishery. Since 2003, spawning biomass has shown an increasing trend. For 2009 spawning biomass is estimated at 15,625 mt (~95 percent confidence: 5,984–25,266 mt). Depletion in 2009 is estimated at 38.5 percent (14.2–62.9 percent) of unfished biomass. Because the biomass is below  $B_{40\%}$  it remains under a rebuilding plan.

Uncertainty in estimation of widow rockfish recruitment remains high. The highest known widow rockfish recruitment occurred in 1970. When compared to the long-term average, recruitment was relatively low in the early 1990s and since 2001. The 2007 stock assessment update indicated that the 2000 recruitment was relatively strong; however, the new stock assessment did not confirm a strong 2000 recruitment. In general, estimates of recruitment for the most recent years are uncertain, and can have a considerable impact on the outcomes of rebuilding projections.

The SSC endorsed the use of the 2009 widow rockfish stock assessment for status determination and management

in the Council process. The widow rockfish OFLs of 5,097 mt for 2011 and 4,923 mt for 2012 were based on the  $F_{MSY}$  harvest rate proxy of  $F_{50\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment.

#### *Yelloweye Rockfish (Sebastes Ruberrimus)*

A new coastwide stock assessment was prepared for yelloweye rockfish in 2009 using the Stock Synthesis 3.03b model. The 2009 assessment differed from previous assessments in terms of assumed population structure and the data used to fit the model. The 2009 assessment was based on three regions (California, Oregon and Washington) under the assumptions that: Adults are sedentary; density-dependence is a function of coastwide egg production; and the proportion of recruits settling in each area is constant over time. This spatial structure is consistent with our understanding of the behavior of yelloweye rockfish, and reflects a compromise between a coastwide assessment and separate assessments for each state.

Even with a large number of changes to data inputs, the results from the 2009 yelloweye rockfish assessment are consistent with those from the 2006 and 2007 assessments. All of these assessments suggest that yelloweye rockfish experienced a substantial decline in abundance between 1980 and 2000, with increased catches. Large reductions in harvest have been in place since 2000. The best estimate of depletion in 2009 from the current assessment is 20.3 percent of unfished biomass (states of nature: 17.3–23.5 percent). This represents an increase from the 2007 updated assessment, which estimated depletion in 2007 to be 16.4 percent.

In contrast to the 2006 and 2007 assessments, the 2009 assessment makes use of data from the NWFSC and triennial trawl surveys as well as data on discarded yelloweye rockfish collected by observers in the Oregon recreational charter fishery. However, the International Pacific Halibut Commission (IPHC) survey data remain the most important index in the assessment, although IPHC survey data are only available for Washington and Oregon and not California, where the largest potential biomass of yelloweye rockfish is estimated to occur.

Data for yelloweye rockfish are sparse and relatively uninformative, especially regarding current trends. Yelloweye rockfish catches are very uncertain due to the relatively small contribution to rockfish market categories and the

relatively large scale of recreational removals. In addition, since 2001, management restrictions have required nearly all yelloweye rockfish caught by recreational and commercial fishers to be discarded at sea. Currently available fishery-independent indices of abundance are imprecise and not highly informative. It is unclear whether increased rates of recovery (or lack thereof) will be detectable without more precise survey methods applied over broad portions of the coast. Fishery data are also unlikely to produce conclusive information about the stock for the foreseeable future, due to retention prohibitions and active avoidance of yelloweye rockfish among all fleets. Considerable uncertainty regarding the time-series of historical catches was identified as a key source of uncertainty in the stock assessment.

At the Council's September 2009 meeting, the SSC cautioned against using the stock assessment estimates of trends in abundance by region as the sole basis for the spatial allocation because the trend in abundance at the coastwide level was much more robust than at the regional level. The SSC emphasized the value of collecting biological data, such as age-length and maturation information, for yelloweye rockfish during the IPHC surveys.

The SSC endorsed the approach used to quantify uncertainty, which forms the basis for the yelloweye rockfish rebuilding analysis and they endorsed the use of the 2009 yelloweye rockfish assessment as the best available science for status determination and management in the Council process. The yelloweye rockfish OFL of 48 mt for 2011 and 2012 was based on the  $F_{MSY}$  harvest rate proxy of  $F_{50\%}$  as applied to the estimated exploitable biomass from the 2009 stock assessment.

### ABC Policy

The proposed ABCs are consistent with the harvest specification framework proposed for Amendment 23 to the PCGFMP. Under Amendment 23, the term ABC is redefined to be an annual catch specification that is the stock or stock complex's OFL reduced by an amount associated with scientific uncertainty. Under the revised Magnuson-Stevens Act National Standard 1 guidelines, scientific advice that is relatively uncertain will result in ABCs that are relatively lower, all other things being equal, *i.e.*, a precautionary reduction in catch will occur due purely to scientific uncertainty. The ABC is the catch level that ACLs may not exceed. As explained in more detail below, the SSC recommended a two-step approach referred to as the  $P^*$  approach initially

for stocks with relatively data-rich stock assessments and ultimately for other stocks. In this approach, the SSC determines the amount of scientific uncertainty in a stock assessment, referred to as  $\sigma$ . Then the Council determines the level of risk aversion to use, which is designated as the  $P^*$ . The scientists then apply the  $P^*$  value to the  $\sigma$  value to determine the amount by which the OFL is reduced to establish the ABC.

In January 2009, the SSC's Groundfish and Coastal Pelagic Species Subcommittees met to discuss the new Magnuson-Stevens Act reauthorization requirements, including the development of a methodology for estimating scientific uncertainty in stock assessments. At this meeting, two types of uncertainty in biomass estimation were considered. The first was "within" assessment variability, which is presented in each stock assessment or stock assessment update and represented by the coefficient of variation for the terminal year biomass estimate. The second type of uncertainty is "among" assessment variation, resulting from a wide variety of factors, many of which represent a significant model or structural uncertainty. Reasons for "among" assessment variations in stock size estimation, includes differences in: The modeling software; the makeup of the analytical team doing the assessment; the composition of the review panel; changes in data availability; altered "priors" for the parameters; and changes in overall model structure. The SSC evaluated three methods of quantifying these types of scientific uncertainty, but also recognized that numerous other unaccounted for factors exist for which there is currently no method for meaningful analysis, including for example, the effects of climate and/or ecosystem interactions on the estimation of an OFL.

The general methodology used by the SSC subcommittees to assess among-assessment uncertainty was to compare previous stock assessments and stock assessment updates, and consider the logarithms of the ratios of the biomass estimates for each pair of assessments and their reciprocals using the last 20 years from an assessment. This provides a distribution of stock size differences in log-space and, if this variation is averaged over species, provides a general view of total biomass variation (represented as  $\sigma$ ) that emerges among repeat assessments of stocks, while embracing a wide range of factors that affect variability in results. During their consideration of Amendment 23 to the PCGFMP, in March 2010, the SSC

recommended the use of this methodology, but recognized that it was only the first step in the process of developing methods for estimating uncertainty in OFL, in part, because it only considers uncertainty in biomass and likely underestimates total variance. Going forward, the SSC indicated that it will be important to consider other sources of uncertainty, such as  $F_{MSY}$ . While biomass is most likely the dominant source of uncertainty, it is anticipated that other factors will need to be considered in the future.

The SSC recommended the biomass variance statistic of  $\sigma=0.36$ , from the analysis of stock assessments and stock assessment updates from 17 data rich stocks (meta-analysis). To set ABCs, the Council recommended using an approach where the SSC determines a value of  $\sigma$  and the GMT uses the recommended formulation to translate  $\sigma$  to a range of  $P^*$  values (the probability of overfishing). Each  $P^*$  is then mapped to its corresponding buffer fraction. The Council then determines the preferred level of risk aversion by selecting an appropriate  $P^*$  value.

In cases where the  $P^*$  approach is used, the upper limit of  $P^*$  values considered will be 0.45. Since estimated OFLs are median estimates, there is a 50 percent probability that the OFL is overestimated or underestimated. A  $P^*$  of 0.5 equates to no additional reduction for scientific uncertainty. In other words, the ABC is set equal to the OFL.

For the purposes of using the  $P^*$  approach, the SSC assigned stocks to species categories. Using the  $P^*$  approach, a scientific uncertainty buffer against overfishing can generally be determined for data rich species that have had quantitative stock assessments prepared (category 1 species). Since there is greater scientific uncertainty for category 2 and 3 stocks relative to category 1 stocks, the scientific uncertainty buffer is generally greater than that recommended for category 1 stocks. The SSC indicated that ideally the approach recommended for setting ABCs for category 1 stocks should also be applied to category 2 and 3 stocks. However, there is presently no analysis available for determining the appropriate value of  $\sigma$  to represent scientific uncertainty for stocks in these categories, unlike the situation for category 1 stocks. In the absence of an analysis for category 2 and 3 stocks, the SSC suggested two interim approaches for computing ABCs from OFLs: Use 25 percent and 50 percent reductions from the OFL for deciding the ABC for category 2 and 3 stocks (similar to status quo), respectively; or use the  $P^*$  approach using the  $\sigma$  values

for category 2 and 3 stocks recommended by the SSC. The SSC noted that their approach allows the Council to express their views on overfishing risk aversion. With a  $P^*$  approach for deciding the ABC for category 2 and 3 stocks, the SSC recommended setting the value of sigma ( $\sigma$ ) for category 2 and 3 stocks to 0.72 and 1.44 respectively (i.e., two and four times the  $\sigma$  for category 1 stocks). The difference between buffers determined using sigma values of 0.72 and 1.44 corresponds fairly closely to the difference between the buffers previously used for category 2 and 3 stocks (25 percent versus 50 percent) when  $P^*$  is in the range 0.3 ~ 0.35. Although, the specific values of 0.72 and 1.44 are recommended by the SSC and considered to be the best available scientific information, the values are not based on a formal analysis of assessment outcomes and could change substantially when the SSC reviews additional analyses in future management cycles.

The Council approved the SSC-recommended  $\sigma$  values for each species category. For category 1 species the Council adopted a  $P^*$  of 0.45, which combined with a sigma ( $\sigma$ ) value of 0.36, corresponds with a reduction of 4.4 percent from the OFL when deriving the ABC. For healthy stocks, the  $P^*$  of 0.45 is more risk averse than the policy used in the previous biennial management cycle in which the OYs for most healthy stocks were set at 100 percent of the ABC. The Council adopted a general policy of using a  $P^*$  of 0.4 for category 2 and 3 stocks. The buffers determined using sigma ( $\sigma$ ) values of 0.72 and 1.44 with a  $P^*$  value of 0.40 corresponds to 16.7 percent, and 30.6 percent reductions, respectively. For the purpose of setting the ABCs in 2011 and 2012 the following category 1 species had a  $P^*$  of 0.45 applied to the OFL to determine the ABC: Bocaccio south of 40°10' north latitude, canary rockfish, darkblotched rockfish, Pacific Ocean Perch, widow rockfish, yelloweye rockfish, petrale sole, lingcod north of 42° N latitude (Oregon and Washington), Pacific whiting (U.S./Canada), sablefish (coastwide), chilipepper rockfish (coastwide), splitnose rockfish south of 40°10' north latitude, yellowtail rockfish north of 40°10' north latitude, shortspine thornyhead (coastwide), black Rockfish (Washington), black Rockfish (Oregon-California), California scorpionfish, cabezon (California), cabezon (Oregon), Dover sole, and English sole. For the purpose of setting the ABCs in 2011–2012, the following category 2 species

had a  $P^*$  of 0.40 and a sigma value of applied 0.72 applied to the OFL to determine the ABC: greenstriped rockfish, arrowtooth flounder, starry flounder, longspine thornyhead (coastwide), shortbelly rockfish, lingcod south of 42° north latitude (California), cowcod (Conception-Cowcod in the Monterey area are a category 3 stock) and longnose skate. For the purpose of setting the minor rockfish complex ABCs in 2011–2012, the ABCs for the sub-complexes are the sum of the component species ABCs. The SSC identified the appropriate species category for each component species: A sigma value of 0.36 for category 1 stocks (splitnose north, chilipepper rockfish north, gopher rockfish north of Pt. Conception, and blackgill rockfish), 0.72 for category 2 stocks (greenstriped rockfish, blue rockfish, and bank rockfish) and 1.44 for category 3 stocks. The  $P^*$  value used to determine the ABCs for the component species in the minor rockfish complexes was 0.45. The resulting 2011 and 2012 ABCs for minor rockfish north are reduced by 11 percent from the OFL (nearshore-15 percent, shelf-11 percent, and slope-9 percent) and for the minor rockfish south are reduced by 13 percent (nearshore-14 percent, shelf-16 percent, and slope-8 percent). Like the minor rockfish complex ABCs, the “other flatfish” complex ABCs were derived from the sum of the component species, with all being category 3 species ( $\sigma=1.44/P^*=0.4$ ). For the “other fish” complex the ABC is a 24 percent reduction from the OFL ( $\sigma=1.44/P^*=0.4$ ) for category 3 species. Tables 1a and 2a present the specifications for each stock while the footnotes to these tables describe how the proposed specifications were derived.

#### **Vulnerability to Overfishing and Organization of Stock Complexes**

The vulnerability of a stock to becoming overfished is defined in the National Standard 1 guidelines as a function of its productivity and its susceptibility to the fishery. The guidelines note that the “vulnerability” of fish stocks should be considered when: (1) Deciding if a stock considered to be “in the fishery” or if it is an ecosystem component stock; (2) considering the management of stocks managed within complexes and the need to re-structure the stock complexes; and (3) creating management control rules. The GMT and the NMFS Vulnerability Evaluation Work Group considered the productivity and susceptibility of each groundfish stock by providing productivity and susceptibility (PSA)

scores for each stock. A score of 1 to 3 was identified for a set of attributes related to productivity and susceptibility. Currently there are 10 attributes for productivity that reflect stock life history and 12 attributes that reflect susceptibility to the impacts of fishing and management. Stocks with a low productivity score and a high susceptibility score were considered to be more vulnerable, while stocks with a high productivity score and low susceptibility score were considered to be less vulnerable.

In the consideration of stock complex structure, a four step approach for defining the relationship between fisheries and appropriate stock complexes was developed using the PSA score: (1) Calculate PSA scores for each species in the PCGFMP; (2) identify the overlap in distributions of each species based on latitude and depth range; (3) assign each species to the various fisheries; and (4) overlay the groupings onto the PSA plot. The GMT provided the PSA vulnerability scores for all of the Pacific coast groundfish and completed a cluster analysis based on latitude and depth to identify spatial overlaps. The results of the preliminary cluster analysis indicate that there is a need to adjust the assignment of PCGFMP stocks to complexes. The GMT concluded they could not complete the necessary analyses and discussion to fully implement the changes to stock complexes suggested by the National Standard 1 guidelines on the timeline for implementing Amendment 23 or these specifications.

The GMT explored using catch information to consider whether species that are not in the PCGFMP should be considered for inclusion as “in the fishery” or as “ecosystem component” species. By using NWFSC West Coast Observer Program mortality reports on the non-whiting trawl fishery in 2007 and 2008, and a simple method for expanding total catch, the GMT was able to roughly compare the relative magnitude of total catch of PCGFMP species versus species not in the PCGFMP. Based on this preliminary analysis of total catch information, the potential vulnerability scores of these non-PCGFMP species may be indistinguishable from those scores of species currently in the PCGFMP. Therefore, further consideration may be warranted in the future to decide if any of these species should be included in the PCGFMP as “in the fishery” or as an “ecosystem component” species. The GMT recommended revisiting the “in the fishery” classification following this biennial cycle, with consideration of

changes to stock complexes in the 2013–2014 biennial cycle.

### OY Policies

The concept of OY remains in the PCGFMP, however, OYs will no longer be used as the annual limit on catch; instead, ACLs will be used for this purpose. As revisions to the National Standard 1 guidelines did not alter the definition of OY, which is defined as “the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems; that is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery,” that definition remains unchanged in the PCGFMP. OY may be expressed numerically (as a harvest guideline, quota, or other specification) or non-numerically. Beginning with the 2011 and 2012 harvest specifications, ACLs are intended to, over the long-term, meet the National Standard 1 guidelines of preventing overfishing while achieving, on a continuing basis, the optimum yield.

### ACL Policy

ACLs are specified for each stock and stock complex that is “in the fishery” as specified under the proposed Amendment 23 framework. An ACL is a harvest specification set equal to or below the ABC to address conservation objectives, socioeconomic concerns, management uncertainty or other factors necessary to meet any management objectives. Sector-specific ACLs may be specified in cases where a sector has a formal, long-term allocation of the harvestable surplus of a stock or stock complex. All sources of fishing related mortality (tribal, commercial groundfish and non groundfish, recreational, and EFP) retained and discard mortality, plus research catch is accounted for within an ACL. In general, when recommending ACLs, the Council follows a risk-averse policy by recommending an ACL that is below ABC when there is a perception the stock is below its  $B_{MSY}$ , or to accommodate management uncertainty, socioeconomic concerns, or other considerations.

Under the PCGFMP, the biomass level that produces MSY ( $B_{MSY}$ ) is defined as the precautionary threshold. When the biomass for a category 1 stock or stock complex falls below the precautionary

threshold, the harvest rate will be reduced to help the stock return to the  $B_{MSY}$  level. If a stock biomass is larger than  $B_{MSY}$ , the ACL may be set equal to or less than ABC. Because  $B_{MSY}$  is a long term average, the true biomass could be below  $B_{MSY}$  in some years and above  $B_{MSY}$  in other years. Even in the absence of overfishing, a biomass may decline to levels below  $B_{MSY}$  due to natural fluctuations. Decreasing harvest rates below the ABC level when a biomass is estimated to be below  $B_{MSY}$ , is a harvest control rule designed to prevent a stock or stock complex from becoming overfished.

The PCGFMP defines ACL harvest policies for category 1 species. The 40–10 harvest control rule has been applied to stocks with a  $B_{MSY}$  proxy of 40 percent ( $B_{40\%}$ ) since 2000. A new harvest control rule referred to as the 25–5 harvest control rule is proposed for stocks with a  $B_{MSY}$  proxy of 25 percent ( $B_{25\%}$ ). Consistent with the SSC recommendations, the new harvest control rule would be used for setting ACLs for flatfish species not managed under overfished species rebuilding plans when the biomass estimated from the stock assessment indicates that the stock has fallen below  $B_{25\%}$ . The 25–5 rule works exactly like the 40–10 rule except that the ACL adjustment begins when the stock’s depletion drops below  $B_{25\%}$  and at  $B_{5\%}$ , the ACL is set to zero. Like the 40–10 harvest control rule for stocks with an MSST proxy of  $B_{40\%}$ , the 25–5 harvest control rule is designed to prevent stocks from becoming overfished. If a stock biomass is larger than the biomass needed to produce MSY ( $B_{MSY}$ ), the ACL may be set equal to or less than the ABC.

Under these harvest policies, when a stock’s depletion level falls below  $B_{MSY}$  (or the proxy for  $B_{MSY}$ ), the stock is said to be in the “precautionary zone” or below the precautionary threshold. When a stock is below the precautionary threshold the harvest policies reduce the fishing mortality rate. The further the stock biomass is below the precautionary threshold, the greater the reduction in ACL relative to the ABC, until at  $B_{10\%}$  for a stock with a  $B_{MSY}$  proxy of  $B_{40\%}$  or  $B_{5\%}$  for a stock with a  $B_{MSY}$  proxy of  $B_{25\%}$ , when the OY would be set at zero. These harvest policies foster a quicker return to the  $B_{MSY}$  level and serve as an interim rebuilding policy for stock that are below the overfished threshold (Below MSST—below  $B_{25\%}$  for a stock with a  $B_{MSY}$  proxy of  $B_{40\%}$  or  $B_{12.5\%}$  for a stock with a  $B_{MSY}$  proxy of  $B_{25\%}$ ).

The Council may recommend setting the ACL higher than what the default ACL harvest control rule specifies as

long as the ACL: Does not exceed the ABC; complies with the requirements of the Magnuson-Stevens Act; and is consistent with the National Standard Guidelines. On a case-by-case basis, additional precautionary adjustments may be made to an ACL if necessary to address management uncertainty. The ACL serves as the basis for invoking AMs. If ACLs are exceeded more often than 1 in 4 years, then AMs, such as catch monitoring and inseason adjustments to fisheries, need to improve or additional AMs may need to be implemented. Additional AMs may include setting an ACT, which is a specified level of harvest below the ACL. The use of ACTs may be especially important for a stock subject to highly uncertain inseason catch monitoring. A sector-specific ACT may serve as a harvest guideline for a sector or may be used strategically in a rebuilding plan to attempt to reduce mortality of an overfished stock more than the rebuilding plan limits prescribe.

For category 2 and 3 species with only rudimentary stock assessments, the Council has the discretion to adjust the ACLs for uncertainty on a case-by-case basis. In cases where there is a high degree of uncertainty about the condition of the stock or stocks, the ACL may be reduced accordingly. Most category 3 species are managed in a stock complex (such as other flatfish, minor rockfish, and other fish) where harvest specifications are set for the complex in its entirety. For stock complexes, the ACL will be less than or equal to the sum of the individual component ABCs. The ACL may be adjusted below the sum of component ABCs as appropriate. For what are now being referred to as category 2 and 3 stocks, the Council’s policy prior to this specification cycle was to set the OY at 75 percent of the ABC to account for stocks that have non-quantitative assessments and to set the OY at 50 percent of the ABC where the ABC is based on historical data. The previous adjustments were intended to address both scientific and management uncertainty. Because the ABC values for 2011 and 2012 are the OFLs reduced by scientific uncertainty, adjustment to the ACLs for additional uncertainty was made on a case-by-case basis.

If a stock is declared overfished, the Magnuson-Stevens Act requires the Council to develop a rebuilding plan within one year from the declaration date. The policies for setting ACLs for overfished species managed under rebuilding plans is described below in the section titled “Rebuilding Plan ACLs for Overfished Species”.

As discussed above, the Council's development of the 2011 and 2012 biennial harvest specifications began at Council's November 2009 meeting. Because Amendment 23 was under development while the ACL alternatives were being developed, some early ACLs under consideration by the Council were not consistent with Amendment 23 and were removed after the ABCs were specified (*i.e.* ACLs that exceeded the ABC). Other viable ACLs though lower than the ABC's developed under the Amendment 23 structure, are described in terms of pre-Amendment 23 language. The harvest specifications recommended by the Council and which are being implemented by this action are consistent with Amendments 23.

#### **ACLs for "Healthy" and "Precautionary Zone" Species and Species Complexes**

As stated above, the PCGFMP provides guidance on setting harvest specifications for category 1 stocks depending on the stock's estimated biomass level. For the following species or species complexes where there was no new scientific information including stock assessments or a management guidance change in the harvest strategy, the Council only considered a single annual ACL for 2011 and 2012: Pacific cod; chilipepper rockfish, yellowtail rockfish, shortspine thornyhead north of 34°27' north latitude, black rockfish (Washington), black rockfish (Oregon/California), longnose skate, other flatfish, and other fish. The Council recommended final adoption of the ABC/OYs values for these species at its June 2010 meeting. The information that serves as the basis for the ACLs for these species can be found in the footnotes to Table 1a and Table 2a. Because there were new policies applicable or new information available, the Council considered alternative ACLs for the following non-overfished species: lingcod north of 42° north latitude; lingcod south of 42° north latitude; sablefish; shortbelly rockfish; shortspine thornyhead south of 34°27' north latitude; longspine thornyhead north of 34°27' north latitude; longspine thornyhead south of 34°27' north latitude; California scorpionfish; cabezon (California); cabezon (Oregon); Dover sole; English sole; arrowtooth flounder; starry flounder; and minor rockfish complexes north and south of 40°10' north latitude.

Pacific whiting is managed consistent with the U.S.-Canada agreement for Pacific whiting. ACLs for Pacific whiting are adopted on an annual basis after a stock assessment is completed just prior to the Council's March

meeting. Accordingly, the Council recommended a range of ACLs for 2011 and 2012, and delayed adoption of final 2011 and 2012 OFLs, ABCs, and ACLs until the March 2011 and 2012 meetings, respectively. The DEIS for the 2011 and 2012 management measures considers a range for Pacific whiting ACLs and the resulting impacts.

#### *Lingcod North and South*

A lingcod stock assessment was prepared in 2009. The stock assessment was conducted as two separate stock assessments, one for the northern portion and one for the southern portion of the stock. For lingcod off of Washington and Oregon (the northern portion of the coastwide stock) the biomass was estimated to be at 62 percent of its unfished biomass, and for lingcod off of California (the southern portion) the biomass was estimated to be at 74 percent of its unfished biomass. Three ACL alternatives were considered for the north stock. Alternative 1, with an ACL of 1,219 mt in 2011 and 1,126 mt in 2012 was based on the 2009 stock assessment base model with a 50 percent reduction from the OFL (48 percent reduction from the ABC) for assessment uncertainty and overfished species bycatch concerns. Alternative 2, with an ACL of 2,172 mt in 2011 and 2,020 mt in 2012 was based on the low mortality model in the 2009 assessment. Alternative 3, with an ACL of 2,330 mt in 2011 and 2,151 mt in 2012, was based on the 2009 stock assessment base model with the ACL set equal to the ABC. Because lingcod is a healthy stock the Council recommended the ACL be set equal to the ABC (Alternative 3).

For lingcod south, three ACLs were considered. Alternative 1, with an ACL of 1,262 mt in 2011 and 1,299 mt in 2012, was based on the 2009 stock assessment base model with a 50 percent reduction from the OFL for assessment uncertainty and overfished species bycatch concerns. Alternative 2, with an ACL of 1,421 mt in 2011 and 1,531 mt in 2012, was based on the low mortality model in the 2009 assessment. Alternative 3, with an ACL of 2,102 mt in 2011 and 2,164 mt in 2012 was based on the 2009 stock assessment base model with the ACL set equal to the ABC. Because lingcod is a healthy stock, the Council recommended the ACL be set equal to the ABC (Alternative 3).

The trawl rationalization program, as approved by NMFS in Amendments 20 and 21, lists lingcod as an IFQ species with a coastwide area designation. Because these harvest specifications for lingcod are being recommended north and south of 42° north latitude as opposed to coastwide, NMFS

anticipates that quota share for lingcod would need to be reallocated north and south of 42° N. lat. once the 2011–2012 harvest specifications and management measures are implemented through a final rule.

#### **Sablefish**

Sablefish is one of the most important species to the trawl and limited entry fixed gear fisheries. Management uncertainty for sablefish and the risk of overharvesting is considered to be low. This is because of the increased monitoring of the trawl fisheries that will occur under rationalization and because the limited entry fixed gear sector tends to under harvest their allocation. Therefore, when recommending the sablefish ACLs, the Council focused primarily on conservation concerns and stock status.

The 2007 coastwide sablefish stock assessment indicates the stock is at 36 percent of its unfished biomass and is therefore considered to be in the precautionary zone. The strength of the stock is reliant upon the strong 1999 and 2000 year classes, with the possibility of a strong incoming 2004 year class as well. The 2010 OY was previously set by applying a 40–10 harvest control rule to the coastwide ABC (in 2010 the ABC was equivalent to the OFL). The coastwide OY was then apportioned north and south of 36° north latitude, using the average 2003–2006 proportions of the swept-area biomass estimates of sablefish from the NWFSC shelf-slope trawl survey (72 percent north; 28 percent south). The OY south of 36° north latitude was then reduced by 50 percent to account for greater assessment and survey uncertainty in that area.

In determining the 2011–2012 ACLs for sablefish, the Council considered: (1) How to apply the 40–10 control rule since this stock is in the precautionary zone; (2) how to apportion the stock north and south of 36° north latitude; and (3) whether precautionary reductions were needed to the southern ACL to account for greater conservation concerns. Options were considered for applying the 40–10 harvest control rule directly to the OFL, resulting in coastwide ACLs of 8,485 in 2011 and 8,227 in 2012, and making the adjustment to the ABC resulting in ACLs of 7,296 mt in 2011 and 6,896 mt in 2012. The Council recommended the more risk-averse adjustment of applying the 40–10 reduction to the ABC resulting in a coastwide ACL of 8,110 mt for 2011 and 7,863 mt for 2012.

Historically, the coastwide sablefish OY was apportioned north and south of 36° North latitude by using historical

landings data (96.5 percent north and 3.5 percent south). However, beginning with the 2009–2010 harvest specifications and management measures process, the swept area biomass from the 2003–2006 combined NWFSC shelf/slope surveys were used to apportion the coastwide OY (72 percent north and 28 percent south). The Council considered apportioning the coastwide ACLs for 2011 and 2012 using the same proportions as in 2009–2010. When applied to the 2011 coastwide ACL of 8,110 mt this resulted in a 5,839 mt apportionment to the north and a 2,271 mt apportionment to the south. When applied to the 2012 coastwide ACL 7,863 mt it resulted in 5,839 mt apportionment to the north and a 2,271 mt apportionment to the south. Because new data were available from the 2007 and 2008 NWFSC shelf/slope surveys, the Council also considered apportioning the coastwide ACLs using averaged 2003–2008 data (68 percent north and 32 percent south) and using a weighted average with more weighing given to recent years (64 percent north and 36 percent south). When using averaged 2003–2008 data and applying it to the 2011 Coastwide ACL of 8,110 mt it resulted in a 5,515 mt to the north and 2,595 mt to the south and for 2012 when applied to the ACL of 7,863 mt it resulted in 5,347 mt to the north and 2,516 mt to the south. When using the weighted average of the 2003–2008 data and applying it to the 2011 Coastwide ACL of 8,110 mt it resulted in a 5,190 mt to the north and 2,920 mt to the south and for 2012 when applied to the ACL of 7,863 mt it resulted in 5,032 mt to the north and 2,832 mt to the south. The apportionment of biomass using the trawl survey data incorporates the best available information on the sablefish stock distribution. The Council recommended apportioning the 2011 and 2012 coastwide ACLs with 68 percent going to the north and 32 percent going to the south, based on using averaged 2003–2008 data.

To account for the uncertainty inherent in the abundance estimates of sablefish south of 36° north latitude (due to the short time-series of survey data from the southern area and advisory body advice), the Council recommended making a 50 percent reduction to the 2011 and 2012 southern apportionment of the coastwide ACLs of 2,595 mt and 2,516 mt, respectively, resulting in 2011 and 2012 ACLs for the area south of 36° north latitude of 1,298 mt and 1,258 mt, respectively. Even with the precautionary reduction in the southern area, the ACL is high relative

to recent catches in the Conception Area. The Cowcod Conservation Area (CCA) closes a significant amount of the Conception Area to fishing and the area-swept biomass estimates for the Conception area are based on the assumption that catch rates outside of the CCAs are comparable to those inside (the survey does not sample within the CCAs).

#### *Thornyheads*

Shortspine and longspine thornyhead stocks have been assessed coastwide and projected harvest levels in the stock assessments are coastwide values. However, since 2008 each of the stocks has been managed with separate OYs for the areas north and south of Point Conception (34°27' north latitude). Separate ACLs are being adopted for shortspine thornyhead north and south of Point Conception, and longspine thornyhead north and south of Point Conception.

Only one ACL alternative, based on projections from the 2005 stock assessment and representing 66 percent of the coastwide ACL (the portion of the biomass estimated to occur north of Point Conception) was considered for shortspine thornyhead. Due to conservation concerns in the Conception area and a new specifications structure under proposed Amendment 23, two ACL alternatives, based on projections from the 2005 stock assessment, were considered for shortspine thornyhead south. Alternative 1 represented 34 percent (the portion of the biomass estimated to occur south of Point Conception) of the coastwide ACL, reduced by 50 percent for conservation concerns. Under Alternative 1 the ACLs were 405 mt in 2011 and 401 mt in 2012. Alternative 2 ACLs represented 34 percent of the coastwide ACL with no conservation reductions and were 811 mt in 2011 and 802 mt in 2012. The Council recommended a continuation of the added precautionary adjustment included under Alternative 1, and recommended ACLs of 405 mt in 2011 and 401 mt in 2012. The conservation concern is largely due to the fact that a small proportion of the Conception area is surveyed in the NMFS trawl survey given the high proportion of untrawlable habitat in the Conception area and the prohibition of bottom trawling in the Cowcod Conservation Areas. The conservation concern is specifically south of Point Conception (of 34°27' north latitude) and is accommodated in consideration of the ACL for the shortspine thornyhead stock for the Conception area.

Two ACL alternatives, based on the most recent stock assessment (2005) were considered for longspine thornyhead north. Both ACL alternatives are based on the assumption that 79 percent of the coastwide biomass occurs north of Point Conception. Alternative 1 for the northern portion of the coastwide ACL, is a 10 percent reduction from the ABC for conservation uncertainty. Under Alternative 1 the ACLs were 2,119 mt in 2011 and 2,064 mt in 2012. Alternative 2 ACLs made the same assumption regarding stock distribution and represented 79 percent of the coastwide ACL based on projections from the 2005 stock assessment. The ACLs under Alternative 2 were 2,825 mt in 2011 and 2,751 mt in 2012. The Council recommended a continuation of the added precautionary adjustment included under Alternative 1 and the ACLs of 2,119 mt in 2011 and 2,064 mt in 2012.

Two ACL alternatives, based on the most recent stock assessment (2005), were considered for longspine thornyhead south. Alternative 1 assumed a constant density throughout the Conception area and represented 21 percent (the portion of the biomass estimated to occur north of Point Conception) of the coastwide ACL reduced by 50 percent for uncertainty. Under Alternative 1 the ACLs were 375 mt in 2011 and 366 mt in 2012. Alternative 2 ACLs made the same assumption regarding stock distribution and represented 21 percent of the coastwide ACL. The ACLs under Alternative 2 were 751 mt in 2011 and 731 mt in 2012. For similar reasons as for shortspine thornyhead south, but with a 40 percent reduction from the ABC, the Council recommended a continuation of the added precautionary adjustment included under For similar reasons as for shortspine thornyhead south, the Council recommended a continuation of the added precautionary adjustment included under Alternative 1 and recommended ACLs of 375 mt in 2011 and 366 mt in 2012.

#### *Cabazon (California)*

In recent years, the OY for Cabazon in waters off California was based on the California State Nearshore Management Plan which uses a  $F_{MSY}$  proxy of  $F_{50\%}$  and a 60–20 precautionary adjustment for stocks below  $B_{60\%}$  (60 percent of the unfished biomass). This is in contrast to the PCGFMP  $F_{MSY}$  proxy of  $F_{45\%}$  percent for Cabazon. In light of the new ACL requirements for a more precautionary ABC that is reduced from the OFL for scientific uncertainty, the Council's advisory bodies recommended using the

40–10 adjustment to better align the California management strategy with the PCGFMP. Alternative 1 considered an ACL of 102 mt in 2011 and 105 mt 2012. Alternative 1 is based on the low mortality scenario from the 2009 stock assessment with a 40–10 reduction. Since scientific uncertainty is addressed in the ABC specification and the new assessment indicates a healthy stock status, the more risk averse ACL Alternative 1 was not considered necessary for managing California cabezon. Alternative 2 is the ACL set equal to the ABC and results in a 2011 ACL of 179 mt and a 2012 ACL of 168 mt. Following consideration by the Council, Alternative 2 was recommended. The cabezon fishery is managed by the State under the California nearshore fishery management plan. Implementation of the California fishery management plan included provisions to improve fishery monitoring and research data collection. Improved stock assessment modeling plus improved inseason data availability, as implemented under the California fishery management plan, are expected to substantially reduce uncertainty in management of the nearshore fishery. Therefore, additional reductions in the ACL below ABC to address management uncertainty were not recommended by the Council.

#### *Cabezon (Oregon)*

Following a 2009 stock assessment for cabezon off Oregon the SSC recommended removing the species from the “other fish” complex. The recreational sector was the main source of cabezon removals until the 1990s when hook and line and pot gear commercial fisheries began targeting cabezon. Cabezon has since become a valuable live-fish commercial fishery associated with higher live market prices. Given the small contribution relative to other species in the complex, removing cabezon in Oregon from the “other fish” complex will reduce the risk of overfishing.

Two ACL alternatives were considered for the cabezon stock off Oregon. Alternative 1 includes an ACL of 29 mt in 2011 and 2012, and was based on the results of the low mortality scenario in the 2009 stock assessment. Since scientific uncertainty is addressed in the ABC specification and the new assessment indicates a healthier stock, the more risk averse ACL alternative 1 was not considered necessary for managing Oregon cabezon. Alternative 2 was from the results of the base model and the 2009 stock assessment, with the ACL set equal to the ABC. This resulted in a 2011 ACL of 50 mt and a 2012 ACL

of 48 mt. Following consideration by the Council, an ACL of 50 mt in 2011 and an ACL of 48 mt in 2012 was recommended. The cabezon fishery is managed by the State of Oregon under a limited entry nearshore permit program with a conservative management approach and a management history in which necessary action to stay within harvest specifications has been taken by the state.

#### *California Scorpionfish*

California Scorpionfish south of 34°27' North latitude (Point Conception) was first assessed in 2005 and was estimated to be between 58 and 80 percent of its unfished biomass in 2005. For 2011 and 2012 the Council considered two ACL alternatives for California scorpionfish. Alternative 1 was based on the base model from the 2009 stock assessment with the 60–20 reduction from the California State Nearshore Management Plan. Alternative 1 resulted in a 2011 ACL of 133 mt and a 2012 ACL of 124 mt. The Alternative 2 ACLs of 135 mt in 2011 and 125 mt in 2012 are ACLs set equal to the ABC. The Council recommended setting the ACL equal to the ABC. Like cabezon, the California nearshore fishery management plan includes California scorpionfish which is a healthy stock, and is managed by the state under provisions for improved fishery monitoring and research data collection.

#### *Dover Sole*

Alternatives 1–3 are based on the results of the 2005 stock assessment, which estimated the Dover sole biomass to be at 59.8 percent of its unfished biomass in 2005 and was projected to be increasing. Alternative 1 is the 2010 OY which is based on the results of the 2005 assessment with an  $F_{MSY}$  proxy of  $F_{40\%}$ . The Alternative 1 ACL of 16,500 mt is the MSY harvest level which is considerably larger than the coastwide catches in any recent years. Alternative 2 reflects the change in the  $F_{MSY}$  harvest proxy from  $F_{40\%}$  to  $F_{30\%}$  for flatfishes. The MSY harvest level at  $F_{30\%}$  is 17,560 mt. Alternative 3 is based on the results of the 2005 assessment with an  $F_{MSY}$  proxy of  $F_{30\%}$ , with the ACL set equal to the ABC, and was considered because the Dover sole stock biomass is above  $B_{MSY}$ . Alternative 3 results in ACLs of 42,436 mt in 2011 and 42,843 mt in 2012. After consideration of these alternatives, the Council recommended an ACL of 25,000 mt for 2011 and 2012 which is intermediate to Alternatives 2 and 3. An ACL of 25,000 mt is higher than recent harvests yet substantially

lower than the ABC. This is anticipated to provide increased harvest opportunities on healthy stocks for the new trawl IFQ program. With a trawl IFQ program fishers would allow opportunity within the constraints of the individual quota shares for both Dover sole and overfished species that co-occur with Dover sole within. The Council indicated that such opportunities were necessary at the start of the IFQ fishery to provide harvest opportunity.

#### *English Sole*

Two ACL alternatives were considered for English sole for 2011 and 2012. Alternative 1 is 7,158 mt and 5,790 mt in 2011 and 2012, respectively. These amounts, are based on the results of the 2007 assessment update with an  $F_{MSY}$  proxy of  $F_{40\%}$  and the ACL set equal to the ABC. Alternative 2 reflects the change in the  $F_{MSY}$  harvest proxy from  $F_{40\%}$  to  $F_{30\%}$  for flatfishes. The 2011 ACL of 19,761 mt and 2012 ACL of 10,150 mt under Alternative 2 are the ACLs set equal to the ABC. The Council recommended Alternative 2. English sole is a healthy stock that is primarily caught in the trawl fishery where individual allocations and improved catch accounting under an IFQ fishery are expected to reduce the management uncertainty.

#### *Arrowtooth Flounder*

Two ACL alternatives were considered for arrowtooth flounder in 2011 and 2012. The Alternative 1 ACLs are 9,109 mt in 2011 and 8,241 mt in 2012 and are based on the results of the 2007 assessment with an  $F_{MSY}$  proxy of  $F_{40\%}$  and is the ACL set equal to the ABC. Alternative 2 reflects the change in the  $F_{MSY}$  harvest proxy from  $F_{40\%}$  to  $F_{30\%}$  for flatfishes. The Alternative 2 ACL is set equal to the ABC and results in an ACL of 15,174 mt in 2011 and 12,049 mt in 2012. The Council recommended Alternative 2. Like English sole, arrowtooth flounder is a healthy stock that is primarily caught in the trawl fishery, where individual allocations and improved catch accounting under an IFQ fishery are expected to reduce the management uncertainty.

#### *Starry Flounder*

Starry Flounder was assessed for the first time in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. However, the stock was projected to decline in both the northern and southern areas. The starry flounder assessment was considered to be a data-poor assessment relative to other groundfish assessments. The



Alternative 1 ACL was based on the results of the 2005 stock assessment with an  $F_{MSY}$  proxy of  $F_{40\%}$  and a 25 percent precautionary reduction from the ABC to account for management uncertainty. Alternative 1 results in ACLs of 1,130 mt in 2011 and 1,166 mt in 2012. Alternative 2 reflects the change in the  $F_{MSY}$  harvest proxy from  $F_{40\%}$  to  $F_{30\%}$  for flatfishes and includes a 10 percent reduction from the ABC as a precautionary measure. Alternative 2 results in ACLs of 1,352 mt in 2011 and 1,360 mt in 2012. Alternative 3 reflects the change in the  $F_{MSY}$  harvest proxy from  $F_{40\%}$  to  $F_{30\%}$  for flatfishes. Under Alternative 3 the ACL would be set equal to ABC. The resulting ACLs under Alternative 3 are 1,502 mt in 2011 and 1,511 mt in 2012. Following consideration of the ACLs, the Council recommended Alternative 2 with ACLs of 1,352 mt in 2011 and 1,360 mt in 2012.

#### *Minor Rockfish North*

In 2010, the ABC for each minor rockfish complex was the sum of the ABCs. To obtain the total catch OY for the complex, the "remaining rockfish" (species that have been assessed by less rigorous methods or stock assessments) ABCs were further reduced by 25 percent and "other rockfish" (species that do not have quantifiable stock assessments) ABCs were reduced by 50 percent. The complex OYs were then based on the sum of the OYs for the component species contributions. Sub-complex OYs, minor nearshore rockfish, minor shelf rockfish, and minor slope rockfish were also based on the sum of their component species contributions.

For 2011 and 2012, the Council recommended implementing the OFLs put forward by the SSC along with the SSC recommended ABC policies of using a sigma value and the Council recommended  $P^*$  values. Substantial changes in minor nearshore north and minor shelf north harvest specifications from the 2010 levels resulted from the application of DB-SRA and the DCAC methods for determining OFLs for stocks that have not been assessed; the apportionment of catch north and south of  $40^{\circ}10'$  north latitude to derive component species OFLs; and the application of scientific uncertainty buffers.

The Council expressed concern about the long term impacts of leaving splitnose and greenstriped rockfish in their current complexes. If stocks within a complex are caught in proportion to their contribution to the OFL the risks of overfishing an individual stock is low. If stocks are not caught in such proportions, then it is possible for

overfishing to occur on a component species. This is more of a concern with stocks that are targeted and that only contribute a small proportion of the overall OFL.

Greenstriped rockfish and splitnose rockfish were assessed in 2009. Given the results of the new assessments the Council considered removing these stocks from the minor rockfish north complex. Splitnose rockfish is part of the minor Slope Rockfish North sub-complex, which is comprised of nine species. In 2011 and 2012, splitnose rockfish is projected to contribute more than 50 percent of the weight of the minor Slope Rockfish in the complex. Greenstriped rockfish is a minor shelf rockfish that would present a similar situation with an OFL contribution of 55 percent of the complex. Removing a stock from a complex creates substantial complications for the management system. New sorting and reporting programs would be required for industry and the states. The implementation of the trawl shoreside IFQ program and initial allocation of minor slope rockfish under Amendment 21 would also be affected. Historical data collected at the complex level would be unreliable for deriving IFQ catch history at the species level. Additional observer monitoring under an IFQ program would provide much needed data for allocations at the species level. Consideration was given to the potential for a target species within a complex becoming overfished. Ultimately, the Council recommended leaving splitnose and greenstriped rockfish in the minor rockfish north complexes at this time.

For chilipepper rockfish, 7 percent of the biomass from the 2007 assessment area is attributed to the area north of  $40^{\circ}10'$  north latitude. The northern portion of the stock is currently managed as part of the minor rockfish north complex. The Council recommended continuing the management of this species within the complex north of  $40^{\circ}10'$  north latitude.

The Council considered dismantling of the minor rockfish complexes (both north and south) and grouping them by stock vulnerability, based on the PSA analysis prepared by the GMT. Due to workload and the complexity of the necessary analysis, the GMT could not complete the work in time for the 2011–2012 biennial management cycle. The Council expressed interest in such an analysis for the 2013–2014 biennial process and encouraged that a broad range of methods be considered through the Council's STAR-light process (less vigorous review than the full STAR panel process). The lack of species

specific historical landing data for stocks within complexes makes an analysis difficult. The trawl IFQ program will require full observer coverage for catch accounting, and it is expected to provide catch by species data that could be used in such an analysis.

For minor nearshore rockfish north the Council recommended that splitnose, greenstriped, and chilipepper rockfish remain in the complex for 2011 and 2012. A 50 mt contribution for cabezon in waters off Oregon is removed from the complex. Minor rockfish north is comprised of three minor rockfish sub-complexes: Nearshore, shelf, and slope. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (splitnose and chilipepper rockfish), 0.72 for category 2 stocks (greenstriped rockfish) and 1.44 for category 3 stocks all with a  $P^*$ s of 0.45. The ACL for each component species is less than or equal to the ABC. The ACL for the complex is the sum of the sub-complex ACLs. The sub-complexes ACLs are the sum of the component stock ACLs. The resulting 2011 and 2012 ACLs for the minor rockfish north represent a 42 percent (nearshore-15 percent, shelf-56 percent, and slope-23 percent) reduction from the OFL. This is in contrast to the 2010 minor rockfish north OY which represented a reduction from the 2010 ABC (now referred to as the OFL) of 38 percent.

#### *Minor Rockfish South*

Similar to the minor rockfish north complex, the OFLs recommended by the SSC and the new ABC policies based on the OFLs for the 2011–2012 cycle resulted in substantial changes relative to 2010. Blue rockfish is currently managed within the minor rockfish complex. The first blue rockfish assessment on the West Coast was conducted in 2007 for the portion of the stock occurring in waters off California north of Point Conception ( $34^{\circ}27'$  north latitude). The Blue rockfish stock was estimated to be at 29.7 percent of its unfished biomass in 2007; therefore, the stock is considered to be in the precautionary zone. During the 2009 and 2010 biennial specification process, the Council contemplated removing blue rockfish from the minor rockfish complex. The decision to continue managing blue rockfish within the minor nearshore complex was based on both scientific uncertainty and management needs, given the interaction of blue rockfish with other

nearshore species. When blue rockfish occur offshore they can be targeted separately from other nearshore rockfish, but those that occur inshore mix with other nearshore rockfish stocks. Blue rockfish is managed under the state of California nearshore management plan which is a limited entry program with mandatory sorting requirements. Landings are routinely tracked and monitored, thereby reducing management uncertainty.

The Council considered the contribution of blue rockfish to the minor rockfish complex ACL. For more efficient state management, blue rockfish would continue to be managed as part of the minor rockfish complex. In 2009–2010, blue rockfish in the California fisheries were managed with a harvest guideline (HG) to prevent overfishing as blue rockfish is a stock in the precautionary zone. To prevent an ACL from being exceeded, the Council recommended continued use of the HG. The 2011 HG will be 242 mt and the 2012 HG will be 239 mt. The HG contribution for the unassessed portion of the stock south of Pt. Conception was calculated by first estimating an OFL using the DCAC methodology and then applying an ABC adjustment ( $\sigma=1.44$  with a  $P^*$  of 0.45). The HG contribution for the assessed area was calculated by determining the OFL from the 2007 stock assessment, deriving an ABC using a  $P^*$  of 0.45 for a category 2 stock, then adjusting the ABC value using the 40–10 harvest control rule. The 2011 and 2012 blue rockfish ABC contributions for the assessed and unassessed areas are then summed to determine the HGs.

Similar to minor rockfish north, consideration was given to the potential for a target species within a complex becoming overfished and the contribution of a non-target species managed within a species complex. The Council contemplated the removal of greenstriped rockfish in the minor shelf rockfish south complex, but recommended leaving it in the complex at this time.

Minor rockfish south is comprised of three minor rockfish sub-complexes: Nearshore, shelf, and slope. The OFL for the complex is the sum of OFLs for nearshore, shelf and slope south sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (gopher north of Point Conception, and blackgill rockfish), 0.72 for category 2 stocks (blue, bank and greenstriped rockfish) and 1.44 for category 3 stocks with a  $P^*$

of 0.45. The ACLs for the complex are the sum of the sub-complex ACLs. The ACLs for the sub-complexes are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. The ACLs for the minor slope and shelf sub-complexes were set equal to the 2010 OYs. The resulting 2011 and 2012 ACLs for the minor rockfish south represent a 45 percent (nearshore-14 percent, shelf-68 percent, and slope-31 percent) reduction from the OFL. This is in contrast to the 2010 a minor rockfish south OY reduction from the 2010 ABC (now referred to as the OFL) of 41 percent in 2010.

Amendment 23 to the PCGFMP removes dusky rockfish and red-dwarf rockfish from the PCGFMP. These stocks are not considered to be in the fishery as there are no historical records of them being landed. Therefore these stocks are removed from the complexes.

#### *Splitnose Rockfish*

A new coastwide stock assessment was prepared for splitnose rockfish in 2009. Splitnose rockfish is a slope species currently managed in the minor rockfish complex north of 40°10' north latitude, but as an individual species south of 40°10' north latitude. Splitnose rockfish has been managed separately north and south of 40°10' north latitude because the previous stock assessment was only for the southern portion of the stock. Although the SSC recommended 2011 and 2012 coastwide splitnose rockfish OFLs of 2,381 and 2,507 mt, respectively, which were determined by applying the proxy  $F_{50\%}$  MSY harvest rate to the projected exploitable biomass in each year. The Council chose OFL and ABC values that assume that splitnose rockfish north of 40°10' north latitude would continue to be managed within the minor nearshore rockfish complex north. The Council recommended continuing this management strategy largely due to the implications of determining the catch history for individual trawl permits for the initial allocation of quota shares for the shoreside trawl IFQ program under Amendment 20. Determining the catch history would be difficult because splitnose rockfish are not targeted and are predominantly discarded at sea resulting in little landing data.

The Council recommended continued management of splitnose rockfish with a separate ACL south of 40°10' north latitude and within the minor slope rockfish sub-complex ACL north of 40°10' north latitude. As noted above, the minor slope rockfish north complex is comprised of nine species. In 2011 and 2012, splitnose rockfish were

projected to contribute more than 50 percent of the ABC/ACL of the minor Slope Rockfish North complex. The north/south apportionment recommended by the Council was based on the average 1916–2008 assessed area catch and is 64.2 percent for the area south of 40°10' north latitude and 35.8 percent for the area north of 40°10' north latitude. The resulting ACL for 2011 is 1,461 mt and 1,538 mt for 2012.

#### *Shortbelly Rockfish*

To understand the potential environmental determinants of fluctuations in the recruitment and abundance of an unexploited rockfish population in the California Current ecosystem, a non quantitative assessment was conducted in 2007. The results of the assessment indicated the shortbelly stock was healthy with an estimated spawning stock biomass at 67 percent of its unfished biomass in 2005. Shortbelly rockfish is an abundant species that is not targeted in any commercial or recreational fisheries, and which is a valuable forage fish species. The OFL of 6,950 mt was recommended for the stock in both 2011 and 2012 with an ABC of 5,789 mt ( $\sigma=0.72$  with a  $P^*$  of 0.40) in both 2011 and 2012. The Council considered two ACL alternatives. Alternative 1 with an ACL of 50 mt was somewhat above the recent landing level and under Alternative 2 ACL values were set equal to the ABC (5,789 in both 2011 and 2012). The 50 mt ACL was recommended by the Council and was intended to be adequate to accommodate incidental catch while preventing the development of fisheries specifically targeting shortbelly rockfish. The Council recognized shortbelly rockfish for its value as a forage fish.

#### **Rebuilding Plan ACLS for Overfished Species**

When a stock has been declared overfished a rebuilding plan must be developed and the stock must be managed in accordance with the rebuilding plan. An overfished groundfish stock is considered rebuilt once its biomass reaches  $B_{MSY}$ . Rebuilding plans are based on the results of rebuilding analyses. Life history characteristics (e.g., age of reproductive maturity, relative productivity at different ages and sizes, etc.) and the effects of environmental conditions on its abundance (e.g., relative productivity under inter-annual and inter-decadal climate variability, availability of suitable feed and habitat for different life stages, etc.) are taken into account in the stock assessment and the rebuilding analysis. A

rebuilding analysis for an overfished species uses the information in its stock assessment to determine  $T_{MIN}$ , the minimum time to rebuild to  $B_{MSY}$  in the absence of fishing. For each stock,  $T_{MIN}$  is dependent on a variety of physical and biological factors. The rebuilding analyses are used to predict  $T_{MIN}$  for each overfished species and, in doing so, answer the question of what is "as quickly as possible" for each of the overfished species.

To rebuild a stock by the  $T_{MIN}$  date would require elimination of human-induced mortality on a stock (the complete absence of fishing mortality is referred to as  $F = \text{zero}$ ). However, the absence of fishing mortality does not necessarily result in the complete absence of human-induced fishing mortality. To rebuild by the  $T_{MIN}$  date would require elimination of extractive scientific research, in addition to any target or incidental commercial, recreational, or ceremonial and subsistence fishing that results in overfished species mortality. Eliminating extractive scientific fishing would eliminate a significant portion of data used to inform stock assessments and to better understand the biological condition of groundfish stocks. For overfished species where retention has been prohibited, little information is available to inform stock assessments; this has particularly been an issue for species such as yelloweye rockfish. With the implementation of trawl rationalization, observer monitoring will increase to full coverage which is expected to provide more biological data regarding overfished species that are vulnerable to trawl gear. However, for species such as yelloweye rockfish and cowcod that are primarily taken in the recreational fishery and with non-trawl gears, little new biological data is expected to be available without research collections. Non-extractive survey techniques, such as Remote Operational Vehicle (ROV) work, are currently cost prohibitive on a large scale. Because Pacific Coast groundfish species are so intermixed, extractive scientific fishing for some non-overfished species would need to be eliminated as well. To appropriately take into account the status and biology of overfished stocks, both now and in the future the scientific take of overfished and other groundfish stocks must continue.

The relative level of depletion, combined with other biological characteristics of the stock, influences the sensitivity of a stock's rebuilding time to changes to long-term harvest rates generally used to set ACLs. Stocks with very low levels of depletion; such

as canary rockfish, cowcod, and yelloweye rockfish; are considered to have a higher sensitivity to changes in harvest rate and higher harvest rates for these species have a greater risk of not rebuilding by  $T_{TARGET}$ . From a biological view due to the differences in productivity between species, one year of delay of rebuilding for yelloweye rockfish (the slowest of the overfished species to rebuild) is not equivalent to a one year of delay in rebuilding for petrale sole (the quickest overfished species to rebuild). The estimate of mean generation time recommended in the National Standard guidelines for the calculation of  $T_{MAX}$  captures these biological differences, but it is not incorporated into the other rebuilding parameters.

As advised by the SSC, the Council has elected to set overfished species harvests based on a constant SPR harvest rate. The SPR is the expected lifetime contribution to the spawning stock biomass for a recruit (a fish of specific spawning age or greater) usually expressed as the number of eggs that could be produced by an average recruit in a fished stock, divided by the number of eggs that could be produced by an average recruit in an unfished stock. The SPR harvest rate specifies the proportion of the spawning stock that can be removed each year and inherently takes into account the productivity of the stock. The exploitation pattern, rate of growth, and natural mortality can be given consideration when calculating an SPR harvest rate. Applying a constant SPR harvest rate is more precautionary in an uncertain environment as it reduces the effect of changes in variability in the scale of biomass (a change in the entire trajectory of biomass from the first biomass estimate forward to the current biomass estimate). When a new stock assessment results in a change in the understanding of stock scale, a constant harvest rate strategy is expected to keep the stock on track to the  $T_{TARGET}$ . In addition, the "rebuilding paradox" (the fishing interaction with the stock increases as the stock biomass increases) is addressed within a constant SPR approach. This is because the ACL would change in relation to changes in biomass. In contrast, constant catch rebuilding strategies do not adjust in relation to changes in biomass which can be problematic when there is a downward change in abundance. In this case, the catch may become too large relative to the size of the biomass population and adjustments become necessary to meet the same  $T_{TARGET}$ . Although the biennial management

cycle requires the focus on ACLs for a two year period, an SPR harvest strategy is based on a rebuilding trajectory over time. For stocks with slow trajectories, the differences between two alternatives considered during a single biennial management cycle need to be compared in relation to how they rebuild the stock over time.

Given the changes in perception of stock status and biology, the Council tracks rebuilding progress in three dimensions: stock productivity; absolute stock abundance or stock scale; and relative stock abundance or stock status. Stock productivity is referred to as recruitment and means the ability of a stock to generate new individuals of harvestable size. Stock scale is the total number of individuals in a population. This value is rarely known, but is usually estimated from relative abundance or through other methods. Absolute stock abundance is an estimate of the current biomass usually measured by indices that track trends in population biomass over time. Stock status is the current biomass relative to the unfished biomass. Each of these dimensions is subject to considerable scientific uncertainty and can change the overall rebuilding outlook from cycle to cycle. To determine whether a stock is better or worse off compared to a previous assessment, all three dimensions must be examined. Changes in the understanding of stock productivity can affect rebuilding plans by altering our perception of how quickly a stock can increase. Changes in our understanding of life history traits (e.g. mortality, maturity, fecundity, or growth) can change the evaluation of stock productivity. Measuring recruitment is difficult given the elusive and inaccessible early life histories of most groundfish species and the fact that recruitment events are not constant. In the case of many groundfish, recruitment is highly variable and sporadic. Age or length data, along with survey biomass estimates and removal histories, all inform recruitment patterns, but to varying degrees of resolution. The most recent couple of years of recruitment are often the most uncertain.

Absolute stock abundance, or stock scale, has also demonstrated considerable variability across assessments. This variability is often a result of uncertainty in catch histories, which scales the biomass via estimates of fishing mortality, but is also sensitive to life history parameters such as growth and mortality. Any changes in these estimates can have large effects in perceived biomass. These changes in scale are commonly seen in estimates of

unfished biomass, as the scale of the entire population trajectory can shift up or down. Changes in population scale will affect the level of catch needed to achieve the rebuilding goals if harvest levels are not based on harvest rates. Changes in the understanding of stock productivity and relative biomass can result in changes in the estimated time to rebuild and rebuilding reference points.

Stock status or depletion is expressed as an estimate of current biomass relative to the estimate of unfished biomass. Importantly, changes in the estimate of unfished biomass can change with new data, even though the current population biomass stays the same. Likewise, as more data becomes available on productivity in current years it may alter our understanding of current year biomass relative to an unfished biomass. Because stock status is the basis for determining when a stock is rebuilt, subsequent estimates of when a stock is projected to rebuild at a specific SPR may change as estimates of stock status change.

At its June 2010 meeting, the Council made final recommendations on: 2011–2012 harvest specifications (OFLs, ABC, ACLs ACTs, catch allocations and set-asides); rebuilding plans for overfished species; and, management measures designed to keep total catch mortality within the final preferred ACL levels.

#### *Bocaccio*

The new 2009 assessment shows that bocaccio is rebuilding ahead of schedule. The Council considered, but did not recommend extending the bocaccio rebuilding plan north of 40°10' north latitude to Cape Blanco based given advisory body advise that extending the rebuilding plan further north would not aid stock recovery and would complicate current management. Three bocaccio ACL alternatives derived from the 2009 rebuilding analysis were considered by the Council. The Alternative 1 ACLs of 53 mt in 2011 and 56 mt in 2012 applies an SPR harvest rate of 95 percent and has a predicted median time to rebuild of 2019, which equals the minimum time to rebuild with F=zero (*i.e.*, the shortest time to rebuild the stock at this point) and 7 years before the  $T_{TARGET}$  specified in the current rebuilding plan. The 2012 bocaccio HG for the California recreational fishery Alternative 1, would reduce the Southern Management Area fishing season to only a five month fishing season during the least valuable months. The resulting season would not encompass the critical months for rockfish fishing from March through April when coastal pelagic and highly

migratory species are not available to the fishery. In addition, the season in the South-Central Management Area would be reduced by 1 month resulting in a 6-month fishing season. The Alternative 2 ACLs of 109 mt in 2011 and 115 mt in 2012 are consistent with an SPR harvest rate of 90 percent with a predicted median time to rebuild the stock of 2020 or one year longer than the minimum time to rebuild with F=zero and rebuilds 6 year earlier than the  $T_{TARGET}$  specified in the current rebuilding plan. Most bocaccio mortality occurs in the California recreational fisheries. Under this alternative the only constraint over status quo in the recreational fishery is for "other flatfish" where fishing is prohibited seaward of the 20 fm (37 m) depth contour along the mainland coast and along islands and offshore seamounts from May 15 through September 15; and is closed entirely from January 1 through May 14 and from September 16 through December 31). Alternative 2 for the California recreational fishery, given the preferred catch sharing alternative selected by the Council, would be sufficient to allow for a depth increase to 30 fm (55 m) or possibly 40 fm (73 m) in the cowcod conservation area (CCA) and retention of shelf and slope rockfish including bocaccio in the CCA. Bocaccio co-occur with chilipepper and widow rockfish, which have historically been taken with trawl gear south of 40°10' north latitude. Under the trawl IFQ program, fishers could target chilipepper rockfish providing they have adequate quota pounds to cover all IFQ species in the catch.

The Alternative 3 ACLs of 263 mt in 2011 and 274 mt in 2012 are based on the current rebuilding plan and are based on the status quo SPR harvest rate of 77.7 percent. This alternative has a predicted median time to rebuild of 2022 or three years longer than the minimum time to rebuild with F=zero and rebuilds 4 years earlier than the  $T_{TARGET}$  specified in the current rebuilding plan. This alternative applies the same SPR harvest rate as in 2009–10, even though it results in slightly lower harvest levels. This alternative also takes into account the status of the stock and facilitates rebuilding early, while attempting to strike a balance between rebuilding the stock and minimizing severe economic consequences to communities. Bocaccio is a relatively productive species which is difficult for fishers to avoid and co-occurs with other stocks (*e.g.*, widow and chilipepper). As with Alternative 2, the California recreational fishery could

increase the RCA depths from 20 fm (37 m) to 30 fm (55 m) under this alternative. As noted above under Alternative 2, with the trawl IFQ program, fishers could target chilipepper providing they have adequate quota pounds to cover all IFQ species in the catch. Alternative 3 provides the greatest opportunity for targeting chilipepper with trawl gear. The Council expressed concerns relative to bocaccio catch in the initial year of the new IFQ program. For species where more than 80 percent of the OY has been harvested annually, concern was expressed in regards to the implications of full catch accounting and the number of fishers that may choose to carry-over quota pounds into 2012 or 2013.

Because the rebuilding progress was considered adequate, and the assessment did not change our fundamental understanding of the stock, the SSC recommended maintaining the status quo rebuilding plan (*i.e.*, no modifications to  $T_{TARGET}$  or SPR harvest rate) under Alternative 3. Total catch from 2000–2008 was 50 percent of the OY, indicating that management has been effective at curtailing fishing mortality to facilitate rebuilding as quickly as possible.

ACL allocations were also considered by the Council. The following are the Council's recommended allocations for Bocaccio in 2011: Limited entry non-whiting trawl, 29.6 mt; limited entry and open access non-nearshore fixed gears, 57.9; limited entry and open access nearshore fixed gear, 0.3; California recreational 161.8 mt. The following are the Council's recommended allocations for bocaccio in 2012: Limited entry non-whiting trawl, 30.9 mt; limited entry and open access non-nearshore fixed gears, 60.4; limited entry and open access nearshore fixed gear, 0.3; California recreational 168.9 mt. The recreational portion of the non-trawl allocation of bocaccio would accommodate a potential increase in bocaccio impacts in the recreational fishery as a result of allowing retention of shelf rockfish within the 30 fm (55 m) depth restriction in the CCA.

Although the Council-recommended ACLs are 263 mt in 2011 and 274 mt in 2012, the proposed management measures and catch allocations were projected to result in bocaccio total catch mortality of 249.6 mt in 2011 and 260.6 mt in 2012, which is 13.4 mt less than the annual ACLs. Managing the fishery to a level that is 13.4 mt less than the annual ACLs is intended to allow the stock to rebuild faster while recognizing the management uncertainty associated with the species.

### Canary Rockfish

The historical catch data used in the 2009 stock assessment update was significantly different from that used in previous assessments. This change caused a relatively large change in the unfished and terminal year (2009) biomass estimates. When compared to the results of the 2007 stock assessment, the depletion level in recent years is lower in the 2009 stock assessment. The perception of the relative status and productivity of canary rockfish has changed and stock cannot be rebuilt by the current  $T_{TARGET}$  (2021) even in the absence of fishing, therefore the rebuilding plan must be modified.

The impacts of three ACL alternatives were analyzed and included ACLs of 49 in 2011 and 51 mt in 2012, 94 in 2011 and 99 mt in 2012; and, 102 mt in 2011 and 107 mt in 2012. Alternative 1 with an ACL of 49 mt in 2011 and 51 mt in 2012 takes into account the less optimistic assessment update with a more precautionary harvest rate (SPR=94.4 percent). Alternative 1 results in a  $T_{TARGET}$  of 2025 which is 4 years longer than the  $T_{TARGET}$  in the existing rebuilding plan and 1 year longer than the minimum time to rebuild with  $F=zero$ . The canary rockfish ACLs in Alternative 1 are similar to the 2007–2008 OY of 44 mt which resulted in substantial hardship on fishers and communities because substantial harvest of other healthy species was foregone. Under Alternative 1 a large closed area would be needed for the limited entry fixed gear fishery in the north or reductions to sablefish harvest would be necessary in order to stay within the overfished species constraints. With the ACLs proposed under Alternative 1, the canary rockfish ACL and associated apportionment to the non-nearshore fisheries is so low that the sablefish allocations would have to be reduced by as much as 42 percent. The California nearshore fishery would also be severely constrained, requiring statewide 20 fm (37 m) Shoreward RCA lines and large trip limit reductions or total closures for some species would be necessary. This is in contrast to status quo where the non-trawl RCAs are 20 fm (37 m) in most northern areas and 60 fm (110 m) south of 34°27' north latitude. All recreational fisheries would experience reduced season lengths and restrictive depth restrictions. In addition, the trawl IFQ fishery is intended to provide long-term benefits to the fishery in the form of bycatch reduction and economic stability. Given the full catch accounting proposed under trawl IFQ program and that all catch, discarded and retain will

count towards the individuals IFQ shares, the risk of the fishery exceeding the ACL is reduced compared 2010 and prior years. In the short term, fishers will need to learn how to avoid canary rather than simply discarding them at-sea. ACLs for overfished species that are too low could be perceived as too risky (risk of exceeding the individual quota pounds) by fishers such that they limit their fishing participation for healthy target species; or hold quota pounds of constraining overfished for sale to fishers who incur overages. Reduce fishing time may result in fishers being unable to develop new methods or strategies risk to avoid overfished species. The long-term success of the trawl rationalization program to maintain low incidental catch of overfished species in conjunction with profitable harvest of healthy stocks is consistent with the needs of communities specified in the PCGFMP.

Alternative 2 included ACLs of 94 mt in 2011 and 99 mt in 2012. This alternative takes into account the less optimistic assessment update with a more precautionary harvest rate (SPR=89.5 percent) than the current rebuilding plan and results in a  $T_{TARGET}$  that is two years longer than  $F=Zero$ . Under this alternative the California nearshore fishery would experience changes to the RCA and/or reductions in catch.

Alternative 3 includes ACLs of 102 mt in 2011 and 107 mt in 2012. The alternative would maintain the SPR harvest rate of 88.7 percent in the current rebuilding plan. This is a conservative SPR harvest rate that results in a  $T_{TARGET}$  that is three years longer the target year with no  $F=zero$ . Due to the nature of the canary stock, even higher ACL harvest levels in the range considered by the Council have small impacts on the time to rebuild. This is because the range of ACLs being considered represent a very low level of fishing mortality. Canary rockfish are under the rebuilding paradox (as the stock increases its biomass it becomes increasingly more difficult for fishers to avoid) and are difficult to avoid, so the ACL under this alternative would address those expected increased interactions. The California nearshore fishery would continue to be constrained under this alternative, preventing access to target species. The shoreward nontrawl RCA would be the same as under the No Action Alternative (20 fm (37 m) in most northern areas, 60 fm (110 m) south of 34°27' north latitude). Landings of non-overfished species would be reduced from the No Action Alternative levels in order to stay within the overfished

species constraints. Alternative 1, the trawl IFQ fishery is intended to provide long-term benefits to the fishery. Under Alternative 3, canary rockfish would be less of a limit to access to healthy target species and the risk of encountering canary rockfish in excess of an individual's quota shares is reduced. Although canary rockfish is still expected to constrain harvest of healthy stocks under Alternative 3, the constraints on harvest from the perceived risk of exceeding an individual's quota shares and is not expected to undermine the long term benefits that shorebased trawl IFQ program. In the short term fishers will need to learn how to avoid canary rockfish rather than simply discarding them at-sea. However, long term benefits in reduced bycatch and improved avoidance techniques are expected in a rationalized trawl fishery.

The Council also considered the allocation of the canary ACL among fishery sectors. The following are the Council's recommended allocations for canary rockfish in 2011: Limited entry non-whiting trawl, 19.3 mt; limited entry Pacific whiting 14.1 mt (catcher/processor 4.8 mt, mothership 3.4 mt, and shorebased 5.9 mt); limited entry and open access non-nearshore fixed gears, 2.3; limited entry and open access nearshore fixed gear, 3.3; Washington recreational, 4.4; Oregon recreational 14.5 mt; and California recreational 22.9 mt. The following are the Council's recommended allocations for canary rockfish in 2012: Limited entry non-whiting trawl, 19.3 mt; limited entry Pacific whiting 14.8 mt (catcher/processor 5 mt, mothership 3.6 mt, and shorebased 6.2 mt); limited entry and open access non-nearshore fixed gears, 2.3; limited entry and open access nearshore fixed gear, 3.3; Washington recreational, 4.4; Oregon recreational 14.5 mt; and California recreational 24.2 mt. Although the Council's recommended ACLs are 102 mt in 2011 and 107 mt in 2012, the proposed management measures and catch allocations were projected to result in canary total catch mortality of 82 mt in 2011 and 87 mt in 2012, that is 20 mt less than the annual ACLs. The catch allocations are consistent with how the 2010 Washington and Oregon recreational fisheries have been managed and with the PCGFMP Amendment 21 which specifies trawl and non-trawl allocations. Managing the fishery to a level that is 20 mt less than the annual ACLs is intended to allow the stock to rebuild faster while reducing inseason management changes for the species.

*Cowcod*

Three ACL alternatives derived from the 2009 rebuilding analysis for the Conception area contribution and based on results of the 2009 stock assessment update were considered for analysis. As was done in previous biennial harvest specifications, the Conception area ACL was doubled as an appropriate harvest contribution for the unassessed Monterey area.

Under Alternative 1, the ACL would be 2 mt for 2011 and 2012, with an SPR harvest rate of 90 percent with a median time to rebuild of 2064, which is four years longer than the minimum time to rebuild with  $F=zero$ . Under this alternative extractive research would not be possible. Additional modifications to the California recreational fishery southern management area may be necessary. Under Alternative 1, cowcod is less constraining than other overfished species occurring in the same areas. Although the low cowcod ACL would allow for an increase the CCA depth restriction from 20 fm to 30 fm (37–55 m) for the California recreational and fixed gear fisheries, the bocaccio ACLs would not. The Alternative 2 ACL of 3 mt for 2011 and 2012 is based on an SPR harvest rate of 82.7 percent in 2011 and 2012. Although cowcod impacts have been minimized by prohibiting retention and area closures in California waters, there have been instances when 3 mt has been estimated to have been incidentally taken. Alternative 2 has a median time to rebuild of 2068 which is eight years longer than the minimum time to rebuild with  $F=zero$ . The cowcod harvest limit would be sufficient to allow the proposed 30 fm (55 m) or 40 fm (73 m) depth restriction in the CCA and retention of shelf and slope rockfish including bocaccio in the CCA. The Alternative 3 ACL of 4 mt in 2011 and 2012 is the status quo alternative based on an SPR harvest rate of 79 percent with a median time to rebuild of 2071 or eleven years longer the minimum time to rebuild with  $F=zero$ . The three ACL alternatives are predicted to rebuild the stock 8, 4, and 1 year(s), respectively prior to the  $T_{TARGET}$  of 2072 specified in the current rebuilding plan. The Council recommended maintaining the 4 mt ACL under Alternative 3 with no change to the SPR harvest rate of 79 percent from 2009–2010. Modifying the depth restriction in the CCA from 20 fm (37 m) to 30 fm (55 m) or 40 fm (73 m) is not projected to result in increased catch of cowcod and can be accommodated under Alternative 3. Because cowcod impacts have varied over the last 5 years

(according to the total mortality reports), Alternative 3 would encompass the variability. Cowcod is extremely important to the recreational fishery and the trawl fishery south of 40°10' north latitude. Trawl activity has declined south of 40°10' north latitude over the last few years due in part to the buyback program. Trawl activity is expected to increase due to the new trawl rationalization program.

*Darkblotched Rockfish*

The 2009 assessment results indicated that the fishing mortality rate has been greatly reduced and darkblotched appear to be rebuilding gradually at close to previous rebuilding projections. Three ACL alternatives derived from the 2009 rebuilding analysis were considered. The Alternative 1 ACLs of 130 mt and 131 mt for 2011 and 2012, respectively. The Alternative 1 ACLs are based on an SPR harvest rate of 81.8 percent and result in an estimated median time to rebuild of 2018, which is two years longer than the minimum time to rebuild with  $F=zero$ . The whiting trawl fishery would likely be constrained by this alternative. Reductions in the darkblotched rockfish OYs are highly limiting to the trawl fisheries because darkblotched rockfish co-occur with the most economically important species in the fishery such as petrale sole, sablefish, and whiting. Trawl opportunities on the slope would be limited as the seaward RCA moved deeper. With the low ACL under Alternative 1, ACLs for overfished species that are too low could be perceived as too risky (risk of exceeding the individual quota pounds) by fishers such that they limit their fishing participation for healthy target species; or hold quota pounds of constraining overfished for sale to other fishers who incur overages. Reduced fishing time may result in fishers being unable to develop new methods or strategies to avoid overfished species. Darkblotched rockfish quota shares may increase in value. Alternative 2 was based on an SPR harvest rate of 64.9 percent and resulted in a 2011 ACL of 298 mt and 2012 ACL of 296 mt, with a median time to rebuild of 2025. The median time to rebuild is nine years longer than the minimum time to rebuild with  $F=zero$  and 3 years sooner than the  $T_{TARGET}$  in the current rebuilding plan. The Alternative 3 ACLs of 332 mt in 2011 and 329 in 2012 are based on an SPR harvest rate of 62.1 percent which is the SPR harvest rate specified in the current rebuilding plan. Alternative 3 has a median time to rebuild of 2027 which is eleven years the minimum time to rebuild with  $F=zero$ . The three ACL

alternatives are predicted to rebuild the stock 10, 6, and 1 year(s), respectively, earlier than the  $T_{TARGET}$  specified in the current rebuilding plan. The SSC did not recommend any changes to the current rebuilding plan. The Council recommended Alternative 2, a 2011 ACL of 298 mt and a 2012 ACL of 296 mt.

*Petrале Sole*

The results of the 2009 stock assessment estimated the petrale sole biomass to be at 11.6 percent of its unfished biomass. Because petrale sole is below the  $B_{MSY}$  proxy of  $B_{25\%}$  it was declared overfished by NMFS on February 9, 2010 and therefore requires the development of a rebuilding plan.

The ACL alternatives considered for petrale sole are all projected to rebuild the stock to the  $B_{25\%}$  level well in advance of  $T_{MAX}$  (2021). The shortest time to rebuild petrale sole is  $T_{MIN}$  (2014), which is the estimated rebuilding period if all sources of fishing-related mortality were eliminated beginning in 2011. With petrale sole, successful rebuilding by  $T_{MIN}$  is also projected to occur even with some allowable harvest. The Alternative 1 ACLs of 459 and 624 mt in 2011 and 2012 respectively were based on an SPR harvest rate of 50 percent. The median year estimated to rebuild the stock under Alternative 1 is 2014, which is  $T_{MIN}$ . Alternative 2 applies the 25–5 precautionary harvest control rule beginning in 2011 and results in ACLs of 776 mt and 1,160 mt in 2011 and 2012, respectively. Alternative 2 is estimated to rebuild the stock by 2015 or 1 year the minimum time to rebuild with  $F=zero$ . Alternative 3 would specify a 2011 ACL of 976 mt which is at the ABC level and for 2012 the 25–5 precautionary adjustment would be applied, resulting in a 1,160 mt ACL. Alternative 3 is estimated to rebuild the stock by 2016 or two years longer than the minimum time to rebuild with  $F=zero$  and 5 years earlier than  $T_{MAX}$ .

The Council recommended Alternative 3. Petrale sole are a major target stock in the current non-whiting trawl fishery. Industry has indicated that an allowable harvest below the 1,000–1,200 mt level risks losing market share to substitute species and significantly disrupts the fishery. The fall petrale sole fishery has been a valuable economic asset to both the fishers and processors when both the weather and the late year trip limits put an economic hardship on the industry. The petrale sole fishery has become an established holiday season marketing item for the processors, brokers,

wholesalers, restaurants, and grocery stores. While Alternative 3 is below this critical level of harvest, it is the highest alternative considered for 2011–2012. It would constrain the non-whiting trawl fishery, but cause less disruption to the fishery and economic harm to trawl-dependent fishing communities than the other alternatives.

Petrale sole make seasonal inshore-offshore migrations and are targeted in bottom trawl efforts on the shelf in the summer and in spawning aggregations in discrete areas on the shelf/slope break in the winter. One strategy for faster rebuilding of petrale sole would be to close the petrale sole fishing areas where the fish aggregate and spawn in the winter. The 2009 petrale sole assessment and rebuilding analysis indicated that larger and more mature fish are caught by the offshore winter fleet. Reducing these fishing opportunities has been shown to rebuild the stock relatively faster than allowing the mix of summer and winter petrale sole fishing that has occurred prior to 2010. Under Alternative 3, the 200 fm (366 m) seaward RCA coastwide would continue to be modified in periods 1 (January–February) and 6 (November–December) to provide access to petrale sole. Proposed changes to the 200 fm (366 m) RCA line in the Heceta Bank area are not expected to result in measurable impacts on spawning aggregations of petrale sole over the existing 200 fm (366 m) RCA line. In addition, the shoreward RCA line between of 48°10′ north latitude and 40°10′ north latitude would be maintained at 75 fm (137 m) year round to reduce petrale sole catch. Under a rationalized trawl fishery, with individual accountability, the risk of exceeding the petrale sole trawl allocation or ACL is lower than under cumulative trip limit management where the fleet is modeled as a whole.

Given petrale sole's productivity and the fact that the species is caught almost exclusively by a single fishery sector, rebuilding the stock is more straight forward than rebuilding long-lived rockfish. The Council's recommended alternative deviates from the Council's policy of overfished species being managed as incidental only, because the ACLs recommended for petrale sole would allow for a targeted fishery with a minimal delay in rebuilding (2 years more than  $F_{=ZERO}$ ). Petrale sole is one of the most economically important stocks to the non-whiting trawl fishery. Petrale sole is the third most valuable species in terms of its overall annual ex-vessel value, contributing, on average, 19 percent of total ex-vessel revenue in the non-whiting trawl fishery. Despite

increases in the Dover sole ACL, petrale sole is so unique in its market desirability that it will be difficult if not impossible to make up lost revenue by switching to the harvest of other groundfish species. Allowing this level of harvest will extend the rebuilding period by two years from  $T_{MIN}$ .

#### POP

The 2009 stock assessment update changed the perception of stock status. Although the population dynamics were similar to the 2007 assessment, the scale of the terminal year (2009) biomass estimate changed such that the  $T_{TARGET}$  (2017) in the current rebuilding plan cannot be attained even in the absence of fishing. Although the SPR was held constant (86.4 percent) from 2007 through 2010, the target rebuilding year changed as a result of revised rebuilding analyses (2007–2008  $T_{TARGET}$  was 2015; 2009–2010  $T_{TARGET}$  was 2017). Because the  $T_{TARGET}$  (2017) in the current rebuilding plan cannot be attained even in the absence of fishing, the existing rebuilding plan must be revised.

Three alternatives derived from the 2009 rebuilding analysis based on the 2009 stock assessment update were analyzed for the Council's June meeting. All ACL alternatives contemplate a change in the median time to rebuild the stock greater than the current  $T_{TARGET}$ . The Alternative 1 ACLs of 80 mt in 2011 and 2012 was based on an SPR harvest rate of 93.6 percent with a median time to rebuild of 2019, one year longer than the minimum time to rebuild with  $F=zero$ . The Alternative 2 ACLs of 111 mt in 2011 and 113 mt in 2012 were based on an SPR harvest rate of 91.2 percent with a predicted median time to rebuild the stock of 2019 or one year longer than the minimum time to rebuild with  $F=zero$ . The Alternative 3 ACLs of 180 mt in 2011 and 183 mt in 2012 are based on the status quo SPR harvest rate of 86.4 percent from the current rebuilding plan. Alternative 3 has a predicted median time to rebuild of 2020 or two years longer than the minimum time to rebuild with  $F=zero$ . This alternative results in slightly lower catches than those in 2009–2010.

The Council recommended Alternative 3 (180 mt and 183 mt, in 2011 and 2012 respectively). POP is a slope rockfish species that is primarily taken in the trawl fishery. As discussed above for canary rockfish, the ACLs under Alternatives 1 and 2 could compromise the long-term bycatch reduction benefits of IFQ management. The trawl IFQ fishery is intended to hold individual fishers responsible for their catch and creates a management structure that encourages fishers to

develop methods or fishing strategies that reduce the catch of overfished species. Therefore, long term benefits in reduced bycatch and improved avoidance techniques are expected in a rationalized fishery. However, ACLs for overfished species that are too low could be perceived as too risky (risk of exceeding the individual quota pounds) by fishers such that they limit their fishing participation for healthy target species; or hold quota pounds of constraining overfished for sale to fishers who incur overages. Reduced fishing time may result in fishers being unable to develop new methods or strategies to avoid overfished species. Given the full catch accounting proposed under trawl IFQ program and that all catch, discarded and retained, will count towards the individual's IFQ shares, the risk of the fishery exceeding the ACL is reduced compared with 2010 and prior years. In the short term, fishers will need to learn how to avoid POP rather than simply discarding them at-sea. The long-term success of the trawl rationalization program to maintain low incidental catch of overfished species in conjunction with profitable harvest of healthy stocks is consistent with the needs of communities specified in the PCGFMP, by allowing some limited harvest of POP as unavoidable bycatch which permits targeting of Pacific whiting and slope fisheries.

The needs of fishing communities were considered by evaluating how the alternative POP ACLs affect the opportunity for targeting healthy stocks that co-occur with POP. POP is primarily a trawl caught species landed in Oregon and Washington. The vulnerability (dependency on groundfish fishing and resiliency) of port group areas were considered in the supporting DEIS. Fishing communities in Oregon, Washington and northern California where healthy trawl-caught target species that co-occur with POP are landed were considered to be among the vulnerable and most vulnerable communities.

#### Widow Rockfish

The 2009 assessment indicated that the stock is at 38.5 percent of unfished biomass, just short of being rebuilt. The rebuilding analysis projects that the stock will be rebuilt by 2010 under each of the ACL alternatives considered by the Council. All of the Alternatives result in a  $T_{TARGET}$  that is 5 years earlier than the current rebuilding plan.

The Alternative 1 ACL is a constant harvest level of 200 mt in 2011 and 2012. Alternative 1 represents catch levels far less than status quo. Because

the Pacific whiting fisheries have been constrained by the catch of widow rockfish in recent years, the whiting sectors are expected to be seriously constrained under this alternative. The Pacific whiting fleets have been managed under bycatch limits for widow rockfish for several years and have taken extensive measures to keep incidental catch rates low. Despite this, unexpected widow rockfish catch events, where several tons of widow rockfish have been incidentally taken in single haul, have continued to occur in the Pacific whiting fishery. As the widow rockfish stock rebuilds, avoiding such events is increasingly more difficult. With a 200 mt ACL there is a higher likelihood that such an event would result in the closure of fishery coop or sector. The Alternative 2 ACL is a constant harvest level of 400 mt in 2011 and 2012. The whiting trawl fishery may be constrained under this alternative, given the increase in widow biomass as it nears a rebuilt status. The Alternative 3 ACL is a constant harvest level of 600 mt in 2011 and 2012 which is slightly higher than recent total catch mortality. In addition to whiting, widow rockfish co-occurs with other stocks such as bocaccio and chilipepper. It's difficult for fishers targeting Pacific whiting and chilipepper to avoid widow rockfish. The higher ACL alternative may provide additional opportunities for some sectors of the fishery. It is less likely that Pacific whiting sectors would be constrained under this alternative. The Council recommended Alternative 3 with an ACL based on a constant harvest level of 600 mt in 2011 and 2012. The SPR harvest rate associated with 600 mt is 91.7 percent in 2011, and 91.3 percent in 2012, which is only slightly lower than the 2009–2010 SPR harvest rate of 95.0 percent. The 600 mt ACL, which is somewhat higher than the 2010 OY of 509 mt, is expected to accommodate recent catches and is unlikely to result in targeting of the stock.

#### *Yelloweye Rockfish*

Yelloweye rockfish have a life history that illustrates the classic challenge of rebuilding overfished rockfish stocks; they are slow to mature, have low productivity, and can live in excess of 100 years. Stocks exhibiting low productivity will have longer predicted rebuilding periods due to longer mean generation times. Three ACL alternatives derived from the 2009 rebuilding analysis were considered for yelloweye rockfish. Alternative 1, with an ACL of 13 mt for 2011 and 2012 was determined by applying an SPR harvest rate of 80.7 percent. Alternative 1 has a

median time to rebuild of 2065, which is 19 years before  $T_{TARGET}$  in the current rebuilding plan and 18 years longer than the minimum time to rebuild with  $F=zero$ . With an ACL of 13 mt the Oregon and California commercial nearshore fisheries would be severely constrained with more restrictive depth closures and/or reductions to landed catch compared to status quo or the other alternatives. All recreational fisheries would have greatly reduced season lengths and restrictive depth restrictions. Alternative 2 is based on an SPR harvest rate of 76 percent and results in an ACL of 17 mt for 2011 and 2012. The median time to rebuild under Alternative 2 is 2074 or 10 years before the current  $T_{TARGET}$  and 27 years longer than the minimum time to rebuild with  $F=zero$ . With an ACL of 17 mt, the Oregon and California nearshore fisheries would need more restrictive RCAs compared to the 20 fm (37 m) shoreward boundary used in all areas in 2010. The 20 fm (37 m) depth restrictions implemented in 2009 between 40°10' north latitude and 43° north latitude would remain in effect. Large trip limit reductions or total closures for some species would be necessary in order to stay within the overfished species ACLs. All recreational fisheries would have reduced season lengths and restrictive depth restrictions. In California, yelloweye rockfish impacts are extremely constraining to the recreational fishery North of Point Arena and reductions in the ACLs from the preliminary preferred alternative of 20 mt would result in additional season length reductions in the North-Central North of Point Arena Management Area. This management area is already severely constrained, with only a three-month fishing season at 20 fm (37 m). Alternative 2 ACLs would also require a reduction in the season length in the Northern or North-Central South of Point Arena Management Areas to remain within the yelloweye rockfish harvest guidelines resulting in lost revenue to coastal communities in these areas. Alternative 3 would apply an SPR harvest rate of 72.8 percent and result in an ACL of 20 mt for 2011 and 2012. The median time to rebuild under Alternative 3 is 2084 which is the  $T_{TARGET}$  specified in the current rebuilding plan and 37 years longer than the minimum time to rebuild with  $F=zero$ . For the non-nearshore fixed gear fisheries, management measures under this alternative would allow full access to the sectors' sablefish allocation. A less restrictive RCA compared to 2010 would be in place in Oregon (100 fm

(183 m) vs. 125 fm (229 m). For the nearshore fishery, the shoreward RCA would be the same as under the No Action Alternative (20 fm (37 m) in most northern areas, 60 fm (110 fm) south of 34°27' north latitude). For the recreational fisheries, season structure and depth restrictions would be similar to 2010 with some increased opportunity in the California recreational fishery, as described below. In California, 20 mt (37 m) yelloweye rockfish ACL would allow the limited season in the North-Central North of Point Arena Management Area to be sustained as well as allowing a one and a half month increase to the season in the Northern Management Area over No Action. This alternative also provides one and a half months of additional fishing opportunities over status quo in the North-Central South of Point Arena Management Area and the Monterey and Morro Bay South-Central Management Areas.

The SPR harvest rate specified in the current rebuilding plan is 71.9 percent, which when applied results in an ACL of 20 mt in 2011 and 21 mt in 2012 with a median time to rebuild of 2087, three years longer than the current  $T_{TARGET}$  and 40 years longer than the minimum time to rebuild with  $F=zero$ . The Council recommended Alternative 3 with a more conservative harvest rate (SPR = 72.8 percent) than is currently specified in the rebuilding plan and which maintains the current  $T_{TARGET}$ . With a 20 mt ACL, slightly higher fishing opportunities for recreational and commercial fixed gear fisheries would be expected relative to the other alternatives. Following consideration of the ACLs and resulting impacts, the Council recommended Alternative 3, with a 20 mt ACL in 2011 and 2012 and with the specification of a 17 mt ACT.

A ramp-down OY strategy was adopted for yelloweye rockfish during the 2007 and 2008 biennial specification and management cycle. The ramp down began with an OY of 23 mt in 2007 and 20 mt in 2008. The OY was to be reduced each year until ultimately reaching 14 mt in 2011 based on an SPR harvest rate of 71.9 percent. A constant SPR harvest rate of 71.0 percent was to remain in place through 2084 which was the  $T_{TARGET}$  date. All of the yelloweye rockfish OYs considered by the Council were expected to cause severe impacts to fisheries and communities. The Council expressed strong concern about the severity of the impact on communities resulting from ramp down strategy as the OY drops below 17 mt. When considering 2011 and 2012 harvest specifications and management measures, the Council



recognized the need to restrict the fisheries, but also took into account the potentially widespread negative effects that very low ACLs would have on the fisheries and fishing communities.

Yelloweye rockfish is the key constraining stock for the non-nearshore fixed gear sectors. Yelloweye bycatch rates in these fixed gear sectors have remained relatively stable over recent years, with the lower bycatch projections in 2011 and 2012 resulting from the decreasing sablefish ACLs. Although the bycatch numbers provided to the Council for decision making were the best estimates of bycatch for the non-nearshore fixed gear fisheries, concerns were raised about management uncertainty arising from the bycatch model. The bycatch projections from the model have been conservative in recent years, in part because of the assumption that the fixed gear sablefish allocations are fully harvested. This assumption may be less conservative in 2011–2012 because of the lower sablefish ACLs and the fact that the inseason changes to the DTL trip limits the Council has made over this cycle have increased the likelihood that a higher portion of the allocations for those sectors will be taken. Sablefish landings are monitored inseason and action would be taken to keep the sablefish allocations from being exceeded.

ACL allocations were also considered by the Council. The following are the Council's recommended allocations for yelloweye rockfish in 2011 and 2012: Limited entry non-whiting trawl, 0.6 mt; limited entry and open access non-nearshore fixed gears, 1.3; limited entry and open access nearshore fixed gear, 0.7; Washington recreational, 2.6; Oregon recreational, 2.4 mt; and California recreational, 2.6 mt. The Council also considered two alternative allocation arrangements between the states of Oregon and California for yelloweye rockfish: A simple 50:50 catch sharing plan and a sharing plan with Oregon receiving 55 percent and California receiving 45 percent derived from the stock assessment. Oregon is constrained by yelloweye rockfish under both allocation alternatives. With a 17 mt ACT, annual nearshore fishery landings would need to be further reduced to accommodate cuts under either of the new catch sharing plans. In addition to being constrained by yelloweye rockfish, California is projected to be constrained by canary rockfish due to the presence of two high bycatch areas (one north of 40°10' and the other south of 40°10'). Under the 17 mt yelloweye rockfish ACT, the California nearshore fishery would not reach its yelloweye rockfish limit

because it would first be constrained by canary rockfish. California would be able to maximize cabezon landings because the majority of the cabezon catch is taken in shallow depths where bycatch rates are low. Precisely tracking recreational catch inseason, especially in the California recreational fishery, has been a challenge, which prompted the Council to adopt an ACT for yelloweye rockfish.

The tradeoffs considered by the Council were between more restrictive depth restrictions and higher reductions in landed catch. In Oregon, overfished species impacts were modeled assuming a 20 fm (37 m) depth restriction (option a) and a 30 fm (55 m) depth restriction (option b). In California, overfished species impacts are modeled assuming a 20 fm (37 m) depth restriction statewide (option a) and a 20 fm (37 m) depth restriction between 42° and 40°10' north latitude only (option b). Although the 20 fm (37 m) depth restriction provided little yelloweye savings in Oregon, it provided greater savings in California since a greater proportion of catch comes from the deeper depths. Following consideration of the catch sharing plans the Council recommended.

#### Summary of Rebuilding Measures

The harvest specifications and management measures being implemented through Federal regulation and intended to rebuild overfished species are summarized below. Management measures adopted for 2011 and 2012 are expected to keep the incidental catch of overfished species within the ACLs and ACTs. Management measures designed to rebuild overfished species, or to prevent species from becoming overfished, may restrict the harvest of relatively healthy stocks that are harvested with overfished species. As a result of the constraining management measures imposed to rebuild overfished species, a number of the ACLs for healthy stocks may not be achieved.

#### *Bocaccio*

- Date declared overfished: March 3, 1999.
- Areas affected: South of 40°10' north latitude.
- Status of stock: 28.12 percent of its unfished biomass in 2009.
- $B_0$ : 7,946 mt.
- $B_{MSY}$ : 3,178 mt.
- $T_{F=0}$ : 2018.
- $T_{MAX}$ : 2031.
- $T_{TARGET}$ : 2026 (median year to rebuild).
- Target SPR Harvest rate: 77.7 percent.

- OFL: 737 mt in 2011 732 in 2012.
- ACL: 263 mt in 2011 274 mt in 2012.

Biology of the stock: Bocaccio is most abundant in waters off central and southern California. Juveniles settle in nearshore waters after a several month pelagic stage. Adults range from depths of 6.5–261 fm (12–478 m). Most adults are caught off the middle and lower shelf at depths between 27 fm and 137 fm (50 and 250 m). Larger fish tend to be found deeper. Bocaccio are found in a wide variety of habitats, often on or near bottom features, but sometimes over muddy bottoms. Bocaccio are usually found near the bottom, however, they may also occur as much as 16.4 fm (30 m) off bottom. Tagging studies have shown that young fish move up to 148 km (92 miles). Maximum age of bocaccio was determined to be at least 40 and perhaps more than 50 years.

Management measures for 2011 and 2012: Since 2002 both commercial and recreational fisheries have been subject to very restrictive management measures that have brought catches down to very low levels. Area closures or RCAs have been one of the most effective measures to reduce catch of bocaccio. South of 40°10' north latitude RCAs between 15 and 180 fm (329 m) provide protection for bocaccio, with the largest concentrations occurring in the 54 fm (99 m) to 82 fm (150 m) depths. The existing CCAs, where sport and commercial bottom fishing is prohibited, have also provided significant protection for bocaccio.

Bocaccio have historically been taken by commercial trawl and fixed gear vessels and in the recreational fisheries. Adult bocaccio are often caught with chilipepper rockfish and have been observed schooling with speckled, vermilion, widow, and yellowtail rockfish. South of 40°10' north latitude the bottom trawl, limited entry fixed gear, and open access fishing opportunities, in the depths where bocaccio are most commonly encountered, have been reduced through the use of RCAs. Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch accounting and real time reporting in the shoreside IFQ program is expected to reduce management uncertainty in the trawl fishery, including bocaccio management uncertainty.

Bocaccio are also vulnerable to commercial non trawl gears and to recreational fishing gear. To limit incidental catch of bocaccio in the limited entry fixed gear and open access fisheries, these fisheries continue to be restricted by RCAs and trip limits that

are intended to cover landings of incidentally caught bocaccio only. California recreational fisheries will be constrained by bag limits.

Management performance during rebuilding: Total catch estimates for the 2002–2007 period are based on the total mortality reports produced by the Pacific States Marine Fisheries Commission and the NWFSC, while the 2008 estimates are based on GMT scorecard estimates and recreational estimates from California Department of Fish and Game. Approximately 75 percent of total trawl catch during this period were discarded catch. Commercial fishery discards have been concentrated around the central California region (Monterey Bay to San Francisco) region. Although the rebuilding OY is estimated to have been exceeded during two of the early years of rebuilding, since 2004 the total estimated catch (landings plus discards) has averaged approximately 80 tons. This represents less than 50 percent of the adopted OY values, and has been associated with low SPR harvest rates, such that SPR has been greater than 0.9 percent since 2004.

#### Canary Rockfish

- Date declared overfished: January 4, 2000 (65 FR 221).
- Affected area: Coastwide.
- Status of the stock: 23.7 percent in 2009.
- $B_0$ : 25,993 mt.
- $B_{MSY}$ : 10,397 mt.
- $T_{F=0}$ : 2024.
- $T_{MAX}$ : 2046.
- $T_{TARGET}$ : 2027 (median year to rebuild).
- SPR harvest rate: 88.7 percent.
- OFL: 614 mt for 2011 and 622 mt for 2012.
- ACL: 102 in 2011 and 107 in 2012.

Biology of the stock: Canary rockfish are a continental shelf (shelf) species. Juveniles settle in nearshore waters after a several month pelagic stage. Adults range from depths of 25–475 fm (46–868 m). Most adults are caught off the middle and lower shelf at depths between 44 fm and 109 fm (80 and 200 m). Larger fish tend to be found in deeper waters. Canary rockfish are usually associated with areas of high relief such as pinnacles, but also occur over flat rock or mud and boulder bottoms. They are usually found near the bottom and are occasionally found off the bottom or in soft-bottom habitats that are atypical for rockfish. A tagging study showed that canary rockfish can migrate up to 700 km (435 miles). The maximum age of canary rockfish is 84 years.

Management measures in 2011 and 2012: Unavoidable incidental catches of canary rockfish occur in trawl, fixed gear, open access, and recreational fisheries targeting groundfish, as well as commercial and recreational fisheries targeting species other than groundfish. Adult canary rockfish are often caught with bocaccio, sharpchin rockfish, yelloweye rockfish, yellowtail rockfishes, and lingcod. Researchers have also observed canary rockfish associated with silvergray and widow rockfish.

Management measures intended to limit bycatch of canary rockfish include RCAs, cumulative trip limits to constrain the limited entry fixed gear and open access fisheries coastwide, IFQs in the whiting and nonwhiting shoreside fisheries, and canary limits in the whiting fishery. The use of broad-based RCA configurations has had the most effect in reducing canary rockfish mortality.

Bottom trawling is prohibited in the trawl RCA, which covers depths where canary rockfish have most frequently been caught. To reduce incidental take of canary rockfish in the area north of 40°10' north latitude, vessels fishing shoreward of the RCAs are required to use selective flatfish trawl gear. Current footrope restrictions would remain in place. Incidental catch of canary rockfish in the mothership and catcher/processor sectors will be constrained by sector-specific allocations that require closure of the sector when reached. Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch accounting and real time reporting in the shorebased IFQ program is expected to reduce management uncertainty in the trawl fishery. The retention of canary rockfish continues to be prohibited in the commercial fixed gear fisheries. Recreational fisheries are managed through bag limits, size limits and seasons. As necessary, seasons can be shortened and bag limits reduced to stay within the ACLs. The retention of canary rockfish continues to be prohibited in the recreational fisheries.

Management performance during rebuilding: Following the 1999 declaration that the canary rockfish stock was overfished the canary OY was reduced by over 70 percent in 2000 (to 200 mt) and by the same margin again from 2001–2003 (to 44 mt). In retrospect, revised catch data indicate that from 2003 to 2008, when the rebuilding OY was between 47 and 44 mt, the OY was exceeded 5 out of 6 years, but catches well below the ABC (In retrospect, due to current methods

used for total mortality estimates, the catches are higher than we had estimated at the time. However, they were still below the ABC).

#### Cowcod

- Date declared overfished: January 4, 2000.
- Areas affected: South of 40°10' north latitude.
- Status of stock: 4.5 percent in 2009.
- $B_0$ : 2,183 mt.
- $B_{MSY}$ : 873 mt.
- $T_{F=0}$ : 2060.
- $T_{MAX}$ : 2097.
- $T_{TARGET}$ : 2071 (median year to rebuild).
- SPR harvest rate: 79 percent.
- OFL: 13 mt in 2011 and 13 mt in 2012.
- ACL: 4 mt in 2011 and 2012.

Biology of the stock: Cowcod are found at depths of 11–200 fm (75–366 m). Cowcod range from central Oregon to central Baja California and Guadalupe Island. However, they are rare off Oregon and Northern California. It has long been argued that smaller cowcod are found at the shallow end of the depth range. Recent submersible work, however, indicates that cowcod size distribution may be more associated with sea floor structure than depth. In Monterey Bay, juvenile cowcod recruit to fine sand and clay sediments at depths of 22–56 fm (40–100 m) during the months of March–September. Adults are found at depths of 50–280 fm (90–500 m) usually on high relief rocky bottom. Adult cowcod are believed to be less abundant in depths greater than 175 fm (323 m).

Management measures in 2011 and 2012: All directed fishing opportunities have been eliminated since 2001. Retention of cowcod will continue to be prohibited for all commercial and recreational fisheries. To prevent incidental cowcod harvest, two CCAs (the Eastern CCA and the Western CCA) in the Southern California Bight were delineated to encompass key cowcod habitat areas and known areas of high catches. The CCAs were codified into regulation on November 4, 2003 (68 FR 62374). Fishing for groundfish has been prohibited within the CCAs, except that minor nearshore rockfish, California scorpionfish, cabezon, lingcod, and greenling may be taken from waters where the bottom depth is less than 20 fm (37 m). This rule proposes to increase the area in which recreational and commercial non-trawl gear can be used within the CCA by moving the 20 fm (37 m) limit out to 30 fm (43 m). The rule also proposes to add an additional CCA depth contour line of 40 fm (55 m)

to regulation for potential use in the future.

Management performance during rebuilding: Estimates of total mortality indicate that the cowcod OY has not been exceeded in any year since 2002. The OYs during the rebuilding period have ranged from 4.8 (in 2002–2004) to 4 mt (in 2007–2008), while annual mortality is estimated to have been between 0.32 mt and 3.51 mt, under the same rebuilding management measure structure as status quo.

#### *Darkblotched Rockfish*

- Date declared overfished: January 11, 2001 (66 FR 2338).
- Areas affected: Coastwide.
- Status of the stock: 27.5 percent of its unfished biomass level in 2009.
- $B_0$ : 32,783 mt.
- $B_{MSY}$ : 15,763 mt.
- $T_{F=0}$ : 2016.
- $T_{MAX}$ : 2037.
- OFL: 508 mt in 2011, 497 mt in 2012.
- ACL: 285 mt in 2011, 296 mt in 2012.
- $T_{TARGET}$ : 2025 (median year to rebuild).
- SPR harvest rate: 64.9 percent.

Biology of the stock: Darkblotched rockfish are most abundant on the outer continental shelf and slope, mainly north of Point Reyes (38° north latitude). Most adult darkblotched rockfish are associated with hard substrates on the lower shelf and upper slope at depths between 77 and 200 fm (140 and 366 m). Darkblotched rockfish migrate to deeper waters with increasing size and age. Diurnal migration, rising off bottom at night, is a likely behavior of darkblotched rockfish. Fish landed in California generally had smaller size at age than fish landed in the two northern states (Oregon and Washington).

Management measures in 2011 and 2012: Because of their deeper distribution, darkblotched rockfish are caught almost exclusively by commercial bottom trawl vessels. Most landings have been made by bottom trawl vessels targeting flatfish on the shelf, and rockfish and the DTS species on the slope. Since 2001, darkblotched rockfish have had species-specific harvest specifications, and were removed from the minor slope rockfish complex. However, darkblotched rockfish continue to be managed within the minor slope rockfish trip limits. Management measures intended to limit catch of darkblotched rockfish include: RCAs; individual fishery quotas for the limited entry trawl shoreside trawl fisheries; allocations to the mothership and catcher/processor sectors of the Pacific whiting fisheries that result in

fishery closure if the allocation is reached; and cumulative minor slope rockfish trip limits for limited entry fixed gear and open access gears.

The boundaries of the RCAs vary by season and fishing sector and may be modified in response to new information about geographical and seasonal distribution of bycatch. The seaward boundary of the trawl RCA was set at a depth that was likely to keep fishing effort in deeper waters and away from areas where the bycatch of darkblotched rockfish was highest.

Cumulative limits for slope rockfish north of 40°10' north latitude are intended to accommodate incidental take of darkblotched rockfish in the limited entry fixed gear and open access fisheries. As needed, limited entry fixed gear and trip limits for co-occurring species may be adjusted to reduce darkblotched rockfish bycatch. Incidental catch of darkblotched rockfish in the mothership and catcher/processor sectors will be constrained by sector-specific allocations that require closure of the sector when reached. Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch accounting and real time reporting in the shoreside IFQ program is expected to reduce management uncertainty in the trawl fishery.

Management performance under rebuilding: Between 2002 and 2008 the OY was exceeded once in 2002. Total catch during this period has ranged between 127 mt (2003) and 264 mt (2007), while landed catch has ranged between 80 mt (2003) and 189 mt (2004). The average percent retained during the rebuilding period has been 63 percent.

#### *Petrale Sole*

- Date declared overfished: February 9, 2010.
- Areas affected: Coastwide.
- Status of stock: Following the 2009 stock assessment, the stock was believed to be at 11.6 percent of unfished biomass level in 2009.
- $B_0$ : 25,334 mt.
- $B_{MSY}$ : 6,334.
- $T_{F=0}$ : 2014 ( $T_{MIN}$ ).
- $T_{MAX}$ : 2021.
- $T_{TARGET}$ : 2016 (median year to rebuild).
- SPR harvest rate: 31.0 percent in 2011 and 32.4 percent in 2012.
- ABC: 976 mt in 2011 and 1,222 mt in 2012.
- ACL: 976 mt in 2011 and 1,160 mt in 2012.

Biology of the stock: Petrale sole are found from Cape Saint Elias, Alaska to

Coronado Island, Baja California, Mexico. The range may possibly extend into the Bering Sea, but the species is rare north and west of southeast Alaska. Adults migrate seasonally between deepwater winter spawning areas to shallower spring feeding grounds. During periods 1 and 6, there is virtually no petrale sole catch that occurs at depths less than 125 fm (229 m), most interactions occur between 175–200 fm (320 m–366 m), and catches then drop off quickly outside of the 200 fm (366 m) line. Depth distributions change during periods 2 and 5, when petrale sole are typically deeper than 125 fm (229 m), but shallower than 175 fm (320 m), an intermediate depth for this species. Finally, petrale sole are shallowest during periods 3 and 4, when highest bycatch rates are observed shallower than 125 fm (229 m). Petrale sole show an affinity to sand, sandy mud, and occasionally muddy substrates.

Spawning occurs over the continental shelf and continental slope. Spawning occurs in large spawning aggregations in the winter. Petrale sole tend to move into deeper water with increased age and size. Petrale sole begin maturing at three years. Petrale sole eggs and larvae are eaten by planktivorous invertebrates and pelagic fishes. Juveniles are preyed upon (sometimes heavily) by adult petrale sole, as well as other large flatfishes. Adults are preyed upon by sharks, demersally feeding marine mammals, and larger flatfishes and pelagic fishes. Petrale sole compete with other large flatfishes. Petrale sole have the same summer feeding grounds as lingcod, English sole, rex sole, and Dover sole.

Management measures for 2011 and 2012: Annual catches of petrale sole by gears other than groundfish bottom trawl have been minor coastwide. For the trawl fishery, IFQ management along with RCA restrictions would be used to constrain the petrale sole catch and to reduce fishing on spawning aggregations in the winter months. Because petrale sole exhibit distinct seasonal depth migrations, the trawl RCA would vary by season. Trip limits will continue to be used in the non-trawl fisheries.

#### *POP*

- Date declared overfished: March 3, 1999.
- Areas affected: Vancouver and Columbia.
- Status of stock: Following the 2009 stock assessment, the stock was believed to be at 28.6 percent of unfished biomass level in 2009.
- $B_0$ : 37,780 mt.

- $B_{MSY}$ : 15,112 mt.
- $T_{F=0}$ : 2018.
- $T_{MAX}$ : 2045.
- $T_{TARGET}$ : 2020 (median year to rebuild).
- SPR harvest rate: 86.4 percent.
- ABC: 1,026 in 2011 and 1,007 mt in 2012.

- ACL: 180 mt in 2011 and 183 MT 2012, with an ACT of 157 in both years.

Biology of the stock: The POP population off the northern U.S. west coast (Columbia and U.S.-Vancouver areas) is at the southern extreme of the stock's range. POP are found on the upper continental slope (slope), 109–150 fm (200–275 m) during the summer and somewhat deeper 164–246 fm (300–450 m) during the winter. Adults sometimes aggregate up to 16 fm (29 m) above hard bottom features and may then disperse and rise into the water column at night. The maximum age of POP has been determined to be 70 to 90 years. The mean generation time is 28 years. POP recruitment into the population occurs when the stock is at 3 years of age. Age of maturity and size varies with locality. POP reach 90 percent of their maximum size by age 20 years.

Management measures for 2011 and 2012: POP occurs in similar depths as darkblotched rockfish, although they have a more northern geographic distribution. Adult POP are often caught with other upper slope groundfish such as Dover sole, thornyheads, sablefish, and darkblotched, roughey, and sharpchin rockfish. North of 40°10' north latitude, POP are caught in similar fisheries as darkblotched rockfish. POP are rarely caught in the recreational fisheries. Management measures for 2011 and 2012 that are intended to limit the bycatch of POP and keep fishing mortality within the ACL include: RCAs, individual fishery quotas for the limited entry trawl shoreside trawl fisheries, allocations to the mothership and catcher/processor, and cumulative trip limits for commercial fixed gear fisheries.

Because POP co-occur with darkblotched rockfish, measures to reduce the incidental catch of darkblotched rockfish benefit POP. These measures include seaward trawl RCA boundaries that are established to keep fishing effort in deeper water where POP are less abundant. Incidental catch of POP in the mothership and catcher/processor sectors will be constrained by sector-specific allocations that require closure of the sector when reached. Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch

accounting and real time reporting in the shoreside IFQ program is expected to reduce management uncertainty in the trawl fishery.

Management performance under rebuilding: The OYs for POP were exceeded in: 2001 by 1.3 percent (307 mt out of a 303 mt OY); and in 2007 by 4.0 percent (156 mt out of a 150 mt OY). The overage in 2007 was due to a relatively rare and unexpected bycatch event.

#### *Widow Rockfish*

- Date declared overfished: January 11, 2001.
- Areas affected: Coastwide.
- Status of stock: 38.5 percent of its unfished biomass in 2009.
- $B_0$ : 40,547 million eggs.
- $B_{MSY}$ : 16,218 million eggs.
- $T_{F=0}$ : 2010.
- $T_{MAX}$ : 2035.
- $T_{TARGET}$ : 2010 (median year to rebuild).
- SPR harvest rate: 91.7 in 2011, 91.3 in 2012.
- OFL: 5,097 mt in 2011, 4,923 mt in 2012.
- ACL: 600 mt in 2011 and 2012.

Biology of the stock: Widow rockfish are most abundant off northern Oregon and southern Washington. Young of the year recruit to shallow nearshore waters after spending up to 5 months as pelagic larvae and juveniles in offshore waters. Adults range from bottom depths of 13 fm to 300 fm (24 m to 549 m). Most adults occur near the shelf break at bottom depths between 77 fm to 115 fm (140 m to 210 m). Adults are semi pelagic with their behavior being dynamic. Large concentrations of widow rockfish form at night and disperse at dawn, an atypical pattern for rockfish. Widow rockfish tend to be more easily caught in higher abundance during El Nino (anomalously warm and dry) years. Maximum age of widow rockfish is 59 years.

Management measures in 2011 and 2012: Widow rockfish co-occurs with other stocks like yellowtail, bocaccio and chilipepper. Prior to rebuilding, large pure catches of widow rockfish were taken with midwater trawl gear. RCA management measure are to restrict fishing on the shelf are expected to be beneficial to the recovery of widow rockfish. Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch accounting and real time reporting in the shoreside IFQ program is expected to reduce management uncertainty in the trawl fishery. Incidental catch of widow rockfish in the mothership and catcher/

processor sectors will be constrained by sector-specific allocations that require closure of the sector when reached.

Non trawl and recreational fisheries have little incidental catch of widow rockfish. Cumulative trip limits are intended to accommodate low levels of incidental catch.

Management performance under rebuilding: Since 2002, total catch has been well below the annual OY. In recent years, the annual catch has primarily been incidental catch in the Pacific whiting midwater trawl fisheries. The Pacific whiting fisheries have been managed with bycatch limits that result in fishery closure if the limit is reached. Monitoring programs (observers in the mothership and catcher/processor sectors and monitoring under full retention EFPs in the shorebased sector) have been in place throughout the rebuilding period.

#### *Yelloweye Rockfish*

- Date declared overfished: January 11, 2002.
- Areas affected: Coastwide.
- Status of stock: 20.3 percent of its unfished biomass in 2009.
- $B_0$ : 994 million eggs.
- $B_{MSY}$ : 398 million eggs.
- $T_{F=0}$ : 2047.
- $T_{MAX}$ : 2089.
- Target: 2084 (median year to rebuild).
- SPR rate: 72.8 percent.
- OFL: 48 mt in 2011 and 2012.
- ACL: 20 mt in 2011 and 2012, with an ACT of 17 mt in both years.

Biology of the stock: Yelloweye rockfish juveniles have been found at depths greater than 8 fm (15 m) in areas of high bottom relief. Adults range to depths of 300 fm (549 m). Most adults are caught off the middle and lower shelf at depths between 50 fm and 98 fm (91 m and 180 m). Adult yelloweye rockfish tend to be solitary and are usually associated with areas of high relief with refuges such as caves and crevices, but also occur on mud adjacent to rock structures. They are usually found on or near the bottom. Maximum age of yelloweye rockfish is 115 years. Researchers have observed adult yelloweye rockfish associated with bocaccio, cowcod, greenspotted rockfish, and tiger rockfish.

Management measures in 2011 and 2012: Yelloweye rockfish inhabit areas typically inaccessible to trawl gear. In the coastal trawl fishery, incidental catch occurs during the harvest of other target fisheries operating at the fringes of yelloweye rockfish habitat. Yelloweye rockfish is particularly vulnerable to hook and line gear. Because yelloweye rockfish exhibit site fidelity and they are

a more sedentary rockfish species, RCAs have been effective in reducing the catch of yelloweye rockfish. Specific yelloweye rockfish RCAs have been specified for the recreational and commercial non-trawl fisheries. North of 39° north latitude RCAs out to depths of 100–125 fm (183–229 m) are expected to reduce yelloweye rockfish catch.

For 2011 and 2012, the 100 and 125 fm (183 and 229 m) RCA lines at the southwest corner of Heceta Bank were moved seaward to better follow the bathymetry that they represent; the unmodified lines were, in many cases, extremely shallow. The industry has reported this to be an area of high yelloweye rockfish bycatch. While the impacts of this change to the RCA to yelloweye rockfish are not quantifiable, it is assumed that the modification will reduce yelloweye rockfish impacts. North of 40°10' north latitude, Yelloweye Rockfish Conservation areas (YRCAs) will continue to be used to reduce yelloweye rockfish catch in the commercial fixed gear, open access, and recreational fisheries. Off Washington, recreational fishing for groundfish and halibut will continue to be prohibited inside the YRCAs and for limited entry fixed gear and open access fishing, the "C" shaped YRCA off Washington will continue to be designated as an area to avoid. YRCAs off the coast of Washington are defined in Federal regulation at 50 CFR § 660.390. The North Coast Commercial YRCA restricts commercial limited entry and open access, the Salmon Troll YRCA restricts salmon troll fishing, and the recreational YRCA off the southern coast of Washington prohibits all recreational fishing for groundfish and halibut. The California recreational YRCAs and commercial non-trawl gear YRCAs will continue to be defined in regulation and may be implemented inseason. As in 2009 and 2010 the YRCAs not in effect at the start of 2011.

Management performance under rebuilding: Following the 2002 declaration that the yelloweye rockfish stock was overfished the total catch mortality of yelloweye rockfish was drastically reduced and has been maintained between 12.3 mt and 19.6 mt. These catch levels represent a 95% reduction from average catches observed in the 1980s and 1990s. Between 2002 and 2008, 54–76 percent of the annual catch was from the recreational fisheries. The annual OY has not been exceeded since 2002.

Management of the bottom trawl fishery under IFQs is expected to constrain the harvests to be within the trawl allocations. Full catch accounting and real time reporting in the shoreside

IFQ program is expected to reduce management uncertainty in the trawl fishery.

#### Ecosystem Component Species

Ecosystem component (EC) species are identified in the PCGFMP. The EC species are those species that are not considered to be "in the fishery" or targeted in any fishery. EC species are not typically retained for sale or personal use. The EC species are not actively managed. The EC species are determined to not be subject to overfishing, approaching an overfished condition, or overfished, nor are they likely to become subject to overfishing or overfished in the absence of conservation and management measures.

Although harvest specifications are not specified for EC species, the incidental catch is monitored to ensure they continue to be classified correctly. While EC species are not considered to be "in the fishery," Amendment 23 to the PCGFMP indicates that the Council should consider measures for the fishery to minimize bycatch and bycatch mortality of EC species consistent with National Standard 9, and to protect their associated role in the ecosystem. EC species are not required to have reference points specified, but should be monitored to the extent that any new pertinent scientific information becomes available (*e.g.*, catch trends, vulnerability, etc.) to determine changes in their status or their vulnerability to the fishery. If necessary, they should be reclassified as "in the fishery."

The Council considered specifying shortbelly rockfish as an EC species, but decided against doing so. Shortbelly rockfish is an abundant species that is not targeted in any commercial or recreational fisheries, and which is a valuable forage fish species. Rather than classifying shortbelly rockfish as an EC species, the Council chose to recommend a very restrictive ACL which is intended to accommodate incidental catch while preventing the development of fisheries specifically targeting shortbelly rockfish.

#### Overfishing

Overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that is above the stock's capacity to produce MSY (an estimate of the largest average annual catch or yield that can be taken over a significant period of time under prevailing ecological and environmental conditions). This level is also referred to as MFMT (the maximum fishing mortality threshold) in the PCGFMP. Under the PCGFMP, OFLs for all species

will be set based on the MFMT, which is expressed as a harvest unlike OFLs. None of the 2011 or 2012 OFLs would be set higher than the MFMT or its proxy applied to a stock's abundance. The corresponding ABCs will be set below the OFL and ACLs will be set at or below the ABC. The groundfish management measures including those in this proposed rule are designed to keep harvest levels within specified ACLs.

When evaluating whether overfishing has occurred for any species under the PCGFMP, NMFS compares that species' estimated total catch (landed catch + discard) in a particular year to the MFMT applied to the estimated abundance (the ABC for 2010 and years earlier, and OFL beginning in 2011). Overfishing is difficult to detect inseason for many groundfish, particularly for minor rockfish species, because most species are not individually identified on landing. Species compositions, based on proportions encountered in samples of landings and extrapolated observer data, are applied during the year. However, final results are not available until after the end of the year.

This proposed rule discusses overfishing estimated to have occurred in 2007 and 2008. When new data are available, NMFS updates estimates of whether overfishing has occurred as part of the agency's report to Congress on the Status of U.S. Fisheries (<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>)

NMFS estimates that no overfishing occurred on any species during the 2007 or 2008 fishing season, since no species or species complex total catch exceeded its ABC. During 2007 and 2008 the total catch of three species did exceed the OYs. In 2007, canary rockfish exceeded its 44 mt OY by 1.6 percent with the total catch estimated to have been 44.7 mt. In 2007, POP exceeded its 150 mt OY by 4.0 percent with a total catch estimate of 156.0 mt. In 2008, sablefish exceeded its 5,934 mt OY by 2.4 percent with the total catch estimate of 6,078 mt.

#### Amendment 20: Carry-Over Provision

Under Amendment 20 to the PCGFMP, up to 10 percent of unused IFQ quota pounds in a vessel's account may be carried over for use in the next fishing year. Similarly, in order to cover an overage (landings that exceed the amount of quota pounds held in a vessel account) that is within 10 percent of the quota pounds that have been in the vessel account during the year, the vessel owner may use that amount from the quota pounds he will receive in the

following fishing year to account for the overage in the current year. The rationale for the carry-over as presented in the Amendment 20 EIS is to provide increased flexibility to fishery participants. During the biennial harvest specification and management process, specifically at the Council's June 2010 meeting, the Council further considered how the carry-over provision works in relationship to the 2011–2012 harvest specifications, particularly ACLs and the trawl allocations.

The primary risk pertaining to carry-over provisions is the risk associated with management uncertainty, *i.e.* the risk of the carry-over provision relative to the ability to manage the fisheries to stay within the ACLs and whether that risk is acceptably low. An examination was done on the worst case scenario which would occur if every quota holder carried an underage (landings that are less than the amount of quota pounds held in a vessel account) of 10 percent for species that are "fully prescribed" in the IFQ fishery. The likelihood of this occurring was believed to be a low risk. Because both carry-overs and carry-unders are both expected for the following year, the biological impacts were expected to be low.

Non-overfished trawl target species where 80 percent or more of the annual OY was harvested from 2005–2008 include Dover sole, sablefish, and shortspine thornyhead. Fully harvested stocks are more likely than others to experience ACL overages due to the carry-over provision. Under an IFQ fishery, more than 80% of the sablefish allocation is expected to be harvested, particularly given the lower ACLs in 2011–2012 relative to recent OYs. Petrale sole is likely to be fully harvested with a lower harvest level than in the past. Whiting may also be fully or near fully harvested. Dover sole has a higher harvest level than in recent years and therefore the fishery has a lower risk of exceeding the Dover sole trawl allocation or the ACL as a result of the carry-over provision. The overfished species, other than petrale sole, will likely have 80 percent or more of the annual ACL harvested and thus are potential species for which an ACL overage due to the carry-over provision may be possible.

#### Management Measures

New management measures being proposed for the 2011–2012 work in combination with the existing regulations to create a management structure that is intended to constrain fishing so the catch of overfished groundfish species does not exceed the

rebuilding ACLs while allowing, to the extent practicable, the ACLs for healthier groundfish stocks that co-occur with the overfished stocks to be achieved. Routine management measures for the commercial fisheries include: Bycatch limits, trip and cumulative landing limits, time/area closures, size limits, and gear restrictions. Routine management measures for the recreational fisheries include bag limits, size limits, gear restrictions, fish dressing requirements, and time/area closures. Routine management measures are used to modify fishing behavior during the fishing year to allow a harvest specification to be achieved, or to prevent a harvest specification from being exceeded. The groundfish fishery is managed with a variety of other regulatory requirements that are not considered routine, and which are not changed through this rulemaking and are found at 50 CFR § 660, Subparts C through G. The regulations at 50 CFR § 660, Subparts C through G include, but are not limited to, long-term harvest allocations, recordkeeping and reporting requirements, monitoring requirements, license limitation programs, and essential fish habitat (EFH) protection measures. The routine management measures specified at 50 CFR § 660.60(c), Subpart C in combination with the entire collection of groundfish regulations as specified at 50 CFR 660, Subparts C through G are used to manage the Pacific Coast groundfish fishery to stay within the harvest specifications identified in the rulemaking. This section presents proposed management measures developed for 2011–2012.

At the Council's April 2010 meeting the Enforcement Consultants (EC) raised catch accounting concerns relative to U.S. vessels (including processing vessels) that fish for species managed under the PCGFMP and that transport catch to another country, such as Canada and Mexico, thereby circumventing catch accounting. The EC further investigated the issue including the possible implementation of regulatory language to ensure that Federal regulations provide for full catch accounting before catch leaves the United States. At the Council's June 2010 meeting the EC provided the Council with draft regulatory language that would require the submission of vessel activity reports for any non-IFQ catcher vessel, mothership processor, or catcher/processor engaged in fishing for groundfish in the EEZ before it leaves the EEZ by crossing the seaward boundary, or crosses the borders to the

EEZs of Mexico or Canada. The Council recommended that a vessel activity report be implemented. However, development and implementation of a vessel activity report would take more time than is available for this rulemaking. Therefore, a vessel activity report is under consideration for future implementation and has not been included in this action.

#### Limited Entry Trawl

##### *Incidental Trip Limits for Trawl Rationalization—Amendment 20*

The Shoreside IFQ program being implemented under Amendment 20 to the PCGFMP will require the following incidentally caught species to be managed with trip limits: Minor nearshore rockfish north and south, black rockfish, cabezon (46°16' to 42° north latitude and south of 42° north latitude), spiny dogfish, shortbelly rockfish, Pacific whiting, and the "other fish" category. If determined necessary, trip limits may also be established for longnose skate, California scorpionfish, and as sub-limits within the other fish category, big skate, California skate, leopard skate, soupfin shark, finescale codling, Pacific rattail, kelp greenling, and cabezon off Washington. The establishment of trip limits for these species will allow incidental catch to be landed and for the fishers to be paid for those landings. Overall, the amount of regulatory discards for incidentally caught species is expected to be reduced. Under the shoreside IFQ program gear switching provisions, trawl trip limits apply to incidental landing allowances regardless of whether the vessels are using either trawl or fixed gears. In the development of trawl trip limits, monthly landings in the limited entry non-whiting and whiting trawl fishery from 2008 and 2009 were examined and compared to the 2010 trip limits. These trip limits do not apply to vessels in the mothership and catcher/processor sectors of the whiting fishery.

##### *Minor Nearshore Rockfish and Black Rockfish North and South of 40°10' North Latitude*

The minor nearshore rockfish and black rockfish trip limits for vessels participating under the shoreside IFQ program using trawl or fixed gears north and south of 40°10' north latitude would be specified at 300 lbs/month for periods 1 through 6. The highest monthly landings of nearshore rockfish in the trawl fishery during 2008 and 2009 were between 150–200 pounds; with the majority of the landings having been less than 50 pounds. In a

rationalized trawl fishery increases to minor nearshore rockfish and black rockfish landings are not expected. This is because of state regulations restricting trawl fishing in nearshore areas and because the risk of catching yelloweye rockfish is relatively high in these areas. In Washington state waters (0–3 miles) commercial fishing with either trawl or fixed gear (including pots) in nearshore waters is prohibited. To commercially land targeted amounts of nearshore rockfish species in Oregon, vessels must hold a state fixed gear nearshore permit. Landing of incidental amounts of nearshore rockfish are allowed by trawlers and by fixed gear vessels without nearshore permits, however recent (2010) state trip limits for these species have been more restrictive than the federal trip limits and are expected to remain in place in 2011 and 2012. In California, vessels must hold a state fixed gear nearshore permit to land nearshore rockfish. With full catch accounting under the shoreside IFQ program and the anticipated high cost of purchasing yelloweye rockfish quota pounds, it seems unlikely that IFQ participants will be targeting nearshore rockfish.

*Cabazon (46°16 North Latitude to 42° North Latitude and South of 42° North Latitude)*

Beginning with 2011–2012, cabazon would be managed as a separate species north of 42° north latitude, as well as south of 42° north latitude off California. A review of recent landings of cabazon by the limited entry trawl fleet indicated that landings were infrequent with most being below 20 pounds. The Council recommended that the cabazon trip limits for vessels participating in the shoreside IFQ program using trawl or fixed gears to harvest IFQ species with a limited entry trawl permit be specified at 50 lbs/month for periods 1 through 6 north and south of 42° north latitude, which would accommodate the landings seen in the last two years.

*Spiny Dogfish*

The limits specified in regulation for trawl gear in 2010 are 200,000 lbs (91 mt) per 2 months periods 1 and 2; 150,000 lbs (68 mt) per 2 months periods 3, and 100,000 lbs (45 mt) per 2 months periods 4 through 6 in both the north and the south. In recent years, no limited entry trawl vessel has approached or attained the spiny dogfish cumulative limits specified in Federal regulation. Under a rationalized fishery, an IFQ vessel could target spiny dogfish with either trawl gear or fixed gear. Due to anticipated catch of

yelloweye rockfish, the access to spiny dogfish could be constrained. The risk to an individual of yelloweye rockfish bycatch would likely outweigh the value of targeting spiny dogfish. Therefore, the Council recommended that the spiny dogfish trip limits for vessels using trawl or fixed gears to harvest IFQ species with a limited entry trawl permit north and south of 40°10 north latitude be specified at 60,000 lbs (27 mt) per 2 month, which would accommodate the trawl landings seen in recent years.

*Longspine Thornyhead South of 34°27 North Latitude*

Unlike longspine thornyhead in the north, the Council did not specify trawl/non-trawl allocation for longspine thornyhead south of 34°27 north latitude under Amendment 21. The Council chose to manage longspine thornyheads south of 34°27 north latitude with trip limits, and longspine thornyhead in the north with individual fishing quotas. From 1995–2005, the trawl fishery harvested very small proportions of the longspine thornyhead OY. Additionally, total mortality by all fleets in recent years has been well below the OY. Historically, longspine thornyhead has not been a target species in the trawl fishery, but instead has been caught in association with shortspine thornyhead, Dover sole, and sablefish. Given the low exploitation of longspine thornyhead south, the Council recommended that south of 34°27 North latitude, the longspine thornyhead incidental landing limits for vessels using trawl or fixed gears to harvest IFQ species with a limited entry trawl permit be specified at 24,000 lbs (11 mt) per 2 months, which is the 2010 limit currently specified in regulation for limited entry trawl gears.

*Remaining Groundfish Species*

Under the Final Preferred Alternative, the Council specified incidental trip limits for species not managed with IFQ for vessels using trawl or fixed gear to harvest IFQ species with a limited entry trawl permit. For the purpose of setting trip limits for non-IFQ species, the Council considered the following remaining groundfish species: Longnose skate, big skate, California skate, California scorpionfish, leopard shark, soupfin shark, finescale codling, Pacific rattail (grenadier), ratfish, kelp greenling, shortbelly, and cabazon in Washington. A review of the 2008 and 2009 limited entry trawl landings for these stocks was conducted. Grenadier makes up the largest component of the remaining fish landings in the trawl fishery and most landings were less

than 8,000 lbs (3.6 mt) with a few landings as high as 12,000 lbs (11 mt). Historically, there was some buying/selling of grenadier in an attempt to develop a market, however recent landings are incidental catch associated with the targeting of DTS species. Big skate and California skate are also included in the remaining fish category. In recent years, there has been interest in targeting and marketing skates. Overall the species being considered had landings that were less than 1,500 pounds (680 kg) per month with most monthly landings less than 1,000 pounds (454 kg). The Council recommended that incidental landing limit for vessels using trawl or fixed gears to harvest IFQ species with a limited entry trawl permit remain unlimited at the start of 2011. Should increased landings occur such that there is concern about overfishing, the Council would likely implement the appropriate trip limits through routine inseason action. Therefore, trip limits for the remaining groundfish are being added to the regulations as a routine management measure.

*Trawl Fishery Trip Limit Tables*

This action specifies incidental trip limits for species not managed with IFQ for vessels using trawl or fixed gear to harvest IFQ species with a limited entry trawl permit. The purpose of allowing trip limits for these species is to allow incidental catch to be landed and for the fishers to be paid for those landings. Without trip limits these incidentally caught species would need to be discarded (regulatory discard) or forfeited to the state at the time of landing. A second set of tables is included with this action, in the event that trawl rationalization is delayed the trawl non-IFQ fishery tables would be implemented to prevent the fishery from exceeding its specifications.

*RCA Configurations for Vessels Harvesting IFQ Quota Pounds*

Based on analysis of West Coast Groundfish Observer Data and vessel-logbook data, the boundaries of the RCAs were set to prohibit groundfish fishing within a range of depths where encounters with overfished species were most likely to occur. The RCAs boundaries vary by season, latitude, and gear group. Boundaries for limited entry trawl vessels are different than those for the limited entry fixed-gear and open access gears. The non-trawl RCAs apply to the limited entry fixed-gear and open access gears other than non-groundfish trawl. The non-groundfish trawl RCAs are defined by fishery.

Trawl RCA boundaries and cumulative limits are routinely adjusted inseason based upon fishery performance. Managers structure catch limit opportunities and closed areas with several objectives in mind including reducing interactions with overfished species while simultaneously providing for a year round fishing opportunity. While many adjustments to catch limits and trawl RCA boundaries are relatively minor, in recent years some of these adjustments have been relatively extreme and have closed fishing opportunity for wide areas of the coast mid-season. Under the 2010 management structure for the trawl fishery, catch projections (and estimates of total catch inseason) are made using what is often described as the "trawl bycatch model." This model uses discard estimates from the WCGOP data and logbook information to develop temporal and spatially stratified bycatch rates for overfished species. The bycatch model can be used to estimate both target species and overfished species catch based on a proposed set of management measures (2-month cumulative trip limits and RCA configurations). Under a rationalized fishery, there will be full catch accounting and individuals will be held accountable for their bycatch. Despite the high level of individual accountability, there is still a risk of exceeding the trawl allocation since overfished species interactions can be unpredictable. As a starting place for the shoreside trawl IFQ program and as a risk adverse measure, the Council recommended maintaining the RCA structure that was in place in June 2010. As the IFQ fishery develops and if catch data supports reconsideration of the RCAs, the Council could revise the RCA boundaries through inseason measures.

Under Amendment 20 to the PCGFMP, quota pounds associated with a limited entry trawl permit may be harvested with either trawl gear or legal fixed gear. Groundfish regulations specify both trawl and non-trawl RCAs. The type of gear employed determines the RCA structure. As such, vessels that harvest IFQ species with trawl gear will be held to the trawl RCA while vessels that harvest with fixed gear will be held to the fixed gear RCA.

#### *Gear Switching*

The yelloweye rockfish trawl catch allocation is based on the trawl bycatch model, which projects very low amounts of yelloweye rockfish catch (0.6 mt) for 2011 and 2012. In general, yelloweye rockfish is much less vulnerable to being caught by trawl gear than non-trawl gears. With fixed-gear,

nearshore fishers are able to fish in areas and depth ranges where yelloweye rockfish are found (rock bottom). As a result, yelloweye rockfish bycatch rates in the nearshore fixed gear fisheries are much greater than those used to model bycatch in the trawl fisheries. For reasons similar to those for yelloweye rockfish, canary rockfish bycatch rates are also higher in the nearshore fixed-gear fishery model than in the trawl model.

Under a trip limit fishery structure, management measures (trip limits, trawl gear restrictions and RCAs) restrict trawl yelloweye retention and fishing and in rocky habitats where yelloweye rockfish concentrate. Under trawl rationalization, the gear switching provision allows fishers to use fixed gears to harvest trawl allocations. All IFQ species caught by those fishing under the gear switching provisions, including yelloweye and canary, must be covered by trawl quota pounds. Increased fishing by trawl IFQ program participants using fixed gear shoreward of the RCA could present an increased risk of exceeding the trawl sector allocation for yelloweye rockfish, and possibly canary rockfish. For this reason, the 2011 and 2012 management measures include measures designed to discourage fixed gear fishing by trawl IFQ participants in the nearshore, where impacts to yelloweye and canary rockfish are potentially the greatest.

To discourage fishing in nearshore areas under the gear switching provision, the Council recommended that the trawl sector receive no allocation of nearshore species making it unlikely that trawl IFQ fishery participants will operate in waters shallower than 30 fm (55 m). Further, state regulations require nearshore permits to land targeted amounts of nearshore species. In Oregon, additional gear restrictions may restrict fixed gear operations in the nearshore areas. The shoreward non-trawl RCA structure is designed such that the trawl IFQ fishery participants' only viable opportunity for shoreward non-trawl activity is south of 34°27' north latitude, where yelloweye rockfish and are less common. It is less likely that vessels fishing seaward of the RCA under the gear switching provision would encounter overfished species in excess of the trawl fishery allocations. Gear switching seaward of the 100 fm (183 m) depth contour may allow access to valuable species such as sablefish and shortspine thornyheads with less incidental catch than with trawl gear.

#### *Potential Mid-Water Opportunity in 2011–2012*

There is an opportunity under the trawl rationalization program to allow targeting of species such as yellowtail rockfish within the RCA using midwater trawl gear during the primary whiting season. Under current trawl rationalization regulations, this opportunity is available regardless of amount of whiting onboard. A cursory analysis of data reveals that the risk of exceeding overfished species ACLs as a result of a mid-water opportunity appears lower than for bottom trawl gear for some species (e.g., yelloweye); it may be equally as risky for some species including canary; and appears to have a higher risk for species including widow rockfish. Under a rationalized trawl fishery structure with individual accountability, and the Council's recommended ACLs for canary and widow rockfish, and with the subsequent trawl allocation, the risk of exceeding ACLs for these species is sufficiently low. Therefore, this opportunity could be afforded in 2011–2012.

#### *Further Considerations for a Rationalized Trawl Fishery*

The 2011 petrale ACL reductions over 2010 and arrowtooth ACL decision directly affect the initial allocation of individual bycatch quota (IBQ) for Pacific halibut. Pacific halibut IBQ will be calculated using a formula based on quota share for arrowtooth flounder and petrale sole, two target species that correlate to Pacific halibut bycatch. Therefore, under the new lower petrale ACLs, permits with more arrowtooth quota pounds will be allocated more halibut IBQ.

Shoreside whiting receives a one-time overfished species allocation for the initial allocation. Thereafter, this sector will join the rationalized non-whiting trawl fishery and be allowed to trade/purchase shares of overfished and non-overfished species.

#### **Limited-Entry Fixed Gear and Open Access Non-Trawl Fishery Management Measures**

Management measures for the limited entry fixed gear (LEFG) and open access non-trawl fisheries tend to be similar because the majority of participants in both fisheries use hook-and-line gear. These fisheries will be most constrained by management measures to decrease impacts on yelloweye rockfish.

#### *Non-Trawl RCAs*

The non-trawl RCA applies to vessels that take, retain, possess or land groundfish unless they are incidental



fisheries that are exempt from the non-trawl RCA (e.g. the pink shrimp non-groundfish trawl fishery). The non-trawl RCA boundaries proposed for 2011–2012 are the same as those in place for the non-trawl fisheries in 2009–2010, except for the seaward boundary of the non-trawl RCA between 45°03.83′ north latitude and 43°00′ north latitude.

The seaward and shoreward boundaries of the non-trawl RCAs vary along the coast, and are divided at various commonly used geographic coordinates, defined in § 660.11, Subpart C. In 2009–2010, new divisions of the RCA boundaries were established based on recently available fishery information, indicating that fishing in some areas where the non-trawl fishery occurs has higher yelloweye rockfish impacts than in others, and the RCA boundaries were adjusted to reduce impacts to yelloweye rockfish in these areas. For 2009–2010 the seaward boundary of the non-trawl RCA between 45°03.83′ north latitude (Cascade Head) and 43°00′ north latitude (Columbia/Eureka line) was specified at 125 fm (229 m), except on days when the directed halibut fishery is open, when the fishery is then restricted to waters seaward of the 100 fm (183 m) line. This regulation, which was new in the 2009–2010 cycle, was implemented to reduce yelloweye rockfish impacts by fixed gear fishers targeting sablefish and other target groundfish. For 2011–2012, the modeled-overfished species impacts by the limited entry and open access fisheries showed that given the lower sablefish ACLs for 2011 and 2012, along with the Council's final preferred apportionment of overfished species for the non-nearshore fishery, the 100 fm (183 m) line could be accommodated.

For 2011 and 2012, the non-trawl RCA boundaries from north to south are proposed to be as follows: From the U.S./Canada Border and 46°16′ north latitude the non-trawl RCA is proposed to be between the shoreline and a boundary line approximating the 100 fm (183 m) depth contour. Between 46°16′ north latitude and 43°00′ north latitude the non-trawl RCA is proposed to be between the boundary lines approximating the 30 fm (55 m) and the 100 fm (183 m) depth contours. Between 43°00′ north latitude and 42°00′ north latitude the non-trawl RCA is proposed to be between boundary lines approximating 20 fm (37 m) and 100 fm (183 m) depth contours. Between 42°00′ north latitude the non-trawl RCA is proposed to be between the 20 fm (37 m) depth contour (there is no boundary line approximating the 20 fm (37 m) depth contour off California) and the boundary line approximating the 100 fm

(183 m) depth contour. Moving the seaward RCA boundary from 125 fm (229 m) to the 100 fm (183 m) between 46°16′ and 43°00′ north latitude results in a projected increase of 0.1 mt of yelloweye rockfish for the area between 46°16′ and 43°00′ north latitude. Moving the seaward RCA from 43° north latitude to Cascade Head from 125 to 100 fm (229 to 183 m) opens more fishing areas, may decrease conflicts among fixed gear fishers, may reduce running time to some fishing grounds (which subsequently decreases expense and improves safety), and may increase sablefish catch rates in some instances.

The following lines are proposed south of 40°10′ north latitude. Between 40°10′ north latitude and 34°27′ north latitude the non-trawl RCA is proposed to be between boundary lines approximating the 30 fm (55 m) and 150 fm (274 m) depth contours. Between 34°27′ north latitude and the U.S. border with Mexico, including waters around islands, the non-trawl RCA is proposed to be between boundary lines approximating the 60 fm (110 m) and 150 fm (274 m) depth contours. The boundary lines vary along the coast because of the different abundances of overfished species along the coast.

For 2011 and 2012, the 100 fm (186 m) and 125 fm (229 m) latitude and longitude coordinates defining the lines at the southwest corner of Heceta Bank are proposed to be moved to better follow the bathymetry. In this area the existing lines are, in many cases, extremely shallow and reported to allow fishing in areas of high yelloweye rockfish bycatch by members of the industry. While the impacts to yelloweye rockfish from refining the 100 fm (186 m) and 125 fm (229 m) line waypoints are not quantifiable in the Heceta Bank area, it is likely that the modifications would reduce yelloweye rockfish impacts over the existing line structure.

This rule proposes to use the boundary line approximating the 100 fm (183 m) depth contour as the seaward boundary for the non-trawl RCA north 40°10′ north latitude. In the event that the boundary line approximating the 125 fm (229 m) and depth contour is implemented around Heceta Head (44°08.30′ north latitude) through inseason action, this action also proposes to revisions to the latitude and longitude coordinates that define the boundary line approximating the 125 fm (229 m) depth contour to reduce impacts to yelloweye rockfish. This rule also proposes changes to the boundary line approximating the 60 fm (110 m) depth contour off northern California to better approximate the 60 fm (110 m)

depth contour and to better align the bycatch data collected that is divided by depth contours. Subsequent changes to the boundary line approximating the 50 fm (91 m) depth contour in the same area are necessary to prevent unintended crossovers from the change to the 60 fm (110 m) line. The latitude and longitude coordinates that define these boundary lines that approximate depth contours, and are used to define the non-trawl RCA, are found in groundfish regulations at §§ 660.71 through 74, Subpart C (redesignated from § 660.391 through 394).

In 2009–2010 NMFS defined new YRCAs off northern California that may be implemented through inseason action if necessary. These YRCAs will continue to be available for inseason management if catch of yelloweye rockfish needs to be reduced during 2011–2012. The latitude and longitude coordinates that define these YRCAs are found in groundfish regulations at § 660.70, Subpart C.

The Salmon Troll YRCA is found in groundfish regulation at § 660.70, Subpart C, and § 660.333, Subpart F, and in the Pacific Coast salmon regulations at § 660.405.

Like trawl fishery participants, non-trawl vessels are also subject to several groundfish closed areas other than those within the RCA boundary lines and those intended for EFH conservation. The following closed areas apply to all non-trawl vessels, including both open access and limited entry fixed gear vessels, and have not been proposed for modification in 2011 and beyond (§ 660.70, Subpart C): A Cordell Banks Closed Area; closed areas around the Farallon Islands off San Francisco and San Mateo Counties, CA; the Eastern CCA. The non-trawl fisheries have little to no incidental catch of POP, darkblotched, or widow rockfish. The effects of these fisheries on bocaccio, canary, cowcod, and yelloweye rockfish are constrained as much as possible by the non-trawl RCA, described above, and by the YRCAs and CCAs.

#### *Non-Trawl Fishery Trip Limits*

Trip limits proposed for the non-trawl fisheries in 2011–2012 are similar to those that applied to these fisheries in 2009–2010 with the exception of changes to trip limit structures in the sablefish daily trip limit in the LEFG fishery north of 36° north latitude. Trip limits in the LEFG fishery north of 36° north latitude are modified to allow additional flexibility for fishers by eliminating the daily and weekly trip limits. Daily or weekly trip limits may be imposed, if necessary, via routine inseason action during 2011–2012 to

keep total catch of sablefish within the 2011 and 2012 sablefish allocations. Also, the sablefish trip limits in the LEFG fishery south of 36° north latitude are modified to allow additional flexibility for fishers by eliminating the daily trip limit and establishing only a weekly cumulative limit. Trip limits in the open access sablefish fishery remain very similar to those that were in place in 2009–2010. The open access sablefish limits coastwide are more conservative than the LEFG sablefish limits in both poundage and structure, recognizing that the open access fleet can expand to an unknown number of participants. South of 36° north latitude open access sablefish limits are more conservative than the LEFG sablefish limits in both poundage and structure, recognizing that the limited entry fleet has historically harvested a larger proportion of the sablefish ACL South of 36° north latitude, particularly in the years 2000–2005. Also, as in past years, thornyheads may not be taken and retained in the open access fisheries north of 34°27' north latitude.

#### *Primary Sablefish Fishery Tier Limits*

Tier limits for the limited entry fixed gear sablefish-endorsed fleet are lower than in 2009–2010, reflecting the lower sablefish harvest specifications for 2011 and 2012: in 2011, Tier 1 at 41,379 lb (18,769 kg), Tier 2 at 18,809 lb (8,532 kg), and Tier 3 at 10,748 lb (4,875 kg). For 2012 the tier limits are as follows: Tier 1 at 40,113 lb (18,195 kg), Tier 2 at 18,233 lb (8,270 kg), and Tier 3 at 10,419 lb (4,726 kg).

These tier limits are found in groundfish regulations at § 660.231, Subpart E.

Management measures for the LEFG fishery, including gear requirements, are found at § 660.330, subpart F, with management measures specific to the primary sablefish season (*e.g.* tier fishery) found at § 660.321, subpart E. Limited entry fixed gear trip limits are found in Table 2 (North) and Table 2 (South) of subpart E of part 660.

#### *Salmon Troller Lingcod Limits*

Salmon trollers will be allowed to keep incidentally caught lingcod with a ratio limit of 1 lingcod per 15 Chinook, plus 1 lingcod up to a trip limit of 10 lingcod, up to a maximum limit of 400 lbs per month when fishing inside the non-trawl RCA. When salmon trollers fish entirely outside of the non-trawl RCA they are not subject to the lingcod retention ration described above, but only to the monthly trip limit.

#### *Open Access Non-Groundfish Trawl Gear Fisheries Management Measures*

Open access non-groundfish trawl gear (used to harvest ridgeback prawns, California halibut, sea cucumbers, and pink shrimp) is managed with “per trip” limits, cumulative trip limits, and area closures. Trip limits in 2011–2012 are similar to those in 2007–2008 and 2009–2010. The species-specific open access limits described in the trip limit table apply unless otherwise specified and, in addition, open access non-groundfish trawl vessels may not exceed overall groundfish limits if they are specified. As in past years, the pink shrimp fishery is subject to a non-species specific groundfish limit of “500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip.” In addition to the general groundfish limit, vessels fishing for pink shrimp have species specific sub limits for lingcod and sablefish that are different from other open access limits described in Table 3 South to Subpart F. Also, as in past years, thornyheads may not be taken and retained in the open access fisheries north of 34°27' north latitude.

The trawl RCA is described in Table 1 (North) and Table 1 (South) to Subpart D. Trawling with open access non-groundfish gear for pink shrimp will be permitted within the trawl RCA; however, the states require pink shrimp trawlers to use finfish excluder devices to reduce their groundfish bycatch, particularly to prevent bycatch mortality for canary and other rockfishes. The required use of finfish excluders in the pink shrimp trawl fishery will continue in 2011–2012.

Regulations in this proposed rule include two options for trawl RCA configurations (in Table 1a (South) and Table 1b (South)): One that would be in place with implementation of the trawl individual quota program; and one that would be in place if the trawl individual quota program is delayed. Trawling for ridgeback prawns, California halibut, and sea cucumber are subject to the same RCA area closures that apply to vessels fishing in the limited entry trawl fishery, except that non-groundfish trawling will be permitted shoreward of a boundary line approximating the 100 fm (183 m) depth contour if and when the inshore boundary line of the limited entry trawl RCA is moved shallower than 100 fm (183 m). NMFS may clarify the regulatory language regarding the non-groundfish trawl RCA in 660.333, Subpart F, and in line 41 of Table 3 (South) to 660, Subpart F, regarding how the trawl RCA applies to the open access non-groundfish trawl sectors. Currently in regulation the description

of non-groundfish trawl RCA refers to the non-trawl RCA, which is inconsistent with the non-groundfish trawl RCA in Table 3 (South). RCA restrictions off California are particularly intended to reduce bycatch and bycatch mortality for southern and coastwide overfished species such as bocaccio, cowcod, and canary rockfish. No changes to other groundfish conservation area restrictions are proposed for the open access non-groundfish trawl fishery in 2011–2012. Management measures for the open access fisheries, including gear requirements, are found at § 660.333, Subpart F. Trip limits are found in Table 3 (North) and Table 3 (South) of subpart F of part 660.

#### **Recreational Fisheries Management Measures**

Recreational fisheries management measures are designed to limit catch of overfished and nearshore species to sustainable levels while also allowing viable fishing seasons. Overfished species that are taken in recreational fisheries are bocaccio, cowcod, canary, and yelloweye rockfish. Because sport fisheries are more concentrated in nearshore waters, the 2011–2012 recreational fishery management measures are intended to constrain catch of nearshore species such as minor nearshore rockfish, black rockfish, blue rockfish and cabezon. These protections are particularly important for fisheries off California, where the bulk of West Coast recreational fishing occurs. Management measures for the California recreational groundfish fishery are designed to reduce the incidental catch of overfished rockfish, primarily yelloweye and canary rockfish, while providing as much fishing opportunity as possible for anglers targeting groundfish. Depth restrictions and RCAs are the primary tools used to keep overfished species impacts under the prescribed harvest levels for the California recreational fishery. Washington, Oregon, and California each proposed, and the Council recommended, different combinations of seasons, bag limits, area closures, and size limits, to best fit the requirements to rebuild overfished species found in their regions, and the needs and constraints of their particular recreational fisheries.

Recreational fisheries management measures for Oregon in 2011–2012 are proposed to be very similar to the recreational fishery management measures that were in place off Oregon during 2009–2010. Recreational fisheries off northern California and Washington are constrained by the need to reduce yelloweye rockfish impacts.

Changes to recreational fishery management measures off California are in response to the revised stock status of target species, requests by the public to simplify regulations, information regarding the distribution of overfished species and the desire to redistribute effort displaced by restrictions on take in newly established Marine Protected Areas (MPAs) in state waters.

#### Washington

Off Washington, recreational fishing for groundfish and Pacific halibut will continue to be prohibited inside the North Coast Recreational YRCA, a C-shaped closed area off the northern Washington coast, the South Coast Recreational YRCA, and the Westport Offshore YRCA. Coordinates for all of these YRCAs are defined at § 660.70, Subpart C. The RCA for recreational fishing off Washington will be the same as in 2010. The aggregate groundfish bag limits off Washington will be reduced from 15 fish to 12 fish, because very few anglers were attaining the 15 aggregate groundfish bag limits. The rockfish and lingcod sub-limits will remain the same as in 2007–2008 and 2009–2010: 10 rockfish sub-limit with no retention of canary or yelloweye rockfish; 2 lingcod sub-limit, with the lingcod minimum size of 22 inches (56 cm). Since catches of cabezon have increased in recent years and the stock status of cabezon off the Washington coast is unknown, and to make cabezon retention regulations off the West Coast consistent with WDFW regulations in Puget Sound, Washington, this rule proposes a cabezon sub-limit for 2011–2012 of two cabezon per day. The lingcod seasons in 2011–2012 will be the same as those in 2009–2010. As in 2009–2010, south of Leadbetter Point off the state of Washington, when halibut are onboard the vessel from May through September, there will continue to be no retention of groundfish, except sablefish and Pacific cod.

#### Oregon

Off Oregon, recreational fishing for groundfish in 2011–2012 will have the same management measures as in 2009–2010, except that the Oregon recreational fishery marine fish bag limit will have a seasonal sub-bag limit for cabezon, as described at § 660.360(c)(2)(iii). The seasonal sub-bag limit for cabezon is intended to reduce the projected impacts to cabezon in the Oregon recreational ocean boat fishery in order to stay within the recreational portion of the 2011 and 2012 cabezon ACLs for Oregon of 50 mt and 48 mt, respectively.

#### California

For 2011–2012, recreational fisheries off California are proposed to be managed as five separate areas, down from six in 2009–2010, to reduce complexity while retaining flexibility in minimizing impacts on overfished stocks. They are also re-named to shorten their names and to relate the name of the management area to the region of the coast to which it applies. The following are the management areas that will be defined for 2011–2012: The Northern Management Area is defined as the area from the Oregon/California border to 40°10' north latitude; the Mendocino Management Area is defined as the area from 40°10' north latitude to 38°57' north latitude; the San Francisco management area is defined as the area from 38°57' north latitude to 37°11' north latitude; the central management area is defined as the area from 37°11' north latitude to 34°27' north latitude and the southern management area is defined as the area from 34°27' north latitude to the U.S./Mexico border.

California updated its recreational fisheries catch model with data from the California Recreational Fisheries Survey to make recommendations to the Council for the 2011–2012 fisheries. Season and area closures differ between California regions to better prevent incidental catch of overfished species according to where those species occur and where fishing effort is greatest, while providing as much fishing opportunity as possible. The California-wide combined bag limit for the Rockfish-Cabezon-Greenling (RCG) Complex would continue to be 10 fish per day when the season is open. RCG Complex sub-bag limits will also remain the same, except that the cabezon limit statewide will increase from two fish to three fish per day. The increase to the cabezon sub-bag limit from two fish to three fish is anticipated to increase cabezon mortality by 10 percent. The increase on cabezon mortality from increased sub-bag limit, combined with other changes to management measures that may change the projected impacts to cabezon, are anticipated to result in annual total mortality of 33.9 mt of cabezon in 2011 and 2012, which is well within the 2011–2012 cabezon ACL. The increase in the cabezon sub-bag limit is not anticipated to affect projected impacts to co-occurring overfished species as effort is not expected to increase appreciably as a result of the increased bag limit and overfished species shelf species are not commonly found in shallow waters where cabezon reside.

Fishing seasons for lingcod will be modified to be the same as the fishing seasons for the RCG Complex. This modification extends the fishing season for lingcod later in the year and eliminates portions of the former seasonal closures that occurred in the winter months. Winter closures had been used since lingcod was declared overfished in 2001 to prevent catch of lingcod during its spawning and nesting season while the stock was rebuilding. According to the most recent stock assessment, the southern lingcod stock has rebuilt to 70 percent of its unfished biomass. Therefore the Council recommended and NMFS is proposing an increase in the length of the recreational lingcod fishing season, and reducing regulatory complexity by having the seasons for the RCG Complex and lingcod be the same for 2011–2012. The increase in fishing season length for lingcod is not anticipated to affect projected impacts to co-occurring overfished species, as the improved fishing opportunity is not expected to appreciably increase fishing effort as retention of lingcod is not expected to be the deciding factor as to whether or not anglers go fishing. The new seasons for lingcod are described at § 660.360(c)(3)(iii)(A). This rule also proposes to retain the lingcod size limit, but to decrease the lingcod size limit from 24 inches to 22 inches. The 22 inch lingcod size limit is intended to preserve nest guarding males, yet still allow for increased lingcod fishing opportunity. The lingcod fillet length restriction would also be reduced to reflect the change in the size limit (*i.e.* 14 inch fillet length restriction under a 22 inch total length size limit). Overfished species impacts may decrease as a result of this rule change as anglers obtain their two fish lingcod bag limit more rapidly, incurring less overfished species impacts in the process. For the same reasons described above, an increase in the lingcod bag limit was considered for 2011–2012. However, the increased bag limit was not recommended at this time due to the potential for increased impacts to co-occurring overfished rockfish species, such as yelloweye rockfish, as anglers continue incurring impacts on those species in pursuit of additional lingcod to fill a higher bag limit.

This rule proposes to implement a gear restriction (*e.g.* hook limits) for cabezon and kelp greenling to make the restrictions for these fish consistent with the existing gear restrictions for rockfish, so that the same number of fishing lines and hooks apply to all of the species in the RCG Complex. This

new gear regulation closes a regulatory loophole, and will prevent excessive recreational fishing effort using multiple rods to target cabezon and kelp greenling. The gear restrictions for the RCG Complex are described at § 660.360(c)(3)(ii)(B).

This rule proposes revisions to the time and area closures that make up the recreational RCA off California. Generally, the proposed revisions extend the length of the California recreational fisheries in all Management Areas except the Mendocino Management Area (between 40°10' north latitude and 38°57.50' north latitude) and the Southern Management Area (south of 34°27' north latitude). In the Southern Management Area, season length will stay the same as in 2009–2010, but the depth restriction for recreational fishing for California scorpionfish will move seaward during January and February, opening additional areas to fishing that occur between the boundary line approximating the 40 fm (73 m) depth contour and the boundary line approximating the 60 fm (110 m) depth contour. This change simplifies regulations by keeping the depth restrictions for California scorpionfish in this management area the same throughout the year. These time and area closures are liberalized for 2011–2012 to allow additional fishing opportunities to harvest healthy stocks to achieve but not exceed 2011–2012 ACLs, without causing the projected mortality of overfished rockfish species, such as yelloweye rockfish, bocaccio, cowcod and canary rockfish, to exceed their respective harvest limits in the California recreational fishery.

Incidental catch of cowcod in the area south of 34°27' north latitude continues to be restricted by the CCAs. Prior to 2011, the CCAs were closed throughout the year to recreational fishing for groundfish deeper than the 20 fm (37 m) depth contour. Shallower than the 20 fm (37 m) depth contour, retention of some species was allowed. In 2010, the state of California is in the process of implemented marine protected areas in state waters between Point Conception to U.S. Mexico border, including state waters adjacent to offshore islands and rocks. An environmental impact analysis prepared by the state of California (Draft Environmental Impact Report; California marine life protection act initiative South Coast Study Region) indicates that cowcod are likely to benefit from marine protected areas that are closed to fishing activities. The best available scientific information on depth distributions of cowcod indicate that adults primarily inhabit depths

deeper than 60 fm (110 m). To provide some additional fishing opportunities in areas where the bycatch of cowcod is not appreciable, this proposed rule would allow recreational fishing for some species, including shelf rockfish, shallower than new boundary lines that approximate the 30 fm (55 m) depth contour in several areas that are currently within the CCAs. This proposed rule would also establish new boundary lines that approximate the 40 fm (73 m) depth contour in several areas within the CCAs, which may be used as the boundary for recreational fisheries that occur within the CCA during 2011–2012 and beyond. Latitude and longitude coordinates that define the boundary lines that approximate the 30 fm (55 m) and 40 fm (73 m) depth contours within the CCA are found at § 660.71, Subpart C.

Management measures for recreational fisheries off all three West Coast states are found at § 660.360, Subpart G. Washington Coastal Tribal Allocations, Harvest Guidelines And

#### Set-Asides

As in previous years, the mortality of groundfish species in tribal fisheries are subtracted from the 2011 and 2012 ACLs before other allocations are derived. In 2011–2012, the tribes will continue to have formal allocations for sablefish and Pacific whiting that are deducted from the ACLs for those species. The tribal allocation for sablefish is 10 percent of the ACL north of 36° north latitude, less 1.6 percent for estimated discard mortality. For 2011 and 2012, the tribal sablefish allocations are 552 mt and 535 mt, respectively. The formula for the tribal allocation of Pacific whiting in 2010 was  $[17.5 \text{ percent} * (\text{U.S. OY})] + 16,000 \text{ mt}$  and was described in a proposed rule on March 12, 2010 (75 FR 11829) and implemented in a final rule on May 4, 2010 (75 FR 23620). With a U.S. OY of 193,935 mt, the tribal allocation for the 2010 tribal Pacific whiting fishery was 49,939 mt. In accordance with the procedures set forth in 50 CFR § 660.50, subpart C, tribal allocations of Pacific whiting will be established annually until the co-managers complete the evaluation of the relevant scientific information and a determination of the long-term tribal allocation for Pacific whiting is made.

The 2011 and 2012 tribal harvest guideline for black rockfish is the same as in 2009 and 2010: 13.61 mt (30,000 lbs) for the management area between the U.S./Canada border and Cape Alava (48°10.00' north latitude) and 4.5 mt (10,000 lbs) for the management area between Destruction Island and

Leadbetter Point (46°38.17' north latitude). The tribes have not had formal allocations for Pacific cod or lingcod in recent years; however, the Council recommended adopting a tribal proposal for tribal harvest guidelines for these two species in 2011 and 2012 of 400 mt (881,840 lbs). Pacific cod harvest guideline and a 250 mt (551,150 lbs). Lingcod harvest guideline will apply to the tribes for 2011 and 2012.

For some species on which the tribes have a modest harvest, no specific allocation or harvest guideline has been determined. The amounts anticipated to be taken by tribal fisheries for all other groundfish species or species groups, including overfished species, are referred to as tribal set-asides. Set-asides for the Pacific Coast treaty Indian tribal harvest are deducted from the ACL, similarly to the tribal allocations and harvest guidelines described above. Set-aside amounts for each species or species group taken in tribal fisheries are based on the projected catch from the proposed tribal fishery management measures, described below. Set-aside amounts could change through the biennial harvest specifications and management measures process. The set-aside amounts will be specified in the footnotes to Tables 1a through 2d of subpart C.

#### Washington Coastal Tribal Fisheries Management Measures

Tribes implement management measures for tribal fisheries both separately and cooperatively with those management measures that are described in the Federal regulations. The tribes may adjust their tribal fishery management measures inseason to stay within the overall harvest targets described above, including their estimated impacts to overfished species. Trip limits are the primary management measure that the tribes specify in Federal regulations at 660.50, subpart C. Continued from 2009–2010, the tribes propose trip limit management for the following species taken in tribal fisheries in 2011–2012: Spiny dogfish; several rockfish species and species groups, including thornyheads; and flatfish species and species groups. These trip limits are described below.

For spiny dogfish, tribal fisheries in 2011–2012 will be restricted to a cumulative limit of “200,000 lbs (90,718 kg.) per two month period.” This cumulative limit is similar to the bi-monthly cumulative limit for spiny dogfish that was in place for the limited entry trawl fishery in 2009–2010.

For rockfish species, the 2011–2012 tribal fisheries will operate under trip and cumulative limits, and will be

required by tribal regulations to fully retain all overfished rockfish species and marketable non-overfished rockfish species. Tribal fisheries are restricted all gears to “17,000 lbs (7,711 kg) per two month period” for shortspine thornyheads and “22,000 lbs (9,979 kg) per two month period” for longspine thornyheads. As in 2009–2010, other rockfish, including minor nearshore, shelf and slope rockfish, are restricted to a “300 lb (136 kg) per trip” limit for each species group. If trip limits for minor nearshore rockfish are made less restrictive than “300 lb per trip” through inseason adjustments during 2011–2012, then the tribal limit would be set equal to the incidental trip limits published in Table 1 (North) to subpart D. As in 2009–2010, tribal midwater trawl fisheries in 2011–2012 are subject to a cumulative limit for yellowtail rockfish of 180,000 lb per two months and the landings of widow rockfish must not exceed 10 percent of the cumulative poundage of yellowtail rockfish landed by a given vessel for the year. As in 2009–2010, trip limits for canary rockfish and yelloweye rockfish in 2011–2012 are “300 lb (136-kg) per trip” and “100 lbs (45 kg) per trip,” respectively. The tribes will continue to develop management measures, including depth, area, and time restrictions, in the directed tribal Pacific halibut fishery in order to minimize incidental impacts on yelloweye rockfish.

Tribal cumulative limits for most flatfish species in 2011–2012 will be very similar to the limited entry trawl fishery trip limits from 2009–2010. The 2011–2012 tribal cumulative limits are as follows: “110,000 lbs per two months” for Dover sole, English sole, and Other Flatfish, combined; and 150,000 lbs per months for arrowtooth flounder. The tribal cumulative for petrale sole will be the same in 2011–2012 as it was in 2009–2010: 50,000 lb per two months.

Tribal fishing regulations, as recommended by the tribes and the Council and adopted by NMFS, are in Federal regulations at 660.50, subpart C.

### Housekeeping Measures

NMFS is proposing to correct and update the descriptions of season dates and trip limits throughout the regulations. NMFS proposes to replace, where appropriate, the words “end”, “ends” or “ending” with “closed”, “closes”, or “closing”. Changes to the language pertaining to season dates and trip limits are intended to improve enforceability by making the regulations consistent with the definition of “closure or closed” at 660.11, subpart C.

Changes are proposed for the following sections: § 660.131, and subpart D; § 660.231. Housekeeping changes to the season dates and trip limits descriptions by replacing “end” with “close” do not change the intent or effect of these seasonal and trip limit regulations.

NMFS is also proposing to clarify language describing the fishing restrictions within some Yelloweye Rockfish Conservation Areas (YRCAs) that are not currently in effect as a housekeeping measure within this action. In the definitions of the Point St. George, South Reef, Reading Rock, Point Delgada North, and Point Delgada South YRCAs there is language that states that “fishing for groundfish is open [within the YRCA] from January 1, through December 31.” However, other restrictions may be in effect for these non-trawl fisheries that geographically overlap these YRCAs. Currently, the language implies that fishing for groundfish is open when it may otherwise be restricted. Therefore, the language above will be stricken from the descriptions of those YRCAs in sections: § 660.302, Subpart E; § 660.330, subpart F; and § 660.360, subpart G. Housekeeping changes to the description of these YRCAs does not change the intent or effect of these area restrictions.

Additionally, NMFS may clarify language regarding the non-groundfish trawl RCA and how it applies to the open access non-groundfish trawl sectors. See “Open access non-groundfish trawl gear fisheries management measures” for additional information on these proposed changes.

### Classification

At this time, NMFS has made a preliminary determination that most of the 2011–2012 groundfish harvest specifications and management measures in this proposed rule are consistent with the national standards of the Magnuson-Stevens Act and other applicable laws. However, NMFS has not made such a determination with respect to the specifications, including the rebuilding plans, for yelloweye rockfish, darkblotched rockfish and cowcod. There may be some questions whether the ACLs for these species are consistent with the court order in *NRDC v. Locke*. In addition, there may be some question whether the reductions in the protections in the CCAs are consistent with rebuilding requirements. NMFS specifically invites comments regarding these issues. NMFS will take into account the complete record, including any data, views, and comments received during the comment period, in making its final determination on whether the

2011–2012 specifications and management measures are consistent with the above-described standards and laws. If NMFS concludes, based on the overall record and public comments, that some rebuilding provisions are inconsistent with the court order or other rebuilding requirements, NMFS could make the necessary changes in the final rule and return the action to the Council for further consideration.

A DEIS was prepared for the 2011–2012 groundfish harvest specifications and management measures. The DEIS includes an RIR and an IRFA. The Environmental Protection Agency published a notice of availability for the draft EIS on August 27, 2010 (75 FR 52736). A copy of the DEIS is available online at <http://www.pcouncil.org/>.

An initial regulatory flexibility analysis (IRFA) was prepared, as required by section 603 of the RFA (RFA). The IRFA describes the economic impact this proposed rule, if adopted, would have on small entities. A description of the action, why it is being considered, and the legal basis for this action are contained at the beginning of this section in the preamble and in the **SUMMARY** section of the preamble. A copy of the IRFA is available from NMFS (**SEE ADDRESSES**). A summary of the analysis follows: The Council’s RIR/IRFA compares all the alternatives by discussing the impacts of each alternative on commercial vessels, buyers and processors, recreational charter vessels, seafood consumers, recreational anglers, non-consumptive users, non-users, and enforcement. Based on analyses discussed in Chapter 4 of the DEIS, the following summary is based on the Council’s RIR/IRFA and focuses on the Council’s final preferred alternative proposed to be implemented by this action and the non action alternative.

The overall economic impact of the Final Preferred Alternative is that many sectors are expected to achieve social and economic benefits similar to those under the current regulations, or the No Action alternative. However, there are differences in the distribution of ex-vessel revenue and angler trips on a regional basis and on a sector-by-sector basis. These changes are driven by changes in the forecast abundance for target species and overfished species. Change in the nearshore species harvest guidelines may positively impact recreational fisheries in certain regions compared with No Action. With the exception of the nearshore open access sector, all other non-tribal commercial fisheries sectors are expected to achieve lower levels of ex-vessel revenues than under No Action. The limited entry

fixed gear sector shows the greatest projected decline in revenue as a result of the sablefish ACL decrease. The Pacific whiting fishery is expected to be able to attain revenues similar to No Action; however, the impact to this fishery is dependent on results of the upcoming stock assessment cycle for Pacific whiting.

On a coastwide basis, commercial ex-vessel revenues for the non-tribal directed groundfish sectors are estimated to be approximately \$69 million per year under the Final Preferred Alternative compared with approximately \$71 million under No Action, and the number of recreational bottom fish trips is estimated to be 645 thousand under the Final Preferred Alternative compared with 609 thousand under No Action. The decline in commercial fisheries revenues is largely the result of a reduction in harvest of sablefish under the action alternatives.

A variety of time/area closures applicable to commercial vessels have been implemented in recent years. The most extensive of these are the RCAs, which have been in place since 2002 to prohibit vessels from fishing in depths where overfished groundfish species are more abundant. Different RCA configurations apply to the limited entry trawl sector and the limited entry fixed gear and open access sectors. In addition, the depth ranges covered can vary by latitudinal zone and time period. The alternatives vary somewhat in terms of the extent of RCAs. In addition to the RCAs, two CCAs have been in place since 1999 in the Southern California Bight to reduce bycatch of the overfished cowcod stock and yelloweye conservation areas have been established off the Washington Coast to reduce bycatch of the overfished yelloweye rockfish stock. The Final Preferred Alternative for the limited entry non-whiting trawl fleet generates slightly lower ex-vessel revenue on a coastwide basis when compared to revenues under the current regulations or no action alternative. This is primarily driven by a decrease in the abundance of sablefish and petrale sole as opposed to changes in status of constraining species. Area-based management for the limited entry non-whiting trawl fleet under the preferred alternative will be comparable to what was in place in 2009 and 2010—the area north of Cape Alava, Washington and shoreward of the trawl RCA will remain closed in order to protect overfished rockfish species. Given the decreased amount of fishable area in northern Washington since 2009 higher costs for fishery participants from increases in

fuel required to travel to and fish at those deeper depths would remain.

The limited entry whiting fishery is expected to be able to attain revenues similar to the previous biennial period. Rebuilding species that largely constrain the whiting fishery include widow and canary rockfish. The past few years have witnessed an increase in the incidental take of widow rockfish in the whiting fisheries despite bycatch avoidance behavior. This trend is likely to continue as it is expected that the fishery will continue to encounter more widow rockfish as that stock rebuilds. It is important to note that potential ex-vessel revenue in these fisheries ultimately depends on the Pacific whiting stock assessment, which is adopted annually by the Council during the March meeting.

The fixed gear sablefish sector will generate lower revenue under the Final Preferred Alternative than No Action because the sablefish ACL has decreased. However, the fixed gear fleet will have somewhat more area available than under No Action, because fishing will be open at depths deeper than 100 fm (183 m) north of 40°10' north latitude whereas under No Action, depths between 100 fm (183 m) and 125 fm (229 m) were only open on days when the Pacific halibut fishery was open. Fixed gear fisheries south of 36° north latitude will see sablefish harvest close to status quo levels. There are no recommended changes to area management relative to status quo.

Under the Final Preferred Alternative, the nearshore groundfish fishery is expected to have a moderate increase in ex-vessel revenues compared with No Action due to increased targeting opportunities for black rockfish (between 42 north latitude and 40 10' north latitude) and cabezon south (South of 42 north latitude). Fishing areas open to the nearshore fleets will be roughly the same as under No Action. Fishing opportunity and economic impacts to the nearshore groundfish sector are largely driven by the need to protect canary and especially yelloweye rockfish.

The final preferred alternative is projected to provide the west coast economy with slightly lower ex-vessel revenues than was generated by the fishery under No Action. However, effects on buyers and processors along the coast will vary depending location. In addition, the Council's preferred alternative attempts to take into account the desire expressed by buyers and processors to have a year round groundfish fishery. Individual quota management for trawl fisheries should help accommodate this preference;

however in practice in the absence of trip limits it is somewhat uncertain how trawl landings will be distributed in time and space.

In terms of recreational angler effort, the number of angler trips under the final Council-preferred alternative is slightly higher compared to No Action, but somewhat less than in 2009. However, an increase in angler effort under the final Council-preferred alternative is occurring primarily in south and central California, while northern Washington shows a slight increase and Oregon shows no change compared with No Action. It is expected that under the proposed 2011–2012 management measures, tribal groundfish fisheries will generate less revenue and personal income than under No Action due to a reduction in sablefish harvest.

The 2011–2012 period will be the first groundfish management cycle in which the shoreside trawl sector fisheries would be conducted under the Amendment 20 trawl rationalization program, including issuance and tracking of individual fishing quotas (IFQ) for most trawl-caught groundfish species. IFQ management is designed to provide opportunities for fisherman and processors to maximize the value of their fishery by creating incentives to make the optimum use of available target and bycatch species. Since all trawl trips will be observed, catch of constraining overfished species will be monitored in real time, and individuals will be held directly responsible for “covering” all catch of groundfish species with IFQ. Since IFQ for constraining, overfished species represents a real cost in terms of money and/or fishing opportunity, it is expected that fishers will take extraordinary steps to avoid unnecessary catch of these species. At the same time there is uncertainty about how individuals will be able to manage the individual risk inherent in a system based on personal responsibility. This issue may present a considerable challenge, especially to small businesses that have access to only a single limited entry trawl permit. Exhausting all readily available supplies of IFQ for a particularly constraining species, such as yelloweye, may result in the business being effectively shut down for the remainder of the season. Partly for this reason it is expected that over time the number of vessels and permits engaging in the limited entry trawl fishery will decline as fishers strive to consolidate available IFQ onto a smaller number of vessels in order to reduce the costs of harvesting the quotas. A smaller number of active vessels will mean reductions in the number of crew hired and in

expenditures made in local ports for materials, equipment, supplies and vessel maintenance. As such, while wages and profits for those crew and vessel owners that do remain in the fishery should increase, the amount and distribution of exvessel revenues and community income will change in ways that are not yet foreseeable, but probably to the detriment of some businesses and communities currently involved in the groundfish trawl fishery. Due to these types of countervailing uncertainties, impacts on trawl fisheries under the 2011–2012 management measures used in this analysis were estimated using a model designed to project overfished species bycatch levels under a status quo cumulative trip limit management regime. Likewise, the model used to estimate community income impacts was calibrated based on recently estimated spending patterns for regional vessels and processors. While providing a useful starting point for comparing gross-level effects under the alternatives, the true range of economic impacts achievable under the rationalized, IFQ-managed fishery may reflect a considerable departure from these estimates.

The Council analysis includes a discussion of small businesses. This proposed rule will regulate businesses that harvest groundfish. According to the Small Business Administration, a small commercial harvesting business is one that has annual receipts under \$4.0 million and a small charter boat business is one that has annual receipts under \$7 million. The Council estimates that implementation of the Final Preferred Alternative will affect about 2,600 small entities. These small entities are those that are directly regulated by the proposed rule that will be promulgated to support implementation of the Final Preferred Alternative. These entities are associated with those vessels that either target groundfish or harvest groundfish as bycatch. Consequently, these are the vessels, other than catcher-processors, that participate in the limited entry portion of the fishery, the open access fishery, the charter boat fleet, and the tribal fleets. Catcher/processors also operate in the Alaska pollock fishery, and all are associated with larger companies such as Trident and American Seafoods. Therefore, it is assumed that all catcher-processors are “large” entities. Best estimates of the limited entry groundfish fleet are taken from the NMFS Limited Entry Permits Office. As of June 2010, there are 399 limited entry permits including 177 endorsed for trawl (172 trawl only, 4 trawl and longline, and 1 trawl and trap-

pot); 199 endorsed for longline (191 longline only, 4 longline and trap-pot, and 4 trawl and longline); 32 endorsed for trap-pot (27 trap-pot only, 4 longline and trap-pot, and 1 trawl and trap-pot). Of the longline and trap-pot permits, 164 are sablefish endorsed. Of these endorsements 130 are “stacked” on 50 vessels. Ten of the limited entry trawl endorsed permits are used or owned by catcher/processor companies associated with the whiting fishery. The remaining 389 entities are assumed to be small businesses based on a review of sector revenues and average revenues per entity. The open access or nearshore fleet, depending on the year and level of participation, is estimated to be about 1,300 to 1,600 vessels. Again, these are assumed to be “small entities.” The tribal fleet includes about 53 vessels, and the charter boat fleet includes 525 vessels that are also assumed to be “small entities.”

The Final Preferred Alternative represents the Council’s efforts to address the directions provided by the Ninth Circuit Court of Appeals, which emphasizes the need to rebuild stocks in as short a time as possible, taking into account: (1) The status and biology of the stocks, (2) the needs of fishing communities, and (3) interactions of depleted stocks within the marine ecosystem. By taking into account the “needs of fishing communities” the Council was also simultaneously taking into account the “needs of small businesses” as fishing communities rely on small businesses as a source of economic income and activity and income. Therefore, it may be useful to review whether the Council’s three-meeting process for selecting the preferred alternative can be seen as means of trying to mitigate impacts of the proposed rule on small entities. The EIS and RIR/IRFA include analysis of a range of alternatives that were considered by the Council, including analysis of the effects of setting allowable harvest levels necessary to rebuild the seven groundfish species that were previously declared overfished. An eighth species, petrale sole, was declared overfished in 2010 and the proposed action includes a new rebuilding plan for this species along with the 2011–2012 ACLs and management measures consistent with the adopted rebuilding plan. Associated rebuilding analyses for all eight species estimate the time to rebuild under various levels of harvest.

The Council initially considered a wider range of alternatives, but ultimately rejected from further analysis alternatives allowing harvest levels higher than what is generally consistent

with current policies for rebuilding overfished stocks and a “no fishing” scenario (F=0). Section 2.2 of the DEIS describes five integrated alternatives including No Action, the Council’s Final Preferred Alternative, and three other alternatives (including the Council’s Preliminary Preferred Alternative, which is similar to the Final Preferred Alternative). Comparison of the action alternatives with No Action allows an evaluation of the economic implications to groundfish sectors, ports, and fishing communities; and the interaction of depleted species within the marine ecosystem of reducing ACLs for overfished species to rebuild stocks faster than they would under the rebuilding strategies that the Council adopted and have modified consistent with new, scientific information on the status and biology of these stocks.

Alternative 2011–2012 groundfish management measures are designed to provide opportunities to harvest healthy, target species within the constraints of alternative ACLs for overfished species. The integrated alternatives allow estimation of target species catch under the suite of overfished ACLs for overfished species both to demonstrate that target species ACLs are projected to be exceeded and to estimate related socioeconomic impacts.

The Council reviewed these analyses and read and heard testimony from Council advisors, fishing industry representatives, representatives from non-governmental organizations, and the general public before deciding the final Council-preferred alternative in June 2010. The Council’s final preferred management measures are intended to stay within all the final recommended harvest levels for groundfish species decided by the Council at their April and June 2010 meetings.

NMFS issued Biological Opinions under the Endangered Species Act (ESA) on August 10, 1990, November 26, 1991, August 28, 1992, September 27, 1993, May 14, 1996, and December 15, 1999 pertaining to the effects of the Pacific Coast groundfish PCGFMP fisheries on Chinook salmon (Puget Sound, Snake River spring/summer, Snake River fall, upper Columbia River spring, lower Columbia River, upper Willamette River, Sacramento River winter, Central Valley spring, California coastal), coho salmon (Central California coastal, southern Oregon/northern California coastal), chum salmon (Hood Canal summer, Columbia River), sockeye salmon (Snake River, Ozette Lake), and steelhead (upper, middle and lower Columbia River, Snake River

Basin, upper Willamette River, central California coast, California Central Valley, south/central California, northern California, southern California). These biological opinions have concluded that implementation of the PCGFMP for the Pacific Coast groundfish fishery was not expected to jeopardize the continued existence of any endangered or threatened species under the jurisdiction of NMFS, or result in the destruction or adverse modification of critical habitat.

NMFS reinitiated a formal section 7 consultation under the ESA in 2005 for both the Pacific whiting midwater trawl fishery and the groundfish bottom trawl fishery. The December 19, 1999, Biological Opinion had defined an 11,000 Chinook incidental take threshold for the Pacific whiting fishery. During the 2005 Pacific whiting season, the 11,000 fish Chinook incidental take threshold was exceeded, triggering reinitiation. Also in 2005, new data from the West Coast Groundfish Observer Program became available, allowing NMFS to complete an analysis of salmon take in the bottom trawl fishery.

NMFS prepared a Supplemental Biological Opinion dated March 11, 2006, which addressed salmon take in both the Pacific whiting midwater trawl and groundfish bottom trawl fisheries. In its 2006 Supplemental Biological Opinion, NMFS concluded that catch rates of salmon in the 2005 whiting fishery were consistent with expectations considered during prior consultations. Chinook bycatch has averaged about 7,300 fish over the last 15 years and has only occasionally exceeded the reinitiation trigger of 11,000 fish. The Chinook ESUs most likely affected by the whiting fishery have generally improved in status since the 1999 section 7 consultation. Although these species remain at risk, as indicated by their ESA listing, NMFS concluded that the higher observed bycatch in 2005 does not require a reconsideration of its prior “no jeopardy” conclusion with respect to the fishery.

For the groundfish bottom trawl fishery, NMFS concluded that incidental take in the groundfish fisheries is within the overall limits articulated in the Incidental Take Statement of the 1999 Biological Opinion. The groundfish bottom trawl limit from that opinion was 9,000 fish annually. NMFS will continue to monitor and collect data to analyze take levels. NMFS also reaffirmed its prior determination that implementation of the Groundfish PCGFMP is not likely to

jeopardize the continued existence of any of the affected ESUs.

Lower Columbia River coho (70 FR 37160, June 28, 2005) were recently listed and Oregon Coastal coho (73 FR 7816, February 11, 2008) were recently relisted as threatened under the ESA. The 1999 biological opinion concluded that the bycatch of salmonids in the Pacific whiting fishery were almost entirely Chinook salmon, with little or no bycatch of coho, chum, sockeye, and steelhead. The Southern Distinct Population Segment (DPS) of green sturgeon (71 FR 17757, April 7, 2006) and the southern DPS of Pacific eulachon (75 FR 13012, March 18, 2010) were also recently listed as threatened under the ESA. As a consequence NMFS has begun the process to initiate consultation on the effects of the fishery.

Pursuant to Executive Order 13175, this proposed rule was developed after meaningful consultation and collaboration with tribal officials from the area covered by the PCGFMP. Under the Magnuson-Stevens Act at 16 U.S.C. 1852(b)(5), one of the voting members of the Pacific Council must be a representative of an Indian tribe with federally recognized fishing rights from the area of the Council’s jurisdiction. In addition, regulations implementing the PCGFMP establish a procedure by which the tribes with treaty fishing rights in the area covered by the PCGFMP request new allocations or regulations specific to the tribes, in writing, before the first of the two meetings at which the Council considers groundfish management measures. The regulations at 50 CFR 660.324(d) further state “the Secretary will develop tribal allocations and regulations under this paragraph in consultation with the affected tribe(s) and, insofar as possible, with tribal consensus.” The tribal management measures in this proposed rule have been developed following these procedures. The tribal representative on the Council made a motion to adopt the non-whiting tribal management measures, which was passed by the Council. Those management measures, which were developed and proposed by the tribes, are included in this proposed rule. The tribal whiting set aside will be established prior to the beginning of the whiting fishery in April, after further consultation with the tribes and the states.

This proposed rule has been determined to be not significant for purposes of Executive Order 12866.

## List of Subjects in 50 CFR Part 660

Fisheries, fishing, and Indian fisheries.

Dated: October 20, 2010.

**John Oliver,**

*Deputy Assistant Administrator for Operations, National Marine Fisheries Service.*

For the reasons set out in the preamble, 50 CFR part 660, as amended at 75 FR 60868, October 1, 2010, effective November 1, 2010, is proposed to be further amended as follows:

### 50 CFR Chapter VI

## 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.* and 16 U.S.C. 773 *et seq.*

### Subpart C—West Coast Groundfish Fisheries

2. In § 660.11,
  - a. Add definitions of “Acceptable Biological Catch”, “Annual Catch Limit”, “Annual Catch Target”, and “Overfishing Limit” in alphabetical order.
  - b. Revise the definition of “Fishery harvest guideline”.
  - c. At the definition for “Groundfish”, revise paragraphs (7) introductory text, (7)(ii)(A) and (B), and paragraph (9).
  - d. At the definition of “North-South management area” redesignate paragraphs (2)(xvii) through (xxii) as (2)(xviii) through (xxiii).
  - e. At the definition of “North-South management area”, add paragraph (2)(xvii).

#### § 660.11 General definitions.

\* \* \* \* \*

*Acceptable Biological Catch (ABC)* means a harvest specification that is set below the overfishing limit to account for scientific uncertainty in the estimate of OFL, and other scientific uncertainty.

\* \* \* \* \*

*Annual Catch Limit (ACL)* is a harvest specification set equal to or below the ABC threshold in consideration of conservation objectives, socioeconomic concerns, management uncertainty and other factors. The ACL is a harvest limit that includes all sources of fishing-related mortality including landings, discard mortality, research catches, and catches in exempted fishing permit activities. Sector-specific annual catch limits can be specified, especially in cases where a sector has a formal, long-term allocation of the harvestable surplus of a stock or stock complex.

*Annual Catch Target (ACT)* is a management target set below the annual



catch limit and may be used as an accountability measure in cases where there is great uncertainty in inseason catch monitoring to ensure against exceeding an annual catch limit. Since the annual catch target is a target and not a limit, it can be used in lieu of harvest guidelines or strategically to accomplish other management objectives. Sector-specific annual catch targets can also be specified to accomplish management objectives.

*Fishery harvest guideline* means the harvest guideline or quota after subtracting from the ACL or ACT when specified, any allocation for the Pacific Coast treaty Indian tribes, projected research catch, deductions for fishing mortality in non-groundfish fisheries, as necessary, and set-asides for EFPs.

*Groundfish*

(7) Rockfish: In addition to the species below, longspine thornyhead, *S. altivelis*, and shortspine thornyhead, *S. alascanus*, "rockfish" managed under the PCGFMP include all genera and species of the family *Scorpaenidae*, except dusky rockfish, *S. ciliatus*; dwarf-red rockfish, *S. rufianus*, that occur off Washington, Oregon, and California, even if not listed below. The *Scorpaenidae* genera are *Sebastes*, *Scorpaena*, *Scorpaenodes*, and *Sebastobolus*. Where species below are listed both in a major category (nearshore, shelf, slope) and as an area-specific listing (north or south of 40°10' N. lat.) those species are considered "minor" in the geographic area listed.

(ii) \* \* \*

(A) North of 40°10' N. lat.: bronzespotted rockfish, *S. gilli*; bocaccio, *S. paucispinis*; chameleon rockfish, *S. phillipsi*; chilipepper, *S. goodei*; cowcod, *S. levis*; flag rockfish, *S. rubrivinctus*; freckled rockfish, *S. lentiginosus*; greenblotched rockfish, *S. rosenblatti*; greenspotted rockfish, *S. chlorostictus*; greenstriped rockfish, *S. elongatus*; halfbanded rockfish, *S. semicinctus*; harlequin rockfish, *S. variegates*; honeycomb rockfish, *S. umbrosus*; Mexican rockfish, *S. macdonaldi*; pink rockfish, *S. eos*; pinkrose rockfish, *S. simulator*; pygmy rockfish, *S. wilsoni*; redstripe rockfish, *S. proriger*; rosethorn rockfish, *S. helvomaculatus*; rosy rockfish, *S. rosaceus*; silvergray rockfish, *S. brevispinis*; speckled rockfish, *S. ovalis*; squarespot rockfish, *S. hopkinsi*; starry rockfish, *S. constellatus*; stripetail rockfish, *S. saxicola*; swordspine rockfish, *S. ensifer*; tiger rockfish, *S.*

*nigrocinctus*; vermilion rockfish, *S. miniatus*.

(B) South of 40°10' N. lat.: bronzespotted rockfish, *S. gilli*; chameleon rockfish, *S. phillipsi*; flag rockfish, *S. rubrivinctus*; freckled rockfish, *S. lentiginosus*; greenblotched rockfish, *S. rosenblatti*; greenspotted rockfish, *S. chlorostictus*; greenstriped rockfish, *S. elongatus*; halfbanded rockfish, *S. semicinctus*; harlequin rockfish, *S. variegates*; honeycomb rockfish, *S. umbrosus*; Mexican rockfish, *S. macdonaldi*; pink rockfish, *S. eos*; pinkrose rockfish, *S. simulator*; pygmy rockfish, *S. wilsoni*; redstripe rockfish, *S. proriger*; rosethorn rockfish, *S. helvomaculatus*; rosy rockfish, *S. rosaceus*; silvergray rockfish, *S. brevispinis*; speckled rockfish, *S. ovalis*; squarespot rockfish, *S. hopkinsi*; starry rockfish, *S. constellatus*; stripetail rockfish, *S. saxicola*; swordspine rockfish, *S. ensifer*; tiger rockfish, *S. nigrocinctus*; vermilion rockfish, *S. miniatus*; yellowtail rockfish, *S. flavidus*.

(9) "Other fish": Where regulations of subparts C through G of this part refer to landings limits for "other fish," those limits apply to all groundfish listed here in paragraphs (1) through (8) of this definition except for the following: Those groundfish species specifically listed in Tables 1a and 2a of this subpart with an OFL for that area (generally north and/or south of 40°10' N. lat.); spiny dogfish coastwide. "Other fish" may include all sharks, except spiny dogfish, skates (except longnose skate), ratfish, morids, grenadiers, and kelp greenling listed in this section, as well as cabezon in waters off Washington.

*North-South management area*

(2) \* \* \* (xvii) Cape Vizcaino, CA—39°44.00' N. lat.

*Overfishing limit (OFL)* is the MSY harvest level or the annual abundance of exploitable biomass of a stock or stock complex multiplied by the maximum fishing mortality threshold or proxy thereof and is an estimate of the catch level above which overfishing is occurring.

3. In § 660.12, revise paragraph (a)(8) to read as follows:

**§ 660.12 General groundfish prohibitions.**

(a) \* \* \* (8) Fail to sort, prior to the first weighing after offloading, those groundfish species or species groups for

which there is a trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACT, ACL or OY, if the vessel fished or landed in an area during a time when such trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACT, ACL or OY applied; except as specified at § 660.131, subpart C for vessels participating in the Pacific whiting at-sea sectors.

4. In § 660.30, paragraphs (a)(2)(iv) and (a)(6) are revised to read as follows:

**§ 660.30 Compensation with fish for collecting resource information—EFPs.**

(iv) The year in which the compensation fish would be deducted from the ACL or ACT before determining the fishery harvest guideline or commercial harvest guideline.

(6) *Accounting for the compensation catch.* As part of the harvest specifications process, as described at § 660.60, subpart C, NMFS will advise the Council of the amount of fish authorized to be retained under a compensation EFP, which then will be deducted from the next harvest specifications (ACLs or ACTs) set by the Council. Fish authorized in an EFP too late in the year to be deducted from the following year's ACLs or ACTs will be accounted for in the next management cycle where it is practicable to do so.

5. Revise § 660.40 to read as follows:

**§ 660.40 Overfished species rebuilding plans.**

For each overfished groundfish stock with an approved rebuilding plan, this section contains the standards to be used to establish annual or biennial ACLs, specifically the target date for rebuilding the stock to its MSY level and the harvest control rule to be used to rebuild the stock. The harvest control rule is expressed as a "Spawning Potential Ratio" or "SPR" harvest rate.

(a) *Bocaccio.* The target year for rebuilding the bocaccio stock south of 40°10' N. latitude to B<sub>MSY</sub> is 2022. The harvest control rule to be used to rebuild the southern bocaccio stock is an annual SPR harvest rate of 77.7 percent.

(b) *Canary rockfish.* The target year for rebuilding the canary rockfish stock to B<sub>MSY</sub> is 2027. The harvest control rule to be used to rebuild the canary rockfish stock is an annual SPR harvest rate of 88.7 percent.

(c) *Cowcod*. The target year for rebuilding the cowcod stock south of 40°10 N. latitude to B<sub>MSY</sub> is 2071. The harvest control rule to be used to rebuild the cowcod stock is an annual SPR harvest rate of 79 percent.

(d) *Darkblotched rockfish*. The target year for rebuilding the darkblotched rockfish stock to B<sub>MSY</sub> is 2025. The harvest control rule to be used to rebuild the darkblotched rockfish stock is an annual SPR harvest rate of 64.9 percent.

(e) *Petrале Sole*. The target year for rebuilding the petrale sole stock to B<sub>MSY</sub> is 2016. The harvest control rule is an annual SPR harvest rate of 31 percent in 2011 and 32.4 percent in 2012.

(f) *Pacific Ocean Perch (POP)*. The target year for rebuilding the POP stock to B<sub>MSY</sub> is 2020. The harvest control rule to be used to rebuild the POP stock is an annual SPR harvest rate of 86.4 percent.

(g) *Widow rockfish*. The target year for rebuilding the widow rockfish stock to B<sub>MSY</sub> is 2010. A constant catch of 600 mt will be used to rebuild the widow rockfish stock, which is an annual SPR harvest rate of 91.7 percent in 2011 and 91.3 percent in 2012.

(h) *Yelloweye rockfish*. The target year for rebuilding the yelloweye rockfish stock to B<sub>MSY</sub> is 2084. The harvest control rule to be used to rebuild the yelloweye rockfish stock is an annual SPR harvest rate of 72.8 percent.

6. In § 660.50, paragraphs (f)(2)(i) and (ii), (f)(4), (g)(2), and (g)(7) are revised to read as follows:

**§ 660.50 Pacific Coast treaty Indian fisheries.**

\* \* \* \* \*

(f) \* \* \*  
(2) \* \* \*

(i) The sablefish allocation to Pacific coast treaty Indian tribes is 10 percent of the sablefish ACL for the area north of 36° N. lat. This allocation represents the total amount available to the treaty Indian fisheries before deductions for discard mortality.

(ii) The tribal allocation is 552 mt in 2011 and 535 in 2012 per year. This allocation is, for each year, 10 percent of the Monterey through Vancouver area (North of 36° N. lat.) The tribal allocation is reduced by 1.5 percent for estimated discard mortality.

\* \* \* \* \*

(4) *Pacific whiting*. The tribal allocation for 2010 is 49,939 mt. The tribal allocations for will be announced each year following the Council's March meeting when the final specifications for Pacific whiting are announced.

\* \* \* \* \*

(g) \* \* \*

(2) *Thornyheads*. The tribes will manage their fisheries to the following limits for shortspine and longspine thornyheads. The limits would be accumulated across vessels into a cumulative fleetwide harvest target for the year. The limits available to individual fishermen will then be adjusted inseason to stay within the overall harvest target as well as estimated impacts to overfished species. The annual following limits apply:

(i) Shortspine thornyhead cumulative trip limits are 17,000-lb (7,711-kg) per 2 months.

(ii) Longspine thornyhead cumulative trip limits are 22,000-lb (9,979-kg) per 2 months.

\* \* \* \* \*

(7) *Flatfish and other fish*. Treaty fishing vessels using bottom trawl gear are subject to the following limits: For Dover sole, English sole, other flatfish 110,000 lbs (49,895 kg) per 2 month; and for arrowtooth flounder 150,000 lbs (68,039 kg) per 2 month. The Dover sole and arrowtooth limits in place at the beginning of the season will be combined across periods and the fleet to create a cumulative harvest target. The limits available to individual vessels will then be adjusted inseason to stay within the overall harvest target as well as estimated impacts to overfished species. For petrale sole, treaty fishing vessels are restricted to a 50,000 lb (22,680 kg) per 2 month limit for the entire year. Trawl vessels are restricted to using small footrope trawl gear.

\* \* \* \* \*

7. In § 660.55 paragraphs (a), (b) introductory text, (f)(1)(ii) and (k) are revised to read as follows:

**§ 660.55 Allocations.**

\* \* \* \* \*

(a) *General*. An allocation is the apportionment of a harvest privilege for a specific purpose, to a particular person, group of persons, or fishery sector. The opportunity to harvest Pacific Coast groundfish is allocated among participants in the fishery when the ACLs for a given year are established in the biennial harvest specifications. For any stock that has been declared overfished, any formal allocation may be temporarily revised for the duration of the rebuilding period. For certain species, primarily trawl-dominant species, beginning with the 2011–2012 biennial specifications process, separate allocations for the trawl and nontrawl fishery (which for this purpose includes limited entry fixed gear, directed open access, and recreational fisheries) will be established biennially or annually using the standards and procedures

described in Chapter 6 of the PCGFMP. Chapter 6 of the PCGFMP provides the allocation structure and percentages for species allocated between the trawl and nontrawl fisheries. Also, separate allocations for the limited entry and open access fisheries may be established using the procedures described in Chapters 6 and 11 of the PCGFMP and this subpart. Allocation of sablefish north of 36° N. lat. is described in paragraph (h) of this section and in the PCGFMP. Allocation of Pacific whiting is described in paragraph (i) of this section and in the PCGFMP. Allocation of black rockfish is described in paragraph (l) of this section. Allocation of Pacific halibut bycatch is described in paragraph (m) of this section. Allocations not specified in the PCGFMP are established in regulation through the biennial harvest specifications and are listed in Tables 1 a through d and Tables 2 a through d of this subpart.

(b) *Fishery harvest guidelines and reductions made prior to fishery allocations*. Beginning with the 2011–2012 biennial specifications process and prior to the setting of fishery allocations, the ACL or ACT when specified is reduced by the Pacific Coast treaty Indian tribal harvest (allocations, set-asides, and estimated harvest under regulations at § 660.50); projected scientific research catch of all groundfish species, estimates of fishing mortality in non-groundfish fisheries and, as necessary, set-asides for EFPs. The remaining amount after these deductions is the fishery harvest guideline or quota. (**Note:** Recreational estimates are not deducted here).

\* \* \* \* \*

(f) \* \* \*  
(1) \* \* \*

(ii) *Catch accounting for the nontrawl allocation*. All groundfish caught by a vessel not registered to a limited entry permit and not fishing in the non-groundfish fishery will be counted against the nontrawl allocation. All groundfish caught by a vessel registered to a limited entry permit when the fishery for a vessel's limited entry permit has closed or they are not declared in to a limited entry fishery, will be counted against the nontrawl allocation, unless they are declared in to a non-groundfish fishery. Catch by vessels fishing in the non-groundfish fishery, as defined at § 660.11, will be accounted for in the estimated mortality in the non-groundfish fishery that is deducted from the ACL or ACT when specified.

\* \* \* \* \*

(k) Exempted fishing permit set-asides. Annual set-asides for EFPs described at § 660.60(f), will be deducted from the ACL or ACT when specified. Set-aside amounts will be adjusted through the biennial harvest specifications and management measures process.

\* \* \* \* \*

8. In § 660.60 paragraphs (c)(1)(i), (g) and (h)(1) are revised to read as follows:

**§ 660.60 Specifications and management measures.**

\* \* \* \* \*

- (c) \* \* \*
- (1) \* \* \*

(i) Trip landing and frequency limits, size limits, all gear. Trip landing and frequency limits have been designated as routine for the following species or species groups: Widow rockfish, canary rockfish, yellowtail rockfish, Pacific ocean perch, yelloweye rockfish, black rockfish, blue rockfish, splitnose rockfish, chilipepper rockfish, bocaccio, cowcod, minor nearshore rockfish or shallow and deeper minor nearshore rockfish, shelf or minor shelf rockfish, and minor slope rockfish; DTS complex which is composed of Dover sole, sablefish, shortspine thornyheads, longspine thornyheads; petrale sole, rex sole, arrowtooth flounder, Pacific sanddabs, and the other flatfish complex, which is composed of those species plus any other flatfish species listed at § 660.11, subpart C; Pacific whiting; lingcod; Pacific cod; spiny dogfish; cabezon in Oregon and California and "other fish" as a complex consisting of all groundfish species listed at § 660.11, subpart C and not otherwise listed as a distinct species or species group. Specific to the IFQ fishery, sub-limits or aggregate limits may be specified for the following species: Longnose skate, big skate, California skate, California scorpionfish, leopard shark, soupfin shark, finescale codling, Pacific rattail (grenadier), ratfish, kelp greenling, shortbelly, and cabezon in Washington. Size limits have been designated as routine for sablefish and lingcod. Trip landing and frequency limits and size limits for species with those limits designated as routine may be imposed or adjusted on a biennial or more frequent basis for the purpose of keeping landings within the harvest levels announced by NMFS, and for the other purposes given in paragraphs (c)(1)(i)(A) and (B) of this section.

\* \* \* \* \*

(g) *Applicability.* Groundfish species harvested in the territorial sea (0–3 nm) will be counted toward the catch limitations in Tables 1a through 2d of this subpart, and those specified in

subparts D through G, including Tables 1a (North) and 1a (South) Tables 1b (North) and 1b (South) of subpart D, Tables 2 (North) and 2 (South) of subpart E, Tables 3 (North) and 3 (South) of subpart F.

(h) \* \* \*

(1) *Commercial trip limits and recreational bag and boat limits.*

Commercial trip limits and recreational bag and boat limits defined in Tables 1a through 2d of this subpart, and those specified in subparts D through G of this part, including Tables 1a (North) and 1a (South), Tables 1b (North) and 1b (South) of subpart D, Tables 2 (North) and 2 (South) of subpart E, Tables 3 (North) and 3 (South) of subpart F must not be exceeded.

\* \* \* \* \*

9. In § 660.65, the introductory text is revised to read as follows:

**§ 660.65 Groundfish harvest specifications.**

Harvest specifications include OFLs, ABCs, and the designation of OYs, and ACLs. Management measures necessary to keep catch within the ACL include ACTs, harvest guidelines (HGs), or quotas for species that need individual management, and the allocation of fishery HGs between the trawl and nontrawl segments of the fishery, and the allocation of commercial HGs between the open access and limited entry segments of the fishery. These specifications include fish caught in state ocean waters (0–3 nm offshore) as well as fish caught in the EEZ (3–200 nm offshore). Harvest specifications are provided in Tables 1a through 2d of this subpart.

\* \* \* \* \*

10. Section 660.71 is proposed to be amended as follows:

- a. Remove paragraph (e)(78),
- b. Redesignate paragraphs (e)(79) through (e)(333) as (e)(78) through (e)(332) respectively.
- c. Redesignate paragraphs (k) through (n) as (o) through (r), respectively.
- d. In newly redesignated paragraph (o), revise paragraphs (o)(149) and (150), redesignate paragraphs (o)(151) through (212) as (o)(153) through (214), add new paragraphs (o)(151) and (152),
- e. Add paragraphs (k), (l), (m), (n), (s), (t), (u), and (v) to read as follows:

**§ 660.71 Latitude/longitude coordinates defining the 10 fm (18 m) through 40 fm (73 m) depth contours.**

\* \* \* \* \*

(k) The 30fm (55m) depth contour around Santa Barbara Island off the state of California is defined by straight lines connecting all of the following points in the order stated:

- (1) 33°30.41' N. lat., 119°02.93' W. long.;
- (2) 33°30.22' N. lat., 119°03.84' W. long.;
- (3) 33°29.53' N. lat., 119°04.60' W. long.;
- (4) 33°28.57' N. lat., 119°04.06' W. long.;
- (5) 33°28.35' N. lat., 119°03.44' W. long.;
- (6) 33°27.73' N. lat., 119°03.41' W. long.;
- (7) 33°27.31' N. lat., 119°01.80' W. long.;
- (8) 33°27.76' N. lat., 119°01.31' W. long.;
- (9) 33°27.78' N. lat., 119°00.85' W. long.;
- (10) 33°27.95' N. lat., 119°00.75' W. long.;
- (11) 33°28.47' N. lat., 119°00.92' W. long.;
- (12) 33°29.61' N. lat., 119°00.69' W. long.; and connecting back to 33°30.41' N. lat., 119°02.93' W. long.

(l) The 30fm (55m) depth contour around San Nicolas Island off the state of California is defined by straight lines connecting all of the following points in the order stated:

- (1) 33°19.00' N. lat., 119°28.00' W. long.;
- (2) 33°18.50' N. lat., 119°39.50' W. long.;
- (3) 33°17.18' N. lat., 119°40.26' W. long.;
- (4) 33°15.61' N. lat., 119°38.65' W. long.;
- (5) 33°12.50' N. lat., 119°30.00' W. long.;
- (6) 33°12.00' N. lat., 119°27.00' W. long.;
- (7) 33°12.68' N. lat., 119°23.30' W. long.;
- (8) 33°13.50' N. lat., 119°20.00' W. long.;
- (9) 33°15.50' N. lat., 119°20.00' W. long.;
- (10) 33°16.50' N. lat., 119°25.00' W. long.; and connecting back to 33°19.00' N. lat., 119°28.00' W. long.

(m) The 30fm (55m) depth contour around Tanner Bank off the state of California is defined by straight lines connecting all of the following points in the order stated:

- (1) 32°43.37' N. lat., 119°08.86' W. long.;
- (2) 32°42.86' N. lat., 119°07.36' W. long.;
- (3) 32°41.13' N. lat., 119°05.46' W. long.;
- (4) 32°40.57' N. lat., 119°05.76' W. long.;
- (5) 32°41.49' N. lat., 119°09.90' W. long.; and connecting back to 32°43.37' N. lat., 119°08.86' W. long.

(n) The 30fm (55m) depth contour around Cortes Bank off the state of

California is defined by straight lines connecting all of the following points in the order stated:

- (1) 32°29.73' N. lat., 119°12.95' W. long.;
- (2) 32°28.83' N. lat., 119°10.38' W. long.;
- (3) 32°28.17' N. lat., 119°07.04' W. long.;
- (4) 32°26.27' N. lat., 119°04.14' W. long.;
- (5) 32°25.22' N. lat., 119°04.77' W. long.;
- (6) 32°28.60' N. lat., 119°14.15' W. long.; and connecting back to 32°29.73' N. lat., 119°12.95' W. long.

\* \* \* \* \*

- (o) \* \* \*
- (149) 36°18.40' N. lat., 121°57.93' W. long.;
- (150) 36°16.80' N. lat., 121°59.97' W. long.;
- (151) 36°15.00' N. lat., 121°55.95' W. long.;
- (152) 36°15.00' N. lat., 121°54.41' W. long.;

\* \* \* \* \*

(s) The 40fm (73m) depth contour around Santa Barbara Island off the state of California is defined by straight lines connecting all of the following points in the order stated:

- (1) 33°30.89' N. lat., 119°02.42' W. long.;
- (2) 33°29.89' N. lat., 119°05.27' W. long.;
- (3) 33°29.54' N. lat., 119°05.39' W. long.;
- (4) 33°28.53' N. lat., 119°04.27' W. long.;
- (5) 33°28.23' N. lat., 119°03.73' W. long.;
- (6) 33°27.77' N. lat., 119°03.67' W. long.;
- (7) 33°27.32' N. lat., 119°02.80' W. long.;
- (8) 33°27.20' N. lat., 119°01.82' W. long.;
- (9) 33°27.64' N. lat., 119°00.31' W. long.;
- (10) 33°29.96' N. lat., 119°00.45' W. long.; and connecting back to 33°30.89' N. lat., 119°02.42' W. long.

(t) The 40fm (73m) depth contour around San Nicolas Island off the state of California is defined by straight lines connecting all of the following points in the order stated:

- (1) 33°20.00' N. lat., 119°29.00' W. long.;
- (2) 33°18.72' N. lat., 119°41.27' W. long.;
- (3) 33°17.56' N. lat., 119°41.38' W. long.;
- (4) 33°15.19' N. lat., 119°38.59' W. long.;
- (5) 33°12.35' N. lat., 119°30.11' W. long.;

(6) 33°11.81' N. lat., 119°27.13' W. long.;

(7) 33°12.60' N. lat., 119°23.15' W. long.;

(8) 33°12.93' N. lat., 119°22.26' W. long.;

(9) 33°12.78' N. lat., 119°21.48' W. long.;

(10) 33°13.11' N. lat., 119°17.70' W. long.;

(11) 33°13.77' N. lat., 119°17.77' W. long.;

(12) 33°14.50' N. lat., 119°19.82' W. long.;

(13) 33°15.52' N. lat., 119°19.94' W. long.;

(14) 33°16.67' N. lat., 119°23.12' W. long.; and connecting back to 33°20.00' N. lat., 119°29.00' W. long.

(u) The 40fm (73m) depth contour around Tanner Bank off the state of California is defined by straight lines connecting all of the following points in the order stated:

(1) 32°43.67' N. lat., 119°09.11' W. long.;

(2) 32°43.02' N. lat., 119°07.17' W. long.;

(3) 32°40.62' N. lat., 119°04.52' W. long.;

(4) 32°40.00' N. lat., 119°05.00' W. long.;

(5) 32°41.43' N. lat., 119°10.05' W. long.; and connecting back to 32°43.67' N. lat., 119°09.11' W. long.

(v) The 40fm (73m) depth contour around Cortes Bank off the state of California is defined by straight lines connecting all of the following points in the order stated:

(1) 32°30.45' N. lat., 119°12.61' W. long.;

(2) 32°28.90' N. lat., 119°10.26' W. long.;

(3) 32°28.49' N. lat., 119°07.04' W. long.;

(4) 32°26.29' N. lat., 119°03.80' W. long.;

(5) 32°24.91' N. lat., 119°04.70' W. long.;

(6) 32°28.57' N. lat., 119°14.91' W. long.; and connecting back to 32°30.45' N. lat., 119°12.61' W. long.

11. Section 660.72 is proposed to be amended as follows:

a. Remove and reserve paragraphs (f)(143) through (f)(144), and remove paragraph (f)(198),

b. Redesignate paragraphs (a)(122) through (a)(195) as (a)(127) through (a)(200), paragraphs (f)(145) through (f)(197) as (f)(146) through (f)(198), paragraphs (j)(16) through (j)(254) as (j)(18) through (j)(256), and paragraphs (j)(4) through (j)(15) as (j)(5) through (j)(16),

c. Revise paragraphs (a)(121), newly designated (a)(193), (b), (f) (140) through (f)(142), and newly designated (j)(183) through (j)(185),

d. Add paragraphs (a)(122) to (a)(126), add and reserve paragraph (a)(145), and add paragraphs (j)(4) and (j)(17), to read as follows:

**§ 660.72 Latitude/longitude coordinates defining the 50 fm (91 m) through 75 fm (137 m) depth contours.**

\* \* \* \* \*

(a) \* \* \*

(121) 36°18.40' N. lat., 121°58.97' W. long.;

(122) 36°18.40' N. lat., 122°00.35' W. long.;

(123) 36°16.02' N. lat., 122°00.35' W. long.;

(124) 36°15.00' N. lat., 121°58.53' W. long.;

(125) 36°15.00' N. lat., 121°56.53' W. long.;

(126) 36°14.79' N. lat., 121°54.41' W. long.;

\* \* \* \* \*

(193) 32°55.35' N. lat., 117°18.65' W. long.;

\* \* \* \* \*

(b) The 50-fm (91-m) depth contour around the Swiftsure Bank and along the U.S. border with Canada is defined by straight lines connecting all of the following points in the order stated:

(1) 48°30.15' N. lat., 124°56.12' W. long.;

(2) 48°28.29' N. lat., 124°56.30' W. long.;

(3) 48°29.23' N. lat., 124°53.63' W. long.;

(4) 48°30.31' N. lat., 124°51.73' W. long.; and connecting back to 48°30.15' N. lat., 124°56.12' W. long.

\* \* \* \* \*

(f) \* \* \*

(140) 36°16.80' N. lat., 122°01.76' W. long.;

(141) 36°14.33' N. lat., 121°57.80' W. long.;

(142) 36°14.67' N. lat., 121°54.41' W. long.;

\* \* \* \* \*

(j) \* \* \*

(4) 48°10.00' N. lat., 125°27.99' W. long.;

\* \* \* \* \*

(17) 48°10.00' N. lat., 125°20.19' W. long.;

\* \* \* \* \*

(183) 36°17.49' N. lat., 122°03.08' W. long.;

(184) 36°14.21' N. lat., 121°57.80' W. long.;

(185) 36°14.53' N. lat., 121°54.99' W. long.;

\* \* \* \* \*

12. Section 660.73 is proposed to be amended as follows:

a. Remove paragraphs (a)(118) through (a)(120), (a)(156), (d)(134), (d)(180), (h)(157) and (h)(158),

b. Redesignate paragraphs (a)(3) through (a)(16) as (a)(4) through (a)(17), paragraphs (a)(17) through (a)(117) as (a)(19) through (a)(119), paragraphs (a)(121) through (a)(155) as (a)(128) through (a)(162), paragraphs (a)(157) through (a)(307) as (a)(165) through (a)(315), paragraphs (d)(135) through (d)(179) as (d)(138) through (d)(182), paragraphs (d)(181) through (d)(350) as (d)(185) through (d)(354), and paragraphs (h)(159) through (h)(302) as (h)(158) through (h)(301),

c. Add paragraphs (a)(3), (a)(18), (a)(120) through (a)(127), (a)(163) and (a)(164), (d)(134) through (d)(137), (d)(183), (d)(184), and (h)(157) to read as follows:

**§ 660.73 Latitude/longitude coordinates defining the 100 fm (183 m) through 150 fm (274 m) depth contours.**

\* \* \* \* \*

(a) \* \* \*

(3) 48°10.00' N. lat., 125°40.00' W. long.;

\* \* \* \* \*

(18) 48°10.00' N. lat., 125°17.81' W. long.;

\* \* \* \* \*

(120) 44°02.34' N. lat., 124°55.46' W. long.;

(121) 43°59.18' N. lat., 124°56.94' W. long.;

(122) 43°56.74' N. lat., 124°56.74' W. long.;

(123) 43°55.76' N. lat., 124°55.76' W. long.;

(124) 43°55.41' N. lat., 124°52.21' W. long.;

(125) 43°54.62' N. lat., 124°48.23' W. long.;

(126) 43°55.90' N. lat., 124°41.11' W. long.;

(127) 43°57.36' N. lat., 124°38.68' W. long.;

\* \* \* \* \*

(163) 40°30.37' N. lat., 124°37.30' W. long.;

(164) 40°28.48' N. lat., 124°36.95' W. long.;

\* \* \* \* \*

(d) \* \* \*  
(134) 43°59.43' N. lat., 124°57.22' W. long.;

(135) 43°57.49' N. lat., 124°57.31' W. long.;

(136) 44°55.73' N. lat., 124°55.41' W. long.;

(137) 44°54.74' N. lat., 124°53.15' W. long.;

\* \* \* \* \*

(183) 40°30.35' N. lat., 124°37.52' W. long.;

(184) 40°28.39' N. lat., 124°37.16' W. long.;

\* \* \* \* \*

(h) \* \* \*  
(157) 40°30.30' N. lat., 124°37.63' W. long.;

\* \* \* \* \*

13. Section 660.74 is proposed to be amended as follows:

a. Remove paragraphs (a)(159), (g)(136),

b. Redesignate paragraphs (a)(160) through (a)(284) as (a)(161) through

(a)(285), (g)(137) through (g)(256) as (g)(138) through (g)(257),

c. Revise paragraphs (g)(133), (l)(84) and (l)(85),

d. Add paragraphs (a)(159) and (a)(160), (g)(136) and (g)(137), to read as follows:

**§ 660.74 Latitude/longitude coordinates defining the 180 fm (329 m) through 250 fm (457 m) depth contours.**

\* \* \* \* \*

(a) \* \* \*

(159) 40°30.22' N. lat., 124°37.80' W. long.;

(160) 40°27.29' N. lat., 124°37.10' W. long.;

\* \* \* \* \*

(g) \* \* \*

(133) 40°30.16' N. lat., 124°37.91' W. long.;

\* \* \* \* \*

(136) 40°22.34' N. lat., 124°31.22' W. long.;

(137) 40°14.40' N. lat., 124°35.82' W. long.;

\* \* \* \* \*

(l) \* \* \*

(84) 43°57.88' N. lat., 124°58.25' W. long.;

(85) 43°56.89' N. lat., 124°57.33' W. long.;

\* \* \* \* \*

14a. Tables 1a through 1c, Subpart C, are proposed to be revised to read as follows:

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Table 1a. To Part 660, Subpart C- 2011, Specifications of OFL, ABC, ACL, ACT and Fishery Harvest guidelines (weights in metric tons).

Species	Area	OFL	ABC	ACL a/	ACT	Fishery HG a/
<b>ROUNDFISH:</b>						
Lingcod	N of 42° N. lat. b/	2,438	2,330	2,330		2,059
	S of 42° N. lat. c/	2,523	2,102	2,102		2,095
Pacific Cod d/	Coastwide	3,200	2,222	1,600		1,200
Pacific Whiting e/	Coastwide	TBA	TBA	TBA		TBA
Sablefish	N of 36° N. lat. f/	8,808	8,418	5,515	See Table 1c	
	S of 36° N. lat. g/			1,298		
Cabezon	46°16' to 42° N. lat. h/	52	50	50		50
	S of 42° N. lat. i/	187	179	179		179
<b>FLATFISH:</b>						
Dover sole j/	Coastwide	44,400	42,436	25,000		23,410
English sole k/	Coastwide	20,675	19,761	19,761		19,661
Petrale sole l/	Coastwide	1,021	976	976		911
Arrowtooth flounder m/	Coastwide	18,211	15,174	15,174		13,096
Starry Flounder n/	Coastwide	1,802	1,502	1,352		1,345
Other flatfish o/	Coastwide	10,146	7,044	4,884		4,686
<b>ROCKFISH:</b>						
Pacific Ocean Perch p/	N of 40°10' N. lat.	1,026	981	180	157	144
Shortbelly q/	Coastwide	6,950	5,789	50		49
Widow r/	Coastwide	5,097	4,872	600		539.1
Canary s/	Coastwide	614	586	102		82
Chilipepper t/	S of 40°10' N. lat.	2,073	1,981	1,981		1,966
Bocaccio u/	S of 40°10' N. lat.	737	704	263		249.6
Splitnose v/	S of 40°10' N. lat.	1,529	1,461	1,461		1,454
Yellowtail w/	N of 40°10' N. lat.	4,566	4,364	4,364		3,865
Shortspine thornyhead x/	N of 34°27' N. lat.	2,384	2,279	1,573		1,528
	S of 34°27' N. lat.			405		363
Longspine thornyhead y/	N of 34°27' N. lat.	3,577	2,981	2,119		2,075
	S of 34°27' N. lat.			376		373
Cowcod z/	S of 40°10' N. lat.	13	10	4		3.7
Darkblotched aa/	Coastwide	508	485	298		279.3
Yelloweye bb/	Coastwide	48	46	20	17	11.1
California Scorpionfish cc/	S. of 34°27' N. lat.	141	135	135		133
Black	N of 46°16' N. lat. dd/	445	426	426		412
	S of 46°16' N. lat. ee/	1,217	1,163	1,000		1,000
Minor Rockfish North ff/ Nearshore Shelf Slope	N of 40°10' N. lat.	3,767	3,363	2,227		2,116
		116	99	99		99
		2,188	1,940	968		925
		1,462	1,324	1,160		1,092
Minor Rockfish South gg/ Nearshore Shelf Slope	S of 40°10' N. lat.	4,302	3,723	2,341		2,301
		1,156	1,001	1,001		1,001
		2,238	1,885	714		701
		907	836	626		599
<b>SHARKS/SKATES/RATFISH/MORIDS/GRENADIERS/KELP GREENLING:</b>						
Longnose Skate hh/	Coastwide	3,128	2,990	1,349		1,220
Other fish ii/	Coastwide	11,150	7,742	5,575		5,575

a/ ACLs and HGs are specified as total catch values. Fishery harvest guidelines (HG) means the harvest guideline or quota after subtracting from the ACL or ACT any allocation for the Pacific Coast treaty Indian tribes, projected research catch, deductions for fishing mortality in non-groundfish fisheries, as necessary, and set-asides for EFPs.

b/ Lingcod north (Oregon and Washington). A new lingcod stock assessment was prepared in 2009. The lingcod north biomass was estimated to be at 62 percent of its unfished biomass in 2009. The OFL of 2,438 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,330 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. ACL is further reduced for the Tribal fishery (250 mt), incidental open access fishery (16 mt) and research catch (5 mt), resulting in a fishery HG of 2,059 mt.

c/ Lingcod south (California). A new lingcod stock assessment was prepared in 2009. The lingcod south biomass was estimated to be at 74 percent of its unfished biomass in 2009. The OFL of 2,523 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,102 mt was based on a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. An incidental open access set-aside of 7 mt is deducted from the ACL, resulting in a fishery HG of 2,095 mt.

d/ Pacific Cod. The 3,200 mt OFL is based on the maximum level of historic landings. The ABC of 2,222 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as it's a category 3 species. The 1,600 mt ACL is the OFL reduced by 50 percent as a precautionary adjustment. A set-aside of 400 mt is deducted from the ACL for the Tribal fishery resulting in a fishery HG of 1,200 mt.

e/ Pacific whiting. A range of ACLs were considered in the DEIS (96,968 mt-290,903 mt). A new stock assessment will be prepared prior to the Council's March 2011 meeting. Final adoption of the Pacific whiting specifications have been deferred until the Council's March 2011 meeting.

f/ Sablefish north. A coastwide sablefish stock assessment was prepared in 2007. The coastwide sablefish biomass was estimated to be at 38.3 percent of its unfished biomass in 2007. The coastwide OFL of 8,808 mt was based on the 2007 stock assessment with a  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 8,418 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 40-10 harvest policy was applied to the ABC to derive the coastwide ACL and then the ACL was apportioned north and south of  $36^\circ$  N. lat, using the average of annual swept area biomass (2003-2008) from the NMFS NWFSC trawl survey, between the northern and southern areas with 68 percent going to the area north of  $36^\circ$  N. lat. and 32 percent going to the area south of  $36^\circ$  N. lat. The northern portion of the ACL is 5,515 mt and is reduced by 552 mt for the tribal allocation (10 percent of the ACL north of  $36^\circ$  N. lat.) The 552 mt tribal allocation is reduced by 1.5 percent to account for discard mortality. Detailed sablefish allocations are shown in Table 1c.

g/ Sablefish South. That portion of the coastwide ACL apportioned to the area south of  $36^\circ$  N. lat. is 2,595 mt (32 percent). An additional 50 percent reduction was made for uncertainty resulting in an ACL of 1,298 mt. A set-aside of 34 mt is deducted from the ACL for EFP catch (26 mt), the incidental

open access fishery (6 mt) and research catch (2 mt), resulting in a fishery HG of 1,264 mt.

h/ Cabezon (Oregon). A new cabezon stock assessment was prepared in 2009. The cabezon biomass in Oregon was estimated to be at 51 percent of its unfished biomass in 2009. The OFL of 52 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 50 mt was based on a 4 percent reduction from the OFL

( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 50 mt. Cabezon in waters off Oregon were removed from the "other fish" complex, while cabezon of Washington will continue to be managed within the "other fish" complex.

i/ Cabezon (California). A new cabezon stock assessment was prepared in 2009. The cabezon south biomass was estimated to be at 48 percent of its unfished biomass in 2009. The OFL of 187 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 179 mt was based on a 4 percent reduction from the OFL

( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 179 mt.

j/ Dover sole. A 2005 Dover sole assessment estimated the stock to be at 63 percent of its unfished biomass in 2005. The OFL of 44,400 mt is based on the results of the 2005 stock assessment with an  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 42,436 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{25\%}$  coastwide, the ACL could be set equal to the ABC. However, the ACL of 25,000 mt is set at a level below the ABC and higher than the maximum historical landed catch. A set-aside of 1,590 mt is deducted from the ACL for the Tribal fishery (1,497 mt), the incidental open access fishery (55 mt) and research catch (38 mt), resulting in a fishery HG of 23,410 mt.

k/ English sole. A stock assessment update was prepared in 2007 based on the full assessment in 2005. The stock was estimated to be at 116 percent of its unfished biomass in 2007. The OFL of 20,675 mt is based on the results of the 2007 assessment update with an  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 19,761 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{25\%}$ , the ACL was set equal to the ABC. A set-aside of 100 mt is deducted from the ACL for the Tribal fishery (91 mt), the incidental open access fishery (4 mt) and research catch (5 mt), resulting in a fishery HG of 19,661 mt.

l/ Petrale sole. A petrale sole stock assessment was prepared for 2009. In 2009 the petrale sole stock was estimated to be at 12 percent of its unfished biomass coastwide, resulting in the stock being declared as overfished. The OFL of 1,021 mt is based on the 2009 assessment with a  $F_{30\%}$   $F_{MSY}$  proxy. The ABC of 976 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL is set equal to the ABC and represents an SPR harvest rate of 31 percent. A set-aside of 65.4 mt is deducted from the ACL for the Tribal fishery (45.4 mt), the incidental open access fishery (1 mt), EFP catch (2 mt) and research catch (17 mt), resulting in a fishery HG of 911 mt.

m/ Arrowtooth flounder. The stock was last assessed in 2007 and was estimated to be at 79 percent of its unfished biomass in 2007. The OFL of 18,211 mt is based on the 2007 assessment with a  $F_{30\%}$   $F_{MSY}$  proxy. The ABC of 15,174 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2



species. Because the stock is above  $B_{25\%}$ , the ACL is set equal to the ABC. A set-aside of 2,078 mt is deducted from the ACL for the Tribal fishery (2,041 mt), the incidental open access fishery (30 mt), and research catch (7 mt), resulting in a fishery HG of 13,096 mt.

n/ Starry Flounder. The stock was assessed for the first time in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. For 2010, the coastwide OFL of 1,802 mt is based on the 2005 assessment with a  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 1,502 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{25\%}$ , the ACL could have been set equal to the ABC. As a precautionary measure, the ACL of 1,352 mt is a 25 percent reduction from the OFL, which is a 10 percent reduction from the ABC. A set-aside of 7 mt is deducted from the ACL for the Tribal fishery (2 mt), the incidental open access fishery (5 mt), resulting in a fishery HG of 1,345 mt.

o/ "Other flatfish" are the unassessed flatfish species that do not have individual OFLs/ABC/ACLs and include butter sole, curlfin sole, flathead sole, Pacific sand dab, rex sole, rock sole, and sand sole. The other flatfish OFL of 10,146 mt is based on the summed contribution of the OFLs determined for the component stocks. The ABC of 7,044 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as it's a category 3 species. The ACL of 4,884 mt is the 2010 OY, because there have been no significant changes in the status or management of stocks within the complex. A set-aside of 198 mt is deducted from the ACL for the Tribal fishery (60 mt), the incidental open access fishery (125 mt), and research catch (13 mt), resulting in a fishery HG of 4,686 mt.

p/ POP. A POP stock assessment update was prepared in 2009, based on the 2003 full assessment, and the stock was estimated to be at 29 percent of its unfished biomass in 2009. The OFL of 1,026 mt for the Vancouver and Columbia areas is based on the 2009 stock assessment update with an  $F_{50\% F_{MSY}}$  proxy. The ABC of 981 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 180 mt is based on a rebuilding plan with a target year to rebuild of 2020 and an SPR harvest rate of 86.4 percent. An ACT of 157 mt is being established to address management uncertainty and increase the likelihood that total catch remains within the ACL. A set-aside of 13 mt is deducted from the ACT for the Tribal fishery (10.9 mt), EFP catch (0.1 mt) and research catch (1.8 mt), resulting in a fishery HG of 144 mt.

q/ Shortbelly rockfish. A non quantitative assessment was conducted in 2007. The spawning stock biomass of shortbelly rockfish was estimated at 67 percent of its unfished biomass in 2005. The OFL of 6,950 mt was recommended for the stock in 2011 with an ABC of 5,789 mt ( $\sigma=0.72$  with a  $P^*$  of 0.40). The 50 mt ACL is slightly higher than recent landings, but much lower than previous OYs in recognition of the stock's importance as a forage species in the California Current ecosystem. A set-aside of 1 mt for research catch, resulting in a fishery HG of 49 mt.

r/ Widow rockfish. The stock was assessed in 2009 and was estimated to be at 39 percent of its unfished biomass in 2009. The OFL of 5,097 mt is based on the 2009 stock assessment with an  $F_{50\% F_{MSY}}$  proxy. The ABC of 4,872 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. A constant catch strategy of 600 mt (SRP harvest rate= 91.7 percent) will be used to rebuild the widow rockfish stock consistent with the rebuilding plan and a  $T_{TARGET}$  of 2010. A set-aside of 61 mt is deducted from the ACL for the Tribal fishery (45 mt), the incidental open access fishery (3.3 mt), EFP

catch (11 mt) and research catch (1.6 mt), resulting in a fishery HG of 539.1 mt.

s/ Canary rockfish. A canary rockfish stock assessment update, based on the full assessment in 2007, was completed in 2009 and the stock was estimated to be at 23.7 percent of its unfished biomass coastwide in 2009. The coastwide OFL of 614 mt is based on the new assessment with a  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 586 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 102 mt is based on a rebuilding plan with a target year to rebuild of 2027 and a SPR harvest rate of 88.7 percent. A set-aside of 20 mt is deducted from the ACL for the Tribal fishery (9.5 mt), the incidental open access fishery (2 mt), EFP catch (1.3 mt) and research catch (7.2 mt) resulting in a fishery HG of 82 mt. Recreational HGs are being specified as follows: Washington recreational, 2.0; Oregon recreational 7.0 mt; and California recreational 14.5 mt.

t/ Chilipepper rockfish. The coastwide chilipepper stock was assessed in 2007 and estimated to be at 71 percent of its unfished biomass coastwide in 2006. Given that chilipepper rockfish are predominantly a southern species, the stock is managed with stock-specific harvest specifications south of 40°10 N. lat. and within minor shelf rockfish north of 40°10 N. lat. South of 40°10 N. lat., the OFL of 2,073 mt is based on the 2007 assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 1,981 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the biomass is estimated to be above 40 percent of the unfished biomass, the ACL was set equal to the ABC. The ACL is reduced by the incidental open access fishery (5 mt), and research catch (9 mt), resulting in a fishery HG of 1,966 mt.

u/ Bocaccio. A bocaccio stock assessment was prepared in 2009 from Cape Mendocino to Cape Blanco (43° N. lat.) Given that bocaccio rockfish are predominantly a southern species, the stock is managed with stock-specific harvest specifications south of 40°10 N. lat. and within minor shelf rockfish north of 40°10 N. lat. The bocaccio stock was estimated to be at 28 percent of its unfished biomass in 2009. The OFL of 737 mt is based on the 2009 stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 704 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 263 mt ACL is based on a rebuilding plan with a target year to rebuild of 2022 and a SPR harvest rate of 77.7 percent. A set-aside of 13.4 mt is deducted from the ACL for the incidental open access fishery (0.7 mt), EFP catch (11 mt) and research catch (1.7 mt), resulting in a fishery HG of 249.6 mt.

v/ Splitnose rockfish. A new coastwide assessment was prepared in 2009 that estimated the stock to be at 66 percent of its unfished biomass in 2009. Splitnose in the north is managed under the minor slope rockfish complex and with south of 40°10 N species-specific harvest specifications. South of 40°10 N. lat. the OFL of 1,529 mt is based on the 2009 assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 1,461 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the ACL is set equal to the ABC. A set-aside of 7 mt is deducted from the ACL for research catch, resulting in a fishery HG of 1,454 mt.

w/ Yellowtail rockfish. A yellowtail rockfish stock assessment was last prepared in 2005 for the Vancouver, Columbia, and Eureka areas. Yellowtail rockfish was estimated to be at 55 percent of its unfished biomass in 2005. The OFL of 4,566 mt is based on the 2005 stock assessment with the  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 4,364 mt is a 4 percent reduction from the OFL

( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, because the stock is above  $B_{40\%}$ . A set-aside of 499 mt is deducted from the ACL for the Tribal fishery (490 mt), the incidental open access fishery (3 mt), EFP catch (2 mt) and research catch (4 mt), resulting in a fishery HG of 3,865 mt.

x/ Shortspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 63 percent of its unfished biomass in 2005. A coastwide OFL of 2,384 mt is based on the 2005 stock assessment with a  $F_{50\% F_{MSY}}$  proxy. The coastwide ABC of 2,279 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. For the portion of the stock that is north of  $34^{\circ}27'$  N. lat., the ACL is 1,573 mt, 66 percent of the coastwide OFL. A set-aside of 45 mt is deducted from the ACL for the Tribal fishery (38 mt), the incidental open access fishery (2 mt), and research catch (5 mt) resulting in a fishery HG of 1,528 mt for the area north of  $34^{\circ}27'$  N. lat. For that portion of the stock south of  $34^{\circ}27'$  N. lat. the ACL is 405 mt which is 34 percent of the coastwide OFL, reduced by 50 percent as a precautionary adjustment. A set-aside of 42 mt is deducted from the ACL for the incidental open access fishery (41 mt), and research catch (1 mt) resulting in a fishery HG of 363 mt for the area south of  $34^{\circ}27'$  N. lat. The sum of the northern and southern area ACLs (1,978 mt) is a 13 percent reduction from the coastwide ABC.

y/ Longspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 71 percent of its unfished biomass in 2005. A coastwide OFL of 3,577 mt is based on the 2005 stock assessment with a  $F_{50\% F_{MSY}}$  proxy. The ABC of 2,981 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. For the portion of the stock that is north of  $34^{\circ}27'$  N. lat., the ACL is 2,119 mt, and is 79 percent of the coastwide OFL for the biomass found in that area reduced by an additional 25 percent as a precautionary adjustment. A set-aside of 44 mt is deducted from the ACL for the Tribal fishery (30 mt), the incidental open access fishery (1 mt), and research catch (13 mt) resulting in a fishery HG of 2,075 mt. For that portion of the stock south of  $34^{\circ}27'$  N. lat. the ACL is 376 mt and is 21 percent of the coastwide ABC reduced by 50 percent as a precautionary adjustment. A set-aside of 3 mt is deducted from the ACL for the incidental open access fishery (2 mt), and research catch (1 mt) resulting in a fishery HG of 373 mt. The sum of the northern and southern area ACLs (2,495 mt) is a 16 percent reduction from the coastwide ABC.

z/ Cowcod. A stock assessment update was prepared in 2009 and the stock was estimated to be 5 percent (bounded between 4 and 21 percent) of its unfished biomass in 2009. The OFLs for the Monterey and Conception areas were summed to derive the south of  $40^{\circ}10'$  N. lat. OFL of 13 mt. The ABC for the area south of  $40^{\circ}10'$  N. lat. is 10 mt. The assessed portion of the stock in the Conception Area was considered category 2, with a Conception Area contribution to the ABC of 5 mt, which is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.35$ ). The unassessed portion of the stock in the Monterey area was considered a category 3 stock, with a contribution to the ABC of 5 mt, which is a 29 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ). A single ACL of 4 mt is being set for both areas combined. The ACL of 4 mt is based on a rebuilding plan with a target year to rebuild of 2071 and an SPR rate of 79 percent. The amount anticipated to be taken during research activity is 0.1 mt and the amount expected to be taken during EFP activity is 0.2 mt, which results in a fishery HG of 3.7 mt.

aa/ Darkblotched rockfish. A stock assessment update was prepared in 2009, based on the 2007 full assessment, and the stock was estimated to be at 27.5 percent of its unfished biomass in 2009. The OFL is projected to be 508 mt and is based on the 2009 stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 485 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 298 mt is based on a rebuilding plan with a target year to rebuild of 2025 and an SPR harvest rate of 64.9 percent. A set-aside of 18.7 mt is deducted from the ACL for the Tribal fishery (0.1 mt), the incidental open access fishery (15 mt), EFP catch (1.5 mt) and research catch (2.1 mt), resulting in a fishery HG of 279.3 mt.

bb/ Yelloweye rockfish. The stock was assessed in 2009 and was estimated to be at 20.3 percent of its unfished biomass in 2009. The 48 mt coastwide OFL was derived from the base model in the new stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 46 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 20 mt ACL is based on a rebuilding plan with a target year to rebuild of 2084 and an SPR harvest rate of 72.8 percent. An ACT of 17 mt is being established in order to address management uncertainty and increase the likelihood that total catch remains below the ACL. A set-aside of 5.9 mt is deducted from the ACT for the Tribal fishery (2.3 mt), the incidental open access fishery (0.2 mt), EFP catch (0.1 mt) and research catch (3.3 mt) resulting in a fishery HG of 11.1 mt. Recreational HGs are being established as follows: Washington recreational, 2.6; Oregon recreational 2.4 mt; and California recreational 3.1 mt.

cc/ California Scorpionfish was assessed in 2005 and was estimated to be at 80 percent of its unfished biomass in 2005. The OFL of 141 mt is based on the new assessment with a harvest rate proxy of  $F_{50\%}$ . The ABC of 135 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$ , the ACL is set equal to the ABC. A set-aside of 2 mt is deducted from the ACL for the incidental open access fishery, resulting in a fishery HG of 133 mt.

dd/ Black rockfish north (Washington). A stock assessment was prepared for black rockfish north of 45°56' N. lat. (Cape Falcon, Oregon) in 2007. The biomass in the north was estimated to be at 53 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . The resulting OFL for the area north of 46°16' N. lat. (the Washington/Oregon Border) is 445 mt and is 97 percent of the OFL from the assessed area. The ABC of 426 mt for the north of 46° 16' N. Lat. is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, since the stock is above  $B_{40\%}$ . A set-aside of 14 mt for the Tribal fishery results in a fishery HG of 412 mt.

ee/ Black rockfish south (Oregon and California). A 2007 stock assessment was prepared for black rockfish south of 45°56' N. lat. (Cape Falcon, Oregon) to the southern limit of the stock's distribution in Central California in 2007. The biomass in this area was estimated to be at 70 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . Three percent of the OFL from the stock assessment prepared for black rockfish north of 45°56' N. lat. is added to the OFL from the assessed area south of 45° 56'. The resulting OFL for the area south of 46°16 N. lat. is 1,217 mt. The ABC of 1,163 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set at 1,000 mt, which is a constant catch strategy designed to

keep the stock biomass above  $B_{40\%}$ . There are no set-asides thus the fishery HG is equal to the ACL. The black rockfish ACL in the area south of  $46^{\circ}16'$  N. lat., is subdivided with separate HGs being set for the area north of  $42^{\circ}$  N. lat. (580 mt/58 percent) and for the area south of  $42^{\circ}$  N. lat. (420 mt/42 percent).

ff/ Minor rockfish north is comprised of three minor rockfish sub-complexes: nearshore, shelf, and slope rockfish. The OFL of 3,767 mt is the sum of OFLs for nearshore (116 mt), shelf (2,188 mt) and slope (1,462 mt) north sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (splitnose and chilipepper rockfish), 0.72 for category 2 stocks (greenstriped rockfish and blue rockfish in California) and 1.44 for category 3 stocks (all others) with a  $P^*$  of 0.45. The resulting minor rockfish north ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex (nearshore, shelf, and slope) is 3,363 mt. The ACL of 2,227 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 99 mt. The set-aside for the shelf sub-complex is 43 mt - Tribal fishery (9 mt), the incidental open access fishery (26 mt), EFP catch (4 mt) and research catch (4 mt) resulting in a shelf fishery HG of 925 mt. The set-aside for the slope sub-complex is 68 mt - Tribal fishery (36 mt), the incidental open access fishery (19 mt), EFP catch (2 mt) and research catch (11 mt), resulting in a slope fishery HG of 1,092 mt.

gg/ Minor rockfish south is comprised of three minor rockfish sub-complexes: nearshore, shelf, and slope. The OFL of 4,302 mt is the sum of OFLs for nearshore (1,156 mt), shelf (2,238 mt) and slope (907 mt) south sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (gopher rockfish north of  $34^{\circ}27'$  N. lat., blackgill), 0.72 for category 2 stocks (blue rockfish in the assessed area, greenstriped rockfish, and bank rockfish) and 1.44 for category 3 stocks (all others) with a  $P^*$  of 0.45. The resulting minor rockfish south ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex, is 3,723 mt (1,001 mt nearshore, 1,885 mt shelf, and 836 mt slope). The ACL of 2,341 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 1,001 mt. The set-aside for the shelf sub-complex is 13 mt for the incidental open access fishery (9 mt), EFP catch (2 mt) and research catch (2 mt), resulting in a shelf fishery HG of 701 mt. The set-aside for the slope sub-complex is 27 mt for the incidental open access fishery (17 mt), EFP catch (2 mt) and research catch (8 mt), resulting in a slope fishery HG of 599 mt.

hh/ Longnose skate. A stock assessment was prepared in 2007 and the stock was estimated to be at 66 percent of its unfished biomass. The OFL of 3,128 mt is based on the 2007 stock assessment with an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,990 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 1,349 is the 2010 OY and represents a 50 percent increase in the average 2004-2006 mortality (landings and discard mortality). The set-

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aside for longnose skate is 129 mt for the tribal fishery (56 mt), incidental open access fishery (65 mt), and research catch (8 mt), resulting in a fishery HG of 1,220 mt.

ii/ "Other fish" contains all unassessed groundfish FMP species that are neither rockfish (family Scorpaenidae) nor flatfish. These species include big skate, California skate, leopard shark, soupfin shark, spiny dogfish, finescale codling, Pacific rattail, ratfish, cabezon off Washington, and kelp greenling. The OFL of 11,150 mt is the 2010 MSY harvest level minus the 50 mt contribution made for cabezon off Oregon, which is a newly assessed stock to be managed with stock-specific specifications. The ABC of 7,742 mt is calculated by applying a P\* buffer of 30.6 percent under a P\* of 0.40.

Table 1.b. To Part 660, Subpart G - 2011, Allocations by Species or Species Group. (Weights in Metric Tons)

Species	Fishery HG	Allocations			
		Trawl		Non-trawl	
		%	Mt	%	Mt
<b>ROUNDFISH:</b>					
Lingcod					
N of 42° N. lat.	2,059	45%	927	55%	1,132
S of 42° N. lat.	2,095	45%	943	55%	1,152
Pacific cod	1,200	95%	1,140	5%	60
Pacific whiting	TBA	100%	TBA	0%	TBA
Sablefish					
N of 36° N. lat.	See Table 1c of this subpart				
S of 36° N. lat.	1,264	42%	531	58%	733
<b>FLATFISH:</b>					
Dover sole	23,410	95%	22,240	5%	1,170
English sole	19,661	95%	18,678	5%	983
Petrале sole a/	911		876		35
Arrowtooth flounder	13,096	95%	12,441	5%	655
Starry Flounder	1,345	50%	673	50%	672
Other flatfish	4,686	90%	4,217	10%	469
<b>ROCKFISH:</b>					
Pacific Ocean Perch b/	144	95%	137	5%	7
Widow e/	539.1	91%	491	9%	49
Canary a/ c/	82		34.1		29.8
Chilipepper - S of 40°10 N. Lat.	1,966	75%	1,475	25%	492
Bocaccio - S of 40°10 N. Lat. a/	249.6		60		189.6
Splitnose - S of 40°10 N. Lat.	1,454	95%	1,381	5%	73
Yellowtail - N of 40°10 N. Lat.	3,865	88%	3,401	12%	464
Shortspine thornyhead					
N of 34°27' N. lat.	1,528	95%	1,452	5%	76
S of 34°27' N. lat.	363	NA	50	NA	313
Longspine thornyhead					
N of 34°27' N. lat.	2,075	95%	1,971	5%	104
Cowcod - S of 40°10 N. Lat. a/	3.7		1.8		0.9
Darkblotched d/	279.3	95%	265	5%	14
Yelloweye a/	11.1		0.6		10.5
Minor Rockfish North					
Shelf a/	925	60.2%	557	39.8%	368
Slope	1,092	81%	885	19%	207
Minor Rockfish South					
Shelf a/	701	12.2%	86	87.8%	615
Slope	599	63%	377	37%	222
<b>SHARKS/SKATES/RATFISH/MORIDS/GRENADIERS/KELP GREENLING:</b>					
Longnose Skate a/	1,220	95%	1,159	5%	61

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- a/ Allocations were decided through the biennial specification process.
- b/ The POP trawl allocation is further divided with 12.6 mt for the shorebased IFQ fishery, 7.2 mt for the mothership fishery, and 10.2 mt for the catcher/processor fishery.
- c/ The canary rockfish trawl allocation is further divided with 5.9 mt for the shorebased IFQ fishery, 3.4 mt for the mothership fishery, and 4.8 mt for the catcher/processor fishery.
- d/ The darkblotched rockfish trawl allocation is further divided with 10.5 mt for the shorebased IFQ fishery, 6.0 mt for the mothership fishery, and 8.5 mt for the catcher/processor fishery.
- e/ The widow rockfish trawl allocation is further divided with 107.1mt for the shorebased IFQ fishery, 61.2 mt for the mothership fishery, and 86.7 mt for the catcher/processor fishery.



Table 1c. To Part 660, Subpart C Sablefish North of 36° N. lat. Allocations, 2011 and 2012

Year	ACL	Set-asides		Recreational Estimate	Commercial HG	Limited Entry HG		Open Access HG	
		Tribal	Research			%	Mt		
2011	5,515	552	16	6.1	4,941	90.6%	4,477	9.4%	464
2012	5,347	535	16	6.1	4,790	90.6%	4,340	9.4%	450
Limited Entry Trawl c/									
Year	LE All	ALL Trawl	At-sea Whiting	Shorebased IFQ	ALL FG	Primary	DTL		
2011	4,477	2,597	50	2,547	1,880	1,598	282		
2012	4,340	2,517	50	2,467	1,823	1,549	273		
a/ The tribal allocation is further reduced by 1.5 percent for discard mortality resulting in 544 mt in 2011 and 527 in 2012									
b/ Of the Open access HG the annual amount estimated to be taken in the incidental OA fishery is 17.2 mt.									
c/ The trawl allocation is 58% of the limited entry HG									
d/ The limited entry fixed gear allocation is 42% of the limited entry HG									

Table 1.E. Whiting and non-whiting initial issuance allocation percentage for IFQ decided through the harvest specifications, 2011

Species/Species Group/Area	Trawl Allocation (mt)	At-sea Whiting set asides	Shorebased IFQ					
			Non-Whiting		Whiting		mt	
			percent	mt	percent	mt		
Pacific Ocean Perch	137	17.4 (10.2 catcher/processor + 7.2 mothership)	89.5% [Remaining]	107	10.5% (Greater of 17% or 30 mt to shorebased + at-sea whiting)	12.6		
Widow rockfish	491	147.9 (86.7 catcher/processor + 61.2 mothership)	68.7% (Remaining)	235	0 (52% to shorebased + at-sea whiting)	107.1		
Yellowtail rockfish North of 40°10' N. lat.	3,401	300	90.3% (Remaining)	2,801	9.7% (300 mt)	300		
Darkblotched rockfish	265	14.5 (8.5 catcher/processors + 6 mothership)	95.8% (Remaining)	240	4.20% (Greater of 9% or 25 mt to shorebased + at-sea whiting)	10.5		
Minor slope rockfish South of 40°10' N. lat.	377	na	100%	377	0.0%	0		
Minor shelf rockfish North of 40°10' N. lat.	557	35	82.6% (Remaining)	431.2	17.4%	90.8		
South of 40°10' N. lat.	86	na	100%	86	0.0%	0		
Canary Rockfish	34.1	8.2 (4.8 catcher/processor + 3.4 mothership)	77.2%	20	22.8%	5.9		
Bocaccio	60	na	100%	60	0.0%	0		
Cowcod	1.8	na	100%	1.8	0.0%	0		
Yelloweye Rockfish	0.6	0	100%	0.6	0.0%	0		

Table 2a. To Part 660, Subpart C- 2012, Specifications of OFL, ABC, ACL, ACT and Fishery Harvest guidelines (weights in metric tons).

Species	Area	OFL	ABC	ACL a/	ACT	Fishery HG
<b>ROUND FISH:</b>						
Lingcod	N of 42° N. lat. b/	2,251	2,151	2,151		1,880
	S of 42° N. lat c/.	2,597	2,164	2,164		2,157
Pacific Cod d/	Coastwide	3,200	2,222	1,600		1,200
Pacific Whiting e/	Coastwide	TBA	TBA	TBA		TBA
Sablefish	N of 36° N. lat. f/	8,623	8,242	5,347	See Table 1c	
	S of 36° N. lat. g/			1,258		
Cabezon	46°16' to 42° N. lat. h/	50	48	48		48
	S of 42° N. lat. i/	176	168	168		168
<b>FLAT FISH:</b>						
Dover sole j/	Coastwide	44,826	42,843	25,000		23,410
English sole k/	Coastwide	10,620	10,150	10,150		10,050
Petrale sole l/	Coastwide	1,279	1,222	1,160		1,094.6
Arrowtooth flounder m/	Coastwide	14,460	12,049	12,049		9,971
Starry Flounder n/	Coastwide	1,813	1,511	1,360		1,353
Other flatfish o/	Coastwide	10,146	7,044	4,884		4,686
<b>ROCK FISH:</b>						
Pacific Ocean Perch p/	N of 40°10' N. lat.	1,007	962	183	157	144
Shortbelly q/	Coastwide	6,950	5,789	50		49
Widow r/	Coastwide	4,923	4,705	600		539.1
Canary s/	Coastwide	622	594	107		87
Chilipepper t/	S of 40°10' N. lat.	1,872	1,789	1,789		1,774
Bocaccio u/	S of 40°10' N. lat.	732	700	274		260.6
Splitnose v/	S of 40°10' N. lat.	1,610	1,538	1,538		1,531
Yellowtail w/	N of 40°10' N. lat.	4,573	4,371	4,371		3,872
Shortspine thornyhead x/	N of 34°27' N. lat.	2,358	2,254	1,556		1,511
	S of 34°27' N. lat.			401		359
Longspine thornyhead y/	N of 34°27' N. lat.	3,483	2,902	2,064		2,020
	S of 34°27' N. lat.			366		363
Cowcod z/	S of 40°10' N. lat.	13	10	4		3.7
Darkblotched aa/	Coastwide	497	475	296		277.3
Yelloweye bb/	Coastwide	48	46	20	17	11.1
California Scorpionfish cc/	S. of 34°27' N. lat.	132	126	126		124
Black	N of 46°16' N. lat. dd/	435	415	415		401
	S of 46°16' N. lat. ee/	1,169	1,117	1,000		1,000
Minor Rockfish North ff/ Nearshore Shelf Slope	Coastwide	3,821	3,414	2,227		2,116
		116	99	99		99
	N of 40°10' N. lat.	2,197	1,948	968		925
Minor Rockfish South gg/ Nearshore Shelf Slope	Coastwide	4,291	3,712	2,341		2,290
		1,145	990	990		990
	S of 40°10' N. lat.	2,243	1,890	714		701
		903	832	626		599
<b>SHARKS/SKATES/RATFISH/MORIDS/GRENADIERS/KELP GREENLING:</b>						
Longnose Skate hh/	Coastwide	3,006	2,873	1,349		1,220
Other fish ii/	Coastwide	11,150	7,742	5,575		5,575

a/ ACLs and HGs are specified as total catch values. Fishery harvest guideline (HG) means the harvest guideline or quota after subtracting from the ACL of ACT any allocation for the Pacific Coast treaty Indian tribes, projected research catch, deductions for fishing mortality in non-groundfish fisheries, as necessary, and set-asides for EFPs.

b/ Lingcod north (Oregon and Washington). A new lingcod stock assessment was prepared in 2009. The lingcod north biomass was estimated to be at 62 percent of its unfished biomass in 2009. The OFL of 2,251 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,151 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. ACL is further reduced for the Tribal fishery (250 mt), incidental open access fishery (16 mt) and research catch (5 mt), resulting in a fishery HG of 1,880 mt.

c/ Lingcod south (California). A new lingcod stock assessment was prepared in 2009. The lingcod south biomass was estimated to be at 74 percent of its unfished biomass in 2009. The OFL of 2,597 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,164 mt was based on a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. An incidental open access set-aside of 7 mt is deducted from the ACL, resulting in a fishery HG of 2,157 mt.

d/ Pacific Cod. The 3,200 mt OFL is based on the maximum level of historic landings. The ABC of 2,222 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as it's a category 3 species. The 1,600 mt ACL is the OFL reduced by 50 percent as a precautionary adjustment. A set-aside of 400 mt is deducted from the ACL for the Tribal fishery, resulting in a fishery HG of 1,200 mt.

e/ Pacific whiting. A range of ACLs were considered in the DEIS (96,968 mt-290,903 mt). A new stock assessment will be prepared prior to the Council's March 2011 meeting. Final adoption of the Pacific whiting specifications have been deferred until the Council's March 2012 meeting.

f/ Sablefish north. A coastwide sablefish stock assessment was prepared in 2007. The coastwide sablefish biomass was estimated to be at 38.3 percent of its unfished biomass in 2007. The coastwide OFL of 8,623 mt was based on the 2007 stock assessment with a  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 8,242 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 40-10 harvest policy was applied to the ABC to derive the coastwide ACL and then the ACL was apportioned north and south of 36° N. lat, using the average of annual swept area biomass (2003-2008) from the NMFS NWFSC trawl survey, between the northern and southern areas with 68 percent going to the area north of 36° N. lat. and 32 percent going to the area south of 36° N. lat. The northern portion of the ACL is 5,347 mt and is reduced by 535 mt for the tribal allocation (10 percent of the ACL north of 36° N. lat.) The 535 mt tribal allocation is reduced by 1.5 percent to account for discard mortality. Detailed sablefish allocations are shown in Table 1c.

g/ Sablefish South. That portion of the coastwide ACL (32 percent) apportioned to the area south of 36° N. lat. is 2,516 mt. An additional 50 percent reduction for uncertainty was made, resulting in an ACL of 1,258 mt. A set-aside of 34 mt is deducted from the ACL for EFP catch (26 mt), the incidental open access fishery (6 mt) and research catch (2 mt), resulting in a fishery HG of 1,224 mt.

h/ Cabezon (Oregon). A new cabezon stock assessment was prepared in 2009. The cabezon biomass in Oregon was estimated to be at 51 percent of its unfished biomass in 2009. The OFL of 50 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 48 mt was based on a 4 percent reduction from the OFL

( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 48 mt. Cabezon in waters off Oregon were removed from the "other fish" complex, while cabezon of Washington will continue to be managed within the "other fish" complex.

i/ Cabezon (California) - A new cabezon stock assessment was prepared in 2009. The cabezon south biomass was estimated to be at 48 percent of its unfished biomass in 2009. The OFL of 176 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 168 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 168 mt.

j/ Dover sole. A 2005 Dover sole assessment estimated the stock to be at 63 percent of its unfished biomass in 2005. The OFL of 44,826 mt is based on the results of the 2005 stock assessment with an  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 42,843 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{25\%}$  coastwide, the ACL could be set equal to the ABC. However, the ACL of 25,000 mt is set at a level below the ABC and higher than the maximum historical landed catch. A set-aside of 1,590 mt is deducted from the ACL for the Tribal fishery (1,497 mt), the incidental open access fishery (55 mt) and research catch (38 mt), resulting in a fishery HG of 23,410 mt.

k/ English sole. A stock assessment update was prepared in 2007 based on the full assessment in 2005. The stock was estimated to be at 116 percent of its unfished biomass in 2007. The OFL of 10,620 mt is based on the results of the 2007 assessment update with an  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 10,150 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{25\%}$ , the ACL was set equal to the ABC. A set-aside of 100 mt is deducted from the ACL for the Tribal fishery (91 mt), the incidental open access fishery (4 mt) and research catch (5 mt), resulting in a fishery HG of 10,050 mt.

l/ Petrale sole. A petrale sole stock assessment was prepared for 2009. In 2009 the petrale sole stock was estimated to be at 12 percent of its unfished biomass coastwide, resulting in the stock being declared as overfished. The OFL of 1,279 mt is based on the 2009 assessment with a  $F_{30\%}$   $F_{MSY}$  proxy. The ABC of 1,222 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 1,160 mt ACL is represents an SPR harvest rate of 32.4 percent. A set-aside of 65 mt is deducted from the ACL for the Tribal fishery (45.4 mt), the incidental open access fishery (1 mt), EFP catch (2 mt) and research catch (17 mt), resulting in a fishery HG of 1,094.6 mt.

m/ Arrowtooth flounder. The stock was last assessed in 2007 and was estimated to be at 79 percent of its unfished biomass in 2007. The OFL of 14,460 mt is based on the 2007 assessment with a  $F_{30\%}$   $F_{MSY}$  proxy. The ABC of 12,049 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{25\%}$ , the ACL is set equal to the ABC. A set-aside of 2,078 mt is deducted from the ACL for the Tribal fishery (2,041

mt), the incidental open access fishery (30 mt), and research catch (7 mt), resulting in a fishery HG of 9,971 mt.

n/ Starry Flounder. The stock was assessed for the first time in 2005 and was estimated to be above 40 percent of its unfished biomass in 2005. For 2012, the coastwide OFL of 1,813 mt is based on the 2005 assessment with a  $F_{MSY}$  proxy of  $F_{30\%}$ . The ABC of 1,511 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{25\%}$ , the ACL could have been set equal to the ABC. As a precautionary measure, the ACL of 1,360 mt, is a 25 percent reduction from the OFL, which is a 10 percent reduction from the ABC. A set-aside of 7 mt is deducted from the ACL for the Tribal fishery (2 mt) and the incidental open access fishery (5 mt), resulting in a fishery HG of 1,353 mt.

o/ "Other flatfish" are the unassessed flatfish species that do not have individual OFLs/ABC/ACLs and include butter sole, curlfin sole, flathead sole, Pacific sand dab, rex sole, rock sole, and sand sole. The other flatfish OFL of 10,146 mt is based on the summed contribution of the OFLs determined for the component stocks. The ABC of 7,044 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as it's a category 3 species. The ACL of 4,884 mt is the 2010 OY, because there have been no significant changes in the status or management of stocks within the complex. A set-aside of 198 mt is deducted from the ACL for the Tribal fishery (60 mt), the incidental open access fishery (125 mt), and research catch (13 mt), resulting in a fishery HG of 4,686 mt.

p/ POP. A POP stock assessment update was prepared in 2009, based on the 2003 full assessment, and the stock was estimated to be at 29 percent of its unfished biomass in 2009. The OFL of 1,007 mt for the Vancouver and Columbia areas is based on the 2009 stock assessment update with an  $F_{50\% F_{MSY}}$  proxy. The ABC of 962 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 183 mt is based on a rebuilding plan with a target year to rebuild of 2020 and an SPR harvest rate of 86.4 percent. An ACT of 157 mt is being established to address management uncertainty and increase the likelihood that total catch remains within the ACL. A set-aside of 13 mt is deducted from the ACT for the Tribal fishery (10.9 mt), the incidental open access fishery (0.1 mt), EFP catch (0.1 mt) and research catch (1.8 mt), resulting in a fishery HG of 144 mt.

q/ Shortbelly rockfish. A non quantitative assessment was conducted in 2007. The spawning stock biomass of shortbelly rockfish was estimated at 67 percent of its unfished biomass in 2005. The OFL of 6,950 mt was recommended for the stock in 2011 with an ABC of 5,789 mt ( $\sigma=0.72$  with a  $P^*$  of 0.40). The 50 mt ACL is slightly higher than recent landings, but much lower than previous OYs in recognition of the stock's importance as a forage species in the California Current ecosystem. A set-aside of 1 mt for research catch, resulting in a fishery HG of 49 mt.

r/ Widow rockfish. The stock was assessed in 2009 and was estimated to be at 39 percent of its unfished biomass in 2009. The OFL of 4,923 mt is based on the 2009 stock assessment with an  $F_{50\% F_{MSY}}$  proxy. The ABC of 4,705 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. A constant catch of 600 mt will be used to rebuild the widow rockfish stock by 2015. The corresponding SPR harvest rate is 91.3 percent in 2012. The  $T_{TARGET}$  is 2015. A set-aside of 60.9 mt is deducted from the ACL for the Tribal fishery (45 mt), the incidental open access fishery (3.3 mt), EFP catch (11 mt) and research catch (1.6 mt), resulting in a fishery HG of 539.1 mt.

s/ Canary rockfish. A canary rockfish stock assessment update was completed in 2009, based on the full assessment in 2007, and the stock was estimated to be at 23.7 percent of its unfished biomass coastwide in 2009. The coastwide OFL of 622 mt is based on the new assessment with a  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 594 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 107 mt is based on a rebuilding plan with a target year to rebuild of 2027 and a SPR harvest rate of 88.7 percent. A set-aside of 20 mt is deducted from the ACL for the Tribal fishery (9.5 mt), the incidental open access fishery (2 mt), EFP catch (1.3 mt) and research catch (7.2 mt), resulting in a fishery HG of 87 mt. Recreational HGs are being specified as follows: Washington recreational, 2 mt; Oregon recreational 7 mt; and California recreational 14.5 mt.

t/ Chilipepper rockfish. The coastwide chilipepper stock was assessed in 2007 and estimated to be at 71 percent of its unfished biomass coastwide in 2006. Given that chilipepper rockfish are predominantly a southern species, the stock is managed with stock-specific harvest specifications south of 40°10 N. lat. and within minor shelf rockfish north of 40°10 N. lat. South of 40°10 N. lat., the OFL of 1,872 mt is based on the 2007 assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 1,789 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the biomass is estimated to be above 40 percent the unfished biomass, the ACL was set equal to the ABC. The ACL is reduced by the incidental open access fishery (5 mt), and research catch (9 mt), resulting in a fishery HG of 1,774 mt.

u/ Bocaccio. A bocaccio stock assessment was prepared in 2009 from Cape Mendocino to Cape Blanco (43° N. lat.). Bocaccio rockfish are managed with stock-specific harvest specifications south of 40°10 N. lat. and within minor shelf rockfish north of 40°10 N. lat. The bocaccio stock was estimated to be at 28 percent of its unfished biomass in 2009. The OFL of 732 mt is based on the new stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 700 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 274 mt ACL is based on a rebuilding plan with a target year to rebuild of 2022 and a SPR harvest rate of 77.7 percent. A set-aside of 13.4 mt is deducted from the ACL for the incidental open access fishery (0.7 mt), EFP catch (11 mt) and research catch (1.7 mt), resulting in a fishery HG of 260.6 mt.

v/ Splitnose rockfish. A new coastwide assessment was prepared in 2009 that estimated the stock to be at 66 percent of its unfished biomass in 2009. Splitnose in the north is managed under the minor slope rockfish complex and in the south (south of 40°10' N. lat.), with species-specific harvest specifications. The 1,610 mt OFL south of 40°10 N. lat. is based on the 2009 assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 1,538 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the ACL is set equal to the ABC. A set-aside of 7 mt is deducted from the ACL for research catch, resulting in a fishery HG of 1,531 mt.

w/ Yellowtail rockfish. A yellowtail rockfish stock assessment was last prepared in 2005 for the Vancouver, Columbia, Eureka areas. Yellowtail rockfish was estimated to be at 55 percent of its unfished biomass in 2005. The OFL of 4,573 mt is based on the 2005 stock assessment with the  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 4,371 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, because the stock is above  $B_{40\%}$ . A set-aside of 499 mt is deducted from

the ACL for the Tribal fishery (490 mt), the incidental open access fishery (3 mt), EFP catch (2 mt) and research catch (4 mt), resulting in a fishery HG of 3,872 mt.

x/ Shortspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 63 percent of its unfished biomass in 2005. A coastwide OFL of 2,358 mt is based on the 2005 stock assessment with a  $F_{50\% F_{MSY}}$  proxy. The coastwide ABC of 2,254 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P*=0.45$ ) as it's a category 1 species. For the portion of the stock that is north of 34°27' N. lat., the ACL is 1,556 mt, 66 percent of the coastwide OFL. A set-aside of 45 mt is deducted from the ACL for the Tribal fishery (38 mt), the incidental open access fishery (2 mt), and research catch (5 mt), resulting in a fishery HG of 1,511 mt for the area north of 34°27' N. lat. For that portion of the stock south of north of 34°27' N. lat. the ACL is 401 mt which is 34 percent of the coastwide OFL for the portion of the biomass found south of 34°27' N. lat reduced by 50 percent as a precautionary adjustment. A set-aside of 42 mt is deducted from the ACL for the incidental open access fishery (41 mt), and research catch (1 mt), resulting in a fishery HG of 359 mt for the area south of 34°27' N. lat. The sum of the northern and southern area ACLs (1,957 mt) is a 13 percent reduction from the coastwide ABC.

y/ Longspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 71 percent of its unfished biomass in 2005. A coastwide OFL of 3,483 mt is based on the 2005 stock assessment with a  $F_{50\% F_{MSY}}$  proxy. The ABC of 2,902 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P*=0.40$ ) as it's a category 2 species. For the portion of the stock that is north of 34°27' N. lat., the ACL is 2,064 mt, and is 79 percent of the coastwide OFL for the biomass in that area. A set-aside of 44 mt is deducted from the ACL for the Tribal fishery (30 mt), the incidental open access fishery (1 mt), and research catch (13 mt), resulting in a fishery HG of 2,020 mt. For that portion of the stock south of 34°27' N. lat. the ACL is 366 mt and is 21 percent of the coastwide OFL reduced by 50 percent as a precautionary adjustment. A set-aside of 3 mt is deducted from the ACL for the incidental open access fishery (2 mt), and research catch (1 mt), resulting in a fishery HG of 363 mt. The sum of the northern and southern area ACLs (2,430 mt) is a 16 percent reduction from the coastwide ABC.

z/ Cowcod. A stock assessment update was prepared in 2009 and the stock was estimated to be 5 percent bounded between 4 and 21 percent of its unfished biomass in 2009. The OFLs for the Monterey and Conception areas were summed to derive the south of 40°10' N. lat. OFL of 13 mt. The ABC for the area south of 40°10' N. lat. is 10 mt. The assessed portion of the stock in the Conception Area was considered category 2, with a Conception Area contribution to the ABC of 5 mt, which is a 17 percent reduction from the OFL ( $\sigma=0.72/P*=0.35$ ). The unassessed portion of the stock in the Monterey area was considered a category 3 stock, with a contribution to the ABC of 5 mt, which is a 29 percent reduction from the OFL ( $\sigma=1.44/P*=0.40$ ). A single ACL of 4 mt is being set for both areas combined. The ACL of 4 mt is based on a rebuilding plan with a target year to rebuild of 2071 and an SPR rate of 79 percent. The amount anticipated to be taken during research activity is 0.1 mt and the amount expected to be taken during EFP activity is 0.2 mt, which results in a fishery HG of 3.7 mt.

aa/ Darkblotched rockfish. A stock assessment update was prepared in 2009, based on the 2007 full assessment, and the stock was estimated to be at 27.5 percent of its unfished biomass in 2009. The OFL is projected to be 497 mt



and is based on the 2009 stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 475 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 296 mt is based on a rebuilding plan with a target year to rebuild of 2025 and an SPR harvest rate of 64.9 percent. A set-aside of 18.7 mt is deducted from the ACL for the Tribal fishery (0.1 mt), the incidental open access fishery (15 mt), EFP catch (1.5) and research catch (2.1 mt), resulting in a fishery HG of 277.3 mt.

bb/ Yelloweye rockfish. The stock was assessed in 2009 and was estimated to be at 20.3 percent of its unfished biomass in 2009. The 48 mt coastwide OFL was derived from the base model in the new stock assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 46 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 20 mt ACL is based on a rebuilding plan with a target year to rebuild of 2084 and an SPR harvest rate of 72.8 percent. An ACT of 17 mt is being established in order to address management uncertainty and increase the likelihood that total catch remains below the ACL. A set-aside of 5.9 mt is deducted from the ACT for the Tribal fishery (2.3 mt), the incidental open access fishery (0.2 mt), EFP catch (0.1 mt) and research catch (3.3 mt), resulting in a fishery HG of 11.1 mt. Recreational HGs are being established as follows: Washington recreational, 2.6; Oregon recreational 2.4 mt; and California recreational 3.1 mt.

cc/ California Scorpionfish south was assessed in 2005 and was estimated to be at 80 percent of its unfished biomass in 2005. The OFL of 132 mt is based on the new assessment with a harvest rate proxy of  $F_{50\%}$ . The ABC of 126 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$ , the ACL is set equal to the ABC. A set-aside of 2 mt is deducted from the ACL for the incidental open access fishery, resulting in a fishery HG of 124 mt.

dd/ Black rockfish north (Washington). A stock assessment was prepared in 2007 for black rockfish north of  $45^{\circ}56'N$ . lat. (Cape Falcon, Oregon). The biomass in this area was estimated to be at 53 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . The resulting OFL for the area north of  $46^{\circ}16' N$ . lat. (the Washington/Oregon border) is 435 mt, which is 97 percent of the OFL from the assessed area. The ABC of 415 mt for the area north of  $46^{\circ}16' N$ . lat. is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, since the stock is above  $B_{40\%}$ . A set-aside of 14 mt for the Tribal fishery results in a fishery HG of 401 mt.

ee/ Black rockfish south (Oregon and California). A 2007 stock assessment was prepared for black rockfish south of  $45^{\circ}56' N$ . lat. (Cape Falcon, Oregon) to the southern limit of the stock's distribution in Central California. The biomass in the south was estimated to be at 70 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . Three percent of the OFL from the stock assessment prepared for black rockfish north of  $45^{\circ}56' N$ . lat. is added to the OFL from the assessed area south of  $45^{\circ}56'$ . The resulting OFL for the area south of  $46^{\circ}16' N$ . lat. is 1,169 mt. The ABC of 1,117 mt for the south is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set at 1,000 mt, which is a constant catch strategy designed to keep the stock biomass above  $B_{40\%}$ . The black rockfish ACL in the area south of  $46^{\circ}16' N$ . lat., is subdivided with separate HGs being

set for the area north of 42° N. lat. (580 mt/58 percent) and for the area south of 42° N. lat. (420 mt/42 percent).

ff/ Minor rockfish north is comprised of three minor rockfish sub-complexes: nearshore, shelf, and slope. The OFL of 3,767 mt is the sum of OFLs for nearshore (116 mt), shelf (2,197 mt) and slope (1,507 mt) north sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (splitnose and chilipepper rockfish), 0.72 for category 2 stocks (greenstriped rockfish and blue rockfish in California) and 1.44 for category 3 stocks (all others) with a P\* of 0.45. The resulting minor rockfish north ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex (nearshore, shelf, and slope) is 3,414 mt. The ACL of 2,227 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 99 mt. The set-aside for the shelf sub-complex is 43 mt - Tribal fishery (9 mt), the incidental open access fishery (26 mt), EFP catch (4 mt) and research catch (4 mt), resulting in a shelf fishery HG of 925 mt. The set-aside for the slope sub-complex is 68 mt - Tribal fishery (36 mt), the incidental open access fishery (19 mt), EFP catch (2) and research catch (11 mt), resulting in a slope fishery HG of 1,092 mt.

gg/ Minor rockfish south is comprised of three minor rockfish sub-complexes: nearshore, shelf, and slope. The OFL of 4,291 mt is the sum of OFLs for nearshore (1,145 mt), shelf (2,243 mt) and slope (903 mt) south sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (gopher rockfish north of Point Conception, blackgill), 0.72 for category 2 stocks (blue rockfish in the assessed area, greenstriped rockfish, and bank rockfish) and 1.44 for category 3 stocks (all others) with a P\* of 0.45. The resulting minor rockfish south ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex, is 3,712 mt. The ACL of 2,341 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 990 mt. The set-asides for the shelf sub-complex is 13 mt for the incidental open access fishery (9 mt), EFP catch (2 mt) and research catch (2 mt), resulting in a shelf fishery HG of 701 mt. The set-asides for the slope sub-complex is 27 mt for the incidental open access fishery (17 mt), EFP catch (2 mt) and research catch (8 mt), resulting in a slope fishery HG of 599 mt.

hh/ Longnose skate. A stock assessment update was prepared in 2007 and the stock was estimated to be at 66 percent of its unfished biomass. The OFL of 3,128 mt is based on the 2007 stock assessment with an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,990 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P*=0.45$ ) as it's a category 1 species. The ACL of 1,349 is the 2010 OY and represents a 50 percent increase in the average 2004-2006 catch mortality (landings and discard mortality). The set-asides for longnose skate is 129 mt for the tribal fishery (56 mt), incidental open access fishery (65 mt), and research catch (8 mt), resulting in a fishery HG of 1,220 mt.

ii/ "Other fish" contains all unassessed groundfish FMP species that are neither rockfish (family Scorpaenidae) nor flatfish. These species include big skate, California skate, leopard shark, soupfin shark, spiny dogfish, finescale codling, Pacific rattail, ratfish, cabezon off Washington, and kelp greenling. The OFL of 11,150 mt is the 2010 MSY harvest level minus the 50 mt contribution made for cabezon off Oregon, which is a newly assessed stock to be managed with stock-specific specifications. The ABC of 7,742 mt is calculated by applying a P\* buffer of 30.6 percent under a P\* of 0.40.

Table 2b. To Part 660, Subpart G - 2012, and beyond, Allocations by Species or Species Group. (Weights in Metric Tons)

Species	Fishery HG	Allocations			
		Trawl		Non-trawl	
		%	Mt	%	Mt
Lingcod					
N of 42° N. lat.	1,880	45%	846	55%	1,034
S of 42° N. lat.	2,157	45%	971	55%	1,186
Pacific cod	1,200	95%	1,140	5%	60
Pacific whiting	TBA	100%	TBA	0%	TBA
Sablefish					
N of 36° N. lat.	See Table 1c of this subpart				
S of 36° N. lat.	1,224	42%	514	58%	710
<b>FLATFISH:</b>					
Dover sole	23,410	95%	22,240	5%	1,170
English sole	10,050	95%	9,548	5%	503
Petrале sole a/	1,095		1,060		35
Arrowtooth flounder	9,971	95%	9,472	5%	499
Starry Flounder	1,353	50%	677	50%	677
Other flatfish	4,686	90%	4,217	10%	469
<b>ROCKFISH:</b>					
Pacific Ocean Perch	144	95%	137	5%	7
Widow e/	539	91%	490	9%	49
Canary a/ c/	87		34.8		29.8
Chilipepper - S of 40°10 N. Lat.	1,774	75%	1,331	25%	443
Bocaccio - S of 40°10 N. Lat. a/	260.6		60		189.6
Splitnose - S of 40°10 N. Lat.	1,531	95%	1,454	5%	77
Yellowtail - N of 40°10 N. Lat.	3,872	88%	3,407	12%	465
Shortspine thornyhead					
N of 34°27' N. lat.	1,511	95%	1,435	5%	76
S of 34°27' N. lat.	359		50		309
Longspine thornyhead					
N of 34°27' N. lat.	2,020	95%	1,919	5%	101
Cowcod - S of 40°10 N. Lat. a/	3.7		1.8		0.9
Darkblotched d/	277.3	95%	263	5%	14
Yelloweye a/	11.1		0.6		10.5
Minor Rockfish North					
Shelf a/	925	60.20%	557	39.80%	368
Slope	1,092	81%	885	19%	207
Minor Rockfish South					
Shelf a/	701	12.2%	86	87.8%	615
Slope	599	63%	377	37%	222
<b>SHARKS/SKATES/RATFISH/MORIDS/GRENADIERS/KELP GREENLING:</b>					
Longnose Skate a/	1,220	95%	1,159	5%	61

- a/ Allocations were decided through the biennial specification process.
- b/ The POP trawl allocation is further divided with 12.6 mt for the shorebased IFQ fishery, 7.2 mt for the mothership fishery, and 10.2 mt for the catcher/processor fishery.
- c/ The canary rockfish trawl allocation is further divided with 6.2 mt for the shorebased IFQ fishery, 3.6 mt for the mothership fishery, and 5.0 mt for the catcher/processor fishery.
- d/ The darkblotched rockfish trawl allocation is further divided with 10.5 mt for the shorebased IFQ fishery, 6.0 mt for the mothership fishery, and 8.5 mt for the catcher/processor fishery.
- e/ The widow rockfish trawl allocation is further divided with 107.1mt for the shorebased IFQ fishery, 61.2 mt for the mothership fishery, and 86.7 mt for the catcher/processor fishery.

BILLING CODE 3510-22-C

**Subpart D—West Coast Groundfish—Limited Entry Trawl Fisheries**

15. In § 660.130 paragraph (d) is revised to read as follows:

**§ 660.130 Trawl fishery—management measures.**

\* \* \* \* \*

(d) *Sorting.* Under § 660.12(a)(8), subpart C, it is unlawful for any person to “fail to sort, prior to the first weighing after offloading, those groundfish species or species groups for which there is a trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACL or ACT or OY, if the vessel fished or landed in an area during a time when such trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACL or ACT or OY applied.” The States of Washington, Oregon, and California may also require that vessels record their landings as sorted on their state landing receipt.

\* \* \* \* \*

16. In § 660.131, paragraph (b)(4)(ii) is revised to read as follows:

**§ 660.131 Pacific whiting fishery management measures.**

\* \* \* \* \*

(b) \* \* \*

(4) \* \* \*

(ii) If, during a primary whiting season, a whiting vessel harvests a groundfish species other than whiting for which there is a midwater trip limit, then that vessel may also harvest up to another footrope-specific limit for that species during any cumulative limit period that overlaps the start or close of the primary whiting season.

\* \* \* \* \*

17. In § 660.140 paragraph (a) and the introductory text of paragraph (c)(1) are revised to read as follows:

**§ 660.140 Shorebased IFQ program.**

(a) *General.* The Shorebased IFQ Program requirements in § 660.140 will be effective beginning January 1, 2011, except for paragraphs (d)(4), (d)(6), and (d)(8) of this section, which are effective immediately. The Shorebased IFQ Program applies to qualified participants in the Pacific Coast Groundfish fishery and includes a system of transferable QS for most groundfish species or species groups, IBQ for Pacific halibut, and trip limits or set-asides, as necessary, for the remaining groundfish species or species groups. The IFQ Program is subject to area restrictions (GCAs, RCAs, and EFHCAs) listed at §§ 660.70 through 660.79, subpart C. The Shorebased IFQ Program may be restricted or closed as a result of projected overages within the Shorebased IFQ Program, the MS Coop Program, or the C/P Coop Program. As determined necessary by the Regional Administrator, area restrictions, season closures, or other measures will be used to prevent the trawl sector in aggregate or the individual trawl sectors (Shorebased IFQ, MS Coop, or C/P Coop) from exceeding an ACL, OY, ACT or formal allocation specified in the PCGFMP or regulation at § 660.55, subpart C, or §§ 660.140, 660.150, or 660.160, subpart D.

\* \* \* \* \*

(c) \* \* \*

(1) *IFQ species.* IFQ species are those groundfish species and Pacific halibut in the exclusive economic zone or adjacent state waters off Washington, Oregon and California, under the jurisdiction of the Pacific Fishery Management Council, for which QS and IBQ will be issued. QS and IBQ will specify designations for the species/species groups and area to which it applies. QS and QP species groupings and area subdivisions will be those for which ACLs or ACTs are specified in

the Tables 1a through 2d, subpart C, and those for which there is an area-specific precautionary harvest policy. QS for remaining minor rockfish will be aggregated for the shelf and slope depth strata (nearshore species are excluded). The following are the IFQ species:

\* \* \* \* \*

18. In § 660.150 paragraph (a)(5) is revised to read as follows:

**§ 660.150 Mothership (MS) Coop program.**

(a) \* \* \*

(5) The MS Coop Program may be restricted or closed as a result of projected overages within the MS Coop Program, the C/P Coop Program, or the Shorebased IFQ Program. As determined necessary by the Regional Administrator, area restrictions, season closures, or other measures will be used to prevent the trawl sectors in aggregate or the individual trawl sector (Shorebased IFQ, MS Coop, or C/P Coop) from exceeding an ACL, ACT, or formal allocation specified in the PCGFMP or regulation at § 660.55, subpart C, or §§ 660.140, 660.150, or 660.160, subpart D.

\* \* \* \* \*

19. In § 660.160 paragraph (a)(5) is revised to read as follows:

**§ 660.160 Catcher/processor (C/P) Coop Program.**

(a) \* \* \*

(5) The C/P Coop Program may be restricted or closed as a result of projected overages within the MS Coop Program, the C/P Coop Program, or the Shorebased IFQ Program. As determined necessary by the Regional Administrator, area restrictions, season closures, or other measures will be used to prevent the trawl sectors in aggregate or the individual trawl sector (Shorebased IFQ, MS Coop, or C/P Coop) from exceeding an ACL, ACT, or formal allocation specified in the PCGFMP or regulation at § 660.55,

subpart C, or §§ 660.140, 660.150, or 660.160, subpart D.

\* \* \* \* \*

20. Table 1 (North), Table 1 (South) to part 660, subpart D are redesignated as Table 1a (North), Table 1a (South) to part 660, subpart D; the newly redesignated Table 1a (North) and Table

1a (South) are revised, and Table 1b (North) and Table 1b (South) are added to part 660, subpart D to read as follows:

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**Table 1a (North) to Part 660, Subpart D -- 2011-2012<sup>7/</sup> Trip Limits in the Limited Entry Trawl Gear North of 40°10' N. Lat.**  
 Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>						
1	North of 48°10' N. lat.	shore - 200 fm line <sup>6/</sup>	shore - 200 fm line <sup>6/</sup>	shore - 150 fm line <sup>6/</sup>		shore - 200 fm line <sup>6/</sup>
2	48°10' N. lat. - 45°46' N. lat.	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>
3	45°46' N. lat. - 40°10' N. lat.			75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	
Selective flatfish trawl gear is required shoreward of the RCA; all bottom trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope and small footrope bottom trawl gears (except for selective flatfish trawl gear) are prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season.						
See § 660.60 and § 660.130 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
4	<b>Minor slope rockfish<sup>2/</sup> &amp; Darkblotched rockfish</b>					
5	midwater trawl gear	Before the primary whiting season: CLOSED. -- During primary whiting season: cumulative minor slope rockfish and darkblotched rockfish limit of 1,000 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.				
6	multiple bottom trawl gears	6,000 lb/ 2 months		6,000 lb/ 2 months		
7	<b>Pacific ocean perch</b>					
8	midwater trawl gear	Before the primary whiting season: CLOSED. -- During primary whiting season: cumulative Pacific ocean perch limit of 600 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.				
9	multiple bottom trawl gears	1,500 lb/ 2 months				
10	<b>DTS complex</b>					
11	<b>Sablefish</b>					
12	midwater trawl gear	Before the primary whiting season: CLOSED. -- During primary whiting season: cumulative sablefish limit of 1,000 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.				
13	large & small footrope gear	14,750 lb/ 2 months				
14	selective flatfish trawl gear	8,000 lb/ 2 months				
15	multiple bottom trawl gear <sup>8/</sup>	8,000 lb/ 2 months				
16	<b>Longspine thornyhead</b>					
17	large & small footrope gear	20,000 lb/ 2 months				
18	selective flatfish trawl gear	5,000 lb/ 2 months				
19	multiple bottom trawl gear <sup>8/</sup>	5,000 lb/ 2 months				
20	<b>Shortspine thornyhead</b>					
21	large & small footrope gear	17,200 lb/2 months				
22	selective flatfish trawl gear	5,000 lb/ 2 months				
23	multiple bottom trawl gear <sup>8/</sup>	5,000 lb/ 2 months				
24	<b>Dover sole</b>					
25	large & small footrope gear	150,000 lb/ 2 months				
26	selective flatfish trawl gear	65,000 lb/ 2 months				
27	multiple bottom trawl gear <sup>8/</sup>	65,000 lb/ 2 months				

TABLE 1a (North)

Table 1a (North). Continued

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
28 <b>Whiting</b>	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.					
29 midwater trawl						
30 large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.					
31 <b>Flatfish (except Dover sole)</b>						
32 Arrowtooth flounder						
33 large & small footrope gear	150,000 lb/ 2 months					
34 selective flatfish trawl gear	90,000 lb/ 2 months					
35 multiple bottom trawl gear <sup>8/</sup>	90,000 lb/ 2 months					
36 Other flatfish <sup>3/</sup> , English sole, starry flounder, & Petrale sole						
37 large & small footrope gear for Other flatfish <sup>3/</sup> , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 4,800 lb/ 2 months of which may be petrale sole.				110,000 lb/ 2 months
38 large & small footrope gear for Petrale sole	4,800 lb/ 2 months					4,800 lb/ 2 months
39 selective flatfish trawl gear for Other flatfish <sup>3/</sup> , English sole, & starry flounder	60,000 lb/ 2 months, no more than 4,800 lb/ 2 months of which may be petrale sole.					
40 selective flatfish trawl gear for Petrale sole						
41 multiple bottom trawl gear <sup>8/</sup>	60,000 lb/ 2 months, no more than 4,800 lb/ 2 months of which may be petrale sole.					
42 <b>Minor shelf rockfish <sup>1/</sup>, Shortbelly, Widow &amp; Yelloweye rockfish</b>						
43 midwater trawl for Widow rockfish	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting, combined widow and yellowtail limit of 500 lb/ trip, cumulative widow limit of 1,500 lb/ month. Mid-water trawl permitted in the RCA. See §660.373 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.					
44 large & small footrope gear	300 lb/ 2 months					
45 selective flatfish trawl gear	300 lb/ month	1,000 lb/ month, no more than 200 lb/ month of which may be yelloweye rockfish				300 lb/ month
46 multiple bottom trawl gear <sup>8/</sup>	300 lb/ month	300 lb/ 2 months, no more than 200 lb/ month of which may be yelloweye rockfish				300 lb/ month

TABLE 1a (North) con't

Table 1a (North). Continued

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
47 <b>Canary rockfish</b>						
48     large & small footrope gear	CLOSED					
49     selective flatfish trawl gear	100 lb/ month		300 lb/ month		100 lb/ month	
50     multiple bottom trawl gear <sup>8/</sup>	CLOSED					
51 <b>Yellowtail</b>						
52     midwater trawl	Before the primary whiting season: CLOSED. -- During primary whiting season: In trips of at least 10,000 lb of whiting: combined widow and yellowtail limit of 500 lb/ trip, cumulative yellowtail limit of 2,000 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.					
53     large & small footrope gear	300 lb/ 2 months					
54     selective flatfish trawl gear	2,000 lb/ 2 months					
55     multiple bottom trawl gear <sup>8/</sup>	300 lb/ 2 months					
56 <b>Minor nearshore rockfish &amp; Black rockfish</b>						
57     large & small footrope gear	CLOSED					
58     selective flatfish trawl gear	300 lb/ month					
59     multiple bottom trawl gear <sup>8/</sup>	CLOSED					
60 <b>Lingcod <sup>4/</sup></b>						
61     midwater trawl	Before the primary whiting season: CLOSED. -- During primary whiting season: cumulative lingcod limit of 600 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.					
62     large & small footrope gear			4,000 lb/ 2 months			
63     selective flatfish trawl gear	1,200 lb/ 2 months	1,200 lb/2 months				
64     multiple bottom trawl gear <sup>8/</sup>	1,200 lb/2 months					
65 <b>Pacific cod</b>						
66     midwater trawl	Before the primary whiting season: CLOSED. -- During primary whiting season: cumulative Pacific cod limit of 600 lb/ month. Mid-water trawl permitted in the RCA. See §660.131 for primary whiting season and trip limit details. -- After the primary whiting season: CLOSED.					
67     multiple bottom trawl gears	30,000 lb/ 2 months	70,000 lb/ 2 months			30,000 lb/ 2 months	
68 <b>Spiny dogfish</b>	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months			
69 <b>Other Fish <sup>5/</sup></b>	Not limited					

TABLE 1a (North) cont

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

2/ Splitnose rockfish is included in the trip limits for minor slope rockfish.

3/ "Other flatfish" are defined at § 660.11 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

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

5/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (including longnose skate), rattfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."

6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

7/ These tables are intended to apply in 2011 and 2012 with the following exceptions: Unless otherwise modified, the trip limits for sablefish will be lower in 2012 (14,000 lb/2 months for vessels using large and small footrope gear; 7,500 lb/2 months for vessels using selective flatfish trawl gear and multiple trawl gears); the trip limits for shortspine thornyheads will be lower in 2012 (16,800 lb/2 months for vessels using large and small footrope trawl gears) and trip limits for petrale sole will be higher in 2012 (6,400 lb/2 month for vessels using large and small footrope gears, selective flatfish trawl gears, and multiple trawl gears), because of the changes in their respective ACLs from 2011 to 2012.

8/ If a vessel has both selective flatfish gear and large or small footrope gear on board during a cumulative limit period (either simultaneously or successively), the most restrictive cumulative limit for any bottom trawl gear on board during the cumulative limit period applies for the entire cumulative limit period.

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



**Table 1a (South) to Part 660, Subpart D -- 2011-2012<sup>6f</sup> Trip Limits for Limited Entry Trawl Gear South of 40°10' N. Lat.**  
**Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table**

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6f</sup> :</b>						
<sup>1</sup> South of 40°10' N. lat.	100 fm line <sup>6f</sup> - 200 fm line <sup>6f/7f</sup>	100 fm line <sup>6f</sup> - 150 fm line <sup>6f/7f</sup>			100 fm line <sup>6f</sup> - 200 fm line <sup>6f/7f</sup>	
All trawl gear (large footrope, selective flatfish trawl, midwater trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear and midwater trawl gear are prohibited shoreward of the RCA.						
See § 660.60 and § 660.130 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
<b>Minor slope rockfish<sup>2f</sup> &amp; Darkblotched rockfish</b>						
<sup>2</sup>						
<sup>3</sup>	40°10' - 38° N. lat.	15,000 lb/ 2 months				
<sup>4</sup>	South of 38° N. lat.	55,000 lb/ 2 months				
<b>Splitnose</b>						
<sup>5</sup>						
<sup>6</sup>	40°10' - 38° N. lat.	15,000 lb/ 2 months				
<sup>7</sup>	South of 38° N. lat.	55,000 lb/ 2 months				
<b>DTS complex</b>						
<sup>8</sup>						
<sup>9</sup>	Sablefish	14,750 lb/ 2 months				
<sup>10</sup>	Longspine thornyhead	20,000 lb/ 2 months				
<sup>11</sup>	Shortspine thornyhead	17,200 lb/ 2 months				
<sup>12</sup>	Dover sole	150,000 lb/ 2 months				
<b>Flatfish (except Dover sole)</b>						
<sup>13</sup>						
<sup>14</sup>	Other flatfish <sup>3f</sup> , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 4,800 lb/ 2 months of which may be petrale sole.			110,000 lb/ 2 months
<sup>15</sup>	Petrale sole	4,800 lb/ 2 months				4,800 lb/ 2 months
<sup>16</sup>	Arrowtooth flounder	10,000 lb/ 2 months				
<b>Whiting</b>						
<sup>17</sup>						
<sup>18</sup>	midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.				
<sup>19</sup>	large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.				

TABLE 1a (South)

Table 1a (South). Continued

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Minor shelf rockfish<sup>1/</sup>, Chilipepper, Shortbelly, Widow, &amp; Yelloweye rockfish</b>						
20 large footrope or midwater trawl for Minor shelf rockfish & Shortbelly	300 lb/ month					
21 large footrope or midwater trawl for Chilipepper	12,000 lb/ 2 months					
22 large footrope or midwater trawl for Widow & Yelloweye	CLOSED					
23 small footrope trawl for Minor Shelf, Shortbelly, Widow & Yelloweye	300 lb/ month					
24 small footrope trawl for Chilipepper	12,000 lb/ 2 months					
25 <b>Bocaccio</b>						
26 large footrope or midwater trawl	300 lb/ 2 months					
27 small footrope trawl	CLOSED					
28 <b>Canary rockfish</b>						
29 large footrope or midwater trawl	CLOSED					
30 small footrope trawl	100 lb/ month		300 lb/ month		100 lb/ month	
31 <b>Cowcod</b>	CLOSED					
32 <b>Bronzespotted rockfish</b>	CLOSED					
33 <b>Minor nearshore rockfish &amp; Black rockfish</b>						
34 large footrope or midwater trawl	CLOSED					
35 small footrope trawl	300 lb/ month					
36 <b>Lingcod<sup>4/</sup></b>						
37 large footrope or midwater trawl	1,200 lb/ 2 months		4,000 lb/ 2 months			
38 small footrope trawl	1,200 lb/ 2 months					
39 <b>Pacific cod</b>	30,000 lb/ 2 months		70,000 lb/ 2 months			30,000 lb/ 2 months
40 <b>Spiny dogfish</b>	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months		
41 <b>Other Fish<sup>5/</sup> &amp; Cabezon</b>	Not limited					

TABLE 1a (South) cont'

1/ Yellowtail is included in the trip limits for minor shelf rockfish. Bronzespotted rockfish have a species specific trip limit.  
 2/ POP is included in the trip limits for minor slope rockfish  
 3/ "Other flatfish" are defined at § 660.11 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.  
 4/ The commercial minimum size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.  
 5/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (including longnose skate), ratfish, morids, grenadiers, and kelp greenling.  
 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.  
 7/ South of 34°27' N. lat., the RCA is 100 fm line - 150 fm line along the mainland coast; shoreline - 150 fm line around islands.  
 8/ These tables are intended to apply in 2011 and 2012 with the following exceptions: Unless otherwise modified, the trip limits for sablefish will be lower in 2012 (14,000 lb/2 months), the trip limits for shortspine thornyheads will be lower in 2012 (16,800 lb/2 months) and trip limits for petrale sole will be higher in 2012 (6,400 lb/2 months for vessels using large and small footrope gears) because of the changes in their respective ACLs from 2011 to 2012.

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

**Table 1b (North) to Part 660, Subpart D -- 2011-2012 Limited Entry Trawl Rockfish Conservation Areas and Landing Allowances for non-IFQ Species and Pacific Whiting North of 40°10' N. Lat.**

This table describes Rockfish Conservation Areas and incidental landing allowances for vessels registered to a Federal limited entry trawl permit and using groundfish trawl or groundfish non-trawl gears to harvest individual fishing quota (IFQ) species.

Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>						
1 North of 48°10' N. lat.	shore - modified <sup>7/</sup> 200 fm line <sup>6/</sup>	shore - 200 fm line <sup>6/</sup>	shore - 150 fm line <sup>6/</sup>		shore - 200 fm line <sup>6/</sup>	shore - modified <sup>7/</sup> 200 fm line <sup>6/</sup>
2 48°10' N. lat. - 45°46' N. lat.	75 fm line <sup>6/</sup> - modified <sup>7/</sup> 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	100 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - modified <sup>7/</sup> 200 fm line <sup>6/</sup>
3 45°46' N. lat. - 40°10' N. lat.			75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	100 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>		
Selective flatfish trawl gear is required shoreward of the RCA; all bottom trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope and small footrope trawl gears (except for selective flatfish trawl gear) are prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season. <b>Vessels fishing groundfish trawl quota pounds with groundfish non-trawl gears, under gear switching provisions at § 660.140, are subject to the limited entry groundfish trawl fishery limits in this table, regardless of the type of fishing gear used.</b>						
See § 660.60, § 660.130, and § 660.140 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
5 <b>Minor nearshore rockfish &amp; Black rockfish</b>	300 lb/ month					
6 <b>Whiting</b>						
7 midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.					
8 large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.					
9 <b>Cabezon</b>						
10 North of 46°16' N. lat.	Unlimited					
11 46°16' N. lat. - 40°10' N. lat.	50 lb/ month					
12 <b>Shortbelly</b>	Unlimited					
13 <b>Spiny dogfish</b>	60,000 lb/ month					
14 <b>Longnose skate</b>	Unlimited					
15 <b>Other Fish<sup>5/</sup></b>	Unlimited					

TABLE 1b (North)

5/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (except longnose skate), ratfish, morids, grenadiers, and kelp greenling.

6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

7/ The "modified" fathom lines are modified to exclude certain petrale sole areas from the RCA.

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

**Table 1b (South) to Part 660, Subpart D -- 2011-2012 Limited Entry Trawl Rockfish Conservation Areas and Landing Allowances for non-IFQ Species and Pacific Whiting South of 40°10' N. Lat.**

This table describes Rockfish Conservation Areas and incidental landing allowances for vessels registered to a Federal limited entry trawl permit and using groundfish trawl or groundfish non-trawl gears to harvest individual fishing quota (IFQ) species.

Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>						
<sup>1</sup> South of 40°10' N. lat.	100 fm line <sup>6/</sup> - 150 fm line <sup>6/ 7/</sup>					
All trawl gear (large footrope, selective flatfish trawl, midwater trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear and midwater trawl gear are prohibited shoreward of the RCA. <b>Vessels fishing groundfish trawl quota pounds with groundfish non-trawl gears, under gear switching provisions at § 660.140, are subject to the limited entry groundfish trawl fishery limits in this table, regardless of the type of fishing gear used.</b>						
See § 660.60, § 660.130, and § 660.140 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
<sup>2</sup> Longspine thornyhead						
<sup>3</sup> South of 34°27' N. lat.	24,000 lb/ 2 months					
<sup>4</sup> Minor nearshore rockfish & Black rockfish	300 lb/ month					
Whiting						
midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.					
large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.					
<sup>5</sup> Cabezon	50 lb/ month					
<sup>6</sup> Shortbelly	Unlimited					
<sup>7</sup> Spiny dogfish	60,000 lb/ month					
<sup>8</sup> Longnose skate	Unlimited					
<sup>9</sup> California scorpionfish	Unlimited					
<sup>10</sup> Other Fish <sup>5/</sup>	Unlimited					

**TABLE 1b (South)**

<sup>5/</sup> "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (excluding longnose skate), ratfish, morids, grenadiers, and kelp greenling.  
<sup>6/</sup> The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.  
<sup>7/</sup> South of 34°27' N. lat., the RCA is 100 fm line - 150 fm line along the mainland coast; shoreline - 150 fm line around islands.  
**To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.**

BILLING CODE 3510-22-C

**Subpart E—West Coast Groundfish—Limited Entry Fixed Gear Fisheries**

21. In § 660.230 paragraphs (c)(1), (c)(2)(ii), and (d)(5) through (9) are revised to read as follows:

**§ 660.230 Fixed gear fishery—management measures.**

\* \* \* \* \*  
 (c) \* \* \*

(1) Under § 660.12(a)(8), subpart C, it is unlawful for any person to “fail to sort, prior to the first weighing after offloading, those groundfish species or species groups for which there is a trip limit, size limit, scientific sorting

designation, quota, harvest guideline, ACL or ACT or OY, if the vessel fished or landed in an area during a time when such trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACL or ACT or OY applied.” The States of Washington, Oregon, and California may also require that vessels record their landings as sorted on their state landing receipts.  
 (2) \* \* \*  
 (ii) North of 40°10' N. lat.—POP, yellowtail rockfish, Cabezon (Oregon and California);  
 \* \* \* \* \*  
 (d) \* \* \*  
 (5) Point St. George YRCA. The latitude and longitude coordinates of

the Point St. George YRCA boundaries are specified at § 660.70, Subpart C. Fishing with limited entry fixed gear is prohibited within the Point St. George YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with limited entry fixed gear within the Point St. George YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Limited entry fixed gear vessels may transit through the Point St. George YRCA, at any time, with or without groundfish on board.  
 (6) South Reef YRCA. The latitude and longitude coordinates of the South

Reef YRCA boundaries are specified at § 660.70, subpart C. Fishing with limited entry fixed gear is prohibited within the South Reef YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with limited entry fixed gear within the South Reef YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Limited entry fixed gear vessels may transit through the South Reef YRCA, at any time, with or without groundfish on board.

(7) *Reading Rock YRCA.* The latitude and longitude coordinates of the Reading Rock YRCA boundaries are specified at § 660.70, subpart C. Fishing with limited entry fixed gear is prohibited within the Reading Rock YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with limited entry fixed gear within the Reading Rock YRCA, on dates when the closure is in effect. This closure may be imposed through inseason adjustment. Limited entry fixed gear vessels may transit through the Reading Rock YRCA, at any time, with or without groundfish on board.

(8) *Point Delgada (North) YRCA.* The latitude and longitude coordinates of the Point Delgada (North) YRCA boundaries are specified at § 660.70, subpart C. Fishing with limited entry fixed gear is prohibited within the Point Delgada (North) YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with limited entry fixed gear within the Point Delgada (North) YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Limited entry fixed gear vessels may transit through the Point Delgada (North) YRCA, at any time, with or without groundfish on board.

(9) *Point Delgada (South) YRCA.* The latitude and longitude coordinates of

the Point Delgada (South) YRCA boundaries are specified at § 660.70, subpart C. Fishing with limited entry fixed gear is prohibited within the Point Delgada (South) YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with limited entry fixed gear within the Point Delgada (South) YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Limited entry fixed gear vessels may transit through the Point Delgada (South) YRCA, at any time, with or without groundfish on board.

\* \* \* \* \*

22. In § 660.231, paragraphs (b)(1) and (b)(3)(i) are revised to read as follows:

**§ 660.231 Limited entry fixed gear sablefish primary fishery.**

\* \* \* \* \*

(b) \* \* \*

(1) *Season dates.* North of 36° N. lat., the sablefish primary season for the limited entry, fixed gear, sablefish-endorsement vessels begins at 12 noon local time on April 1 and closes at 12 noon local time on October 31, or closes for an individual permit holder when that permit holder's tier limit has been reached, whichever is earlier, unless otherwise announced by the Regional Administrator through the routine management measures process described at § 660.60, subpart C. \* \* \* \*

(3) \* \* \*

(i) A vessel participating in the primary season will be constrained by the sablefish cumulative limit associated with each of the permits registered for use with that vessel. During the primary season, each vessel authorized to fish in that season under paragraph (a) of this section may take, retain, possess, and land sablefish, up to the cumulative limits for each of the permits registered for use with that vessel (i.e., stacked permits). If multiple limited entry permits with sablefish endorsements are registered for use with a single vessel, that vessel may land up to the total of all cumulative limits

announced in this paragraph for the tiers for those permits, except as limited by paragraph (b)(3)(ii) of this section. Up to 3 permits may be registered for use with a single vessel during the primary season; thus, a single vessel may not take and retain, possess or land more than 3 primary season sablefish cumulative limits in any one year. A vessel registered for use with multiple limited entry permits is subject to per vessel limits for species other than sablefish, and to per vessel limits when participating in the daily trip limit fishery for sablefish under § 660.232, subpart E. In 2011, the following annual limits are in effect: Tier 1 at 41,379 lb (18,769 kg) Tier 2 at 18,809 lb (8,532 kg), and Tier 3 at 10,748 lb (4,875 kg). For 2012 and beyond, the following annual limits are in effect: Tier 1 at 40,113 lb (18,195 kg), Tier 2 at 18,233 lb (8,270 kg), and Tier 3 at 10,419 lb (4,726 kg).

\* \* \* \* \*

23. In § 660.232 paragraph (a)(2) is revised to read as follows:

**§ 660.232 Limited entry daily trip limit (DTL) fishery for sablefish.**

(a) \* \* \*

(2) Following the start of the primary season, all landings made by a vessel authorized by § 660.231(a) of this subpart to fish in the primary season will count against the primary season cumulative limit(s) associated with the permit(s) registered for use with that vessel. A vessel that is eligible to fish in the sablefish primary season may fish in the DTL fishery for sablefish once that vessels' primary season sablefish limit(s) have been taken, or after the close of the primary season, whichever occurs earlier. Any subsequent sablefish landings by that vessel will be subject to the restrictions and limits of the limited entry DTL fishery for sablefish for the remainder of the fishing year.

\* \* \* \* \*

24. Table 2 (North) and Table 2 (South) to part 660, subpart E are revised to read as follows:

BILLING CODE 3510-22-P

**Table 2 (North) to Part 660, Subpart E -- 2011-2012 Trip Limits for Limited Entry Fixed Gear North of 40°10' N. Lat.**

**Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table**

01012011

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>							
1	North of 46°16' N. lat.	shoreline - 100 fm line <sup>6/</sup>					
2	46°16' N. lat. - 43°00' N. lat.	30 fm line <sup>6/</sup> - 100 fm line <sup>6/</sup>					
3	43°00' N. lat. - 42°00' N. lat.	20 fm line <sup>6/</sup> - 100 fm line <sup>6/</sup>					
4	42°00' N. lat. - 40°10' N. lat.	20 fm depth contour - 100 fm line <sup>6/</sup>					
<p>See § 660.60 and § 660.230 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.                      See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
5	Minor slope rockfish <sup>2/</sup> & Darkblotched rockfish	4,000 lb/ 2 months					
6	Pacific ocean perch	1,800 lb/ 2 months					
7	Sablefish	1,900 lb per week, not to exceed 6,500 lb/ 2 months	1,900 lb per week, not to exceed 7,500 lb/ 2 months				1,900 lb per week, not to exceed 6,000 lb/ 2 months
8	Longspine thornyhead	10,000 lb/ 2 months					
9	Shortspine thornyhead	2,000 lb/ 2 months					
10	Dover sole	South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
11	Arrowtooth flounder						
12	Petrale sole						
13	English sole						
14	Starry flounder						
15	Other flatfish <sup>1/</sup>	5,000 lb/ month					
16	Whiting	10,000 lb/ trip					
17	Minor shelf rockfish <sup>2/</sup> , Shortbelly, Widow, & Yellowtail rockfish	200 lb/ month					
18	Canary rockfish	CLOSED					
19	Yelloweye rockfish	CLOSED					
20	Minor nearshore rockfish & Black rockfish						
21	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish <sup>3/</sup>					
22	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish <sup>3/</sup>	7,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black rockfish <sup>3/</sup>				
23	Lingcod <sup>4/</sup>	CLOSED		800 lb/ 2 months		400 lb/ month	CLOSED
24	Pacific cod	1,000 lb/ 2 months					
25	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months		
26	Other fish <sup>5/</sup>	Unlimited					

TABLE 2 (North)

1/ "Other flatfish" are defined at § 660.11 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.  
 2/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish and splitnose rockfish is included in the trip limits for minor slope rockfish.  
 3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°38.17' N. lat.), there is an additional limit of 100 lb or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing trip.  
 4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length South of 42° N. lat.  
 5/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (except longnose skates), ratfish, morids, grenadiers, and kelp greenling. Cabezon and longnose skate are included in the trip limits for "other fish."  
 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

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

**Table 2 (South) to Part 660, Subpart E -- 2011-2012 Trip Limits for Limited Entry Fixed Gear South of 40°10' N. Lat.**

Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>5/</sup>:</b>							
1	40°10' - 34°27' N. lat.	30 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup>					
2	South of 34°27' N. lat.	60 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup> (also applies around islands)					
<p>See § 660.60 and § 660.230 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.            See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
3	Minor slope rockfish <sup>2/</sup> & Darkblotched rockfish	40,000 lb/ 2 months					
4	Splitnose	40,000 lb/ 2 months					
5	Sablefish						
6	40°10' - 36° N. lat.	1,900 lb per week, not to exceed 6,500 lb/ 2 months	1,900 lb per week, not to exceed 7,500 lb/ 2 months			1,900 lb per week, not to exceed 6,000 lb/ 2 months	
7	South of 36° N. lat.	2,000 lb per week					
8	Longspine thornyhead	10,000 lb / 2 months					
9	Shortspine thornyhead						
10	40°10' - 34°27' N. lat.	2,000 lb/ 2 months					
11	South of 34°27' N. lat.	3,000 lb/ 2 months					
12	Dover sole	South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
13	Arrowtooth flounder						
14	Petrale sole						
15	English sole						
16	Starry flounder						
17	Other flatfish <sup>1/</sup>						
18	Whiting	10,000 lb/ trip					
19	<b>Minor shelf rockfish<sup>2/</sup>, Shortbelly, Widow rockfish, and Bocaccio (including Chilipepper between 40°10' - 34°27' N. lat.)</b>						
20	40°10' - 34°27' N. lat.	Minor shelf rockfish, shortbelly, widow rockfish, bocaccio & chilipepper: 2,500 lb/ 2 months, of which no more than 500 lb/ 2 months may be any species other than chilipepper.					
21	South of 34°27' N. lat.	3,000 lb/ 2 months	CLOSED	3,000 lb/ 2 months			
22	Chilipepper rockfish						
23	40°10' - 34°27' N. lat.	Chilipepper included under minor shelf rockfish, shortbelly, widow and bocaccio limits -- See above					
24	South of 34°27' N. lat.	2,000 lb/ 2 months, this opportunity only available seaward of the nontrawl RCA					
25	Canary rockfish	CLOSED					
26	Yelloweye rockfish	CLOSED					
27	Cowcod	CLOSED					
28	Bronzespotted rockfish	CLOSED					
29	Bocaccio						
30	40°10' - 34°27' N. lat.	Bocaccio included under Minor shelf rockfish, shortbelly, widow & chilipepper limits -- See above					
31	South of 34°27' N. lat.	300 lb/ 2 months	CLOSED	300 lb/ 2 months			

TABLE 2 (South)

Table 2 (South). Continued

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	
<b>32 Minor nearshore rockfish &amp; Black rockfish</b>								
33	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months	600 lb/ 2 months	
34	Deeper nearshore							
35	40°10' - 34°27' N. lat.	700 lb/ 2 months	CLOSED	700 lb/ 2 months		800 lb/ 2 months		
36	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months				
37	California scorpionfish	1,200 lb/ 2 months	CLOSED	1,200 lb/ 2 months	1,200 lb/ 2 months			
38	Lingcod <sup>3/</sup>	CLOSED		800 lb/ 2 months			400 lb/ month	CLOSE D
39	Pacific cod	1,000 lb/ 2 months						
40	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months			
41	Other fish <sup>4/</sup>	Unlimited						

TABLE 2 (South)

- 1/ "Other flatfish" are defined at § 660.11 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.
- 2/ POP is included in the trip limits for minor slope rockfish. Yellowtail is included in the trip limits for minor shelf rockfish. Bronzespotted rockfish have a species specific trip limit.
- 3/ The commercial minimum size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.
- 4/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (except longnose skates), rattfish, morids, grenadiers, and kelp greenling. Cabezon and longnose skate are included in the trip limits for "other fish."
- 5/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

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

BILLING CODE 3510-22-C

**Subpart F—West Coast Groundfish—Open Access Fisheries**

25. In § 660.330 paragraphs (c) introductory text, (c)(2) and (d)(5) through (9) are revised to read as follows:

**§ 660.330 Open access fishery—management measures.**

\* \* \* \* \*

(c) *Sorting*. Under § 660.12(a)(8), subpart C, it is unlawful for any person to “fail to sort, prior to the first weighing after offloading, those groundfish species or species groups for which there is a trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACL or ACT or OY, if the vessel fished or landed in an area during a time when such trip limit, size limit, scientific sorting designation, quota, harvest guideline, ACL or ACT or OY applied.” The States of Washington, Oregon, and California may also require that vessels record their landings as sorted on their state landing receipts. For open access vessels, the following species must be sorted:

\* \* \* \* \*

(2) North of 40°10' N. lat.—POP, yellowtail rockfish, Cabezon (Oregon and California);

\* \* \* \* \*

(d) \* \* \*

(5) *Point St. George YRCA*. The latitude and longitude coordinates of the Point St. George YRCA boundaries are specified at § 660.70, subpart C. Fishing with open access gear is prohibited within the Point St. George YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with open access gear within the Point St. George YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Open access vessels may transit through the Point St. George YRCA, at any time, with or without groundfish on board.

(6) *South Reef YRCA*. The latitude and longitude coordinates of the South Reef YRCA boundaries are specified at § 660.70, subpart C. Fishing with open access gear is prohibited within the South Reef YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with open access gear within the

South Reef YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Open access gear vessels may transit through the South Reef YRCA, at any time, with or without groundfish on board.

(7) *Reading Rock YRCA*. The latitude and longitude coordinates of the Reading Rock YRCA boundaries are specified at § 660.70, subpart C. Fishing with open access gear is prohibited within the Reading Rock YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with open access gear within the Reading Rock YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Open access gear vessels may transit through the Reading Rock YRCA, at any time, with or without groundfish on board.

(8) *Point Delgada (North) YRCA*. The latitude and longitude coordinates of the Point Delgada (North) YRCA boundaries are specified at § 660.70, subpart C. Fishing with open access gear is prohibited within the Point Delgada



(North) YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with open access gear within the Point Delgada (North) YRCA, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment. Open access gear vessels may transit through the Point Delgada (North) YRCA, at any time, with or without groundfish on board.

(9) *Point Delgada (South) YRCA*. The latitude and longitude coordinates of the Point Delgada (South) YRCA boundaries are specified at § 660.70, subpart C. Fishing with open access gear is prohibited within the Point Delgada (South) YRCA, on dates when the closure is in effect. It is unlawful to take and retain, possess, or land groundfish taken with open access gear within the Point Delgada (South) YRCA, on dates when the closure is in effect. The

closure is not in effect at this time. This closure may be imposed through inseason adjustment. Open access gear vessels may transit through the Point Delgada (South) YRCA, at any time, with or without groundfish on board.

\* \* \* \* \*

26. Table 3 (North) and Table 3 (South) to part 660, subpart F are revised to read as follows:

BILLING CODE 3510-22-P

**Table 3 (North) to Part 660, Subpart F -- 2011-2012 Trip Limits for Open Access Gears North of 40°10' N. Lat.**

**Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table**

01012011

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>							
1	North of 46°16' N. lat.	shoreline - 100 fm line <sup>6/</sup>					
2	46°16' N. lat. - 43°00' N. lat.	30 fm line <sup>6/</sup> - 100 fm line <sup>6/</sup>					
3	43°00' N. lat. - 42°00' N. lat.	20 fm line <sup>6/</sup> - 100 fm line <sup>6/</sup>					
4	42°00' N. lat. - 40°10' N. lat.	20 fm depth contour - 100 fm line <sup>6/</sup>					
<p>See § 660.60, § 660.330, and § 660.333 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.                  See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>							
<p>State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.</p>							
5	Minor slope rockfish <sup>1/</sup> & Darkblotched rockfish	Per trip, no more than 25% of weight of the sablefish landed					
6	Pacific ocean perch	100 lb/ month					
7	Sablefish	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months			300 lb/ day, or 1 landing per week of up to 950 lb, not to exceed 2,750 lb/ 2 months		
8	Thornyheads	CLOSED					
9	Dover sole	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
10	Arrowtooth flounder						
11	Petrale sole						
12	English sole						
13	Starry flounder						
14	Other flatfish <sup>2/</sup>						
15	Whiting	300 lb/ month					
16	Minor shelf rockfish <sup>1/</sup> , Shortbelly, Widow, & Yellowtail rockfish	200 lb/ month					
17	Canary rockfish	CLOSED					
18	Yelloweye rockfish	CLOSED					
19	Minor nearshore rockfish & Black rockfish						
20	North of 42° N. lat.	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish <sup>3/</sup>					
21	42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish <sup>3/</sup>	7,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black rockfish <sup>3/</sup>				
22	Lingcod <sup>4/</sup>	CLOSED			400 lb/ month		CLOSED
23	Pacific cod	1,000 lb/ 2 months					
24	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months		
25	Other Fish <sup>5/</sup>	Unlimited					

TABLE 3 (North)

Table 3 (North). Continued

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
26	<b>SALMON TROLL</b> (subject to RCAs when retaining all species of groundfish except for yellowtail rockfish and lingcod, as described below)	Salmon trollers may retain and land up to 1 lb of yellowtail rockfish for every 2 lbs of salmon landed, with a cumulative limit of 200 lb/month, both within and outside of the RCA. This limit is within the 200 lb per month combined limit for minor shelf rockfish, widow rockfish and yellowtail rockfish, and not in addition to that limit. Salmon trollers may retain and land up to 1 lingcod per 15 Chinook per trip, plus 1 lingcod per trip, up to a trip limit of 10 lingcod, on a trip where any fishing occurs within the RCA. This limit only applies during times when lingcod retention is allowed, and is not "CLOSED." This limit is within the per month limit for lingcod described in the table above, and not in addition to that limit. All groundfish species are subject to the open access limits, seasons, size limits and RCA restrictions listed in the table above, unless otherwise stated here.					
27	North						
28	<b>PINK SHRIMP NON-GROUNDFISH TRAWL</b> (not subject to RCAs)	Effective April 1 - October 31: Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/month (minimum 24 inch size limit); sablefish 2,000 lb/month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of these species count toward the per day and per trip groundfish limits and do not have species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.					
29	North						

TABLE 3 (North) cont

- 1/ Bocaccio, chilipepper and cowcod rockfishes are included in the trip limits for minor shelf rockfish. Splitnose rockfish is included in the trip limits for minor slope rockfish.
- 2/ "Other flatfish" are defined at § 660.11 and include butter sole, curifin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.
- 3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°38.17' N. lat.), there is an additional limit of 100 lbs or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing trip.
- 4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length South of 42° N. lat.
- 4/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (except longnose skates), rattfish, morids, grenadiers, and kelp greenling. Cabezon and longnose skate are included in the trip limits for "other fish."
- 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

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

**Table 3 (South) to Part 660, Subpart F -- 2011-2012 Trip Limits for Open Access Gears South of 40°10' N. Lat.**  
**Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table**

01012011

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>5/</sup>:</b>							
1	40°10' - 34°27' N. lat.	30 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup>					
2	South of 34°27' N. lat.	60 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup> (also applies around islands)					
<p>See § 660.60, § 660.330, and § 660.333 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions.                      See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>							
<p>State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.</p>							
3	<b>Minor slope rockfish<sup>1/</sup> &amp; Darkblotched rockfish</b>						
4	40°10' - 38° N. lat.	Per trip, no more than 25% of weight of the sablefish landed					
5	South of 38° N. lat.	10,000 lb/ 2 months					
6	<b>Splitnose</b>	200 lb/ month					
7	<b>Sablefish</b>						
8	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months			300 lb/ day, or 1 landing per week of up to 950 lb, not to exceed 2,750 lb/ 2 months		
9	South of 36° N. lat.	400 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 6,000 lb/ 2 months					
10	<b>Thornyheads</b>						
11	40°10' - 34°27' N. lat.	CLOSED					
12	South of 34°27' N. lat.	50 lb/ day, no more than 1,000 lb/ 2 months					
13	<b>Dover sole</b>	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs. South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
14	<b>Arrowtooth flounder</b>						
15	<b>Petrale sole</b>						
16	<b>English sole</b>						
17	<b>Starry flounder</b>						
18	<b>Other flatfish<sup>2/</sup></b>						
19	<b>Whiting</b>	300 lb/ month					
20	<b>Minor shelf rockfish<sup>1/</sup>, Shortbelly, Widow &amp; Chilipepper rockfish</b>						
21	40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED	200 lb/ 2 months	300 lb/ 2 months		
22	South of 34°27' N. lat.	750 lb/ 2 months		750 lb/ 2 months			
23	<b>Canary rockfish</b>	CLOSED					
24	<b>Yelloweye rockfish</b>	CLOSED					
25	<b>Cowcod</b>	CLOSED					
26	<b>Bronzespotted rockfish</b>	CLOSED					
27	<b>Bocaccio</b>						
28	40°10' - 34°27' N. lat.	200 lb/ 2 months	CLOSED	100 lb/ 2 months	200 lb/ 2 months		
29	South of 34°27' N. lat.	100 lb/ 2 months		100 lb/ 2 months			

TABLE 3 (South)

Table 3 (South). Continued

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
30	<b>Minor nearshore rockfish &amp; Black rockfish</b>					
31	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months 600 lb/ 2 months
32	Deeper nearshore					
33	40°10' - 34°27' N. lat.	700 lb/ 2 months	CLOSED	700 lb/ 2 months		800 lb/ 2 months
34	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months		
35	California scorpionfish	1,200 lb/ 2 months	CLOSED	1,200 lb/ 2 months		
36	Lingcod <sup>3/</sup>	CLOSED		400 lb/ month		CLOSED
37	Pacific cod					
	1,000 lb/ 2 months					
38	Spiny dogfish		200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months	
39	Other Fish <sup>4/</sup>					
	Unlimited					
40	<b>RIDGEBACK PRAWN AND, SOUTH OF 38°57.50' N. LAT., CA HALIBUT AND SEA CUCUMBER NON-GROUNDFISH TRAWL</b>					
41	<b>NON-GROUNDFISH TRAWL Rockfish Conservation Area (RCA) for CA Halibut, Sea Cucumber &amp; Ridgeback Prawn:</b>					
42	40° 10' - 38° N. lat.	100 fm line - 200 fm line <sup>6/</sup>	100 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup>			100 fm line <sup>5/</sup> - 200 fm line <sup>5/ 6/</sup>
43	38° - 34° 27' N. lat.					
	100 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup>					
44	South of 34° 27' N. lat.					
	100 fm line <sup>5/</sup> - 150 fm line <sup>5/</sup> along the mainland coast; shoreline - 150 fm line <sup>5/</sup> around islands					
45	<p>Groundfish: 300 lb/trip. Species-specific limits described in the table above also apply and are counted toward the 300 lb groundfish per trip limit. The amount of groundfish landed may not exceed the amount of the target species landed, except that the amount of spiny dogfish landed may exceed the amount of target species landed. Spiny dogfish are limited by the 300 lb/trip overall groundfish limit. The daily trip limits for sablefish coastwide and thornyheads south of Pt. Conception and the overall groundfish "per trip" limit may not be multiplied by the number of days of the trip. Vessels participating in the California halibut fishery south of 38°57.50' N. lat. are allowed to (1) land up to 100 lb/day of groundfish without the ratio requirement, provided that at least one California halibut is landed and (2) land up to 3,000 lb/month of flatfish, no more than 300 lb of which may be species other than Pacific sanddabs, sand sole, starry flounder, rock sole, curfin sole, or California scorpionfish (California scorpionfish is also subject to the trip limits and closures in line 31).</p>					
46	<b>PINK SHRIMP NON-GROUNDFISH TRAWL GEAR</b> (not subject to RCAs)					
47	South	<p><b>Effective April 1 - October 31:</b> Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/ month (minimum 24 inch size limit); sablefish 2,000 lb/ month; canary, thornyheads and yelloweye rockfish are PROHIBITED. All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits. Landings of all groundfish species count toward the per day, per trip or other species-specific sublimits described here and the species-specific limits described in the table above do not apply. The amount of groundfish landed may not exceed the amount of pink shrimp landed.</p>				

TABLE 3 (South) cont

1/ Yellowtail rockfish is included in the trip limits for minor shelf rockfish. POP is included in the trip limits for minor slope rockfish. Bronzespotted rockfish have a species specific trip limit.  
 2/ "Other flatfish" are defined at § 660.11 and include butter sole, curfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.  
 3/ The commercial minimum size limit for lingcod is 24 inches (61 cm) total length South of 42° N. lat.  
 4/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (including longnose skates), ratfish, morids, grenadiers, and kelp greenling.  
 5/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours (with the exception of the 20-fm depth contour boundary south of 42° N. lat.), and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.  
**To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.**

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**Subpart G—West Coast Groundfish—Recreational Fisheries**

- 27. In § 660.360,
  - a. Remove paragraphs (c)(3)(i)(C), (c)(3)(i)(A)(5), and (c)(3)(ii)(A)(5),
  - b. Redesignate paragraphs (c)(1)(iii) as (c)(1)(iv), (c)(3)(i)(A)(6) as (c)(3)(i)(A)(5),

- paragraphs (c)(3)(i)(D) through (J) as (c)(3)(i)(C) through (I), and paragraph (c)(3)(ii)(A)(6) as (c)(3)(ii)(A)(5),
- c. Revise newly redesignated paragraphs (c)(1)(iv), (c)(3)(i)(A)(5), (c)(3)(i)(C) through (H), and (c)(3)(ii)(A)(5),
- d. Revise paragraphs (c)(1) introductory text, (c)(1)(i)(D)

- introductory text, (c)(1)(i)(D)(1) and (2), (c)(2)(iii), (c)(3)(i)(A)(1) through (4), (c)(3)(i)(B), (c)(3)(ii)(A)(1) through (4), (c)(3)(ii)(B), (c)(3)(iii)(A)(1) through (5), (c)(3)(iii)(C), and (c)(3)(iii)(D),
- d. Add paragraphs (c)(1)(i)(D)(3) and (c)(1)(iii), to read as follows:

**§ 660.360 Recreational fishery—  
management measures.**

\* \* \* \* \*

(c) \* \* \*

(1) *Washington*. For each person engaged in recreational fishing off the coast of Washington, the groundfish bag limit is 12 groundfish per day, including rockfish, cabezon and lingcod. Within the groundfish bag limit, there are sub-limits for rockfish, lingcod, and cabezon outlined in paragraph (c)(1)(i)(D) of this section. The recreational groundfish fishery is open year-round except for lingcod, which has season dates outlined in paragraph (c)(1)(iv) of this section. In the Pacific halibut fisheries, retention of groundfish is governed in part by annual management measures for Pacific halibut fisheries, which are published in the **Federal Register**. The following seasons, closed areas, sub-limits and size limits apply:

\* \* \* \* \*

(i) \* \* \*

(D) *Recreational rockfish conservation area*. Fishing for groundfish with recreational gear is prohibited within the recreational RCA unless otherwise stated. It is unlawful to take and retain, possess, or land groundfish taken with recreational gear within the recreational RCA unless otherwise stated. A vessel fishing in the recreational RCA may not be in possession of any groundfish unless otherwise stated. (For example, if a vessel participates in the recreational salmon fishery within the RCA, the vessel cannot be in possession of groundfish while in the RCA. The vessel may, however, on the same trip fish for and retain groundfish shoreward of the RCA on the return trip to port.)

(1) West of the Bonilla-Tatoosh line Between the U.S. border with Canada and the Queets River (Washington state Marine Area 3 and 4), recreational fishing for groundfish is prohibited seaward of a boundary line approximating the 20 fm (37 m) depth contour from June 1 through September 30, except on days when the Pacific halibut fishery is open in this area. Days open to Pacific halibut recreational fishing off Washington are announced on the NMFS hotline at (206) 526-6667 or (800) 662-9825. Coordinates for the boundary line approximating the 20 fm (37 m) depth contour are listed in § 660.71, subpart C.

(2) Between the Queets River (47°31.70' N. lat.) and Leadbetter Point (46°38.17' N. lat.) (Washington state Marine Area 2), recreational fishing for groundfish is prohibited seaward of a boundary line approximating the 30 fm (55 m) depth contour from March 15 through June 15 with the following

exceptions: recreational fishing for rockfish is permitted within the RCA from March 15 through June 15; recreational fishing for sablefish and Pacific cod is permitted within the recreational RCA from May 1 through June 15; and on days that the primary halibut fishery is open lingcod may be taken, retained and possessed within the RCA. Days open to Pacific halibut recreational fishing off Washington are announced on the NMFS hotline at (206) 526-6667 or (800) 662-9825. Retention of lingcod seaward of the boundary line approximating the 30 fm (55 m) depth contour south of 46°58' N. lat. is prohibited on Fridays and Saturdays from July 1 through August 31. For additional regulations regarding the Washington recreational lingcod fishery, see paragraph (c)(1)(iv) of this section. Coordinates for the boundary line approximating the 30 fm (55 m) depth contour are listed in § 660.71.

(3) Between Leadbetter Point (46°38.17' N. lat.) and the Washington/Oregon border (Marine Area 1), when Pacific halibut are onboard the vessel, no groundfish may be taken and retained, possessed or landed, except sablefish and Pacific cod from May 1 through September 30.

\* \* \* \* \*

(iii) *Cabezon*. In areas of the EEZ seaward of Washington that are open to recreational groundfish fishing, there is a 2 cabezon per day bag limit.

(iv) *Lingcod*. In areas of the EEZ seaward of Washington that are open to recreational groundfish fishing and when the recreational season for lingcod is open, there is a bag limit of 2 lingcod per day. The recreational fishing seasons and size limits for lingcod are as follows:

(A) Between the U.S./Canada border and 48°10' N. lat. (Cape Alava) (Washington Marine Area 4), recreational fishing for lingcod is open, for 2011, from April 16 through October 15, and for 2012, from April 16 through October 13. Lingcod may be no smaller than 24 inches (61 cm) total length.

(B) Between 48°10' N. lat. (Cape Alava) and 46°16' N. lat. (Washington/Oregon border) (Washington Marine Areas 1-3), recreational fishing for lingcod is open for 2011, from March 19 through October 15, and for 2012, from March 17 through October 13. Lingcod may be no smaller than 22 inches (56 cm) total length.

\* \* \* \* \*

(2) \* \* \*

(iii) *Bag limits, size limits*. For each person engaged in recreational fishing off the coast of Oregon, the following bag limits apply:

(A) Marine fish. The bag limit is 10 marine fish per day, which includes rockfish, kelp greenling, cabezon and other groundfish species. The bag limit of marine fish excludes Pacific halibut, salmonids, tuna, perch species, sturgeon, sanddabs, flatfish, lingcod, striped bass, hybrid bass, offshore pelagic species and baitfish (herring, smelt, anchovies and sardines). From April 1 through September 30; no more than one fish may be cabezon. The minimum size for cabezon retained in the Oregon recreational fishery is 16 in (41 cm) total length. The minimum size for Kelp greenling retained in the Oregon recreational fishery is 10 in (25 cm).

(B) Lingcod. There is a 3 fish limit per day for lingcod from January 1 through December 31. The minimum size for lingcod retained in the Oregon recreational fishery is 22 in (56 cm) total length.

(C) Flatfish. There is a 25 fish limit per day for all flatfish, excluding Pacific halibut, but including all soles, flounders and Pacific sanddabs, from January 1 through December 31.

(D) In the Pacific halibut fisheries. Retention of groundfish is governed in part by annual management measures for Pacific halibut fisheries, which are published in the **Federal Register**. Between the Oregon border with Washington and Cape Falcon, when Pacific halibut are onboard the vessel, groundfish may not be taken and retained, possessed or landed, except sablefish and Pacific cod. Between Cape Falcon and Humbug Mountain, during days open to the Oregon Central Coast "all-depth" sport halibut fishery, when Pacific halibut are onboard the vessel, no groundfish may be taken and retained, possessed or landed, except sablefish and Pacific cod. "All-depth" season days are established in the annual management measures for Pacific halibut fisheries, which are published in the **Federal Register** and are announced on the NMFS halibut hotline, 1-800-662-9825.

(E) Taking and retaining canary rockfish and yelloweye rockfish is prohibited at all times and in all areas.

(3) \* \* \*

(i) \* \* \*

(A) \* \* \*

(1) Between 42° N. lat. (California/Oregon border) and 40°10.00' N. lat. (Northern Management Area), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20 fm (37 m) depth contour along the mainland coast and along islands and offshore seamounts from May 14, 2011 through

October 31, 2011 (shoreward of 20 fm is open); and is closed entirely from January 1 through May 13, 2011 and from November 1 through December 31, 2011. Recreational fishing for groundfish is prohibited seaward of 20 fm (37 m) from May 12, 2012 through October 31, 2012 (shoreward of 20 fm is open), and is closed entirely from January 1 through May 11, 2012 and from November 1, 2012 through December 31, 2012.

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (Mendocino Management Area), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20 fm (37 m) depth contour along the mainland coast and along islands and offshore seamounts from May 14, 2011 through August 15, 2011 (shoreward of 20 fm is open), and is closed entirely from January 1, 2011 through May 13, 2011 and from August 16, 2011 through December 31, 2011; recreational fishing for groundfish is prohibited seaward of 20 fm (37 m) and from May 12, 2012 through August 15, 2012 (shoreward of 20 fm is open); and is closed entirely from January 1, 2012 through May 11, 2012 and from August 16, 2012 through December 31, 2012.

(3) Between 38°57.50' N. lat. and 37°11' N. lat. San Francisco Management Area), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the boundary line approximating the 30 fm (55 m) depth contour along the mainland coast and along islands and offshore seamounts from June 1 through December 31; and is closed entirely from January 1 through May 31. Closures around Cordell Banks (see paragraph (c)(3)(i)(C) of this section) also apply in this area. Coordinates for the boundary line approximating the 30 fm (55 m) depth contour are listed in § 660.71.

(4) Between 37°11' N. lat. and 34°27' N. lat. (Central Management Area), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of a boundary line approximating the 40 fm (73 m) depth contour along the mainland coast and along islands and offshore seamounts from May 1 through December 31; and is closed entirely from January 1 through April 30 (*i.e.* prohibited seaward of the shoreline). Coordinates for the boundary line approximating the 40 fm (73 m) depth contour are specified in § 660.71.

(5) South of 34°27' N. lat. (Southern Management Area), recreational fishing

for all groundfish (except California scorpionfish as specified below in this paragraph (c)(3)(i) and in paragraph (c)(3)(v) of this section and "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of a boundary line approximating the 60 fm (110 m) depth contour from March 1 through December 31 along the mainland coast and along islands and offshore seamounts, except in the CCAs where fishing is prohibited seaward of the boundary line approximating the 30 fm (55 m) depth contour when the fishing season is open (*see* paragraph (c)(3)(i)(B) of this section). Recreational fishing for all groundfish (except California scorpionfish and "other flatfish") is closed entirely from January 1 through February 28 (*i.e.*, prohibited seaward of the shoreline). Recreational fishing for California scorpionfish south of 34°27' N. lat. is prohibited seaward of a boundary line approximating the 60 fm (110 m) depth contour from January 1 through December 31, except in the CCAs where fishing is prohibited seaward of the boundary line approximating the 30 fm (55 m) depth contour when the fishing season is open. Coordinates for the boundary line approximating the 30 fm (55 m) and 60 fm (110 m) depth contours are specified in §§ 660.71 and 660.72.

(B) *Cowcod conservation areas.* The latitude and longitude coordinates of the Cowcod Conservation Areas (CCAs) boundaries are specified at § 660.70, subpart C. In general, recreational fishing for all groundfish is prohibited within the CCAs, except that fishing for "other flatfish" is permitted within the CCAs as specified in paragraph (c)(3)(iv) of this section. However, recreational fishing for the following species is permitted shoreward of the boundary line approximating the 30 fm (55 m) depth contour when the season for those species is open south of 34°27' N. lat.: Minor nearshore rockfish, shelf rockfish, cabezon, kelp greenling, lingcod, California scorpionfish, and "other flatfish" (subject to gear requirements at paragraph (c)(3)(iv) of this section during January–February).

**Note to paragraph (c)(3)(i)(B):** California state regulations also permit recreational fishing for California sheephead, ocean whitefish, and all greenlings of the genus *Hexagrammos* shoreward of the boundary line approximating the 30 fm (55 m) depth contour in the CCAs when the season for the RCG complex is open south of 34°27' N. lat. It is unlawful to take and retain, possess, or land groundfish within the CCAs, except for species authorized in this section. Coordinates for the boundary line approximating the 30 fm (55 m) depth contour is specified in § 660.71.

(C) *Cordell banks.* Recreational fishing for groundfish is prohibited in waters less than 100 fm (183 m) around Cordell Banks as defined by specific latitude and longitude coordinates at § 660.70, subpart C, except that recreational fishing for "other flatfish" is permitted around Cordell Banks as specified in paragraph (c)(3)(iv) of this section.

**Note to paragraph (c)(3)(i)(C):** California state regulations also prohibit fishing for all greenlings of the genus *Hexagrammos*, California sheephead and ocean whitefish.

(D) *Point St. George Yelloweye Rockfish Conservation Area (YRCA).* Recreational fishing for groundfish is prohibited within the Point St. George YRCA, as defined by latitude and longitude coordinates at § 660.70, subpart C, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment.

(E) *South reef YRCA.* Recreational fishing for groundfish is prohibited within the South Reef YRCA, as defined by latitude and longitude coordinates at § 660.70, subpart C, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment.

(F) *Reading Rock YRCA.* Recreational fishing for groundfish is prohibited within the Reading Rock YRCA, as defined by latitude and longitude coordinates at § 660.70, subpart C, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment.

(G) *Point Delgada (North) YRCA.* Recreational fishing for groundfish is prohibited within the Point Delgada (North) YRCA, as defined by latitude and longitude coordinates at § 660.70, subpart C, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment.

(H) *Point Delgada (South) YRCA.* Recreational fishing for groundfish is prohibited within the Point Delgada (South) YRCA, as defined by latitude and longitude coordinates at § 660.70, subpart C, on dates when the closure is in effect. The closure is not in effect at this time. This closure may be imposed through inseason adjustment.

\* \* \* \* \*

(ii) \* \* \*

(A) \* \* \*

(1) Between 42° N. lat. (California/Oregon border) and 40°10' N. lat. (North Management Area), recreational fishing for the RCG complex is open from May 14, 2011 through October 31, 2011 (*i.e.* it's closed from January 1 through May 13 and from November 1 through

December 31 in 2011) and from May 12, 2012 through October 31, 2012 (i.e. it's closed from January 1 through May 11 and from November 1 through December 31 in 2012).

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (Mendocino Management Area), recreational fishing for the RCG Complex is open from May 14, 2011 through August 15, 2011 (i.e. it's closed from January 1 through May 13 and August 16 through December 31 in 2011), and from May 12, 2012 through August 15, 2012 (i.e. it's closed from January 1 through May 11 and August 16 through December 31 in 2012).

(3) Between 38°57.50' N. lat. and 37°11' N. lat. (Bay Management Area), recreational fishing for the RCG complex is open from June 1 through December 31 (i.e. it's closed from January 1 through May 31).

(4) Between 37°11' N. lat. and 34°27' N. lat. (Central Management Area), recreational fishing for the RCG complex is open from May 1 through December 31 (i.e. it's closed from January 1 through April 30).

(5) South of 34°27' N. lat. (Southern Management Area), recreational fishing for the RCG Complex is open from March 1 through December 31 (i.e. it's closed from January 1 through February 28).

(B) *Bag limits, hook limits.* In times and areas when the recreational season for the RCG Complex is open, there is a limit of 2 hooks and 1 line when fishing for the RCG complex and lingcod. The bag limit is 10 RCG Complex fish per day coastwide. Retention of canary rockfish, yelloweye rockfish, bronzedspotted and cowcod is prohibited. Within the 10 RCG Complex fish per day limit, no more than 2 may be bocaccio, no more than 2 may be greenling (kelp and/or other greenlings) and no more than 3 may be cabezon. Multi-day limits are authorized by a valid permit issued by California and must not exceed the daily limit multiplied by the number of days in the fishing trip.

\* \* \* \* \*

(iii) \* \* \*

(A) \* \* \*

(1) Between 42° N. lat. (California/Oregon border) and 40°10.00' N. lat. (Northern Management Area), recreational fishing for lingcod is open from May 14, 2011 through October 31, 2011 (i.e. it's closed from January 1 through May 13 and from November 1 through December 31 in 2011) and from May 12, 2012 through October 31, 2012 (i.e. it's closed from January 1 through May 11 and from November 1 through December 31 in 2012).

(2) Between 40°10' N. lat. and 38°57.50' N. lat. (Mendocino

Management Area), recreational fishing for lingcod is open from May 14, 2011 through August 15, 2011 (i.e. it's closed from January 1 through May 13 and August 16 through December 31 in 2011) and from May 12, 2012 through August 15, 2012 (i.e. it's closed from January 1 through May 11 and August 16 through December 31 in 2012).

(3) Between 38°57.50' N. lat. and 37°11' N. lat. (San Francisco Management Area), recreational fishing for lingcod is open from June 1 through December 31 (i.e. it's closed from January 1 through May 31).

(4) Between 37°11' N. lat. and 34°27' N. lat. (Central Management Area), recreational fishing for lingcod is open from May 1 through December 31 (i.e. it's closed from January 1 through April 30).

(5) South of 34°27' N. lat. (Southern Management Area), recreational fishing for lingcod is open from March 1 through December 31 (i.e. it's closed from January 1 through February 28).

\* \* \* \* \*

(C) *Size limits.* Lingcod may be no smaller than 22 in (56 cm) total length.

(D) *Dressing/filleting.* Lingcod filets may be no smaller than 14 in (36 cm) in length.

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[FR Doc. 2010-26941 Filed 10-26-10; 4:15 pm]

BILLING CODE 3510-22-P