Draft Language for Amendment 31 to the Pacific Coast Groundfish Fishery Management Plan

Under Amendment 31, the Pacific Fishery Management Council would amend Chapter 3 of the Pacific Coast Groundfish Fishery Management Plan (FMP) which will specify stocks of the priority species identified for this action.

Staff is proposing the new language and a table (DRAFT EXAMPLE Table 3-2) to be incorporated into FMP Chapter 3. DRAFT EXAMPLE Table 3-2 shows the Council's preliminary preferred alternatives (PPA) stock definitions for black, canary, copper, quillback, and squarespot rockfishes; Dover, petrale, and rex soles; lingcod, Pacific spiny dogfish, sablefish, and shortspine thornyhead. It should be emphasized, this table is for example purposes only and will be updated to the Council's Final Preferred Alternative for submission to National Marine Fisheries Service.

DRAFT EXAMPLE Table 3-2 identifies the stock, the scientific name, and the delineation of the stock. Staff have initially identified the geospatial component of the stock definition in two ways. For species with multiple stocks, staff have listed precise north and south latitudes for the stock. For single stock species, the stock is identified as "Pacific West Coast Fishery Management Unit."

For additional clarity, in order to provide a concise and focused review document, the following only presents Chapters 1-3 of the FMP. The only changes to the FMP occur in these chapters. If the Council approves the changes shown below, they will be incorporated into the full and unabridged FMP document.

PFMC
05/31/23

PACIFIC COAST GROUNDFISH FISHERY MANAGEMENT PLAN

FOR THE CALIFORNIA, OREGON, AND WASHINGTON GROUNDFISH FISHERY

June 2023

PACIFIC FISHERY MANAGEMENT COUNCIL
7700 NE AMBASSADOR PLACE, SUITE 101
PORTLAND, OR 97220
(503) 820-2280
(866) 806-7204
WWW.PCOUNCIL.ORG

This document is published by the Pacific Fishery Management Council; current National Oceanic and Atmospheric Administration Award Number NA15NMF4410016.

Changes to the FMP since Amendment 4 (July 1993)

Current Chapters	Previous Chapters (July 1993 Version)	Summary of Amendment Changes
Chapter 1 Introduction	Chapter 1 Introduction	Updated by Amendment 18
Chapter 2 Goals and Objectives	Chapter 2 Goals and Objectives	Amendments and additions, no substantial change in organization. (Amendments 12, 13, 16-1, 17, 18, 24, and 30.)
Chapter 3 Areas and Stocks Involved	Chapter 3 Areas and Stocks Involved	Amendments and additions, no substantial change in organization. (Amendment 16-1.) Specification of Ecosystem Component (EC) species added under Amendment 24. EC species shared by all four West Coast FMPs added under Amendment 25. Re-designated big skate as an actively managed species under Amendment 27. Designated shortbelly rockfish as an EC species under Amendment 29. Stocks of black, canary, copper, quillback, squarespot, vermilion, vermilion/sunset rockfishes; Dover, petrale, and rex soles; lingcod, Pacific spiny dogfish, sablefish, and shortspine thornyhead were defined under Amendment 31.
Chapter 4 Optimum Yield	Chapter 4 Optimum Yield	Substantially changed and expanded by Amendment 16-1, which moved and revised material on determining OFL, OY, precautionary thresholds, and rebuilding overfished species that was in Chapter 5 into this chapter. Amendments 16-2 and 16-3 add rebuilding plan summaries to section 4.5.4. Amendment 16-4 revises rebuilding plans in section 4.5.4. Substantially changed and expanded by Amendment 23, which provided material on specifying OFLs, redefined ABCs, ACLs, and ACTs. Amendment 30 amendment to specify 2,000 mt threshold for shortbelly rockfish to trigger Council review of fishery

Current Chapters	Previous Chapters (July 1993 Version)	Summary of Amendment Changes
Chapter 5 Specification and Apportionment of Harvest Levels	Chapter 5 Specification and Apportionment of Harvest Levels	Substantially changed by Amendment 16-1, which moved material to Chapter 4, as noted above. Discussion of DAH, DAP, JVP, and TALFF deleted. (Also, Amendments 12, 13, 17, and 18.) Substantially changed by Amendment 23, which incorporated new National Standard 1 guidelines and mandates of the 2006 reauthorization of the Magnuson-Stevens Act. Default harvest control rule process added under Amendment 24.
Chapter 6 Management Measures	Chapter 6 Management Measures	Substantially reorganized and changed by Amendment 18 and 19. (Also Amendments 10, 11, 13, 16-1, 17, 20, 21, 21-1, 21-2, 21-3, 21-4, 23, 24, 25, 27, 28, 29, and 30.) Chapter 6 changed to reflect Amendment 28: 1) Elimination of the trawl RCA off Oregon and California, 2) changed configuration of EFH closed areas, and 3) Closure to bottom contact fishing deeper than 3500m. Formal allocations for lingcod south of 40°10' N lat., Minor Slope Rockfish south of 40°10' N lat., petrale sole, and widow rockfish removed from the FMP under Amendment 29. 3) Amendment 30 amended language to Seasons (6.8.1), Rockfish Conservation Areas (6.8.2), and language describing the function and use of Block Area Closures (6.8.3),
	Chapter 7 Experimental Fisheries	Renumbered Chapter 8
	Chapter 8 Scientific Research	Renumbered Chapter 9
Chapter 7 Essential Fish Habitat		New Chapter created by Amendment 19 from substantially revised material previously in Chapter 6. Updated to reflect new EFH conservation area configuration under Amendment 28, and to remove review/revision process from FMP text.
Chapter 8 Experimental Fisheries		Renumbered and revised by Amendment 18.
Chapter 9 Scientific Research		Renumbered, no other changes.
	Chapter 9 Restrictions on Other Fisheries	Deleted with material incorporated into Chapter 6.

Current Chapters	Previous Chapters (July 1993 Version)	Summary of Amendment Changes
Chapter 10 Procedures for Reviewing State Regulations	Chapter 10 Procedures for Reviewing State Regulations	Background section revised by Amendment 18.
	Chapter 11 Appendices	Published under separate cover.
	Chapter 12 Management Measures that Continue in Effect with Implementation of Amendment 4	Deleted with material incorporated into Chapter 6.
	Chapter 13 References	Moved to an unnumbered section at the end of the document.
Chapter 11 Groundfish Limited Entry	Chapter 14 Groundfish Limited Entry	Renumbered; Amendment 15 modification to section 11.2.12, current section 11.5 inserted as new. Revisions under Amendment 20 including the removal of Amendment 15 text in section 11.2.12. Changed and expanded by Amendment 21.
References		Previously Chapter 13
Guide to Appendices		Previously Chapter 11 contained descriptive information brought forward from the original FMP. This material moved to Appendix A. Three new appendices (B-D) were added by Amendment 19. Appendix E by Amendment 20. Appendix F by Amendment 16 rebuilding plans. Amendment 28 re-organized some Appendices. Appendices B.2, B.3, and B.4 were merged to provide life history, habitat information, and information on habitat suitability modeling in one appendix. Appendix B.5 was eliminated, replaced by the Council's Research and Data Needs Document, which incorporates research needs identified during the Amendment 28 process. Appendix C Part 1 was archived and is available on the Council's website. Appendix C Part 2 was updated with recent information and renamed Part 1.

A note on other annotations: Amended parts of the FMP subsequent to Amendment 4, which substantially revised the original FMP, are denoted at the end of chapters or sections by amendment number.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

ABC	Acceptable biological catch
ACL	Annual catch limit
ACT	Annual catch target
AM(s)	Accountability measure(s)
BAC	Block Area Closure
BCCA	Bottom Contact Closed Area
BTCA	Bottom Trawl Closed Area
CCA	Cowcod Conservation Area
CDFG	California Department of Fish and Game
CPUE	Catch per unit of effort
CRCZ	Columbia River Conservation Zone
CRFS	California Recreational Fisheries Survey
CV	Catcher vessel
DAH	Domestic annual harvest
DAP	Domestic annual processing
DSCS	Deep sea coral and sponge
EC	Ecosystem component
EEZ	Exclusive economic zone
EFH	Essential fish habitat
EFHCA	Essential fish habitat conservation area
EFP	Exempted fishing permit
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FMP	Fishery management plan
FMU	Fishery management unit
GAP	Groundfish Advisory Subpanel
GCA	Groundfish Conservation Area
GFA	Groundfish fishing area
GIS	Geographic information system
GMT	Groundfish Management Team
HAPC	Habitat Area of Particular Concern
HCR	Harvest control rule
HG	Harvest guideline
HSP	Habitat suitability probability
HUD	Habitat Use Database
IFQ	Individual fishing quota
IFQ	Individual fishing quota
INPFC	International North Pacific Fisheries Commission
JV	Joint-venture
JVP	Joint-venture processing
KRCZ	Klamath River Conservation Zone
LE	Limited entry
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
MFMT	Maximum fishing mortality threshold
MHHW	Mean higher high water level
MLR	Minimum landing requirement
MMPA	Marine Mammal Protection Act

MPA	Marine protected area
MRFSS	Marine Recreational Fisheries Statistical Survey
MSST	Minimum stock size threshold
MSY	Maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OFL	Overfishing limit
ORBS	Ocean Recreational Boat Survey (Oregon Department of Fish and Wildlife)
OSP	Washington Department of Fish and Wildlife Ocean Sampling Program
OY	optimum yield
PacFIN	Pacific Fishery Information Network
POP	Pacific ocean perch
PRA	Paperwork Reduction Act
PSMFC	Pacific States Marine Fisheries Commission
RCA	Rockfish Conservation Area
RecFIN	Recreational Fisheries Information Network
SAFE	Stock Assessment and Fishery Evaluation
SDC	Status determination criteria
SEBS	Shore and Estuary Boat Survey (Oregon Department of Fish and Wildlife)
Secretary	U.S. Secretary of Commerce
SFA	Sustainable Fisheries Act
SPR	Spawning biomass per recruit
SSC	Scientific and Statistical Committee
STT	Salmon Technical Team
U&A	Usual and Accustomed Area (Tribal)
USFWS	U.S. Fish and Wildlife Service
VMS	Vessel monitoring system
YRCA	Yelloweye Rockfish Conservation Area

CHAPTER 1 INTRODUCTION

1.1 History of the Fishery Management Plan

The Pacific Coast Groundfish Fishery Management Plan (FMP) was approved by the U.S. Secretary of Commerce (Secretary) on January 4, 1982 and implemented on October 5, 1982. Prior to implementation of the FMP, management of domestic groundfish fisheries was under the jurisdiction of the states of Washington, Oregon, and California. State regulations have been in effect on the domestic fishery for more than 100 years, with each state acting independently in both management and enforcement. Furthermore, many fisheries overlapped state boundaries and participants often operated in more than one state. Management and a lack of uniformity of regulations had become a difficult problem, which stimulated the formation of the Pacific States Marine Fisheries Commission (PSMFC) in 1947. PSMFC had no regulatory power but acted as a coordinating entity with authority to submit specific recommendations to states for their adoption. The 1977 Fishery Conservation and Management Act (later amended and renamed the Magnuson-Stevens Fishery Conservation and Management Act or Magnuson-Stevens Act) established eight regional fishery management Councils, including the Pacific Council. Between 1977 and the implementation of the groundfish FMP in 1982, state agencies worked with the Council to address conservation issues. Specifically, in 1981, managers proposed a rebuilding program for Pacific ocean perch. To implement this program, the states of Oregon and Washington established landing limits for Pacific ocean perch in the Vancouver and Columbia management areas.

Management of foreign fishing operations began in February 1967 when the U.S. and U.S.S.R. signed the first bilateral fishery agreement affecting trawl fisheries off Washington, Oregon, and California. The U.S. later signed bilateral agreements with Japan and Poland for fishing off the U.S. West Coast. Each of these agreements was renegotiated to reduce the impact of foreign fishing on important West Coast stocks, primarily rockfish, Pacific whiting, and sablefish. When the U.S. extended its jurisdiction to 200 miles (upon signing the Fishery Conservation and Management Act of 1976), the National Marine Fisheries Service (NMFS) developed and the Secretary implemented the preliminary management plan for the foreign trawl fishery off the Pacific Coast. From 1977 to 1982, the foreign fishery was managed under that plan. Many of these regulations were incorporated into the FMP, which provided for continued management of the foreign fishery.

Joint-venture fishing, where domestic vessels caught the fish to be processed aboard foreign vessels, began in 1979 and by 1989 had entirely supplanted directed foreign fishing. These joint ventures primarily targeted Pacific whiting. Joint-venture fisheries were then rapidly replaced by wholly domestic processing; by 1991 foreign participation had ended and U.S.-flagged motherships (MS), catcher-processors, and shore-based vessels had taken over the Pacific whiting fishery. Since then, U.S. fishing vessels and seafood processors have fully utilized Pacific Coast fishery resources. Although the Council may entertain applications for foreign or joint venture fishing or processing at any time, provisions for these activities

have been removed from the FMP. Re-establishing such opportunities would require another FMP amendment.

Since it was first implemented in 1982, the Council has amended the Groundfish FMP 33 times in response to changes in the fishery, reauthorizations of the Magnuson-Stevens Act, and litigation that invalidated provisions incorporated by earlier amendments. During the first 10 years of plan implementation, up to 1992, the Secretary approved six amendments. Amendment 4, approved in 1990, was the most significant early amendment; in addition to a comprehensive update and reorganization of the FMP, it established additional framework procedures for establishing and modifying management measures. Another important change was implemented in 1992 with Amendment 6, which established a license limitation (limited entry) program intended to address overcapitalization by restricting further participation in groundfish trawl, longline, and trap fisheries. Amendments 7 (bycatch of non-groundfish species) and 8 (IFQ for fixed gear sablefish) were not approved by the Council.

The next decade, through 2002, saw the approval of another seven amendments. Amendment 9 modified the limited entry (LE) program by establishing a sablefish endorsement for longline and pot permits. Amendments 11, 12, and 13 were responses to changes in the Magnuson-Stevens Act due to the 1996 Sustainable Fisheries Act. These changes required FMPs to identify essential fish habitat (EFH), more actively reduce bycatch and bycatch mortality, and strengthen conservation measures to both prevent fish stocks from becoming overfished and promote rebuilding of any stocks that had become overfished. Amendment 14, implemented in 2001, built on Amendment 9 to further refine the LE permit system for the economically important fixed gear sablefish fishery. It allowed a vessel owner to "stack" up to three LE permits on one vessel along with associated sablefish catch limits. This, in combinations with a concurrent action to extend the season length, in effect established a limited tradable quota system for participants in the primary sablefish fishery.

Most of the amendments adopted since 2001 deal with legal challenges to the three Sustainable Fisheries Act of 1996 (SFA)-related amendments mentioned above, which were remanded in part by the Federal Court. These have required new amendments dealing with overfishing, bycatch monitoring and mitigation, and EFH. In relation to the first of these three issues, the Magnuson-Stevens Act now requires FMPs to identify thresholds for both the fishing mortality rate constituting overfishing and the stock size below which a stock is considered overfished. Once the Secretary determines a stock is overfished, the Council must develop and implement a plan to rebuild it to a healthy level. The Court found that the rebuilding plan framework adopted by Amendment 12 did not comply with the Magnuson-Stevens Act. In response, Amendments 16-1, 16-2, 16-3, 16-4, and 16-5 (also known as Secretarial Amendment 1) established the current regime for managing these overfished species. Amendment 16-1, approved in 2003, incorporated guidelines for developing and adopting rebuilding plans and substantially revised Chapters 4 and 5. Amendments 16-2 and 16-3, approved in 2004, incorporated key elements of rebuilding plans into Section 4.5.4. In 2005, a Court of Appeals ruling refined court interpretation of the Magnuson-Stevens Act rebuilding period requirements. Amendment 16-4, partially approved in 2006, revised the FMP to specify that rebuilding periods will be as short as possible, taking into account the status and biology of the stocks, the needs of fishing communities, and interactions of overfished stocks with the marine ecosystem. As a result of this ruling, Amendment 16-4 also revised the rebuilding periods for darkblotched rockfish, Pacific ocean perch, canary rockfish, bocaccio, cowcod, widow rockfish, and yelloweye rockfish. Amendment 16-5 established a petrale sole rebuilding plan and established new proxy reference points for managing flatfish species.

Amendment 15 was initiated in 1999 in response to provisions in the American Fisheries Act intended to shield West Coast fisheries from certain effects of that legislation. Because of competing workload and no threatened imminent harm, the Council tabled action on Amendment 15 in 2001. Work on the amendment was re-initiated in 2007 in response to changes in the Pacific whiting fishery. Its purpose was to address

conservation and socioeconomic issues in the shoreside, catcher/processor, and MS sectors of the Pacific whiting fishery by requiring vessels to qualify for an additional license to participate in a given sector, based on their historical participation. It was an interim measure, which sunsetted with trawl rationalization program (Amendment 20) implementation.

Amendment 17 modified the periodic process the Council uses to establish and modify harvest specifications and management measures for the groundfish fishery. Although not an SFA-related issue, this change did solve a procedural problem raised in litigation. The Council now establishes specifications and management measures every two years, allowing more time for them to be developed during the Council's public meetings.

Amendment 18, approved in 2006, addresses a remand of elements in Amendment 11 related to bycatch monitoring and mitigation. It incorporates a description of the Council's bycatch-related policies and programs into Chapter 6. It also effected a substantial reorganization and update of the FMP, so that it better reflects the Council's and NMFS's evolving framework approach to management. Under this framework, the Council may recommend a range of broadly defined management measures for NMFS to implement. In addition to the range of measures, this FMP specifies the procedures the Council and NMFS must follow to establish and modify these measures. When first implemented, the FMP specified a relatively narrow range of measures, which were difficult to modify in response to changes in the fishery. The current framework allows the Council to effectively respond when faced with the dynamic challenges posed by the current groundfish fishery.

Amendment 19, also approved in 2006, revises the definition of groundfish EFH, identified habitat areas of particular concern (HAPCs), and describes management measures intended to mitigate the adverse effects of fishing on EFH. This amendment supplants the definition of EFH added to the FMP by Amendment 11.

Amendment 20 was approved in 2010 and establishes the groundfish trawl rationalization program. Under this program, groundfish LE trawl vessels making shoreside deliveries are managed with individual fishing quotas. Motherships and associated catcher-vessels in the at-sea Pacific whiting sector are managed under a system of regulated cooperatives. Pacific whiting catcher-processors fish within a voluntary cooperative; the amendment establishes provisions to strengthen this cooperative. As noted above, Amendment 20 supersedes provisions in Amendment 15; corresponding text was replaced.

Amendment 21 was approved in 2010 and establishes long-term allocations between the trawl and non-trawl sectors of the groundfish fishery; establishes a short-term allocational split between the shoreside whiting and non-whiting fishery, necessary for implementation of the individual fishing quota (IFQ) program (established through Amendment 20); establishes darkblotched rockfish, Pacific ocean perch and widow rockfish allocations among the at-sea trawl and shoreside trawl sectors (later removed by Amendment 21-4); identifies the need for initial set-asides for the at-sea trawl sectors; and establishes a Pacific halibut bycatch allowance to be provided to the trawl fishery in the form of individual bycatch quota (established through Amendment 20).

Amendment 21-1 was approved in 2011. It clarified that the Amendment 21 allocation percentages supersede the limited entry/open access allocations for certain groundfish species and revised the amount of bycatch quota pounds that will be issued for the shoreside trawl fishery to cover Pacific halibut mortality to better match the objective specified in Amendment 21.

Amendment 21-2 was approved in 2012. It revised catch accounting provisions for clarity, reinstated provisions that were inadvertently deleted with Amendment 21, and revised annual catch limit set-aside

provisions to allow for the routine reallocation of unused harvest set-asides as part of any considered inseason fishery adjustment.

Amendment 21-3 was approved in 2017. It changed the at-sea whiting sectors' allocations of darkblotched rockfish and POP from total catch limits to set-asides, while maintaining the allocation formulas in the Fishery Management Plan (FMP) for these two stocks to determine the set-aside amounts.

Amendment 21-4 was approved in 2018. It changed the at-sea whiting sectors' allocations of canary rockfish and widow rockfish from total catch limits to set-asides and removed from the FMP the formulas for determining the set-aside amounts for darkblotched rockfish, POP, and widow rockfish going to the at-sea sectors.

Amendment 22 (an open access fishery registration program) was not approved by the Council.

Amendment 23 was approved in 2010 to incorporate new National Standard 1 guidelines to prevent overfishing. These new National Standard 1 guidelines were developed in response to the Magnuson-Stevens Act re-authorization of 2006 which mandated an end to overfishing.

Amendment 24 was approved in February 2015 to describe the use of default harvest control rules in the biennial harvest specifications process and to clarify the descriptions of new and routine management measures that may be implemented during the biennial process. Amendment 24 also designated some species as Ecosystem Component Species and incorporated a variety of technical changes to the FMP.

Amendment 25 was approved in 2015 and added a suite of lower trophic level species to the FMP's list of ecosystem component (EC) species. Consistent with the objectives of the Council's FMPs and its Fishery Ecosystem Plan, Amendment 25 prohibits future development of directed commercial fisheries for the suite of EC species shared between all four FMPs until and unless the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem.

Amendment 26 (removing blackgill rockfish from the southern Slope Rockfish complex and amending the trawl/non-trawl allocations of blackgill rockfish and the other species in the complex) was not approved by the Council.

Amendment 27 reclassified big skate from an ecosystem component species to "in the fishery," listed deacon rockfish in Table 3-1, and revised Chapter 5.5 to describe a new inseason process in California. The new inseason process for California fisheries occurs outside of a Council meeting and allows NMFS to take action based upon attainment or projected attainment of Federal harvest limits of black rockfish (commercial and recreational), canary rockfish (recreational), and yelloweye rockfish (recreational). Additionally, this amendment included updates to the FMP to clarify matters from Amendment 23 and acknowledge the successful rebuilding of canary rockfish and petrale sole.

Amendment 28 modified the configuration of EFH Conservation Areas (EFHCAs) that are closed to groundfish bottom trawl fishing in order to protect EFH, closed waters deeper than 3,500 meters to bottom contact fishing gear, opened the trawl RCA to bottom trawl fishing off Oregon and California, and created a framework to consider and implement more flexible area closures with block area closures.

Amendment 29 designated shortbelly rockfish as an ecosystem component species and removed the formal allocations of lingcod south of 40°10' N lat., petrale sole, widow rockfish, and Minor Slope Rockfish south of 40°10' N lat. from the FMP.

Amendment 30 specified a 2,000 mt shortbelly rockfish catch threshold that, when exceeded or projected to be exceeded, would trigger Council review of the fishery, corrections to the block area closure definition, clarification of Rockfish Conservation Areas, and change of the sablefish season specification language.

Amendment 31 defined and delineated stocks for black, canary, copper, quillback, squarespot, vermilion, vermilion/sunset rockfishes; Dover, petrale, and rex soles; lingcod, Pacific spiny dogfish, sablefish, and shortspine thornyhead.

1.2 How This Document is Organized

The groundfish FMP is organized into 11 chapters.

- Chapter 1 (this chapter) describes the development of the FMP and how it is organized.
- Chapter 2 describes the goals and objectives of the plan and defines key terms and concepts.
- Chapter 3 specifies the geographic area covered by this plan and lists the plan's Fishery Management Unit (FMU) species and Ecosystem Component (EC) species, including those EC species shared between all four of the Council's FMPs.
- Chapter 4 describes how the Council determines harvest levels. These harvest limits are related to the maximum sustainable yield (MSY) and overfishing limit (OFL) for FMU species. Precautionary reductions from these thresholds may be applied, depending on the management status of a given stock. If, according to these thresholds, a stock is determined to be overfished, the Council must recommend measures to end overfishing and develop a rebuilding plan, as specified in this chapter. Based on the thresholds, criteria, and procedures described in this chapter, the Council specifies an annual catch limit (ACL), or harvest limit, for managed stocks or stock complexes.
- Chapter 5 describes how the Council periodically specifies harvest levels and the management measures needed to prevent catches from exceeding those levels. Currently, the Council develops these specifications over the course of three meetings preceding the start of a two-year management period. This chapter also describes how the stock assessment/fishery evaluation (SAFE) document, which provides information important to management, is developed.
- Chapter 6 describes the management measures used by the Council to meet the objectives of the Magnuson-Stevens Act and this FMP. As noted above, this FMP is a framework plan; therefore, the range of management measures is described in general terms while the processes necessary to establish or modify different types of management measures are detailed. Included in the description of management measures is the Council's program for monitoring total catch (which includes bycatch) and minimizing bycatch.
- Chapter 7 identifies EFH for groundfish FMU species and the types of measures that may be used to mitigate adverse impacts to EFH from fishing.
- Chapter 8 describes procedures followed by the Council to evaluate and recommend issuing exempted fishing permits (EFPs). Permitted vessels are authorized, for limited experimental purposes, to harvest groundfish by means or in amounts that would otherwise be prohibited by this FMP and its implementing regulations. These permits allow experimentation in support of FMP goals and objectives. EFPs have been used, for example, to test gear types that result in less bycatch.

- Chapter 9 provides criteria for determining what activities involving groundfish would qualify as scientific research and could therefore qualify for special treatment under the management program.
- Chapter 10 describes the procedures used to review state regulations in order to ensure that they are consistent with this FMP and its implementing regulations.
- Chapter 11 describes the groundfish LE program.
- Appendix A contains descriptions of the biological, economic, social, and regulatory characteristics of the groundfish fishery.
- Appendix B contains detailed information on groundfish EFH, life history descriptions, Habitat Use Database Description, and Habitat Suitability Probability information.
- Appendix C describes the effects of fishing on groundfish EFH.
- Appendix D describes the effects of activities other than fishing on groundfish EFH.
- Appendix E contains a detailed description of the trawl rationalization program (see Section 6.9.3.1).
- Appendix F contains a description of overfished species rebuilding plans.

The appendices contain supporting information for the management program. Because these appendices do not describe the management framework or Council groundfish management policies and procedures, and only supplement the required and discretionary provisions of the FMP described in §303 of the Magnuson-Stevens Act, they may be periodically updated without being subjected to the Secretarial review and approval process described in §304(a) of the Magnuson-Stevens Act. These appendices are published under separate cover.
[Amended: 11, 18, 19, 16-2, 16-3, 16-4, 16-5, 15, 20, 21, 23, 24, 25]

CHAPTER 2 GOALS AND OBJECTIVES

2.1 Goals and Objectives for Managing the Pacific Coast Groundfish Fishery

The Council is committed to developing long-range plans for managing the Washington, Oregon, and California groundfish fisheries that will promote a stable planning environment for the seafood industry, including marine recreation interests, and will maintain the health of the resource and environment. In developing allocation and harvesting systems, the Council will give consideration to maximizing economic benefits to the United States, consistent with resource stewardship responsibilities for the continuing welfare of the living marine resources. Thus, management must be flexible enough to meet changing social and economic needs of the fishery as well as to address fluctuations in the marine resources supporting the fishery. The following goals have been established in order of priority for managing the west coast groundfish fisheries, to be considered in conjunction with the national standards of the Magnuson-Stevens Act.

Management Goals

Goal 1 - Conservation. Prevent overfishing and rebuild overfished stocks by managing for appropriate harvest levels and prevent, to the extent practicable, any net loss of the habitat of living marine resources.

Goal 2 - Economics. Maximize the value of the groundfish resource as a whole.

Goal 3 - Utilization. Within the constraints of overfished species rebuilding requirements, achieve the maximum biological yield of the overall groundfish fishery, promote year-round availability of quality seafood to the consumer, and promote recreational fishing opportunities.

Objectives. To accomplish these management goals, a number of objectives will be considered and followed as closely as practicable:

Conservation

Objective 1. Maintain an information flow on the status of the fishery and the fishery resource which allows for informed management decisions as the fishery occurs.

Objective 2. Adopt harvest specifications and management measures consistent with resource stewardship responsibilities for each groundfish species or species group. Achieve a level of harvest capacity in the fishery that is appropriate for a sustainable harvest and low discard rates, and which results in a fishery that is diverse, stable, and profitable. This reduced capacity should lead to more effective management for many other fishery problems.

Objective 3. For species or species groups that are overfished, develop a plan to rebuild the stock as soon as possible, taking into account the status and biology of the stock, the needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock within the marine ecosystem.

Objective 4. Where conservation problems have been identified for non-groundfish species and the best scientific information shows that the groundfish fishery has a direct impact on the ability of that species to maintain its long-term reproductive health, the Council may consider establishing management measures

to control the impacts of groundfish fishing on those species. Management measures may be imposed on the groundfish fishery to reduce fishing mortality of a non-groundfish species for documented conservation reasons. The action will be designed to minimize disruption of the groundfish fishery, in so far as consistent with the goal to minimize the bycatch of non-groundfish species, and will not preclude achievement of a quota, harvest guideline, or allocation of groundfish, if any, unless such action is required by other applicable law.

Objective 5. Describe and identify EFH, adverse impacts on EFH, and other actions to conserve and enhance EFH, and adopt management measures that minimize, to the extent practicable, adverse impacts from fishing on EFH.

Economics

Objective 6. Within the constraints of the conservation goals and objectives of the FMP, attempt to achieve the greatest possible net economic benefit to the nation from the managed fisheries.

Objective 7. Identify those sectors of the groundfish fishery for which it is beneficial to promote year-round marketing opportunities and establish management policies that extend those sectors fishing and marketing opportunities as long as practicable during the fishing year.

Objective 8. Gear restrictions to minimize the necessity for other management measures will be used whenever practicable. Encourage development of practicable gear restrictions intended to reduce regulatory and/or economic discards through gear research regulated by EFP.

Utilization

Objective 9. Develop management measures and policies that foster and encourage full utilization (harvesting and processing), in accordance with conservation goals, of the Pacific Coast groundfish resources by domestic fisheries.

Objective 10. Recognize the multispecies nature of the fishery and establish a concept of managing by species and gear or by groups of interrelated species.

Objective 11. Develop management programs that reduce regulations-induced discard and/or which reduce economic incentives to discard fish. Develop management measures that minimize bycatch to the extent practicable and, to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. Promote and support monitoring programs to improve estimates of total fishing-related mortality and bycatch, as well as those to improve other information necessary to determine the extent to which it is practicable to reduce bycatch and bycatch mortality.

Social Factors.

Objective 12. When conservation actions are necessary to protect a stock or stock assemblage, attempt to develop management measures that will affect users equitably.

Objective 13. Minimize gear conflicts among resource users.

Objective 14. When considering alternative management measures to resolve an issue, choose the measure that best accomplishes the change with the least disruption of current domestic fishing practices, marketing procedures, and the environment.

Objective 15. Avoid unnecessary adverse impacts on small entities.

Objective 16. Consider the importance of groundfish resources to fishing communities, provide for the sustained participation of fishing communities, and minimize adverse economic impacts on fishing communities to the extent practicable.

Objective 17. Promote the safety of human life at sea.

[Amended; 7, 11, 13, 16-1, 18, 16-4]

2.2 Operational Definition of Terms

Acceptable Biological Catch (ABC) is a harvest specification that accounts for the scientific uncertainty in the estimate of OFL, and any other scientific uncertainty.

Accountability Measures (AMs) are management controls, such as inseason adjustments to fisheries or annual catch targets, to prevent annual catch limits, including sector-specific annual catch limits, from being exceeded, and to correct or mitigate overages of the annual catch limit if they occur. AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible.

Annual Catch Limit (ACL) is a harvest specification set equal to or below the ABC in consideration of conservation objectives, socioeconomic concerns, management uncertainty, ecological concerns, 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 ACLs 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. The ACL serves as the basis for invoking AMs.

Annual Catch Target (ACT) is a management target set below the ACL and may be used as an AM in cases where there is uncertainty in inseason catch monitoring to ensure against exceeding an ACL. Since the ACT 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 ACTs can also be specified to accomplish management objectives.

Biennial fishing period is defined as a 24-month period beginning January 1 and ending December 31.

Block Area Closure (BAC) is a type of groundfish conservation area bounded on the north and south by commonly used geographic coordinates, and on the east and west by boundary lines approximating depth contours, defined with latitude and longitude coordinates. BACs may be implemented or modified, in the EEZ seaward of Washington, Oregon and California, as routine management measures.

Bottom (or flatfish bottom) trawl is a trawl in which the otter boards or the footrope of the net are in contact with the seabed. It includes roller (or bobbin) trawls, Danish and Scottish seine gear, and pair trawls fished on the bottom.

Bottom-contact gear by design, or as modified, and through normal use makes contact with the sea floor.

Bycatch means fish which are harvested in a fishery, but which are not sold or kept for personal use and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program.

Chafing gear is webbing or other material attached to the codend of a trawl net to protect the codend from wear.

Charter fishing means fishing from a vessel carrying a passenger for hire (as defined in section 2101(21a) of title 46, United States Code) who is engaged in recreational fishing.

Closure, when referring to closure of a fishery, means that taking and retaining, possessing or landing the particular species or species complex is prohibited.

Council means the Pacific Fishery Management Council, including its Groundfish Management Team (GMT), Scientific and Statistical Committee (SSC), Groundfish Advisory Subpanel (GAP), and any other committee established by the Council.

Commercial fishing is (1) fishing by a person who possesses a commercial fishing license or is required by law to possess such license issued by one of the states or the Federal government as a prerequisite to taking, landing, and/or sale; or (2) fishing which results in or can be reasonably expected to result in sale, barter, trade, or other disposition of fish for other than personal consumption.

Double-walled codend is a codend constructed of two walls of webbing.

Economic discards means fish which are the target of a fishery, but which are not retained because they are of an undesirable size, sex, quality, or for other economic reasons.

Ecosystem Component Species are FMP species that are not actively managed in the fishery (i.e., no harvest specifications are specified for these species). Ecosystem component species are not targeted, are not generally retained for sale or personal use, are not subject to overfishing, and are not overfished or approaching an overfished condition (see section 4.4.4 for more detail). This FMP includes both EC species that are specific to the Groundfish FMP and EC species that are shared between all four of the Council's FMPs (referred to as "Shared EC Species").

Essential fish habitat means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.

Exploitable biomass is the biomass that is available to a unit of fishing effort. Defined as the sum of the population biomass at age (calculated as the mean within the fishing year) multiplied by the age-specific availability to the fishery. Exploitable biomass is equivalent to the catch biomass divided by the instantaneous fishing mortality rate.

F is the instantaneous rate of fishing mortality. F typically varies with age, so the F values are presented for the age with maximum F. Fish of other ages have less availability to the fishery, so a unit of effort applies a lower relative level of fishing mortality to these fish.

F_{MSY} is the fishing mortality rate that maximizes catch biomass in the long term.

$F_{SPR\ x\%}$ is the fishing mortality rate that will produce a given spawning potential ratio. The SPR is the average fecundity of a recruit over its lifetime when the stock is fished divided by the average fecundity of a recruit over its lifetime when the stock is unfished. The SPR is based on the principle that a certain biomass of fish has to survive in order to spawn and replenish the stock at a sustainable level.

Fishing means (1) the catching, taking, or harvesting of fish; (2) the attempted catching, taking, or harvesting of fish; (3) any other activity which can reasonably be expected to result in the catching, taking,

or harvesting of fish; or (4) any operations at sea in support of, or in preparation for, any activity described above. This term does not include any activity by a vessel conducting authorized scientific research.

Fishing year is defined as January 1 through December 31.

Fishing community means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs and includes fishing vessel owners, operators, crew, and recreational fishers and United States fish processors that are based in such community.

Fixed gear (anchored non-trawl gear) includes longline, trap or pot, set net, and stationary hook-and-line gear (including commercial vertical hook-and-line gears).

Gillnet is a single-walled, rectangular net which is set upright in the water.

Harvest guideline (HG) is a specified numerical harvest objective which is not a quota. Attainment of a HG does not require closure of a fishery.

Hook-and-line means one or more hooks attached to one or more lines. Commercial hook-and-line fisheries may be mobile (troll) or stationary (anchored).

Incidental catch or incidental species means groundfish species caught when fishing for the primary purpose of catching a different species.

Individual fishing quota (IFQ) means a Federal permit under a limited access system to harvest a quantity of fish expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person.

Longline is a stationary, buoyed, and anchored groundline with hooks attached, so as to fish along the seabed.

Maximum fishing mortality threshold (MFMT) is the level of fishing mortality (F), on an annual basis, above which overfishing is occurring. The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.

Maximum sustainable yield (MSY) is an estimate of the largest average annual catch or yield that can be taken over a significant period of time from each stock under prevailing ecological and environmental conditions. It may be presented as a range of values. One MSY may be specified for a group of species in a mixed-species fishery. Since MSY is a long-term average, it need not be specified annually, but may be reassessed periodically based on the best scientific information available.

Midwater (pelagic or off-bottom) trawl is a trawl in which the otter boards may occasionally contact the seabed, but the footrope of the net remains above the seabed. It includes pair trawls if fished in midwater. A midwater trawl has no rollers or bobbins on the net.

MSY stock size means the largest long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate units that would be achieved under an MSY control rule in which the fishing mortality rate is constant. The proxy typically used in this fishery management plan is 40 percent of the estimated unfished biomass, although other values based on the best scientific information are also authorized.

Minimum stock size threshold (MSST) is the level of biomass below which the stock or stock complex is considered to be overfished.

Non-trawl gear means all legal commercial gear other than trawl gear.

Optimum yield (OY) means the amount of fish which will provide the greatest overall benefit to the U.S., particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems, is prescribed as such 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, provides for rebuilding to a level consistent with producing the MSY in such fishery.

Overfished describes any stock or stock complex whose size is sufficiently diminished that a change in management practices is required to achieve an appropriate level and rate of rebuilding. The term generally describes any stock or stock complex determined to be below its overfished/rebuilding threshold. The default proxy is generally 25 percent of its estimated unfished biomass; however, other scientifically valid values are also authorized.

Overfishing means exceeding an OFL specified in regulations.

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.

Processing or to process means the preparation or packaging of groundfish to render it suitable for human consumption, retail sale, industrial uses, or long-term storage, including, but not limited to, cooking, canning, smoking, salting, drying, filleting, freezing, or rendering into meal or oil, but does not mean heading and gutting unless additional preparation is done.

Processor means a person, vessel, or facility that (1) engages in processing, or (2) receives live groundfish directly from a fishing vessel for sale without further processing.

Prohibited species are those species and species groups which must be returned to the sea as soon as is practicable with a minimum of injury when caught and brought aboard except when their retention is authorized by other applicable law. Exception may be made in the implementing regulations for tagged fish, which must be returned to the tagging agency, or for examination by an authorized observer.

Quota means a specified numerical harvest objective, the attainment (or expected attainment) of which causes closure of the fishery for that species or species group. Groundfish species or species groups under this FMP for which quotas have been achieved shall be treated in the same manner as prohibited species.

Recreational fishing means fishing for sport or pleasure, but not for sale.

Regulatory discards are fish harvested in a fishery which fishermen are required by regulation to discard whenever caught or are required by regulation to retain, but not sell.

Rockfish Conservation Area means an area of the EEZ closed to fishing with certain gear types to control catch of groundfish. Areas are bounded on the east and west by latitude and longitude coordinates that approximate depth contours and may extend coastwide (north and south) and around islands.

Roller (or bobbin) trawl is a bottom trawl that has footropes equipped with rollers or bobbins made of wood, steel, rubber, plastic, or other hard material intended to keep the footrope above the seabed, thereby protecting the net.

Set-aside is the amount of yield of an actively managed stock or stock complex that is deducted from an ACL or sector allocation. A set-aside deducted from an ACL is designed to accommodate catch in Tribal fisheries, research fisheries, exempted fishing permit activities, and bycatch in non-groundfish fisheries. A set-aside deducted from a sector allocation is designed to accommodate catch for a portion of the sector where within-sector allocations are not specified (e.g., set-asides for the at-sea whiting sectors for many stocks are deducted from formal trawl allocations to accommodate expected bycatch).

Set net is a stationary, buoyed, and anchored gillnet or trammel net.

Spawning biomass is the biomass of mature female fish at the beginning of the year. If the production of eggs is not proportional to body weight, then this definition should be modified to be proportional to expected egg production.

Spawning biomass per recruit (SPR) is the expected egg production of a female fish over its lifetime. Alternatively, this is the mature female biomass of an equilibrium stock divided by the mean level of recruitment that produced this stock.

Spear is a sharp, pointed, or barbed instrument on a shaft. Spears may be propelled by hand or by mechanical means.

Stock Assessment and Fishery Evaluation (SAFE) document is a document prepared by the Council that provides a summary of the most recent biological condition of species in the fishery management unit, and the social and economic condition of the recreational and commercial fishing industries. It summarizes, on a periodic basis, the best available information concerning the past, present, and possible future condition of the stocks and fisheries managed by the FMP.

Target fishing means fishing for the primary purpose of catching a particular species or species group (the target species).

Trammel net is a gillnet made with two or more walls joined to a common float line.

Trap (or pot) is a portable, enclosed device with one or more gates or entrances and one or more lines attached to surface floats.

Vertical hook-and-line gear (commercial) is hook-and-line gear that involves a single line anchored at the bottom and buoyed at the surface so as to fish vertically.

[Amended: 5, 11, 13, 17, 18, 19, 23, 25, 30]

CHAPTER 3 AREAS AND STOCKS INVOLVED

The management regime of this FMP applies to:

1. The U.S. EEZ of the northeast Pacific ocean that lies between the U.S.-Canada border (as specified in *Federal Register*, Volume 42, Number 44, March 7, 1977, page 12938) and the U.S.-Mexico border (Figure 3-1).
2. All foreign and domestic commercial and recreational vessels which are used to fish for groundfish in the management area.
3. Groundfish stocks of this fishery management unit (FMU) (Table 3-1).
4. All groundfish species comprising this FMU (Table 3-2).

Management Areas. Upon consideration of stock distribution and domestic and foreign historical catch statistics, the following statistical areas (Figure 3-1) have been determined by the Pacific Fishery Management Council (Council) to be the most convenient administrative and biological management areas. These areas are based on International North Pacific Fisheries Commission (INPFC) statistical areas, but in some cases have been modified slightly. The areas are, from south to north:

Conception - Southern boundary of EEZ to 36° 00' North latitude (N. lat.)
Monterey - 36° 00' N. lat. to 40° 30' N. lat.
Eureka - 40° 30' N. lat. to 43° 00' N. lat.
Columbia - 43° 00' N. lat. to 47° 30' N lat.
Vancouver - 47° 30' N. lat. to northern boundary of the EEZ

These areas may be modified or deleted and additional statistical reporting and management areas may be added, modified, or deleted if necessary to refine information or management of a species or species group. Changes will be implemented in accordance with the procedures in Chapters 5 and 6.

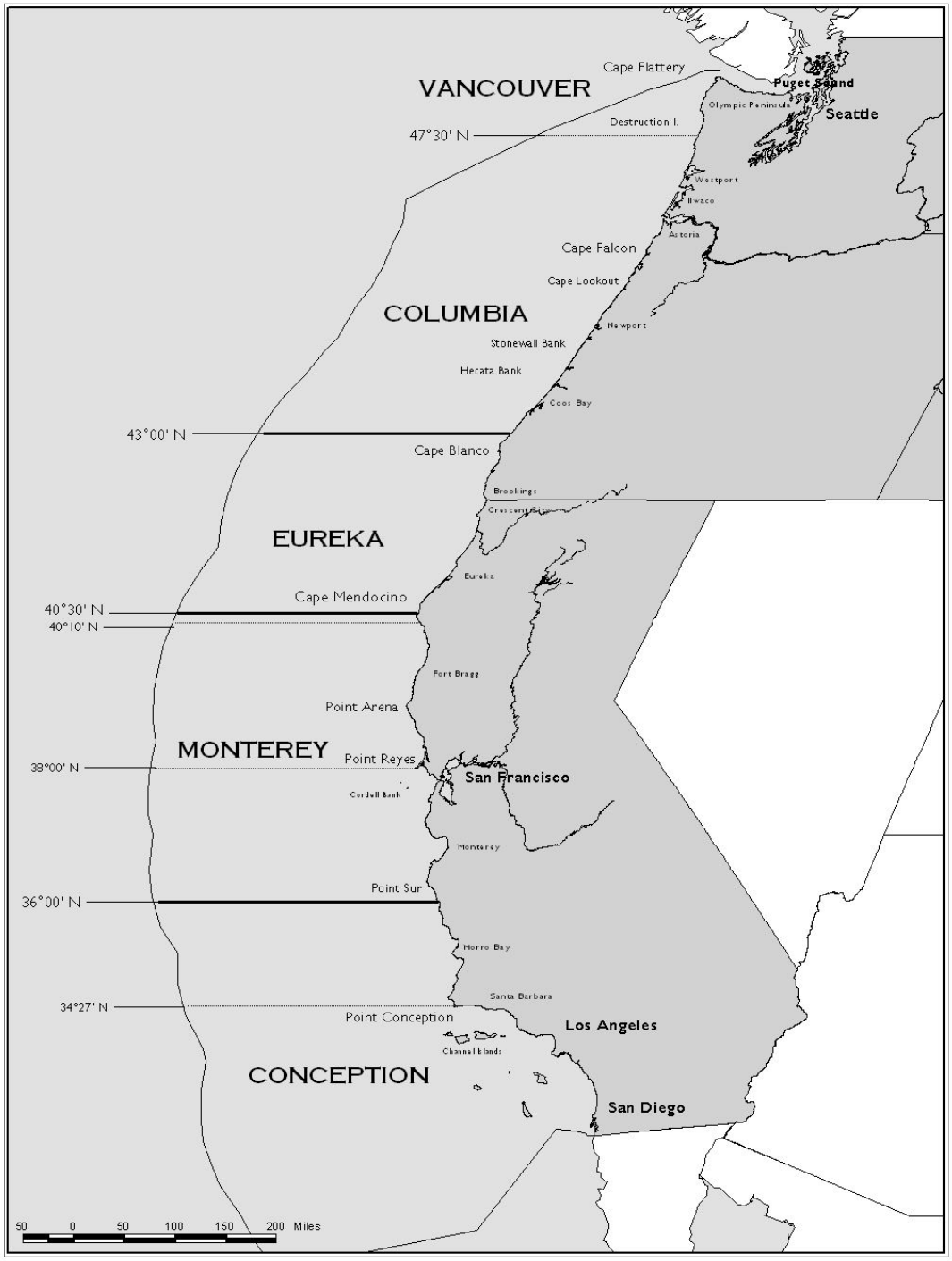

Figure 3-1. International North Pacific Fisheries Commission (INPFC) statistical areas in the U.S. exclusive economic zone seaward of Washington, Oregon, and California.

3.1 Species Managed by this Fishery Management Plan

Table 3-1 is the listing of groundfish species actively managed under this FMP.

Table 3-1. Common and scientific names of species actively managed in this FMP.

Common Name	Scientific Name
ELASMOBRANCHS	
Big skate	*Raja binoculata*
Leopard shark	*Triakis semifasciata*
Longnose skate	*Raja rhina*
Pacific Spiny dogfish	*Squalus suckleyi*
ROUNDFISH	
Cabezon	*Scorpaenichthys marmoratus*
Kelp greenling	*Hexagrammos decagrammus*
Lingcod	*Ophiodon elongatus*
Pacific cod	*Gadus macrocephalus*
Pacific whiting (hake)	*Merluccius productus*
Sablefish	*Anoplopoma fimbria*
ROCKFISH[a/1]	
Aurora rockfish	*Sebastes aurora*
Bank rockfish	*S. rufus*
Black rockfish	*S. melanops*
Black and yellow rockfish	*S. chrysomelas*
Blackgill rockfish	*S. melanostomus*
Blackspotted rockfish	*S. melanostictus*
Blue rockfish	*S. mystinus*
Bocaccio	*S. paucispinis*
Bronzespotted rockfish	*S. gilli*
Brown rockfish	*S. auriculatus*
Calico rockfish	*S. dallii*
California scorpionfish	*Scorpaena gutatta*
Canary rockfish	*Sebastes pinniger*
Chameleon rockfish	*S. phillipsi*
Chilipepper rockfish	*S. goodei*
China rockfish	*S. nebulosus*
Copper rockfish	*S. caurinus*
Cowcod	*S. levis*
Darkblotched rockfish	*S. crameri*
Deacon rockfish	*S. diaconus*
Dusky rockfish	*S. ciliatus*
Dwarf-red rockfish	*S. rufinanus*
Flag rockfish	*S. rubrivinctus*
Freckled rockfish	*S lentiginosus*
Gopher rockfish	*S. carnatus*
Grass rockfish	*S. rastrelliger*
Greenblotched rockfish	*S. rosenblatti*
Greenspotted rockfish	*S. chlorostictus*
Greenstriped rockfish	*S. elongatus*
Halfbanded rockfish	*S. semicinctus*
Harlequin rockfish	*S. variegatus*

[1] The category "rockfish" includes all genera (*Sebastes, Scorpaena, Sebastolobus, and Scorpaenodes)* and species of the family Scorpaenidae, even if not listed, that occur in the waters off Washington, Oregon, and California.

Common Name	Scientific Name
Honeycomb rockfish	*S. umbrosus*
Kelp rockfish	*S. atrovirens*
Longspine thornyhead	*Sebastolobus altivelis*
Mexican rockfish	*Sebastes macdonaldi*
Olive rockfish	*S. serranoides*
Pink rockfish	*S. eos*
Pinkrose rockfish	*S. simulator*
Pygmy rockfish	*S. wilsoni*
Pacific ocean perch	*S. alutus*
Quillback rockfish	*S. maliger*
Redbanded rockfish	*S. babcocki*
Redstripe rockfish	*S. proriger*
Rosethorn rockfish	*S. helvomaculatus*
Rosy rockfish	*S. rosaceus*
Rougheye rockfish	*S. aleutianus*
Sharpchin rockfish	*S. zacentrus*
Shortraker rockfish	*S. borealis*
Shortspine thornyhead	*Sebastolobus alascanus*
Silvergray rockfish	*Sebastes brevispinis*
Speckled rockfish	*S. ovalis*
Splitnose rockfish	*S. diploproa*
Squarespot rockfish	*S. hopkinsi*
Sunset rockfish	*S. crocotulus*
Starry rockfish	*S. constellatus*
Stripetail rockfish	*S. saxicola*
Swordspine rockfish	*S. ensifer*
Tiger rockfish	*S. nigrocinctus*
Treefish	*S. serriceps*
Vermilion rockfish	*S. miniatus*
Widow rockfish	*S. entomelas*
Yelloweye rockfish	*S. ruberrimus*
Yellowmouth rockfish	*S. reedi*
Yellowtail rockfish	*S. flavidus*
FLATFISH	
Arrowtooth flounder (turbot)	*Atheresthes stomias*
Butter sole	*Isopsetta isolepis*
Curlfin sole	*Pleuronichthys decurrens*
Dover sole	*Microstomus pacificus*
English sole	*Parophrys vetulus*
Flathead sole	*Hippoglossoides elassodon*
Pacific sanddab	*Citharichthys sordidus*
Petrale sole	*Eopsetta jordani*
Rex sole	*Glyptocephalus zachirus*
Rock sole	*Lepidopsetta bilineata*
Sand sole	*Psettichthys melanostictus*
Starry flounder	*Platichthys stellatus*

3.2 Stocks Managed under this Fishery Management Plan

The Council geographically delineates (i.e., defines) stocks of managed groundfish species (DRAFT

EXAMPLE Table 3-2) describes the stock and its boundaries. Stock definitions are based on the best scientific information available, taking into consideration the goals and objectives of the FMP and other requirements. The Council may review, and potentially adjust, a stock definition based on new information. Updating the defined stocks would require a FMP amendment.

DRAFT EXAMPLE Table 3-2. Groundfish stocks within the fishery management unit (FMU) of the Pacific Coast Groundfish FMP and their PPA boundaries, as amended through Amendment 31.

Stock	Species Scientific Name	Stock Boundaries
Elasmobranchs		
Pacific Spiny Dogfish	*Squalus suckleyi*	Pacific West Coast FMU
Roundfish		
Lingcod North	*Ophiodon elongatus*	North of 40°10' N. lat.
Lingcod South	*Ophiodon elongatus*	South of 40°10' N. lat.
Sablefish	*Anoplopoma fimbria*	Pacific West Coast FMU
Rockfish[2]		
Black Rockfish - Washington	*Sebastes melanops*	North of 46°16' N. lat.
Black Rockfish - Oregon	*S. melanops*	46°16' N. lat. to 42° N. lat.
Black Rockfish - California	*S. melanops*	South of 42° N. lat.
Canary Rockfish	*S. pinniger*	Pacific West Coast FMU
Copper Rockfish -Washington & Oregon	*S. caurinus*	N. of 42° N. lat.
Copper Rockfish -California	*S. caurinus*	S. 42° N. lat.
Quillback Rockfish -Washington	*S. maliger*	North of 46°16' N. lat.
Quillback Rockfish - Oregon	*S. maliger*	46°16' N. lat. to 42° N. lat.
Quillback Rockfish - California	*S. maliger*	South of 42° N. lat.
Squarespot Rockfish	*S. hopkinsi*	Pacific West Coast FMU
Vermilion Rockfish	*S. miniatus*	
Vermilion/Sunset Rockfish	*S. miniatus/S. crocotulus*	
Shortspine Thornyhead	*Sebastolobus alascanus*	Pacific West Coast FMU
Flatfish		
Dover Sole	*Microstomus pacificus*	Pacific West Coast FMU
Petrale Sole	*Eopsetta jordani*	Pacific West Coast FMU
Rex Sole	*Glyptocephalus zachirus*	Pacific West Coast FMU

EXAMPLE TABLE BASED ON PPA WILL BE UPDATED TO FPA

3.3 Ecosystem Component Species

The species in Table 3-3are designated Ecosystem Component (EC) Species (see section 4.4.4 for more details). The inclusion of all endemic skates, except longnose and big skate, and all endemic grenadiers

[2] a/ The category "rockfish" includes all genera (*Sebastes, Scorpaena, Sebastolobus, and Scorpaenodes)* and species of the family Scorpaenidae, even if not listed, that occur in the waters off Washington, Oregon, and California.

will allow more precise catch monitoring without the need for a sorting requirement for these species since skates and grenadiers are generally landed in unidentified species market categories (e.g., Unidentified Skates).

Table 3-3. Groundfish species designated as Ecosystem Component Species.

Common Name	Scientific Name
Shortbelly rockfish	*Sebastes jordani*
Aleutian skate	*Bathyraja aleutica*
Bering/sandpaper skate	*B. interrupta*
California skate	*R. inornata*
Roughtail/black skate	*Bathyraja trachura*
All other skates	Endemic species in the family *Arhynchobatidae*
Pacific grenadier	*Coryphaenoides acrolepis*
Giant grenadier	*Albatrossia pectoralis*
All other grenadiers	Endemic species in the family *Macrouridae*
Finescale codling (aka Pacific flatnose)	*Antimora microlepis*
Ratfish	*Hydrolagus colliei*
Soupfin shark	*Galeorhinus zyopterus*

Table 3-4 lists the EC species shared between all four of the Council's FMPs, including the Groundfish FMP. No directed commercial fisheries may begin for any Shared EC Species until and unless the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem.

Table 3-4. Common and scientific names of Ecosystem Component species shared between all four of the Council's FMPs.

Common Name	Scientific Name
Round herring	*Etrumeus teres*
Thread herring	*Opisthonema libertate, O. medirastre*
Mesopelagic fishes	Families: *Myctophidae, Bathylagidae, Paralepididae, and Gonostomatidae*
Pacific sand lance	*Ammodytes personatus*
Pacific saury	*Cololabis saira*
Silversides	*Atherinopsidae*
Smelts	*Osmeridae*
Pelagic squids	Families: *Cranchiidae, Gonatidae, Histioteuthidae, Octopoteuthidae, Ommastrephidae* except Humboldt squid (*Dosidicus gigas*), *Onychoteuthidae, and Thysanoteuthidae*

[Amended: 11, 16-1, 24, 25, 27, 31]