

**AMENDMENT 18
(BYCATCH MITIGATION PROGRAM)
AMENDMENT 19
(ESSENTIAL FISH HABITAT)**

TO THE

**PACIFIC COAST
GROUNDFISH FISHERY
MANAGEMENT PLAN**

**FOR THE CALIFORNIA, OREGON, AND
WASHINGTON GROUNDFISH FISHERY**

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PREFACE

This document shows proposed changes to the groundfish fishery management plan (FMP) developed by Council/National Marine Fisheries Service (NMFS) staff based on the preferred alternatives in the Bycatch Mitigation Program final environmental impact statement (Amendment 18) and the Essential Fish Habitat (EFH) environmental impact statement (Amendment 19). Substantive changes address elements of the preferred alternative for each of these actions. As part of Amendment 18, the FMP has also been updated to better reflect the current management framework. Table 1 shows changes in the organization of chapters under Amendment 18. Text has been revised in chapters 1, 2, 6, 9, 10, and 11 of the current FMP under Amendment 18. Text in chapters 1, 6, and 7 (a new chapter created by Amendment 18) has been revised under Amendment 19. Because of changes in the chapter structure, chapter 8 is renumbered chapter 9 and chapter 12 is renumbered chapter 11, but no other changes are made in these chapters.

Chapter 6, Management Measures, has been substantially reorganized and revised. Material in chapter 9 (Restrictions On Other Fisheries) and chapter 11 (Management Measures that Continue in Effect with Implementation of Amendment 4) have been incorporated into chapter 6, outdated references to foreign and joint-venture fishing have been deleted, and the structure of the chapter has been modified to emphasize the range of management measures available to the Council. Management measures to mitigate the adverse effects of fishing on EFH are added to chapter 6 through Amendment 19. Table 2 provides a guide to the disposition of sections in chapters 6 and 11 of the current FMP under the proposed revisions.

In general, for deletions are marked by ~~strikethrough~~, Amendment 18 insertions by double underline, and insertions made by amendment 19 by dotted underline.

Chapter 6 and the new Chapter 7 are exceptions. Because they are comprehensively reorganized, with much text added and deleted, in most cases, using strikethrough and double underline was deemed too distracting. Instead, the following marks are used to indicate changes:

Annotations at the right-hand margin, like this:

[6.3.2 Standardized Reporting Methodology]

indicate the location in the current FMP, by section number and heading, of the text that follows.

Paragraphs based on text currently in the FMP, but substantially modified by Amendment 18, are indicated by a single rule in the left-hand margin, like this:

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New paragraphs inserted by Amendment 18 are indicated by a double rule in the left-hand margin, like this:

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In both Chapter 6 and the new Chapter 7 (created from Section 6.6) paragraphs substantially modified by Amendment 19 are indicated by a dotted line in the left-hand margin, like this:

⋮

New paragraphs inserted by Amendment 19 are indicated by a triple rule in the left-hand margin, like this:

|||

Strikethrough and double underline (or dotted underline) is used in paragraphs where there have been minor changes in the current text. (The paragraphs are annotated with the current section number and heading, as described above.) Copy edits (e.g., changes in punctuation) are not marked.

Readers interested in the substance of deleted sections in chapters 6 and 11 (as indicated in Table 2), or substantially modified text, may refer to the current FMP, using the annotations and Table 2 as guides.

Table 1. Guide to chapter-level changes.

Chapters as Revised by Amendment 18	FMP through Amendment 17 (December 2004)	Notes on Changes Made By Amendment 18
Chapter 1 Introduction	Chapter 1 Introduction	Revised and Updated
Chapter 2 Goals and Objectives	Chapter 2 Goals and Objectives	Objective added, definitions added
Chapter 3 Areas and Stocks Involved	Chapter 3 Areas and Stocks Involved	No changes
Chapter 4 Optimum Yield	Chapter 4 Optimum Yield	No changes
Chapter 5 Specification and Apportionment of Harvest Levels	Chapter 5 Specification and Apportionment of Harvest Levels	Minor edits for consistencies
Chapter 6 Management Measures	Chapter 6 Management Measures	Substantially revised and reorganized (then amended by Amendment 19)
	Chapter 7 Experimental Fisheries	Renumbered Chapter 8
	Chapter 8 Scientific Research	Renumbered Chapter 9
Chapter 7 Essential Fish Habitat		Creates new chapter from material in Section 6.6 (then amended by Amendment 19)
Chapter 8 Experimental Fisheries		Renumbered and revised
Chapter 9 Scientific Research		Renumbered, no other changes
	Chapter 9 Restrictions on Other Fisheries	Deleted with material incorporated into Chapter 6
Chapter 10 Procedures for Reviewing State Regulations	Chapter 10 Procedures for Reviewing State Regulations	Background section revised
	Chapter 11 Management Measures that Continue in Effect with Implementation of Amendment 4	Deleted with material incorporated into Chapter 6
Chapter 11 Groundfish Limited Entry		Renumbered, no other changes
	Chapter 12 Groundfish Limited Entry	Renumbered Chapter 11
References	References	No changes
Appendices Contents	Appendices Contents	No changes

Table 2. Guide to Revision of Chapter 6 and 11

Current FMP	Location under revision	Notes
6.0 MANAGEMENT MEASURES	6.1 Introduction	Substantially revised to describe chapter organization
6.1 General List of Management Measures	6.1.1 Overview of Management Measures for West Coast Groundfish Fisheries	Substantially revised to describe chapter organization Old sections 6.1.1-6.1.10 moved
6.1.1 Permits, Licenses, and Endorsements	6.9 Measures to Control Fishing Effort, Including Permits and Licenses	Moderately revised
6.1.2 Mesh Size	6.6.1.2 Trawl Gear	Incorporated into new text
6.1.3 Landing and Frequency Limits	6.7.2 Commercial Fisheries	Text added
6.1.4 Quotas, Including Individual Transferable Quotas	6.7.1 All Fisheries	No changes to text
6.1.5 Escape Ports and Panels	6.6 Gear Definitions and Restrictions	Incorporated into new text
6.1.6 Size Limits	6.7.1 All Fisheries	No changes to text
6.1.7 Bag Limits	6.7.3 Recreational Fisheries	New text added
6.1.8 Time/Area Closures (Seasons and Closed Areas)	6.8 Time/Area Closures	Substantially revised, new text and sections added
6.1.9 Other Forms of Effort Control	6.9 Measures to Control Fishing Effort...	Moderately revised
6.1.10 Allocation	6.3 Allocation	No changes to text
6.2 General Procedures for Establishing and Adjusting Management Measures	6.2 General Procedures for Establishing and Adjusting Management Measures	Moderate revision for readability
6.2.1 Routine Management Measures	6.2.1 Routine Management Measures	List of measures broken out as section 6.2.1.1 and updated
6.2.2 Resource Conservation Issues - The "Points of Concern" Framework	6.2.2 Resource Conservation Issues—The Points of Concern Framework	Moderate revision for readability
6.2.3 Nonbiological Issues--The Socioeconomic Framework	6.2.3 Nonbiological Issues—The Socioeconomic Framework	Moderate revision for readability
6.2.3.1 Allocation	6.3 Allocation	No changes to text
6.3 Bycatch Management	--- [heading only]	--
6.3.1 Bycatch of Nongroundfish Species	6.5.2 Bycatch of Nongroundfish in Groundfish Fisheries	Text added, sections on ESA, MMPA & MBTA added
6.3.2 Standardized Reporting Methodology	6.4 Standardized Total Catch Reporting and ...	Substantially revised with new text
6.3.3 Measures to Control Bycatch	6.5 Bycatch Mitigation Program	Substantially revised with new text
6.4 Recreational Catch and Release Management	6.5.3.4 Recreational Catch and Release Management	Moderately revised
6.5 Other Management Measures	-- [Heading only]	--
6.5.1 Generic	-- [Heading only]	--
6.5.1.1 Permits	6.9.1 General Provisions for Permits	No changes to text
6.5.1.2 Observers	6.4.1.1 Monitoring Total Catch At Sea	New text added
6.5.1.3 Habitat Protection (General)	7.0 Essential Fish Habitat	Substantially revised
6.5.1.4 Vessel Safety Considerations	6.10.2 Vessel Safety	Substantially revised
6.5.2 Domestic--Commercial	6.1 Introduction	New text added
6.5.2.1 Permits (General)	6.9.1.1 Commercial Fisheries Permits	Moderately revised
6.5.2.2 Catch Restrictions	6.7 Catch Restrictions, 6.7.2 Commercial Fisheries	Text in 6.7 substantially revised; prohibited species discussion in 6.7.2 moderately revised

Current FMP	Location under revision	Notes
6.5.2.3 Gear Restrictions	6.6.1 Commercial Fisheries	Moderately revised
6.5.2.4 Reporting Requirements	6.4.2 Vessel Reporting Requirements, 6.9 Measures to Control Fishing Effort...	Substantially revised, new text, reorganized
6.5.2.5 Vessel Identification	6.10.3 Vessel Identification	Substantially revised
6.5.3 Domestic - Recreational	-- [Heading only]	--
6.5.3.1 Permits (General)	6.9.1.2 Recreational Fisheries Permits	No changes to text
6.5.3.2 Catch Restrictions	6.7 Catch Restrictions	Original 6.5.3.2 text equivalent to text in original 6.5.2.2; incorporated into new text
6.5.3.3 Gear Restrictions	Deleted	Equivalent text from 11.4 inserted in 6.6.2
6.5.4 Joint Venture--Domestic Vessels	Deleted	Obsolete – no joint venture fisheries
6.5.5 Joint Venture--Foreign Vessels	Deleted	Obsolete – no foreign fisheries
6.5.5.1 Permits	Deleted	Obsolete – no foreign fisheries
6.5.5.2 Target Species	Deleted	Obsolete – no foreign fisheries
6.5.5.3 Incidental Catch	Deleted	Obsolete – no foreign fisheries
6.5.5.4 Prohibited Species	Deleted	Obsolete – no foreign fisheries
6.5.5.5 Season and Area Restrictions	Deleted	Obsolete – no foreign fisheries
6.5.5.6 Reporting and Recordkeeping Requirements	Deleted	Obsolete – no foreign fisheries
6.5.5.7 Dumping	Deleted	Obsolete – no foreign fisheries
6.5.5.8 Fishery Closure	Deleted	Obsolete – no foreign fisheries
6.5.5.9 Observers	Deleted	Obsolete – no foreign fisheries
6.5.5.10 Other Restrictions	Deleted	Obsolete – no foreign fisheries
6.5.6 Foreign-Commercial	Deleted	Obsolete – no foreign fisheries
6.5.6.1 Permits	Deleted	Obsolete – no foreign fisheries
6.5.6.2 Target Species	Deleted	Obsolete – no foreign fisheries
6.5.6.3 Incidental Catch	Deleted	Obsolete – no foreign fisheries
6.5.6.4 Prohibited Species	Deleted	Obsolete – no foreign fisheries
6.5.6.5 Season, Area, and Gear Restrictions	Deleted	Obsolete – no foreign fisheries
6.5.6.6 Reporting and Recordkeeping Requirements	Deleted	Obsolete – no foreign fisheries
6.5.6.7 Dumping	Deleted	Obsolete – no foreign fisheries
6.5.6.8 Fishery Closure	Deleted	Obsolete – no foreign fisheries
6.5.6.9 Observers	Deleted	Obsolete – no foreign fisheries
6.5.6.10 Other Restrictions	Deleted	Obsolete – no foreign fisheries
6.5.7 Foreign-Recreational	Deleted	Obsolete – no foreign fisheries
6.5.8 Access Limitation and Capacity Reduction Programs	6.9.4 Data Collection	No changes to text
6.6 Essential Fish Habitat	7.0 ESSENTIAL FISH HABITAT	Revised by Amendment 19, text incorporated under section 7.1
6.6.1 MSA Directives Relating to Essential Fish Habitat	7.1 MSA Directives Relating to EFH	Revised by Amendment 19
6.6.2 Definition of Essential Fish Habitat for Groundfish	7.2 Definition of EFH	Revised by Amendment 19
6.6.2.1 Composite Essential Fish Habitat Identification	--	Replaced by Section 7.2.1 describing HSP methodology
6.6.3 Management Measures To Minimize Adverse Impacts on Essential Fish Habitat from Fishing	7.4 Management Measures To Minimize Adverse ...	Revised by Amendment 19

Current FMP	Location under revision	Notes
6.6.4 Review and Revision of Essential Fish Habitat Definitions and Descriptions	7.6 Review and Revision...	Revised by Amendment 19
9.0 RESTRICTIONS ON OTHER FISEHERIES	6.7.2 Commercial Fisheries	Moderately revised
11.0 MANAGEMENT MEASURES THAT CONTINUE IN EFFECT WITH IMPLEMENTATION OF AMENDMENT 4		Introductory paragraph deleted
11.1 Vessel Identification	Deleted	Substitute reference to regulations, otherwise obsolete
11.2 Gear Restrictions	Deleted	11.2.1.1.1-11.2.1.1.6 moved to Chapter 2-definitions
11.2.1 Commercial Fishing	Deleted	Equivalent definition in Chapter 2
11.2.1.1 Trawl gear	6.6.1.2 Trawl Gear	Substantially revised, incorporated with text from 6.1.2
11.2.1.2 Fixed gear	6.6.1.3 Non-trawl Gear	Substantially revised, new text
11.2.1.3 Nontrawl gear	6.6.1.3 Non-trawl Gear	11.2.1.3.1-11.2.1.3.7 moved to Chapter 2-definitions
11.2.2 Recreational Fishing	6.6.2 Recreational Fisheries	Substantially revised
11.2.2.1 Hook-and-line		Moved to Chapter 2-definitions
11.2.2.2 Spears		Moved to Chapter 2-definitions
11.3 Species Managed with a HG or Quota	Deleted	Outdated and incorrect
11.4 Catch Restrictions	6.7 Catch Restrictions	Moderately revised
11.4.1 Commercial Fishing	Deleted	Outdated and incorrect
11.4.2 Recreational Fishing	Deleted	Outdated and incorrect
11.4.3 Restrictions on the Catch of Groundfish in Non-Groundfish Fisheries	Deleted	Outdated and incorrect
11.4.3.1 Pink shrimp	Deleted	Outdated and incorrect
11.4.3.2 Spot and ridgeback prawns	Deleted	Outdated and incorrect
11.5 Joint Ventures	Deleted	Outdated and incorrect
11.5.1 Pacific Whiting	Deleted	Outdated and incorrect
11.5.2 Jack Mackerel (North of 39 N. Latitude)	Deleted	Outdated and incorrect
11.5.3 Shortbelly Rockfish	Deleted	Outdated and incorrect
11.6 Foreign Fishery	Deleted	Outdated and incorrect
11.6.1 Pacific Whiting	Deleted	Outdated and incorrect
11.6.2 Jack Mackerel (North of 39 N. Latitude)	Deleted	Outdated and incorrect
11.7 Prohibitions	Deleted	Substitute reference to regulations in 6.10.4 Prohibitions and Penalties
11.8 Facilitation of Enforcement	Deleted	Substitute reference to regulations in 6.10.4 Prohibitions and Penalties
11.9 Penalties	Deleted	Substitute reference to regulations in 6.10.4 Prohibitions and Penalties

Table 3. Guide to revision of EFH appendix material added to the FMP by Amendment 11.

Current FMP	Location Under Revision
11.10 ESSENTIAL FISH HABITAT	Deleted as redundant to Section 7.1
11.10.1 MSA Directives Relating to EFH	Deleted as redundant to Section 7.1
11.10.2 Definition of EFH for Groundfish, and Composite EFH Identification	Replaced by Appendix B
11.10.3 Adverse Impacts on EFH From Fishing Gear and Practices, and Measures to Manage Them	Replaced by Appendix C
11.10.3.1 Identification of Adverse Impacts of Fishing Gear on EFH	Replaced by Appendix C
11.10.3.2 Measures to Minimize Fishing Effects on Groundfish EFH	Deleted as redundant to Section 7.4
11.10.4 Adverse Impacts of Nonfishing Related Activities, Gear, and Practices, and Measures to Manage Them	Replaced by Appendix D
11.10.4.1 Adverse Nonfishing Impacts and Recommended Conservation Measures	Replaced by Appendix D
11.10.5 Consultation Procedures - Nonfishing Impacts	Deleted as redundant to Section 7.5
11.10.6 Research Needs	Incorporated into Appendix B

Note: The contents of appendices proposed by Amendment 19 are described at the end of this document.

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1.0 INTRODUCTION

1.1 Evolution of the 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 ~~about~~ more than 100 years and with each state acting independently in both management and enforcement. ~~However~~ Furthermore, many fisheries overlapped state boundaries and participants often operated in more than one state. Management and a lack of uniformity of regulations ~~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. ~~Between implementation of~~ The 1977 Fishery Conservation and Management Act (later amended and renamed the Magnuson-Stevens Fishery Conservation and Management Act (or Magnuson-Stevens Act, then called the Fishery Conservation and Management Act or FCMA) in) 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, ~~the management 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. ~~B~~ The U.S. later signed bilateral agreements with Japan and Poland were also signed 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.

~~Subsequent to initial implementation of~~ 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, 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, the Council has developed 11 amendments 20 times in response to changing resource and fishery conditions. Early amendments added jack mackerel to the fishery management unit, established a management framework for modifying gear regulations, and responded to new requirements in changes in the fishery, reauthorizations of the MSA pertaining to habitat and weather related vessel safety issues. Amendment 4 was, and litigation that invalidated provisions incorporated by earlier amendments. During the first ten 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 that and reorganization of the FMP, it established additional framework procedures for establishing and modifying management measures and streamlining the decision and implementation process. Amendment 5 addressed overfishing standards, and Amendment 6. Another important change was implemented in 1992 with Amendment 6, which established a license limitation (limited entry) program intended to address overcapitalization of the fishing sector by restricting further participation in groundfish trawl, longline, and trap fisheries.

The next decade, through 2002, saw the approval of another seven amendments. Amendment 9 modified the limited entry program by establishing a sablefish endorsement for longline and pot permits. Amendments 11 was prepared in response, 12, 13 were responses to changes in the MSA due to the 1996 Sustainable Fisheries Act amendments to the MSA that, among other provisions, . 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-

The groundfish FMP has evolved into a document that describes the Council's and the NMFS's procedures for establishing and modifying management measures. It establishes the authority for and limitations on Council actions, but in general does not include specific fishing regulations; rather, it describes how the Council will develop its recommendations for fishing regulations and the process for public involvement in that process. of any stocks that had become overfished. Amendment 14, implemented in 2001, built on Amendment 9 to further refine the limited entry permit system for the economically important fixed gear sablefish fishery. It allowed a vessel owner to "stack" up to three limited entry permits on one vessel along with associated sablefish catch limits. This 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 MSA 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. Since these thresholds were established for Pacific Coast groundfish, nine stocks have been declared overfished. The Court found that the rebuilding plan framework adopted by Amendment 12 did not comply with the MSA. In response, Amendments 16-1, 16-2, and 16-3 established the current regime for managing these overfished species.¹ 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.

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 the 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

¹ Although the Secretary declared Pacific whiting overfished in 2002, a 2004 stock assessment found that it had recovered to its rebuilt level. Thus, a rebuilding plan for this species was not adopted by these amendments.

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, 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.

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 species managed by it, referred to as the fishery management unit, or fishery management unit.

Chapter 4 describes how the Council determines harvest levels. These harvest limits are related to the maximum sustainable yield (MSY) and allowable biological catch (ABC) 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 optimum yield (OY), 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. (Separate OYs are specified for each of the two years in this 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 MSA 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 limited entry 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.

Appendix C describes the effects of fishing on groundfish EFH.

Appendix D describes the effects of activities other than fishing on groundfish EFH.

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 MSA, they may be periodically updated without being subjected to the Secretarial review and approval process described in §304(a) of the MSA. These appendices are published under separate cover.

2.0 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 Fishery Conservation and Management Act (MSA).

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 required by the MSA.

Objective 4. Where conservation problems have been identified for nongroundfish 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 nongroundfish 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 nongroundfish species, and will not preclude achievement of a quota, HG, 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. 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. Recognizing 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. ~~Strive to reduce the economic incentives and regulatory measures that lead to wastage of 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.

Objective 12. ~~Provide for foreign participation in the fishery, consistent with the other goals to take that portion of the optimum yield (OY) not utilized by domestic fisheries while minimizing conflict with domestic fisheries.~~

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 14 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]

2.2 Operational Definition of Terms

Acceptable Biological Catch (ABC) is a biologically based estimate of the amount of fish that may be harvested from the fishery each year without jeopardizing the resource. It is a seasonally determined catch that may differ from MSY for biological reasons. It may be lower or higher than MSY in some years for species with fluctuating recruitment. The ABC may be modified to incorporate biological safety factors and risk assessment due to uncertainty. Lacking other biological justification, the ABC is defined as the MSY exploitation rate multiplied by the exploitable biomass for the relevant time period.

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

[From Section 11.2.1.1.2]

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.

[From Section 11.2.1.1.5]

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.

Density dependence is the degree to which recruitment declines as spawning biomass declines. Typically we assume that a Beverton-Holt form is appropriate and that the level of density-dependence is such that the recruitment only declines by ten percent when the spawning biomass declines by 50%.

~~Domestic annual harvest (DAH) is the estimated total harvest of groundfish by U.S. fishermen. It includes the portion expected to be utilized by domestic processors and the estimated portion, if any, that will be delivered to those foreign processors joint venture processing (JVP) that are permitted to receive U.S. harvested groundfish in the exclusive economic zone (EEZ).~~

~~Domestic annual processing (DAP) is the estimated annual amount of U.S. harvest that domestic processors are expected to process and the amount of fish that will be harvested, but not processed (e.g., marketed as fresh whole fish used for private consumption or used for bait).~~

[From Section 11.2.1.1.6]

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.

Essential fish habitat (EFH) 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_{0.1} is the fishing mortality rate at which a change in fishing mortality rate will produce a change in yield per recruit that is ten percent of the slope of the yield curve at nil levels of fishing mortality.

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

F_{OF} is the rate of fishing mortality defined as overfishing.

F_{x%} is the rate of fishing mortality that will reduce female spawning biomass per recruit to x percent of its unfished 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 economy needs and includes fishing vessel owners, operators, crew, and recreational fishers and United States fish processors that are based in such community.

[From Section 11.2.1.2]

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

[From Section 11.2.1.3.5]

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

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

[From Section 11.2.1.3.2]

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.

Joint venture processing (JVP) is the estimated portion of DAH that exceeds the capacity and intent of U.S. processors to utilize, or for which domestic markets are not available, that is expected to be harvested by U.S. fishermen and delivered to foreign processors in the EEZ. (JVP = DAH – DAP.)

[From Section 11.2.1.3.3]

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

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.

[From Section 11.2.1.1.4]

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% of the estimated unfished biomass, although other values based on the best scientific information are also authorized.

[From Section 11.2.1.3]

Nontrawl 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 maximum sustainable yield 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 maximum sustainable yield in such fishery.

Overfished describes any stock or stock complex whose size is sufficiently small 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% of its estimated unfished biomass; however, other scientifically valid values are also authorized.

Overfishing means fishing at a rate or level that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis. More specifically, overfishing is defined as exceeding a maximum allowable fishing mortality rate. For any groundfish stock or stock complex, the maximum allowable mortality rate will be set at a level not to exceed the corresponding MSY rate (F_{MSY}).

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.

~~Reserve is a portion of the HG or quota set aside at the beginning of the year to allow for uncertainties in pre-season estimates of DAP and JVP.~~

[From Section 11.2.1.1.3]

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 which keep the footrope above the seabed, thereby protecting the net.

[From Section 11.2.1.3.4]

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

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, and the fish processing industry. 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).

Total allowable level of foreign fishing (TALFF) is the amount of fish surplus to domestic needs and available for foreign harvest. It is a quota determined by deducting the DAH and reserve, if any, from a species HG or quota.

A total catch limit is a portion of the OY for a groundfish FMU species, stock, or stock complex assigned to a defined fishery sector or to an individual vessel. Total catch is defined as landed catch plus bycatch (discard) mortality. The Council may specify total catch limits that are transferable or nontransferable among sectors or tradable or nontradable between vessels.

[From Section 11.2.1.3.6]

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

[From Section 11.2.1.3.7]

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

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 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.

[From Section 11.2.2.2]

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

[From Section 11.2.1.3.1]

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.

3.0 AREAS AND STOCKS INVOLVED

No changes in this chapter.

4.0 PREVENTING OVERFISHING AND ACHIEVING OPTIMUM YIELD

No Changes in this chapter.

5.0 PERIODIC SPECIFICATION AND APPORTIONMENT OF HARVEST LEVELS

The ability to establish and adjust harvest levels is the first major tool at the Council's disposal to exercise its resource stewardship responsibilities. Each biennial fishing period, the Council will assess the biological, social, and economic condition of the Pacific Coast groundfish fishery and update MSY estimates or proxies for specific stocks (management units) where new information on the population dynamics is available. The Council will make this information available to the public in the form of the *Stock Assessment and Fishery Evaluation (SAFE)* document described in Section 5.1. Based upon the best scientific information available, the Council will evaluate the current level of fishing relative to the MSY level for stocks where sufficient data are available. Estimates of the ABC for major stocks will be developed, and the Council will identify those species or species groups which it proposes to be managed by the establishment of numerical harvest levels (OYs, HGs, or quotas). For those stocks judged to be below their overfished/rebuilding threshold, the Council will develop a stock rebuilding management strategy.

The process for specification of numerical harvest levels includes the estimation of ABC, the establishment of OYs for various stocks, and the calculation of specified allocations between harvest sectors, ~~and the apportionment of numerical specifications to domestic annual processing (DAP), joint venture processing (JVP), total allowable level of foreign fishing (TALFF), and the reserve.~~ The specification of numerical harvest levels described in this chapter is the process of designating and adjusting overall numerical limits for a stock either throughout the entire fishery management area or throughout specified subareas. The process normally occurs biennially between November and June, but can occur under specified circumstances, at other times of the fishing year. The Council will identify those OYs which should be designated for allocation between limited entry and open access sectors of the commercial industry. Other numerical limits which allocate the resource or which apply to one segment of the fishery and not another ~~are~~ would be imposed through one of the management measures processes at either 6.2 C or D in Chapter 6. ~~the socioeconomic framework process described in Chapter 6 rather than the specification process.~~

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5.5 Inseason Procedures for Establishing or Adjusting Specifications

5.5.1 Inseason Adjustments to ABCs

Under the biennial specifications and management measures process, stock assessments for most species will become available every other year, prior to the November Council meeting that begins the three-meeting process for setting specifications and management measures. The November Council meeting that begins that three-meeting process will be the November of the first fishing year in a biennial fishing period. If the Council determines that any of the ABCs or OYs set in the prior management process are not adequately conservative to meet rebuilding plan goals for an overfished species, harvest specifications for that overfished species and/or for co-occurring species may be revised for the second fishing year of the then current biennial management period.

Beyond this process, ABCs, OYs, HGs, and quotas may only be modified in cases where a harvest specification announced at the beginning of the fishing period is found to have resulted from incorrect data or from computational errors. If the Council finds that such an error has occurred, it may recommend the Secretary publish a notice in the *Federal Register* revising the incorrect harvest specification at the earliest possible date.

5.5.2 Inseason Establishment and Adjustment of OYs, HGs, and Quotas

OYs and HGs may be established and adjusted inseason (1) for resource conservation through the points of concern framework described in Chapter 6; (2) in response to a technical correction to ABC described above; or, (3) under the socioeconomic framework described in Chapter 6.

Quotas may be established and adjusted inseason only for resource conservation or in response to a technical correction to ABC. These constraints on establishing and adjusting OYs, HGs, and quotas do not apply to the process for establishing and adjusting sector-specific catch limits, which is provided in section 6.5.3.2.

6.0 MANAGEMENT MEASURES

6.1 Introduction

[6.0 Management Measures]

The FMP, as amended, establishes the fishery management program, the process, and procedures the Council will follow in making adjustments to that program. It also sets the limits of management authority of the Council and the Secretary when acting under the FMP. The preceding two chapters describe the procedures for determining appropriate harvest levels and establishing them on a periodic basis. This chapter describes the procedures and methods that may be used to directly control fishing activities so that total catch of a given species or species group does not exceed specified harvest limits. It is organized around five major themes:

- Section 6.2 describes the procedures for establishing and adjusting management measures, including two decision-making frameworks the Council (in conjunction with its advisory bodies) uses to decide whether management measures need adjustment. These framework procedures allow management decisions, as long as they are consistent with the provisions of this FMP (including the frameworks), to be implemented via Federal regulation without first amending the FMP. This section also describes the procedures for promulgating the regulations needed to implement the management measures authorized by this FMP.
- Section 6.3 describes the criteria the Council will consider when establishing management measures intended to directly allocate harvest opportunity.
- Sections 6.4 and 6.5 describe methods to account for all sources of fishing mortality and to reduce bycatch, and especially bycatch mortality. Bycatch is defined in the MSA as “fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards” (16 U.S.C. 1802(2)). Section 6.4 also describes those additional measures necessary to monitor and/or report on fishery catch and effort or to enforce regulations.
- Section 6.6 through 6.9 inventory the range of management measures available to the Council, as authorized by this FMP. Not all of these management measures will be implemented at any given time.
- Section 6.10 describes those requirements that support the enforcement of management measures.

[6.5.2 Domestic—Commercial]

These procedures, measures, and requirements must be consistent with the goals and objectives of the FMP, the MSA, and other applicable law. All measures, unless otherwise specified, apply to all domestic vessels regardless of whether catch is landed and processed on shore or processed at sea. The procedures by which the Council develops recommendations on revising management measures, and by which NMFS implements those recommendations, are found in Section 6.2.

6.1.1 *Overview of Management Measures For West Coast Groundfish Fisheries*

[6.1 General List of Management Measures]

In the early stages of fishery development, there is generally little concern with management strategies. As fishing effort increases, management measures become necessary to prevent overfishing and the resulting adverse biological, social and economic impacts. Although recruitment, growth, natural mortality, and

fishing mortality affect the size of fish populations, fishery managers only have control over one of these factors—fishing mortality. The principal measures available to the Council to control fishing mortality of the groundfish fisheries in the Washington, Oregon, and California region are:

- Measures to reduce bycatch and bycatch mortality – described in 6.5.
- Defining authorized fishing gear and regulating the configuration and deployment of fishing gear, including mesh size in nets and escape panels or ports in traps—described in Section 6.6.
- Restricting catches by defining prohibited species and establishing landing, trip frequency, bag, and size limits—described in Section 6.7.
- Establishing fishing seasons and closed areas—described in Section 6.8
- Limiting fishing capacity or effort through permits, licenses and endorsements, and quotas, or by means of input controls on fishing gear, such as restrictions on trawl size/shape or longline length or number of hooks or pots—described in Section 6.9. Fishing capacity may be further limited through programs that reduce participation in the fishery by retiring permits and/or vessels.

Although this chapter only discusses in detail the types of management measures outlined above, the Council may recommend and NMFS may implement other useful management measures through the appropriate rulemaking process, as long as they are consistent with the criteria and general procedures contained in this FMP.

6.2 General Procedures for Establishing and Adjusting Management Measures

[6.2 General Procedures for Establishing and Adjusting Management Measures]

This FMP establishes ~~three~~ ~~two~~ framework procedures through which the Council is able to recommend the establishment and adjustment of specific management measures for the Pacific Coast groundfish fishery. The *points of concern framework* allows the Council to develop management measures that respond to resource conservation issues; the *socioeconomic framework* allows the Council to develop management measures in response to social, economic, and ecological issues that affect fishing communities. ~~The *habitat conservation framework* allows the Council to modify the number, extent, and location of areas closed to bottom trawling in order to protect EFH.~~ Criteria associated with each framework form the basis for Council recommendations, and Council recommendations will be consistent with them. The process for developing and implementing management measures normally will occur over the span of at least two Council meetings, with an exception that provides for more timely Council consideration under certain specific conditions.

The time required to take action under ~~either any~~ framework will vary depending on the nature of the action, its impacts on the fishing industry, resource, and environment, and review of these impacts by interested parties. This depends on the range of biological, social, and economic impacts that may need to be considered at the time a particular change in regulations is proposed. Furthermore, other applicable law (e.g., the National Environmental Policy Act, Administrative Procedures Act, Regulatory Flexibility Act, relevant Executive Orders, etc.) may require additional analysis and public comment before measures may be implemented by the Secretary.

The Secretary will develop management measures recommended by the Council for review and public comment as publications in the *Federal Register*, either as notices or regulations. Generally, management measures of broad applicability and permanent effectiveness should be published as regulations. More

narrowly applicable measures, which may only apply for short duration (one biennium or less) and may also require frequent adjustment, should be published as notices.

Management measures are normally imposed, adjusted, or removed at the beginning of the biennial fishing period, but may, if the Council determines it necessary, be imposed, adjusted, or removed at any time during the period. Management measures may be imposed for habitat protection, resource conservation, or social or economic reasons consistent with the criteria, procedures, goals, and objectives set forth in the FMP.

The NMFS Regional Administrator will review the Council's recommendation, supporting rationale, public comments, and other relevant information and determine whether to approve, disapprove, or partially approve the Council's recommendation. If the recommendation is approved, NMFS will implement the recommendation through regulation or notice, as appropriate. NMFS will explain any disapproval or partial disapproval of the recommendation to the Council in writing.

The procedures specified in this chapter do not affect the authority of the Secretary to take emergency regulatory action as provided for in Section 305(c) of the MSA if an emergency exists involving any groundfish resource, or to take such other regulatory action as may be necessary to discharge the Secretary's responsibilities under Section 305(d) of the MSA.

Four different categories of management actions are authorized by this FMP, each of which requires a slightly different process. Management measures may be established, adjusted, or removed using any of the four procedures. The four basic categories of management actions are described below.

A. Automatic Actions

The NMFS Regional Administrator may initiate automatic management actions without prior public notice, opportunity to comment, or a Council meeting. These actions are nondiscretionary, and the impacts must be reasonably accountable, based on previous application of the action or past analysis. Examples include fishery, season, or gear type closures when a quota has been projected to have been attained. The Secretary will publish a single notice in the *Federal Register* making the action effective.

B. Notice Actions Requiring at Least One Council Meeting and One *Federal Register* Notice

These include all management actions other than automatic actions. Notice actions may be nondiscretionary; they may be actions for which the scope of probable impacts has been previously analyzed.

These actions are intended to have temporary effect, and the expectation is that they will need frequent adjustment. They may be recommended at a single Council meeting, although the Council will provide as much advance information to the public as possible concerning the issues it will be considering at its decision meeting. The primary examples are those inseason management actions defined as routine according to the criteria in Section 6.2.1. These include, but are not limited to, trip landing and frequency limits and size limits for all commercial gear types and closed seasons for any groundfish species in cases where protection of an overfished or depleted stock is required and bag limits, size limits, time/area closures, boat limits, hook limits, and dressing requirements for all recreational fisheries. Previous analysis must have been specific as to species and gear type before a management measure can be defined as routine and acted on at a single Council meeting. If the recommendations are approved, the Secretary ~~will~~ may waive for good cause the requirement for prior notice and comment in the *Federal Register* and will publish a single notice in the *Federal Register* making the action effective. This category of actions presumes the Secretary will find that the need for swift implementation and the extensive notice and opportunity for comment on these types of measures, along with

the Council already having analyzed the scope of their impacts, will serve as good cause to waive the need for additional prior notice and comment in the *Federal Register*.

C. Management Measures Rulemaking For Actions Developed Through the Three-Council-Meeting Biennial Specifications Process and Two *Federal Register* Rules

These include (1) management action developed through the biennial specifications process; (2) management measures being classified as routine; or (3) trip limits that vary by gear type, closed seasons or areas, and in the recreational fishery, bag limits, size limits, time/area closures, boat limits, hook limits, and dressing requirements the first time these measures are used. Examples include: changes to or imposition of gear regulations; imposition of landings limits, frequency limits, or limits that differ by gear type; closed areas or seasons used for the first time on any species or species group or gear type. The Council will develop and analyze the proposed management actions over the span of at least two Council meetings (usually April and June) and provide the public advance notice and opportunity to comment on both the proposals and the analysis prior to and at the second Council meeting. If a management measure is designated as routine under this procedure, specific adjustments of that measure can subsequently be announced in the *Federal Register* by notice as described in the previous paragraphs. The Secretary will publish a proposed rule in the *Federal Register* with an appropriate period for public comment followed by publication of a final rule in the *Federal Register*.

The three-Council-meeting process refers to two decision meetings. The Council will develop proposed harvest specifications during the first meeting (usually November). They will finish drafting harvest specifications and develop the management measures during the second meeting (usually April). Finally, at the third meeting, the Council will make final recommendations to the Secretary on the complete harvest specifications and management measures biennial management package (usually June). For the Council to have adequate information to identify proposed management measures for public comment at the first management measures meeting, the identification of issues and the development of proposals normally must begin at a prior Council meeting.

D. Full Rulemaking For Actions Normally Requiring at Least Two Council Meetings and Two *Federal Register* Rules (Regulatory Amendment)

These include any proposed management measure that is highly controversial or any measure that directly allocates the resource. These also include management measures that are intended to have permanent effect and are discretionary, and for which the impacts have not been previously analyzed. Full rulemakings will normally use a two-Council-meeting process, although additional meetings may be required to fully develop the Council's recommendations on a full rulemaking issue. Regulatory measures to implement an FMP amendment will be developed through the full rulemaking process. The Secretary will publish a proposed rule in the *Federal Register* with an appropriate period for public comment followed by publication of a final rule in the *Federal Register*.

Council-recommended management measures addressing a resource conservation issue must be based upon the identification of a point of concern through that decision-making framework, consistent with the specific procedures and criteria listed in Section 6.2.2.

Council-recommended management measures addressing social or economic issues must be consistent with the specific procedures and criteria described in Section 6.2.3.

||| Council-recommended changes to habitat protection measures must be consistent with the specific procedures

||| and criteria described in Section 6.2.4.

6.2.1 *Routine Management Measures*

Routine management measures are those that the Council determines are likely to be adjusted on an annual or more frequent basis. The Council will classify measures as routine through either the specifications and management measures or rulemaking processes (C. or D. above). In order for a measure to be classified as routine, the Council will determine that the measure is appropriate to address the issue at hand and may require further adjustment to achieve its purpose with accuracy.

As in the case for all proposed management measures, prior to initial implementation as routine measures, the Council will analyze the need for the measures, their impacts, and the rationale for their use. Once a management measure has been classified as routine through one of the two rulemaking procedures outlined above, it may be modified thereafter through the single meeting notice procedure (B. above) only if (1) the modification is proposed for the same purpose as the original measure, and (2) the impacts of the modification are within the scope of the impacts analyzed when the measure was originally classified as routine. The analysis of impacts need not be repeated when the measure is subsequently modified if the Council determines that they do not differ substantially from those contained in the original analysis. The Council may also recommend removing a routine classification.

Experience gained from management of the Pacific Coast groundfish fishery indicates that certain measures usually require modification on a frequent basis to ensure that they meet their stated purpose with accuracy. For commercial fisheries, these measures are trip landing limits and trip frequency limits, including cumulative limits, and notification requirements. They have been applied to the commercial fishery either to lengthen the duration of the fishery, so as not to disturb traditional fishing and marketing patterns; to reduce discards and waste, or; to discourage targeted fishing while allowing small incidental catches when attainment of a HG or quota is imminent. In cases where protection of an overfished or depleted stock is required, the Council may impose limits that differ by gear type, or establish closed areas or seasons. These latter two measures were not historically imposed through the annual management cycle (now biennial) because of their allocative implications. However, this additional flexibility has become necessary to allow the harvest of healthy stocks as much as possible while protecting and rebuilding overfished and depleted stocks, and equitably distributing the burdens of rebuilding among sectors. The first time a differential trip limit or closed season is to be imposed in a fishery, it must be imposed during the biennial management cycle (with the required analysis and opportunity for public comment) and subsequently may be modified inseason through the routine adjustment process.

For recreational fisheries, bag limits, size limits, time/area closures, boat limits, hook limits, and dressing requirements may be applied to particular species, species groups, sizes of fish and gear types. For the recreational fishery, bag and size limits have been imposed to spread the available catch over a large number of anglers, in order to avoid waste, and to provide consistency with state regulations.

Routine management measures are also often necessary to meet the varied and interwoven mandates of the MSA and FMP. These mandates include: preventing overfishing and rebuilding overfished species in a manner consistent with rebuilding plans, reducing bycatch, allowing the harvest of healthy stocks as much as possible while protecting and rebuilding overfished and depleted stocks, and equitably distributing the burdens of rebuilding among the sectors.

||| Any measure designated as routine for a particular species, species group, or gear type may not be treated as routine for a different species, species group, or gear type without first having been classified as routine. Each year, the SAFE document will list all measures that have been designated as routine.

The Council will conduct a continuing review of landings of those species for which HGs, quotas, OYs, or specific routine management measures have been implemented and will make projections of the landings at various times throughout the year. If in the course of this review it becomes apparent that the rate of landings is substantially different than anticipated, and that the current routine management measures will not achieve harvest management objectives, the Council may recommend inseason adjustments to those measures. Such adjustments may be implemented through the single-meeting notice procedure (B. above).

Routine Management Measures through Amendment 18:

Commercial limited entry and open access fisheries:

Trip landing and frequency limits, size limits, for all gear types may be imposed: to extend the fishing season; to minimize disruption of traditional fishing and marketing patterns; to reduce discards; to discourage target fishing while allowing small incidental catches to be landed; to protect overfished species; to allow small fisheries to operate outside the normal season; and, for the open access fishery only, to maintain landings at the historical proportions during the 1984-88 window period.

Trip landing and frequency limits have been designated as routine for the following species or species groups: black rockfish, blue rockfish, bocaccio, canary rockfish, chilipepper rockfish, cowcod, darkblotched rockfish, Pacific ocean perch, shortbelly rockfish, splitnose rockfish, widow rockfish, yelloweye rockfish, yellowtail rockfish, 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, and longspine thornyheads, both as a complex and for the species within the complex; arrowtooth flounder, English sole, petrale sole, Pacific sanddabs, rex sole, and the flatfish complex, which is composed of those species plus any other FMP flatfish species; Pacific whiting; lingcod; cabezon; Pacific cod; spiny dogfish; and “other fish” as a complex consisting of all groundfish species listed in the FMP and not otherwise listed as a distinct species or species group.

Size limits have been designated as routine for sablefish and lingcod.

Trip landing and frequency limits that differ by gear type and closed seasons may be imposed or adjusted on a biennial or more frequent basis for the purpose of rebuilding and protecting overfished or depleted stocks. To achieve the rebuilding of an overfished or depleted stock, a sector or sectors of the primary Pacific whiting may be closed if a total catch limit of an overfished species has been designated for the whiting fishery and that total catch limit is reached before the sector’s whiting allocation is reached. Total catch limits in the primary Pacific whiting fishery may be established or adjusted as routine management measures.

Recreational fisheries all gear types:

Routine management measures for all groundfish species, separately or in any combination, include: bag limits, size limits, time/area closures, boat limits, hook limits, and dressing requirements. All routine management measures on recreational fisheries are intended to keep landings within the harvest levels announced by NMFS, to rebuild and protect overfished or depleted species, and to maintain consistency with State regulations, and for the other purposes set forth in this section.

Bag limits may be imposed to spread the available catch over a large number of anglers; to protect

and rebuild overfished species; to avoid waste.

Size limits may be imposed to protect juvenile fish; to protect and rebuild overfished species; to enhance the quality of the recreational fishing experience.

Season duration restrictions may be imposed to spread the available catch over a large number of anglers; to protect and rebuild overfished species; to avoid waste; to enhance the quality of the recreational fishing experience.

All fisheries, all gear types:

Depth-based management measures, particularly the setting of closed areas known as GCAs may be imposed on any sector of the groundfish fleet using specific boundary lines that approximate depth contours with latitude/longitude coordinates. Depth-based management measures and the setting of closed areas may be used to: protect and rebuild overfished stocks; extend the fishing season; for the commercial fisheries, to minimize disruption of traditional fishing and marketing patterns; to reduce discards; for the recreational fisheries, to spread the available catch over a large number of anglers; to discourage target fishing while allowing small incidental catches to be landed; and to allow small fisheries to operate outside the normal season.

The current list of routine management measures is published in Federal regulations at 50 CFR 660.370.

6.2.2 Resource Conservation Issues—The Points of Concern Framework

[6.2.2 Resource Conservation Issues—The Points of Concern Framework]

The points of concern process is the Council's second major tool (along with setting harvest levels) in exercising its resource stewardship responsibilities. The Council developed the points of concern criteria to assist it in determining when a focused review on a particular species or species group is warranted, which might result in the need to recommend the implementation of specific management measures to address the resource conservation issue. This process is intended to foster a continuous and vigilant review of the Pacific Coast groundfish stocks and fishery to prevent unintended overfishing or other resource damage. To facilitate this process, a Council-appointed management team (the GMT or other entity) will monitor the fishery throughout the year, taking into account any new information on the status of each species or species group. By this means, they will identify resource conservation issues requiring a management response. The Council is authorized by this FMP to act based solely on evidence that one or more of these points of concern criteria has been met. This allows the Council to respond quickly and directly to a resource conservation issue. In conducting this review, the GMT or other entity will use the most current catch, effort, and other relevant data from the fishery.

In the course of the continuing review, a point of concern occurs when any one or more of the following is ~~found~~ situations occurs or is expected to occur:

1. Catch for the calendar year is projected to exceed the best current estimate of ABC for those species for which an OY, HG or quota is not specified.
2. Catch for the calendar year is projected to exceed the current OY, HG or quota.
3. Any change in the biological characteristics of the species or species complex is discovered, such as changes in age composition, size composition, and age at maturity.
4. Exploitable biomass or spawning biomass is below a level expected to produce MSY for the species/species complex under consideration.
5. Recruitment is substantially below replacement level.

6. Estimated bycatch of a species or species group increases substantially above previous estimates, or there is information that abundance of a bycatch species has declined substantially.
7. Impacts of fishing gear on EFH are discovered and modification to gear or fishing regulations could reduce those impacts.

Once a point of concern is identified, the GMT will evaluate current data to determine if a resource conservation issue exists and will provide its findings in writing at the next scheduled Council meeting. If the GMT determines a resource conservation issue exists, it will provide its recommendation, rationale, and analysis for the appropriate management measures that will address the issue.

In developing its recommendation for management action, the Council will choose an action from one or more of the following categories which include categories listed below, although they may also identify other necessary measures. These categories cover the types of management measures most commonly used to address resource conservation issues:

- HGs
- Quotas
- Cessation of directed fishing (~~foreign, domestic or both~~) on the identified species or species group with appropriate allowances for incidental harvest of that species or species group
- Size limits
- Landing limits
- Trip frequency limits
- Area or subarea closures
- Time closures
- Seasons
- Gear limitations, which include, but are not limited to, definitions of legal gear, mesh size specifications, codend specifications, marking requirements, and other gear specifications as necessary.
- Observer or other monitoring coverage
- Reporting requirements
- Permits
- ~~Other necessary measures~~

~~Direct allocation of the resource between different segments of the fishery is, in most cases, not the preferred response to a resource conservation issue.~~ Council recommendations to directly allocate the resource will be developed according to the criteria and process described in Section 6.2.3, the socioeconomic framework.

After receiving the GMT's report, and comments from its advisory bodies, the Council will take public testimony and, if appropriate, will recommend management measures to the NMFS Regional Administrator, accompanied by supporting rationale and analysis of impacts. The Council's analysis will include a description of (a) how the action will address the resource conservation issue, consistent with the objectives of the FMP; (b) likely impacts on other management measures, other fisheries, and bycatch; (c) economic impacts, particularly the cost to the commercial and recreational segments of the fishing industry; and (d) impacts on fishing communities.

The NMFS Regional Administrator will review the Council's recommendation and supporting information and will follow the appropriate implementation process described in Section 6.2, D depending on the amount of public notice and comment provided by the Council and the intended permanence of the management action. If the Council anticipates that the recommended measures will be adjusted frequently, it may classify them as routine through the appropriate process described in Section 6.2.1.

If the NMFS Regional Administrator does not concur with the Council's recommendation, the Council will be notified in writing of the reasons for the rejection.

Nothing in this section is meant to detract from the authority of the Secretary to take emergency action under Section 305(c) of the MSA.

6.2.3 *Non-biological Issues—The Socioeconomic Framework*

From time to time, non-biological issues may arise that require the Council to recommend management actions to address certain social or economic issues in the fishery. Resource allocation, seasons, or landing limits based on market quality and timing, safety measures, and prevention of gear conflicts make up only a few examples of possible management issues with a social or economic basis. In general, there may be any number of situations where the Council determines that management measures are necessary to achieve the stated social and/or economic objectives of the FMP.

Either on its own initiative or by request, the Council may evaluate current information and issues to determine if social or economic factors warrant imposition of management measures to achieve the Council's established management objectives. Actions that are permitted under this framework include all of the categories of actions authorized under the points of concern framework with the addition of direct resource allocation.

If the Council concludes that a management action is necessary to address a social or economic issue, it will prepare a report containing the rationale in support of its conclusion. The report will include the proposed management measure, a description of other viable alternatives considered, and an analysis that addresses the following criteria: (a) how the action is expected to promote achievement of the goals and objectives of the FMP; (b) likely impacts on other management measures, other fisheries, and bycatch; (c) biological impacts; (d) economic impacts, particularly the cost to the fishing industry; (e) impacts on fishing communities; and (f) how the action is expected to accomplish at least one of the following, or any other measurable benefit to the fishery:

1. Enable a quota, HG, or allocation to be achieved.
2. Avoid exceeding a quota, HG, or allocation.
3. Extend domestic fishing and marketing opportunities as long as practicable during the fishing year, for those sectors for which the Council has established this policy.
4. Maintain stability in the fishery by continuing management measures for species that previously were managed under the points of concern mechanism.
5. Maintain or improve product volume and flow to the consumer.
6. Increase economic yield.
7. Improve product quality.
8. Reduce anticipated bycatch and bycatch mortality.
9. Reduce gear conflicts, or conflicts between competing user groups.
10. Develop fisheries for underutilized species with minimal impacts on existing domestic fisheries.
11. Increase sustainable landings.
12. ~~Increase~~ Reduce fishing ~~efficiency~~ capacity.
13. Maintain data collection and means for verification.
14. Maintain or improve the recreational fishery.
15. ~~Any other measurable benefit to the fishery.~~

The Council, following review of the report, supporting data, public comment, and other relevant information,

may recommend management measures to the NMFS Regional Administrator accompanied by relevant background data, information, and public comment. The recommendation will explain the urgency in implementing the measure(s), if any, and reasons therefore.

The NMFS Regional Administrator will review the Council's recommendation, supporting rationale, public comments, and other relevant information, and, if it is approved, will undertake the appropriate method of implementation. Rejection of the recommendation will be explained in writing.

The procedures specified in this chapter do not affect the authority of the Secretary to take emergency regulatory action as provided for in Section 305(c) of the MSA if an emergency exists involving any groundfish resource, or to take such other regulatory action as may be necessary to discharge the Secretary's responsibilities under Section 305(d) of the MSA.

If conditions warrant, the Council may designate a management measure developed and recommended to address social and economic issues as a routine management measure, provided that the criteria and procedures in Section 6.2.1 are followed.

Quotas, including allocations, implemented through this framework will be set for one-year periods and may be modified inseason only to reflect technical corrections to an ABC. (In contrast, quotas may be imposed at any time of year for resource conservation reasons under the points of concern mechanism.)

6.2.4 The Habitat Conservation Framework

In order to protect EFH from the adverse effects of fishing, the Council has identified areas that are closed to bottom trawling (see sections 6.8 and 7.4). These areas are described in Federal regulations and may be modified through the full rulemaking process as described under Section 6.2 D. The Council shall establish an EFH Oversight Committee (OC). At the request of the Council, the EFH OC would review the areas currently closed to bottom trawling and recommend to the Council the elimination of existing areas or the addition of new areas, or modification of the extent and location of existing areas. In making its recommendation to the Council, the committee should consider, but is not limited to considering, the best available scientific information about:

1. The importance of habitat types to any groundfish FMU species for their spawning, breeding, feeding, or growth to maturity.
2. The presence and location of important habitat (as defined immediately above).
3. The presence and location of habitat that is vulnerable to the effects of bottom trawl fishing.
4. The presence and location of unique, rare, or threatened habitat.
5. The socioeconomic and management-related effects of closures, including changes in the location and intensity of bottom trawl fishing effort, the displacement or loss of revenue from fishing, and social and economic effects to fishing communities attributable to the location and extent of closed areas.

When making its recommendation to the Council, the committee may also include in its recommendations proposed changes in the designation of habitat areas of particular concern (HAPCs) consistent with the proposed modification of the location and extent of areas closed to bottom trawling. For example, if a current closed area, which is also identified as a HAPC, is recommended for elimination, the committee may recommend whether or not to retain the HAPC designation. Any such recommendation with respect to a

HAPC would trigger the process for the modification of HAPCs (by FMP amendment) described in Section 7.3.2. Upon receipt of a recommendation from the committee, the Council will decide whether to begin the rulemaking process described in Section 6.2 D for establishing, adjusting, or removing discretionary management measures intended to have a permanent effect.

6.2.5 Indian Treaty Rights

[FMP Appendix (11.7.6) Indian Treaty Rights]

Treaties with a number of Pacific Northwest Indian tribes reserve to those tribes the right of taking fish at their usual and accustomed fishing grounds and stations (U & A) in common with other citizens of the United States. NMFS has determined that the tribes that have groundfish U & A in the area managed by this FMP are the Makah, Hoh, and Quileute Tribes, and the Quinault Indian Nation. Several tribal fisheries exist for species covered by the FMP. The Federal government has accommodated these fisheries through a regulatory process, found at 50 CFR 660.324. Until such time as tribal treaty rights are finally adjudicated or the regulatory process is modified or repealed, the Council will continue to operate under that regulatory process to provide recommendations to the Secretary on levels of tribal groundfish harvest.

6.3 Allocation

[6.1.10 Allocation]

Allocation is the apportionment of an item for a specific purpose or to a particular person or group of persons. Allocation of fishery resources may result from any type of management measure, but is most commonly a numerical quota or HG for a specific gear or fishery sector. Most fishery management measures allocate fishery resources to some degree, because they invariably affect access to the resource by different fishery sectors by different amounts. These allocative impacts, if not the intentional purpose of the management measure, are considered to be indirect or unintentional allocations. Direct allocation occurs when numerical quotas, HGs, or other management measures are established with the specific intent of affecting a particular group's access to the fishery resource.

Fishery resources may be allocated to accomplish a single biological, social or economic objective, or a combination of such objectives. The entire resource, or a portion, may be allocated to a particular group, although the MSA requires that allocation among user groups be fair and equitable, reasonably calculated to promote conservation, and determined in such a way that no group, person, or entity receives an undue excessive share of the resource. The socioeconomic framework described in Section 6.2.3 provides criteria for direct allocation. Allocative impacts of all proposed management measures should be analyzed and discussed in the Council's decision-making process.

[6.2.3.1 Allocation]

In addition to the requirements described in Section 6.2.3, the Council will consider the following factors when intending to recommend direct allocation of the resource.

1. Present participation in and dependence on the fishery, including alternative fisheries.
2. Historical fishing practices in and historical dependence on the fishery.
3. The economics of the fishery.
4. Any consensus harvest sharing agreement or negotiated settlement between the affected participants in the fishery.
5. Potential biological yield of any species or species complex affected by the allocation.
6. Consistency with the MSA national standards.
7. Consistency with the goals and objectives of the FMP.

The modification of a direct allocation cannot be designated as routine unless the specific criteria for the modification have been established in the regulations.

6.4 Standardized Total Catch Reporting and Compliance Monitoring Program

[6.3.2 Standardized Reporting Methodology]

Fishery managers participating in the Council process need accurate estimates of total fishing mortality. Total fishing mortality data are needed to both set accurate harvest specifications and management measures and to adjust management measures inseason so that OYs may be achieved, but not exceeded. Various state, Federal, and tribal catch monitoring systems are used in West Coast groundfish management. These are coordinated through the PSMFC. PacFIN (Pacific Fisheries Information Network) is the commercial catch monitoring database, and RecFIN (Recreational Fishery Information Network) is the database for recreational fishery catch monitoring.

Total catch has two major components: fish that are retained, landed, and sold or kept for personal use, and; fish that are discarded, either at sea or on shore.² This discarded component is what the MSA defines as bycatch.³ Total catch and total fishing mortality may differ because some bycatch may survive capture and subsequent discard, or release. Bycatch mortality varies depending on the physiology of a particular species, the type of fishing gear used, and how fish are handled from the time of capture until they are released back into the water.

Commercial and recreational groundfish fisheries have been managed through a variety of measures intended to limit catch to the level established by an OY. These measures include cumulative landing limits for commercial fisheries and bag limits for recreational fisheries (see Section 6.7). When these measures are less restrictive, few constraints are imposed on fisheries and fish are primarily discarded for economic reasons. (In recreational fisheries, an economic discard would be a personal assessment of the desirability of a particular fish or fish species). When one stock has a comparatively low landing or bag limit in a multispecies fishery, because it is depleted for example, a fisher may discard fish of that stock once the limit is reached in order to continue fishing for other species. Under these conditions, bycatch can be a large portion of total catch and total fishing mortality. With a standardized reporting methodology, managers are better able to track bycatch both inseason and cumulatively, information that is essential to developing management programs to reduce bycatch and bycatch mortality. Therefore, maintaining a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, in addition to being required by the MSA (16 U.S.C. 1853(a) (11)), is an important management task. This FMP meets that requirement through a standardized reporting methodology not just for the amount and type of bycatch occurring in the fishery, but for total catch (landed catch plus bycatch mortality) in the fishery.

In order to better monitor and manage bycatch, the Council supports accounting for total catch by specified fishery sectors. Beginning with the 2003 fishing year, as part of its evaluation of proposed management measures, the Council has been projecting total catches by fishery sector. Actual landings and estimated bycatch have also been categorized by fishery sector. Methods to accurately estimate sector- and species-

2 The MSA further defines the term fish to mean “finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds” 16 U.S.C. 1802(12).

3 Using the term bycatch has led to considerable confusion, because many people use the term synonymously with the concept of incidental catch, or that part of the catch which is not the target of the fishery. In single species fisheries, incidental catch and discards may be largely coincident. But in multi-species fisheries there may be multiple targets, and species that might be considered incidental are commonly retained, depending on the market and regulatory environment. In this FMP, the MSA definition of bycatch is used, as distinct from incidentally-caught species.

specific total catch are needed to support the Council’s bycatch mitigation program (Section 6.5). The Council relies on a combination of state, tribal, and Federal reporting and monitoring programs to determine total catch. NMFS is responsible for evaluating the adequacy of Federal standardized reporting methodologies for assessing the amount and type of bycatch occurring in a fishery. In 2004, NMFS published *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs*, which describes Federal standardized bycatch reporting methodologies and evaluates the adequacies of these methodologies, including those used for the West Coast groundfish fisheries. Federal reporting requirements in this fishery are described below.

6.4.1 Total Catch Reporting Methodology

6.4.1.1 Monitoring Total Catch At Sea – Observer and Electronic Monitoring Programs

[6.5.1.2 Observers]

The MSA defines the term “observer” as “any person required or authorized to be carried on a vessel for conservation and management purposes by regulations or permits under this Act.” The MSA also sets out guidelines for vessels carrying observers, observer training requirements, and observer status as Federal employees.

All fishing vessels operating in this management unit, which includes catcher/processors, at-sea processors, and those vessels that directly or incidentally harvest groundfish in the waters off Washington, Oregon, and California area and land in another area, may be required to accommodate an observer and/or ~~video~~ electronic-monitoring system for the purpose of collecting scientific data or verifying catch landings and discard used for scientific data collection. These vessels may also be required to accommodate an observer and/or electronic monitoring system for the purpose of estimating total catch inseason to implement a sector- or vessel-specific total catch limit program. ~~An observer program will be considered only for circumstances where other data collection methods are deemed insufficient for management of the fishery.~~ Implementation of any observer program or electronic monitoring system will be in accordance with appropriate Federal procedures, including economic analysis and public comment. Any Federal program that requires the collection of information from fishery participants is also subject to the requirements of the Paperwork Reduction Act (PRA).

The Regional Administrator will implement an observer program through a Council-approved Federal regulatory framework. Details of how observer coverage will be distributed across the West Coast groundfish fleet will be described in an observer coverage plan that is appropriate to the purpose of the particular observer program goals. An observer coverage plan designed for a scientific data collection program will likely be different from an observer coverage plan designed for a sector- or vessel-specific total catch monitoring program. NMFS will publish an announcement of the authorization of the observer program and description of the observer coverage plan in the *Federal Register*. Development and implementation of an observer program is done through the full rulemaking process at Section 6.2, D.

Electronic monitoring is an automated alternative to some human data collection systems. Electronic monitoring equipment may provide accurate, timely, and verifiable information on some elements of fishing operations at a lower cost than that provided by an at-sea observer. Electronic monitoring is an integrated assortment of electronic components combined with a software operating system. An electronic monitoring system typically includes one or more video cameras, a CPU with removable hard drive, and software that can integrate data from other components of a vessel’s electronic equipment. The system autonomously logs video and vessel sensor data during the fishing trip without human intervention. When the vessel has completed its fishing operations and returned to port, the video and other data are transferred to a separate computer system for analysis. Video records are typically reviewed by human samplers on shore, but

electronic techniques are being developed to automate some of this activity. Electronic monitoring has been tested in various Canadian fisheries and has successfully addressed specific fishery monitoring objectives. NOAA Fisheries began testing electronic monitoring equipment in the 2004 shore-based whiting fishery, in order to determine whether a full-retention program could be adequately monitored by an electronic monitoring system. This FMP authorizes the use of electronic monitoring programs for appropriate sectors of the fishery. Development and implementation of an electronic monitoring program would be done through the full rulemaking process at 6.2, D.

There may be a priority need for observers on at-sea processing vessels to collect data normally collected at shore-based processing plants. Certain information for management of the fishery may be obtained from logbooks and other reporting requirements, but the collection of some types of data would be too onerous for some fishermen to collect. Processing vessels must be willing to accommodate onboard observers and may be required to provide ~~the required~~ observers prior to issuance of any necessary Federal permits.

6.4.1.2 Commercial Fisheries

The total catch accounting methodology for commercial groundfish fisheries has two main components: monitoring landed catch through reports by fish processors (fish receiving tickets) and at-sea observer programs to estimate bycatch. Observer coverage rates vary by fishery, with at-sea processors (whiting catcher-processors and motherships) being required to carry one or two observers depending on vessel length. Fishery observers for the remainder of the commercial groundfish fleet are required to carry observers in accordance with the NMFS observer coverage plan. Because non-whiting fishery observers are usually placed aboard only a fraction of the vessels in a given sector, their observations must be expanded using statistical methods in order to estimate total catch across a sector. For some fishery sectors, there may not be any direct observation or reporting of bycatch; in such cases, standard bycatch rates developed using the best scientific information may be used to estimate bycatch. Combining bycatch information with information on landed catch gives an estimate of total catch. The Council uses total catch information in inseason management to determine the relationship between catch at a given point in time and an annual OY. Management measures within a given year may be adjusted based on total catch information in order to prevent total catch from exceeding OY levels. Fishery managers also use historic total catch data in stock assessments and to develop future harvest specifications and management measures.

[Section 6.5.2.4 Reporting Requirements]

The owner or operator of any vessel that retains fish harvested in the area managed by this FMP whose port of landing is outside the management area may be required to report those catches in a timely manner through a Federal reporting program. They also may be required to submit a completed fish landing ticket from Washington, Oregon, or California, or an equivalent document containing all of the information required by the state on that fish ticket.

Monitoring Total and Landed Catch

Federal regulations require fishers to sort all species with trip limits, HGs, or OYs, including all overfished species. The states also require limited entry groundfish trawl fishermen to maintain logbooks to record the start and haul locations, time, and duration of trawl tows, as well as the total catch by species market category (i.e., those species and complexes with sorting requirements). Landings are recorded on state fish receiving tickets. Fishtickets are designed by the individual states, but there is an effort to coordinate record-keeping requirements with state and Federal managers through the PSMFC. Catch weight by sorted species category, area of catch, vessel identification number, and other data elements are required on fishtickets. Landings are also sampled in port by state personnel, who collect species composition data, otoliths for ageing, lengths, and

other biological data. A suspension of at-sea sorting requirements coupled with full retention of catch is allowed in the shoreside whiting fishery under an EFP. Amendment 10 to the FMP authorized this suspension of at-sea reporting requirements through a rulemaking, rather than just through an EFP.

Landings, logbook data, and state port sampling data are reported inseason to the PacFIN database, which is managed by the PSMFC. The GMT and PSMFC manage the Quota Species Monitoring (QSM) dataset reported in PacFIN. All landings of groundfish stocks of concern (overfished stocks and stocks below B_{MSY}) and target stocks and stock complexes in West Coast fisheries are tracked in QSM reports of landed catch. QSM reports also include bycatch (discard) estimates, allowing them to be used to track total catch. The GMT recommends prescribed landing limits and other inseason management measures to allow Council-managed fisheries to attain, but not exceed, total catch OYs of QSM species. Stock and complex landing limits are modified inseason to control total fishing-related mortality; QSM reports and landed catch forecasts are used to control the landed catch component.

Groundfish Observer Programs

Vessels participating in the at-sea Pacific whiting fishery have been carrying observers voluntarily since 1991. NMFS made observer coverage mandatory for at-sea processors in July 2004 (65 FR 31751). These provisions have not only given fishery managers the tools necessary to allow the at-sea Pacific whiting program to operate efficiently while meeting management goals, but have also provided scientists, through the observer coverage, an extensive amount of information on bycatch species in this fishery.

NMFS first implemented the West Coast Groundfish Observer Program (WCGOP) in August 2001, placing observers aboard commercial groundfish vessels to monitor discards. By regulation (50 CFR 660.314), all vessels that participate in commercial groundfish fisheries must carry an observer when notified to do so by NMFS or its designated agent. These observers monitor and record catch data, including species composition of retained and discarded catch. Observers also collect biological data, such as fish length, sex, and weight. The program currently deploys observers coastwide on the permitted trawl and fixed-gear groundfish fleet, as well as on some vessels that are part of the open-access groundfish fleet. Observers monitor between 10% and 20% of the catch, as a proportion of total landings. Given the skewed distribution of bycatch in West Coast groundfish fisheries, many observations in each sampling strata (gear type and area) are needed to estimate representative bycatch rates.

The FMP does not currently authorize foreign fisheries for groundfish. According to the MSA, observers would be required on any foreign vessels operating in the Exclusive Economic Zone (EEZ).

6.4.1.3 Recreational Fisheries

Recreational catch is monitored by the states as it is landed in port. These data are compiled by the PSMFC in the RecFIN database. The types of data compiled in RecFIN include sampled biological data, estimates of landed catch plus discards, and economic data.

The Marine Recreational Fisheries Statistical Survey (MRFSS) was an integral part of the RecFIN program until recently, and was the principle program used to estimate effort and catches in the recreational fisheries. The MRFSS used field-intercept surveys to estimate catch, and a random phone survey of coastal populations to estimate effort. The results of these two surveys were combined in the RecFIN database to estimate total fishing effort, fishing mortality, and other estimates useful for management. MRFSS was not designed to estimate catch and effort at the level of precision needed for inseason management or assessment. Thus, while MRFSS continues to be used as a nationwide statistical tool for assessing national recreational fisheries

data, it is no longer relied upon to support inseason West Coast groundfish management. In recent years, the three states, NMFS, and PSMFC have been revamping the way that West Coast recreational fisheries data are collected and estimates are generated so that the data system better supports inseason management. Each state has either improved upon existing sampling projects, such as Washington's Ocean Sampling Program, and Oregon's Ocean Recreational Boat Survey and Shore and Estuary Boat Survey, or developed new sampling programs, such as California's Recreational Fisheries Survey. Data collected by these state sponsored programs are submitted to RecFIN, and form the basis for estimating catch and effort. All three states have accelerated their reporting rates to RecFIN. Beginning in 2005, the states plan to provide recreational fisheries data within one month of the fishing activity; for example, fisheries data through the end of January would be available at the end of February.

The Washington Department of Fish and Wildlife's Ocean Sampling Program (OSP) generates catch and effort estimates for the recreational boat-based groundfish fishery, which are provided to PSMFC and incorporated directly into RecFIN. The OSP provides catch in total numbers of fish, and also collects biological information on average fish size, which is provided to RecFIN to enable conversion of numbers of fish to total weight of catch. Boat egress from the Washington coast is essentially limited to four major ports (Neah Bay, La Push, Westport, and Ilwaco), which enables a sampling approach to strategically address fishing effort from these ports. Effort estimates are generated from exit-entrance counts of boats leaving coastal ports while catch per unit of effort is generated from angler intercepts at the conclusion of their fishing trip. The goal of the program is to provide information to RecFIN on a monthly basis with a one-month delay to allow for inseason estimates.

The Oregon Department of Fish and Wildlife's (ODFW's) Ocean Recreational Boat Survey (ORBS) is responsible for collecting both effort and catch data for the ocean boat portion of the recreational fishery in Oregon. Samplers are stationed in 12 major ports: Astoria, Garibaldi, Pacific City, Depoe Bay, Newport, Florence, Winchester Bay, Charleston, Bandon, Port Orford, Gold Beach, and Brookings. Samplers collect effort information by either conducting exit/entrance counts in the larger ports, or conducting trailer/slip counts in the smaller ports. Upon a vessel's return to port, samplers examine landed catch, collect released information, and collect biological data used to calculate the average size of landed fish by species. The ORBS submits effort and catch estimates to the PSMFC's RecFIN program. ODFW in cooperation with PSMFC has developed the Shore and Estuary Boat Survey (SEBS) in order to develop effort and catch estimates for the shore and estuary boat portions of Oregon's recreational fishery. Effort is determined using a license frame based phone survey. In addition, SEBS is responsible for collecting discard information from the Oregon ocean charter fleet. Samplers act as observers on charter vessels, enumerating releases by species, and taking lengths before fish are released. This information is used to calculate an average size of fish discarded in the recreational fishery.

The California Department of Fish and Game (CDFG), in cooperation with PSMFC, implemented the California Recreational Fisheries Survey (CRFS) in 2004. CRFS combines the prior MRFSS party and charter vessels (PC) sampling program (California's sampling methodology for private recreational vessels) with several new methodologies specifically designed for CRFS into a single, coordinated, statewide program. This program is designed to produce more timely and accurate catch and effort estimates than were available through the MRFSS program while continuing to provide the comprehensive coverage used in the MRFSS program for all recreational fisheries in both boat (private boats, rental boats, and party/charter boats) and shore (pier, jetty, beach and bank) modes of fishing. CRFS employs the following methodologies for sampling these different modes of recreational fishing:

- Private and rental boats (PR) are divided into primary and secondary sampling sites. Primary sites are sampled using a public launch ramp access point survey for effort and catch at high use sites during daylight hours. These sites are defined as those where 90% or more of the catch of important species are landed. Secondary sites are sampled using a roving access point survey for effort and

catch. These sites are defined as those sites in a particular month where less than 10% of the total catch of important species is landed.

- Man-made (MM) sites, composed of piers, jetties and breakwaters, are sampled using a roving access point survey for catch and effort.
- Beach and Bank (BB) sites are sampled using two surveys: a roving access point survey at publicly accessible beaches and banks during daylight hours for catch rates and an angler license database (ALD) telephone survey for all effort.
- PC vessels are sampled using two surveys: a weekly telephone survey of all PC vessels for effort and on board sampling for catch.
- Estimates of private access and night fishing effort and catch for PR, MM, and BB by trip type are derived using the ALD telephone survey for effort and catch rates from access point surveys for catch.

For all modes of fishing, samplers examine landed catch, collect release information and fishing location, and collect biological data used to calculate the average size of landed fish by species. In addition, samplers act as observers on charter vessels, enumerating releases by species, and taking lengths before fish are released. The data, along with effort information for all modes, are entered by PSMFC into the RecFIN database. Estimates of catch and effort are then generated by PSMFC staff and posted on the RecFIN website. These estimates are greatly improved over those from MRFSS, not only because of the improvements in sampling methodologies, but because of changes in sampling rates, reporting intervals, geographical resolution, and expansion processes. CRFS, which employs a sampling rate in excess of three times that from MRFSS, provides monthly estimates for six geographical regions in California that are expanded from species catch rates based upon trip types and stated target species.

6.4.2 Vessel Compliance Monitoring and Reporting Requirements

In addition to authorizing Federal and state programs to collect total catch data, this FMP authorizes the collection of fisheries data needed for compliance monitoring. The following types of data may be collected through a regulatory program intended to ensure vessel compliance with fishery management measures:

[6.5.2.4 Reporting Requirements]

- 1.. Vessel name.
2. Radio call sign.
3. Documentation number or Federal permit number.
4. Company representative and telephone, fax, and/or telex number.
5. Vessel location including daily positions.
6. Check-in and check-out reports giving the time, date, and location of the beginning or ending of any fishing activity.
7. Gear type.
8. Reporting area and period.
9. Duration of operation.
10. Estimated catch by species and area, species disposition (including discards, product type, and weights).
11. Product recovery ratios and products sold (in weight and value by species and product type, and if applicable, size or grade).
12. Any other information deemed necessary for management of the fishery.

Vessels also may be required to maintain and submit logbooks, accurately recording the following information in addition to the information listed above, and for a specified time period: daily and cumulative

catch by species, effort, processing, and transfer information; crew size; time, position, duration, sea depth, and catch by species of each haul or set; gear information; identification of catcher vessel, if applicable; information on other parties receiving fish or fish products; and any other information deemed necessary.

Vessels may be required to inform a NMFS enforcement or U.S. Coast Guard office prior to landing or offloading any seafood product. Such vessels may also be required to report prior to departing the Washington, Oregon, and California management area with fish or fish products on board.

This FMP authorizes the use of vessel monitoring system (VMS) programs in order to improve compliance with area and/or season closures. VMS is a tool that is commonly used to monitor vessel activity in relationship to geographical defined management areas where fishing activity is restricted. VMS transceivers installed aboard vessels automatically determine the vessel's location and transmit that position to a processing center via a communication satellite. At the processing center, the information is validated and analyzed before being disseminated for fisheries management, surveillance, and enforcement purposes. VMS transceivers document the vessel's position using Global Positioning System (GPS) satellites. Depending on the defined need, position transmissions can be made on a predetermined schedule or upon request from the processing center. VMS transceivers are designed to be tamper resistant. The vessel operator is unable to alter the signal or the time of transmission and in most cases the vessel operator is unaware of exactly when the unit is transmitting the vessel's position. VMS programs used to improve compliance in several fisheries with differing area and/or season closures may require the use of a declaration system. A declaration system in association with VMS requires fishery participants declare their intended fishing activity, allowing enforcement personnel to differentiate between vessels subject to differing area and/or season closures.

New regulatory requirements for the collection of fishery-related data would need to be implemented through the full rulemaking process detailed at Section 6.2, D. Any Federal program that requires the collection of information from fishery participants is also subject to the requirements of the PRA.

6.5 Bycatch Mitigation Program

[6.3.3 Measures to Control Bycatch]

Unquantified bycatch increases management risk because harvest limits may be inadvertently exceeded. Regulatory-induced discards are inefficient because society does not benefit from fish with economic value that are discarded to meet regulatory requirements. Bycatch can also include protected species and organisms comprising ecologically important biogenic habitat. Thus, more generally, bycatch may have broader environmental effects. The MSA requires FMPs to include conservation and management measures that, to the extent practicable, minimize bycatch and the mortality of unavoidable bycatch (16 U.S.C. 1853(a)(11)). FMPs may also be subject to bycatch reduction requirements under the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the Migratory Bird Treaty Act (MBTA), and other Federal laws. Federal guidance on assessing the practicability of a potential management program is found at 50 CFR 600.350.

Working with NMFS, the states, and the tribes, the Council uses a three-part strategy to meet the MSA's bycatch-related mandates: (1) gather data through a standardized total catch reporting methodology; (2) use Federal/state/tribal agency partners to assess these data through bycatch models that estimate when, where, and with which gear types bycatch of varying species occurs; and (3) develop management measures that minimize bycatch and bycatch mortality to the extent practicable. The FMP's total catch reporting methodology is described in Section 6.4.1. Bycatch models that assess observer and other data to estimate bycatch amounts occurring in the different sectors of the fishery are routinely reviewed through the Council's

SSC and GMT as part of the Council's harvest specifications and management measures rulemaking process. These models are intended to continuously improve the Council's use of the best available scientific information on species-to-species catch ratios. This section describes the Council's bycatch mitigation program and the management measures intended to minimize bycatch and bycatch mortality.

6.5.1 Bycatch of Groundfish Species in Groundfish Fisheries

Groundfish bycatch in the groundfish fisheries includes both groundfish that are discarded for regulatory reasons, such as a vessel having achieved a trip limit for one species within an assemblage, and groundfish that are discarded for economic reasons, such as a vessel having taken more fish than can be stored in its hold, or having taken more of a particular species than is desired by a processor. The Council may initiate new and practicable management measures to reduce groundfish bycatch in the groundfish fisheries under either the harvest specifications and management measures rulemaking process (6.2, C.) or the full rulemaking process (Section 6.2, D.) It is usually through the harvest specifications development process that the Council is made aware of new data and analyses on groundfish bycatch and bycatch mortality rates. The Council manages its groundfish fisheries to allow targeting on more abundant stocks while constraining the total mortality of overfished and precautionary zone stocks. For overfished stocks, measures to constrain total mortality are primarily intended to reduce bycatch of those stocks. The FMP defines stock status of overfished, precautionary zone, and more abundant stocks at Section 4.5. Management measures the Council has used to reduce total catch of overfished species are detailed for each species at Section 4.5.4. At Section 4.6, the FMP requires that landed catch OYs be reduced from total catch OYs to account for bycatch mortality.

The Council has all of the management measures detailed in Sections 6.5 – 6.10 at its disposal to manage directed catch and reduce bycatch of groundfish species in the groundfish fisheries. Because of the interaction among the various species and the regular incorporation of new information into the management system, the details of the specific measures will change over the years, or within years, based on the best available science. Management measures will be designed taking into account the co-occurrence ratios of target stocks with overfished stocks. To protect overfished species and minimize bycatch through reducing incidental catch of those species, the Council will particularly use, but is not limited to: catch restrictions detailed in Section 6.7 to constrain the catch of more abundant stocks that commingle with overfished species, in times and areas where higher abundance of overfished species are expected to occur; the appropriate time/area closures detailed in Section 6.8 and designed to prevent vessels from operating during times when or in areas where overfished species are most vulnerable to a particular gear type or fishery; and gear restrictions described in Section 6.6, where that gear restriction has been shown to be practicable in reducing overfished species incidental catch rates.

6.5.2 Bycatch and Incidental Take of Non-Groundfish Species in Groundfish Fisheries

[6.3.1 Bycatch of Nongroundfish Species]

Certain non-groundfish species may be taken incidentally in fisheries targeting groundfish. This FMP authorizes management measures to minimize, to the extent practicable, the bycatch of non-groundfish species or the incidental take of species not defined as fish under the MSA. Non-groundfish species subject to bycatch or incidental take minimization measures may be marine fish species managed under another Council FMP, or marine animals or plants not managed with an FMP, yet subject to the protections of the ESA, the MMPA, the MBTA, or other Federal laws. Marine mammals and birds are specifically excluded from the MSA definition of fish and are therefore not defined as bycatch under the MSA. Notwithstanding, the Council may manage fisheries to minimize the incidental take of these species.

Generally, the Council will initiate the process of establishing or adjusting management measures when a

resource problem with a non-groundfish species is identified and it has been determined that groundfish fishing regulations would reduce the total impact on that species or stock. This would usually occur when a state or Federal resource management agency (such as the U.S. Department of the Interior, NMFS, or state fishery agency) or the Council's Salmon Technical Team (STT) presents the Council with information substantiating its concern for a particular species. The Council will review the information and refer it to the SSC, GMT, STT, or other appropriate technical advisory group for evaluation. If the Council determines, based on this review, that management measures may be necessary to prevent harm to a non-groundfish species facing conservation problems or to address requirements of the ESA, MMPA, other relevant Federal natural resource law or policy, or international agreement, it may implement appropriate management measures in accordance with the procedures identified in Section 6.2. The intention of the measures may be to share conservation burdens while minimizing disruption of the groundfish fishery, but under no circumstances may the intention be simply to provide more fish to a different user group or to achieve other allocation objectives.

6.5.2.1 Endangered Species Act Species

Marine species protected under the ESA that are not otherwise protected under either the MMPA or the MBTA (see below) include various salmon and sea turtle species. Threatened and endangered Pacific salmon runs are protected by a series of complex regulations affecting marine and terrestrial activities. In the West Coast groundfish fisheries, management measures to reduce incidental salmon take have focused on the Pacific whiting fisheries, which have historically encountered more salmon than the non-whiting groundfish fisheries. Salmon bycatch reduction measures include marine protected areas (MPA) where Pacific whiting fishing is prohibited (See 6.8.4), and an at-sea observer program intended to track whiting and incidental species take inseason (See 6.4.1.1). Sea turtles are rare in areas where groundfish fisheries are prosecuted and no incidental take of sea turtles has been documented in any directed groundfish fishery.

6.5.2.2 Marine Mammal Protection Act Species

Incidental take of marine mammals is addressed under the MMPA and its implementing regulations. Section 118 of the MMPA requires that NMFS place all commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occur in each fishery. To implement this requirement, NMFS publishes a list of U.S. commercial fisheries and categorizes their effects on marine mammals. Directed West Coast groundfish fisheries have consistently been categorized as Category III fisheries, meaning that they are "commercial fisheries determined by the [NMFS] Assistant Administrator to have a remote likelihood of, or no known incidental mortality and serious injury of marine mammals".

6.5.2.3 Migratory Bird Treaty Act Species

Incidental take of seabirds is addressed under the MBTA and its implementing regulations. The MBTA implements various treaties and conventions between the U.S., Canada, Mexico, Japan, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful. The U.S. Fish and Wildlife Service (USFWS) is the Federal agency responsible for management and protection of migratory birds, including seabirds. NMFS is required to consult with the USFWS if FMP actions may affect seabird species listed as endangered or threatened. In February 2001, NMFS adopted the *National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries*. This National Plan of Action contains guidelines that are applicable to the groundfish fisheries and would require seabird incidental catch mitigation if a significant problem is found to exist.

6.5.3 Measures to Reduce Bycatch and Bycatch Mortality

Over the life of the FMP, the Council has used a suite of measures to reduce bycatch and bycatch mortality in the groundfish fisheries. Early bycatch reduction measures concentrated on trawl net modifications intended to reduce the bycatch of juvenile groundfish (Section 6.6.1). In 1993, the Council addressed concerns over potential bycatch of endangered or threatened salmon in the whiting fishery by imposing the Columbia River and Klamath River Conservation Zones (Section 6.8.4). Since 2000, the Council has concentrated its bycatch reduction efforts on constraining total catch of overfished species through gear restrictions (See Section 6.6), catch restrictions (Section 6.7), time/area closures (Section 6.8), and effort restrictions (Section 6.9). The Council and NMFS have also used permit restrictions and effort reduction programs (Section 6.9) to reduce total and incidental catch in the groundfish fisheries. Effort reduction measures implemented in recent years include the sablefish endorsement and tier program for the limited entry fixed gear fleet and the vessel/permit buyback program for the limited entry trawl fleet.

An important element of the Council's bycatch mitigation program occurs every two years when the Council develops its biennial specifications and management measures. During the development of the biennial specifications and management measures, and throughout the year when measures are adjusted, the Council will take into account the co-occurrence rates of target stocks with overfished stocks, and will select measures that will minimize, to the extent practicable, bycatch. The Council may select appropriate measures listed in the FMP and any others that may be developed in the future.

Any of the measures specified in Sections 6.5 through 6.10 may, where practicable, be used to reduce groundfish or non-groundfish bycatch in the groundfish fisheries. The Council will develop measures to reduce bycatch and bycatch mortality in accordance with the points of concern or the socioeconomic framework provisions of the FMP (Section 6.2.3). The process for implementing and adjusting such measures may be initiated at any time. New bycatch reduction management measures would need to be developed through either the harvest specifications and management measures rulemaking process (Section 6.2, C.) or the full rulemaking process (Section 6.2, D). In addition, some measures may be designated as routine, which would allow adjustment at a single meeting based on the factors provided for in Section 6.2.1. Beyond the directed catch and bycatch management measures provided in Sections 6.6 through 6.10, this Section 6.5.3 provides additional bycatch and bycatch mortality reduction programs available for Council use.

6.5.3.1 Full Retention Programs

A full retention program is a regulatory regime that requires participants in a particular sector of the fishery to retain either all of the fish that they catch or all of some species or species group that they catch. Requiring full retention of all or a portion of a vessel's catch allows more careful enumeration of total catch under appropriate monitoring conditions. Full retention requirements also encourage affected fishery participants to tailor their fishing activities so that they are less likely to encounter non-target species. The Council may develop full retention programs for the groundfish fisheries, when such programs are accompanied by an appropriate monitoring mechanism (Section 6.4) and where such programs are sufficiently enforceable (Section 6.10) such that they are not expected to increase total mortality of overfished species. The development of any full retention will be accompanied by an analysis of the practicability of requiring retention of all of the designated species.

6.5.3.2 Sector-specific and Vessel-specific Total Catch Limit Programs

Total catch limits are defined in Section 2.2

The Council may specify total catch limits that are transferable or nontransferable among sectors or tradable or nontradable between vessels.

The Council may develop sector- and/or vessel-specific total catch limit programs for the groundfish fisheries when such programs are accompanied by an appropriate monitoring mechanism (Section 6.4) and where such programs are sufficiently enforceable (Section 6.10) such that they are not expected to increase vessel detection-avoidance activities.

Sector-specific Total Catch Limit Program

A sector-specific total catch limit program is one in which a fishery sector would have access to a pre-determined (probably through the harvest specifications and management measure process, Section 6.2, C) amount of a groundfish FMU species, stock, or stock complex that would be allowed to be caught by vessels in that sector. Once a total catch limit is attained, all vessels in the sector would have to cease fishing until the end of the limit period, unless the total catch limit is increased by the transfer of an additional limit amount. A sector-specific total catch limit program could be based on either: 1) monitoring of landed catch and inseason modeling of total catch based on past landed catch and bycatch rates, or 2) monitoring of total catch and real-time delivery of total catch data. If a sector-specific total catch limit program is based on inseason monitoring of landed catch, a sector would close when inseason total catch modeling estimated that the sector had achieved an FMU species, stock, or stock complex total catch limit. If a sector-specific total catch limit program is based on inseason monitoring of total catch, a sector would close when inseason total catch monitoring estimated that the sector had achieved an FMU species, stock, or stock complex total catch limit. If inseason monitoring of total catch is possible, sector participants in a sector-specific total catch limit program could either fish in an open competition with each other for total catch limits or could cooperate with each other to keep their total catch below total catch limits.

In developing a sector-specific total catch program, the Council will initially consider the following ten groundfish fishery sectors for assignment of total catch limits:

1. Non-whiting limited entry trawl vessels.
2. At-sea Pacific whiting catcher-processors.
3. Limited entry trawl vessels delivering to at-sea Pacific whiting motherships.
4. Limited entry trawl vessels delivering Pacific whiting to shore-based processing plants.
5. Limited entry longline vessels.
6. Limited entry pot vessels.
7. Directed open access vessels. These are vessels without a groundfish limited entry permit that on a per-trip or per-landing basis demonstrate a fishing strategy targeting groundfish.
8. Incidental open access vessels. These are vessels that on a per-trip or per-landing basis are not fishing under a groundfish limited entry permit and not targeting groundfish, but may catch some amount of groundfish incidentally.
9. Tribal vessels targeting groundfish (see Section 6.2.4)
10. Recreational fishers (fishing from a vessel, from shore, or by another means), including charter (for hire) vessels.

As necessary, the Council will establish criteria for deducting total catch by a particular vessel from a particular sector's total catch limit. For example, the same limited entry trawl vessel may make landings attributable to the shore-based whiting sector or the non-whiting limited entry trawl sector, assignment of a particular landing (and associated bycatch) to one or the other sector would be necessary. Similarly, an open access vessel may target groundfish on a particular trip or time of year, falling into the directed open access sector, while at other times targeting nongroundfish species but catching groundfish incidentally and falling into the incidental open access sector. In general, the composition of a particular vessel's landing and bycatch associated with that landing will be used as the basis for assigning total catch to a sector (recognizing that associated bycatch may be directly monitored or estimated). However, other criteria may be used if

appropriate.

Sector-specific total catch limits may be applied to one or more of the ten sectors enumerated above and separate limits may apply to one or more FMU species, stocks, or stock complexes. Two or more of these sectors may be grouped and assigned an overall total catch limit for a given FMU species, stock, or stock complex; similarly, any of the ten sectors may be further subdivided to create additional sectors for the purpose of assigning a total catch limit for a given FMU species, stock, or stock complex. In considering which sectors should be assigned a total catch limit for a given FMU species, stock, or stock complex, the Council will consider current and/or projected total catch of the FMU species, stock, or stock complex by vessels in that sector and the capacity of current monitoring programs to provide sufficiently accurate and timely data to

manage to a total catch limit, or the feasibility of establishing such a monitoring program for the sector in question.

Vessel-specific Total Catch Limit Program

Vessel-specific total catch limits are similar to individual vessel quotas (see Section 6.9.3) as applied to groundfish FMU species, stocks, or stock complexes and require more intense monitoring than a sector-specific total catch limit program. Vessel-specific total catch limits may be established for vessels participating in a sector for which sector-specific total catch limits have already been established. Under a vessel-specific total catch limit program, the participating vessels would be monitored inseason and each vessel would be prohibited from fishing once it had achieved its total catch limit for a given FMU species, stock, or stock complex. The Council will establish the criteria necessary to determine what portion of a sector-specific total catch limit will be assigned to any vessel qualifying for a vessel-specific total catch limit.

The Council also may attach incentives, such as increased cumulative landing limits, or requirements, such as carrying observers, when assigning total catch limit amounts to a vessel.

Inseason Adjustment of Sector Total Catch Limits

The Council may increase or decrease a sector limit during the limit period (for example, the fishing year or biennial management period), but should only do so in exigent circumstances and based on the criteria described below. If increasing sector limits inseason were to become a common management response, this could erode their effectiveness as incentives to fishery participants to adopt bycatch-reducing techniques and practices. Furthermore, adjusting a sector total catch limit could make the application of vessel-specific total catch limits in that sector difficult. A change in the sector limit would require a corresponding adjustment to each vessel limit, which would have to be accounted for in any monitoring program.

Inseason (during the limit period) the Council should only increase a sector total catch limit for a constraining species (a species whose OY or total catch limit prevents attainment of target species' OYs) if all of the following conditions are met:

1. Total catch monitoring indicates a constraining species' sector total catch limit will be exceeded well before the end of the limit period and the estimated target species' total catch for that sector (for the limit period) is well below the total catch previously predicted for the limit period.
2. Monitored and projected total catch in other sectors (with or without sector total catch limits) indicates that the OY for the constraining species in question (established on an annual or other basis) will not be exceeded if the sector total catch limit is increased.

An increase in a sector total catch limit could be done through a transfer from another sector's total catch limit

for the same species.

The Council may need to reduce a sector's total catch limit because of an overage in one or more sectors. An overage means total catch that exceeds or is projected to exceed a sector's total catch limit for a particular species or species group. The term overage also applies to sectors not operating under total catch limits if total catch of the species in question (actual or projected) is above previous projections made for those sectors prior to the start of any given period (bimonthly period, fishing year, etc.). The Council could also reduce a sector's total catch limit in the form of a sector-to-sector transfer, as described above. The following principals should apply when considering an inseason downward adjustment in a total catch limit:

1. In order to avoid an overage, fishing may be prohibited after the date when a sector's total catch limit is projected to be reached, rather than waiting to close the fishery based on retrospective total catch estimates (available, for example, in the QSM report). This strategy is relevant to sectors without real-time reporting.
2. A downward adjustment should only be considered as a last resort when it is being considered for use as a compensation for projected overages in other sectors. Measures to rapidly reduce projected total catch in sectors where the overages are projected to occur, or in sectors without total catch limits (or for non-catch-limited species) should be considered first. These measures could be, for example, changes to landing limits or changes in the size, configuration, and duration of time/area closures.
3. If a sector has an overage that needs to be compensated for by a change in total catch limits for other sectors, any downward adjustment in those sector's total catch limits should reflect an equitable reduction across all sectors, either through a proportional reduction in equivalent total catch limits or through the application of other management measures intended to reduce total catch of the species in question.
4. In the case of a reduction that is part of an intra-sector transfer, the criteria described above for an increase shall apply. In no case shall a reduction consequent of a transfer disadvantage the vessels in a sector in comparison to other sectors and with respect to fishing opportunity.

6.5.3.3 Catch Allocation to, or Gear Flexibility For, Gear Types With Lower Bycatch Rates

Catch allocations (Section 6.3), catch limits (Section 6.7), and fishing areas (Section 6.8) may be set so that users of gear types with lower bycatch rates have greater fishing opportunities than users of gear with higher bycatch rates. Increased fishing opportunities for users of gear types with lower bycatch rates could come in the form of increased overall amounts of fish available for directed or incidental harvest, increased landings limits, or increased allowable fishing areas. Increased fishing opportunities made available under this provision may not be provided in such a way that the number of fishing vessels participating in the groundfish fisheries is expected to increase.

Recreational Catch and Release Management

[6.4 Recreational Catch and Release Management]

The Council may develop recreational catch-and-release programs for any groundfish stock through ~~the appropriate rulemaking process~~ either the harvest specifications and management measures rulemaking (Section 6.2, C.) or the full rulemaking (Section 6.2, D.) processes. The Council will assess the type and amount of groundfish caught and released alive during fishing under such a program and the mortality of such fish. Management measures for such a program will, to the extent practicable, minimize mortality and ensure

extended survival of such groundfish.

6.6 Gear Definitions and Restrictions

The Council uses gear definitions and restrictions to protect juvenile fish (trawl mesh size), to disable lost gear so that it no longer catches fish (biodegradable escape panels for pots), to slow the rates of catch in particular sectors (recreational fisheries hook limits), to reduce bycatch of non-target species (trawl configuration requirements), and to protect marine habitat (trawl roller gear size restrictions). Gear types permitted for use in the West Coast groundfish fisheries in Federal waters are listed in Federal regulations at 50 CFR 660.302 and in a nationwide list of fisheries at 50 CFR 600.725. No vessel may fish for groundfish in Federal waters using any gear other than those authorized in Federal regulations. Gear definitions and restrictions for both the commercial and recreational fisheries may be revised using either the specifications-and-management-measures rulemaking process (Section 6.2, C.) or the full rulemaking process (Section 6.2, D.). When developing revisions to gear definitions and restrictions, the Council shall consider the expense of such revisions to fishery participants and the time required for participants to work with gear manufacturers to meet new requirements.

6.6.1 Commercial Fisheries

[6.5.2.3 Gear Restrictions]

This ~~plan~~ FMP authorizes the use of trawls, pots (traps), longlines, hook-and-line (mobile or fixed) and setnets (gillnets and trammel nets) as legal gear for the commercial harvest of groundfish.

6.6.1.1 Prohibitions

The use of setnets is prohibited in all waters north of 38° N. latitude.

Bottom trawl gear with footropes larger than eight inches in diameter is prohibited shoreward of a line approximating the 100 fm depth contour. This boundary line is defined in Federal regulations by precise latitude-longitude coordinates (see 50 CFR 660, Subpart G). Trawl footrope diameter restrictions originated as a rockfish bycatch reducing measure, as discussed in 6.6.1.2. Footropes of diameters larger than 8 inches have been prohibited for use in the nearshore area in order to minimize bycatch, but the FMP had not set a formal boundary line for their use prior to 2006. Amendment 19 to the FMP requires permanent closure of the area shoreward of the 100 fm depth contour, a mandatory EFH protection measure.

The use of bottom trawl footrope gear with a footrope diameter larger than 19 inches is prohibited in the fishery management area.

The use of dredge gear is prohibited in the fishery management area.

The use of beam trawl gear is prohibited in the fishery management area.

States may implement parallel measures within their state waters (0-3 nm.)

6.6.1.2 Trawl Gear

[11.2.1.1 Trawl gear and 6.1.2 Mesh Size]

Trawl gear is a cone or funnel-shaped net, which is towed or drawn through the water by one or two vessels.

Trawls are used both on the ocean bottom and off bottom. They may be fished with or without trawl doors. They may employ warps or cables to herd fish. Trawl gear includes roller, bottom, and pelagic (mid-water) trawls, and as appropriate, trawls used to catch non-groundfish species but which incidentally intercept groundfish. Trawl gear is complex, usually constructed from several panels of mesh and engineered with varying ropes, chains, and trawl doors to target particular sizes, shapes, or species of fish. The Council has historically worked with the trawl industry and the states, usually through the issuance of EFPs, to develop new trawl gear restrictions or modifications intended to accomplish one or more FMP goals, usually the reduction of bycatch. The following discussion of the Council's efforts to modify trawl gear provides examples of the types of trawl gear modifications that may be made to meet FMP goals, but does not limit the range of future trawl gear restrictions.

In the early-mid 1990s, the Council engaged the trawl industry in a series of discussions on modifying trawl nets to minimize juvenile fish bycatch. Since 1995, bottom trawl nets have been required to be constructed with a minimum mesh size of 4.5 inches, and pelagic trawl nets with a minimum mesh size of three inches. Minimum net mesh sizes are intended to allow immature fish to pass through trawl nets. To ensure the success of minimum mesh size restrictions in allowing juvenile fish to escape trawl nets, the Council also developed restrictions preventing trawlers from using a double-walled codend. Further restrictions related to this objective include prohibitions on encircling the whole of a bottom trawl net with chafing gear and restrictions on the minimum mesh size of pelagic trawl chafing gear (16 inches).

In 2000, the Council began to distinguish between large and small footrope trawl gear. Large footrope gear is bottom trawl gear with a footrope diameter larger than eight inches, including any material (rollers, bobbins, etc.) encircling the footrope. Small footrope gear is bottom trawl gear with a footrope diameter of eight inches or smaller. Pelagic trawl gear is required to have unprotected footrope gear and is not permitted to be encircled with chains, rollers, bobbins, or other material. Initially, the Council used the distinction between large and small footrope gear to prohibit large footrope use for less abundant, nearshore, and continental shelf species. Large footrope gear allows trawlers to access rockier areas, by bouncing the bottom of the trawl net over larger obstructions without tearing. Allowing only small footrope gear in nearshore and shelf areas was intended to reduce trawl access to newly-designated overfished species and their rockier habitats.

Since the Council introduced Rockfish Conservation Areas (RCAs, Section 6.8.2) in 2002 (through emergency rulemaking, later made permanent regulations), large footrope trawl gear has been prohibited inshore of the western boundary of the trawl RCA. RCA boundary lines are set to approximate ocean bottom depth contours and the western boundary of the trawl RCA has not been shallower than a line approximating the 150 fm depth contour. (See Section 6.8.3 for the use of RCAs as a management tool.) Six of the eight overfished species are continental shelf species and this restriction on the use of large footrope gear continues to reduce trawler access to rocky nearshore habitat. Over time, these footrope size restrictions, coupled with restricted landing limits, have re-configured trawl activities in the nearshore area so that they primarily target the more abundant flatfish species.

In 2005, the Council introduced new trawl gear requirements for small footrope trawl gear north of 40° 10.00' N. latitude. Trawlers operating inshore of the Trawl RCA are required to use selective flatfish trawl gear, which is configured to reduce bycatch of rockfish while allowing the nets to retain flatfish. Selective flatfish trawl nets have an ovoid trawl mouth opening that is wider than it is tall and the headropes on these nets are recessed from the trawl mouth. This combination of a flattened oval shape and a recessed headrope herds flatfish into the trawl net while allowing rockfish to slip up and over the headrope, without entering the net. Groundfish trawlers worked with the State of Oregon to develop these nets in order to have greater access to healthy flatfish stocks. The Council is working with the State of California to determine whether the selective flatfish trawl net is also effective at reducing the bycatch of southern overfished species in fisheries targeting more abundant southern stocks.

As part of a suite of measures intended to mitigate the adverse effects of fishing in groundfish EFH, the eight inch footrope restriction described here is made permanent, as listed in Section 6.6.1.1, prohibitions. A 100 fm management line, the shoreward boundary of the trawl RCA when the permanent measure was implemented, is identified as the seaward extent of the prohibition.

6.6.1.3 Nontrawl Gear

[11.2.1.3 Nontrawl gear; 11.2.1.2 Fixed gear]

Nontrawl gear includes all legal commercial gear other than trawl gear. Fixed gear (anchored nontrawl gear) includes longline, pot, set net, and stationary hook-and-line gear. Fixed gear must be marked, individually or at each terminal end as appropriate, with a pole, flag, light, and radar reflector attached to each end of the set, and a buoy clearly identifying the owner. In addition, fixed gear shall not be left unattended for more than seven days. Reporting of fixed gear locations is not required, but fixed gear fishermen are encouraged to do so with the U.S. Coast Guard. Reporting of fixed gear will facilitate compensation claims by fishermen who have lost fixed gear.

Since 1982, groundfish traps have been required to be constructed with biodegradable escape panels in such a manner that an opening of at least eight inches in diameter results when the escape panel deteriorates. These biodegradable panels ensure that, if a trap is lost or not attended for extended periods of time, it will not continue to fish. Gear that has been lost and continues to capture fish while it is unattended is often referred to as ghost fishing gear.

Mesh size in fish pots (traps) also affects the size of fish retained in the trap. By increasing the minimum mesh size in all or part of the trap, small fish may be allowed to escape. There are no minimum mesh size requirements for groundfish pot vessels. However, sablefish is the primary trap gear target species and fishermen are usually paid more per pound for larger-sized sablefish. Thus, there are few incentives for trap fishermen to use smaller mesh sizes.

6.6.2 Recreational Fisheries

[11.2.2 Recreational Fishing]

Recreational fishing is fishing with authorized gear for personal use only, and not for sale or barter. The only types of fishing gear authorized for recreational fishing are hook-and-line and spear. The definition of hook-and-line gear for recreational fishing is the same as for commercial fishing. Hook limits, restrictions on the number of hooks that may be used per fishing line, or on the size or configuration of hooks used in a recreational fishery, have been established as routine management measures under 6.2.1. Hook limits are used in the recreational fishery to either constrain recreational fishery effort by limiting the number of hooks per fishing line, or to select for certain species by limiting the size of hooks used.

6.6.3 Bottom-contact Gear

In order to mitigate the adverse impacts of fishing on groundfish EFH, the Council may impose restrictions on a range of gear types collectively termed bottom-contact gear. These are gear types that are designed or modified to make contact with the sea floor during normal use. This includes, but is not limited to, beam trawl, bottom trawl, dredge, fixed gear, set net, demersal seine, dinglebar gear, and other gear (including experimental gear) designed or modified to make contact with the bottom. Gear used to harvest bottom-dwelling organisms (e.g., by hand, rakes, or knives) are also considered bottom-contact gear for the purpose of regulation. Other gear, midwater trawl gear for example, although it may occasionally make contact with

the sea floor during deployment, is not considered a bottom contact gear because the gear is not designed for bottom contact, is not normally deployed so that it makes such contact, nor is such contact normally more than intermittent. Similarly, vertical hook-and-line gear that during normal deployment is not permanently in contact with the bottom and would not be considered bottom-contact gear. For the purpose of regulation, specified legal gear types may be designated bottom contact or non-bottom-contact.

6.7 Catch Restrictions

[6.5.2.2 Catch Restrictions]

The FMP authorizes the commercial and recreational harvest of species listed in Chapter 3 of this plan, and provides for limiting the harvest of these species in Chapters 5 and 6. The Council uses a variety of management measures to constrain rates of total catch, including direct limits on amounts that may be taken and landed in commercial and recreational fisheries. Trip limits constrain landed catch in the commercial fisheries; bag limits constrain landed catch in the recreational fisheries. Total catch limits constrain incidental catch amounts permitted in a particular fishery or sector and may refer to either amounts of incidentally caught non-target species that are not discarded (not considered bycatch under the MSA), to amounts of non-target species that are discarded, or to both. Designating certain species as prohibited ensures that the FMP complies with international, Federal, and state regulations and management requirements for non-groundfish species.

[11.4 Catch Restrictions]

Groundfish species harvested directly or incidentally in the territorial sea (0-3 nautical miles) will be counted toward any catch limitations established under the authority of this FMP. These catch restrictions apply to domestic fisheries off Washington, Oregon, and California. Procedures for designating and adopting catch restrictions are found in Section 6.2.

6.7.1 All Fisheries

Quotas, size limits, and total catch limits may be applied to either commercial (groundfish or non-groundfish) or recreational fisheries.

[6.1.4 Quotas, Including Individual Transferable Quotas]

Quotas. Quotas may be used for certain species. Quotas are specified harvest limits, the attainment of which causes closure of the fishery for that species, gear type, or individual participant. Quotas may be established for intentional allocation purposes or to terminate harvest at a specified point. They may be specified for a particular area, gear type, time period, species or species group, and/or vessel or permit holder. Quotas may apply to either target species or bycatch species.

[6.1.6 Size Limits]

Size limits. Size limits are used to prevent the harvest of immature fish or fish that have not reached their full reproductive capacity. In some cases, size limits are used in reverse to harvest younger recruit or pre-recruits and to protect older, larger spawning stock. ~~Generally, harvesting the larger members of the population tends to increase the yield by taking advantage of the combined growth of individual fish.~~ Slot limits, which prohibit the retention of fish that are either smaller than a lower size limit or larger than a higher size limit, are used to protect both immature fish and more fecund older fish. Size limits may be applied to all fisheries, but are generally used where fish are handled individually or in small groups such as trap-caught sablefish and recreational-caught fish. Size limits lose their utility in cases where the survival of the fish returned to the sea is low (e.g., rockfish).

Total catch limits. The Council has historically managed total catch of groundfish species by monitoring direct and incidental catch inseason, and then making inseason adjustments to catch and other restrictions to ensure that annual total catch does not exceed allowable harvest amounts. Expected bycatch amounts of overfished species are set aside as anticipated incidental take in various fisheries. Total catch limits, by contrast, are sector-specific or vessel-specific limits on total catch (landed and discarded catch) of groundfish FMU species. A cumulative trip limit is the maximum amount of groundfish species or species group that may be taken and retained, possessed, or landed per vessel in a specified period of time without a limit on the number of landings or trips, unless otherwise specified. In setting the biennial specifications and management measures, the Council will review the total harvestable surplus of individual FMU species or species groups and determine whether there are fishery sectors that may be managed with total catch limits. If a sector or vessel achieves a total catch limit inseason, all vessels in the sector, in the case of sector limits, or the individual vessel, in the case of vessel limits, would have to cease fishing at that time, unless the total catch limit is increased by means of a transfer or trade to the sector or vessel in question. Fisheries managed with total catch limits also must be subject to monitoring and requirements that provide real-time or projected total catch reporting (See Section 6.4).

6.7.2 Commercial Fisheries

[6.5.2.2 Catch Restrictions]

Prohibited Species. It is unlawful for any person to retain any species of salmonid or Pacific halibut caught by means of fishing gear authorized under this FMP, except where a Council approved monitoring program is in effect. State regulations prohibit the landing of crab incidentally caught in trawl gear off Washington and Oregon. However, trawl fishermen may land Dungeness crab in the State of California north of Point Reyes in compliance with the state landing law. Retention of salmonids and Pacific halibut caught by means of other groundfish fishing gear is also prohibited unless authorized by 50 CFR Part 300, Subparts E or F; or Part 600, Subpart H. Specifically, salmonids are prohibited species for trawl, longline, and pot gear. Halibut may be retained and landed by troll and longline gear only during times and under conditions set by International Pacific Halibut Commission and/or other Federal regulations. Salmon taken by troll gear may be retained and landed only as specified in troll salmon regulations. Groundfish species or species groups under this FMP for which the quota has been reached shall be treated in the same manner as prohibited species. Species identified as prohibited must be returned to the sea as soon as practicable with a minimum of injury when caught and brought aboard, after allowing for sampling by an observer, if any. Exceptions may be made for the recovery of tagged fish.

The FMP authorizes the designation of other prohibited species in the future or the removal of a species from this classification, consistent with other applicable law for that species. The designation of other prohibited species or the removal of species from this classification must be made through either the biennial or annual specifications-and-management-measures rulemaking process (Section 6.2, C.) or through the full rulemaking process (Section 6.2, D.)

[6.1.3 Landing and Frequency Limits]

Trip limits. A trip limit is the amount of groundfish that may be taken and retained, possessed, or landed from a single fishing trip. Trip limits, trip frequency limits, and trip limits that vary by gear type or fishery may be applied to either groundfish or non-groundfish fisheries. Trip landing limits and trip frequency limits are used to control landings to delay achievement of a quota or HG and thus avoid premature closure of a fishery if it is desirable to extend the fishery over a longer time. Trip landing limits also may be used to minimize targeting on a species or species group while allowing landings of some level of incidental catch. Trip landing limits are most effective in fisheries where the fisherman can control what is caught. In a multispecies fishery, trip limits can discourage targeting while, at the same time, providing for the landing of an incidental catch

species that requires a greater degree of protection than the other species in the multispecies catch. Conversely, a trip limit may be necessary to restrict the overall multispecies complex catch in order to provide adequate protection to a single component of that catch.

[9.0 Restrictions on Other Fisheries]

Trip limits for non-groundfish fisheries. For each non-groundfish fishery considered, a reasonable limit on the incidental groundfish catch may be established that is based on the best available information (from EFPs, logbooks, observer data, or other scientifically acceptable sources). These limits will remain unchanged unless substantial changes are observed in the condition of the groundfish resource or in the effort or catch rate in the groundfish or non-groundfish fishery. Incidental limits or species categories may be imposed or adjusted in accordance with the appropriate procedures described in Section 6.2. The Secretary may accept or reject but not substantially modify the Council's recommendations. ~~The trip limits for the pink shrimp and spot and ridgeback prawn fisheries in effect when Amendment 4 is implemented will be maintained unless modified based on the above criteria through the management adjustment framework.~~ The objectives of this framework are to:

- Minimize discards in the non-groundfish fishery by allowing retention and sale, thereby increasing fishing income;
- Discourage targeting on groundfish by the non-groundfish fleet; and,
- Reduce the administrative burden of reviewing and issuing EFPs for the sole purpose of enabling non-groundfish fisheries to retain groundfish.

6.7.3 *Recreational Fisheries*

[6.1.7 Bag Limits]

Bag limits. A bag limit is a restriction on the number of fish that may be taken and retained by an individual angler operating in a recreational fishery, usually within a period of a single day. Bag limits have long been used in the recreational fishery and are perhaps the oldest method used to control recreational fishing. The intended effect of bag limits is to spread the available catch over a large number of anglers and to avoid waste.

Boat limits. A boat limit is a cumulative restriction on the total number of fish that may be taken and retained by all of the persons operating from a recreational fishery vessel. Boat limits restrict the overall per-vessel catch in a recreational fishery. A boat limit may prevent an angler from taking what would otherwise be allowed within an individual bag limit, depending on the number of fish already taken on that boat.

Dressing requirements. Anglers may be subject to requirements that they retain the skin on their filleted catch in order to allow port biologists and enforcement officers to better identify recreational catch by species.

6.8 Time/Area Closures

The Council uses a variety of time/area closures both to control the directed rate of catch of targeted species, to reduce the incidental catch of non-target, protected (including overfished) species; and to prevent fishing in specified areas in order to mitigate the adverse effects of such activities on groundfish EFH. Time/area closures vary by type both in their permanency and in the size of area closed. When the Council sets fishing seasons (Section 6.8.1,) it generally uses latitude lines extending from shore to the EEZ boundary to close large sections of the EEZ for part of a fishing year to one or more fishing sectors. RCAs (at Section 6.8.2), by

contrast, are coastwide fishing area closures bounded on the east and west by lines connecting a series of coordinates approximating a particular depth contour. RCAs are gear-specific and their eastern and western boundaries may vary during the year. RCAs also may be polygons that are closed to fishing for a brief period (less than one year) in order to provide short-term protection for the more migratory overfished or other protected species. Groundfish fishing areas (GFAs) (at Section 6.8.3) are enclosed areas of high abundance of a particular species or species group and may be used to allow targeting of a more abundant stock within that enclosed area. Long-term bycatch mitigation closed areas (Section 6.8.4) have boundaries that do not vary by season and are not usually modified annually or biennially. ~~Ecologically important habitat closed areas (Section 6.8.5) and the bottom trawl footprint closure (6.8.6) are established in order to mitigate the adverse effects of fishing on EFH.~~ MPAs (at Section 6.8.7) are longer-term, discrete closed areas with unchanging boundary lines that may apply to one or more fishing sectors. Because the RCAs, the Yelloweye Rockfish Conservation Area, and the Cowcod Conservation Areas have all been implemented to protect overfished groundfish species, they are collectively referred to in Federal regulations as Groundfish Conservation Areas (GCAs).

The coordinates defining the boundaries of time/area closures are published in Federal regulations. In order to ensure consistency between the areas named in this FMP (see below) and corresponding areas defined in Federal regulations, the Council may publish in the groundfish SAFE or other publication detailed specifications for these time/area closures, by means of maps, lists of coordinates, or other descriptors.

[6.1.8 Time/Area Closures (Seasons and Closed Areas)]

6.8.1 Seasons

Fishing seasons are closures of all or a portion of the West Coast EEZ for a particular period and time of year. Seasons may be used to constrain the rate of fishing on a targeted species, to encourage targeting of a more abundant stock during periods of higher aggregation, or to limit catch of a protected species during its spawning season. Seasons may be for the entire fleet, for particular sectors within the fleet, for regions of the coast, or for individual vessels. Designation and adoption of seasons must be made through either a specifications-and-management-measures rulemaking (Section 6.2, C.) or a full rulemaking (Section 6.2, D.)

Seasons have been used to manage the commercial Pacific whiting trawl and limited entry fixed gear fisheries. The non-tribal whiting fishery is divided into three sectors: catcher boats that deliver to shorebased processing plants, catcher vessels that deliver to motherships at sea, and at-sea catcher-processors. Each of these sectors is managed with its own season. The shorebased sector also includes an early season for waters off California, to allow vessels in that area to access whiting when it is migrating through waters off California. The limited entry, fixed gear sablefish fishery is managed with a seven-month season, April through October. Outside the primary seasons for both whiting and fixed gear sablefish, incidental catch allowances of these species are provided to allow retention of incidental catch.

In addition to the whiting and sablefish seasons, intended to constrain the directed catch of the target stocks within a particular period, commercial fisheries may be constrained by season to protect overfished species. Lingcod are known to spawn and nest in the winter months. Male lingcod guard the nests and are easily caught with hook-and-line gear during the nesting period. Lingcod has a higher rate of discard survival than many other groundfish species; however, lingcod eggs are easy prey if the guarding male is removed from the nest. Commercial non-trawl and recreational fisheries closures during the winter months have been part of the lingcod rebuilding strategy since 2000 and are discussed in the rebuilding plan at 4.5.4.4.

Recreational fisheries also may be managed with fishing seasons, either to constrain the directed catch of target species or to reduce the incidental catch of protected species. Winter recreational fishery season closures are part of the lingcod rebuilding strategy. Fishing seasons with one or more closed periods during

the fishing year are intended to reduce catch rates of both more abundant and protected stocks. Seasonal closures are used off all three states—in combination with bag limits, RCAs, and other measures—to prevent recreational fisheries from exceeding allowable harvest levels.

6.8.2 *Rockfish Conservation Areas*

In September 2002, NMFS implemented an emergency rule at the Council's request to implement a Darkblotched Rockfish Conservation Area to close continental shelf/slope waters north of 40°10.00' N. latitude. Since January 2003, the Council has used coastwide RCAs to reduce the incidental catch of overfished species in waters where they are more abundant. Of the eight currently overfished species, six are continental shelf species, and RCAs have primarily been designed to close continental shelf waters. Section 4.5.4 describes the role of RCAs play in this FMP's overfished species rebuilding plans.

Different gear types have greater or lesser effects on different overfished species. Thus, RCAs are designed to be gear-specific to better target protection for the species most affected by each gear group. For example, darkblotched rockfish and Pacific ocean perch are continental slope species that are most frequently taken with trawl gear, which means that the Trawl RCA must extend out to greater depths in order to protect these species. Yelloweye rockfish, in contrast, is more frequently taken with hook-and-line gear, which means that both the commercial and recreational hook-and-line fisheries require yelloweye rockfish protection measures as part of that species' rebuilding plan. The Non-Trawl RCA is concentrated over the continental shelf, while the recreational fisheries use season closures and a MPA to reduce yelloweye rockfish bycatch.

RCAs are typically bounded on the east and west by lines drawn between a series of latitude/longitude coordinates approximating certain depth contours. An RCA may also be a polygon, designated by lines drawn between a series of latitude/longitude coordinates, which is closed to fishing for some period less than a year in duration. Some RCAs may extend to the shoreline. Although both the eastern and western RCA boundaries have changed over time for all of the gear groups, the area between the trawl RCA boundary lines approximating the 100 fm and 150 fm depth contours has remained closed since January 2003. Adopted potential RCA boundary lines are described in Federal regulations at 50 CFR 660.390-394. The size and shape of the RCAs may be adjusted inseason via the routine management measures process (Section 6.2.1) by using previously adopted potential RCA boundary lines. Designation and adoption of new potential RCA boundary lines must be made through either a specifications-and-management-measures rulemaking (Section 6.2, C.) or a full rulemaking (Section 6.2, D.)

6.8.3 *Groundfish Fishing Areas*

Groundfish Fishing Areas (GFAs) are areas of known higher abundance of a particular species or species group, enclosed by straight lines connecting a series of coordinates. A GFA designated for a more abundant species may be used to constrain fishing for that species within that particular GFA. For example, fishing for schooling species, such as petrale sole or chilipepper rockfish, could be allowed within GFAs for those species, but not permitted outside of the GFAs, where fisheries for those species might have higher incidental catches of overfished species.

Designation and adoption of GFAs must be made through either a specifications-and-management-measures rulemaking (Section 6.2, C.) or a full rulemaking (Section 6.2, D.)

6.8.4 *Long-term Bycatch Mitigation Closed Areas*

The Council uses a variety of time/area closures to reduce incidental catch of protected species in fisheries targeting groundfish. The extent and configuration of these areas do not vary seasonally and they are not

usually modified through inseason or biennial management actions. The location and extent of these areas are described by coordinates published in permanent regulations. Modification of such permanent regulations would require full notice-and-comment rulemaking as described at Section 6.2 D. As of January 1, 2005, there are five such closures:

1. Klamath River Conservation Zone (KRCZ): Established in Federal regulations in 1993 to reduce the bycatch of threatened and endangered salmon stocks taken incidentally in the Pacific whiting fisheries. The KRCZ is closed to trawling for whiting. Its boundaries are defined as the ocean area surrounding the Klamath River mouth, bounded on the north by 41°38.80' N. latitude, on the west by 124°23.00' W. long., and on the south by 41°26.63' N. latitude.
2. Columbia River Conservation Zone (CRCZ): Established in Federal regulations in 1993 to reduce the bycatch of threatened and endangered salmon stocks taken incidentally in the Pacific whiting fisheries. The CRCA is closed to trawling for whiting. Its boundaries are defined as the ocean area surrounding the Columbia River mouth, bounded by a line extending for six nautical miles due west from North Head along 46°18.00' N. latitude to 124°13.30' W. longitude, then southerly along a line of 167 true to 46°11.10' N. latitude by 124°11.00' W. longitude, then northeast along Red Buoy Line to the tip of the south jetty.
3. Western Cowcod Conservation Area (CCA): First established via *Federal Register* notice in 2001 as an overfished species rebuilding measure. Incorporated into the FMP (Section 4.5.4.6) via Amendment 16-3 and established in Federal regulation in 2005 to reduce the bycatch of cowcod taken incidentally in all commercial and recreational fisheries for groundfish. The Western CCA is an area south of Point Conception defined by a series of coordinates describing straight lines enclosing a polygon.
4. Eastern Cowcod Conservation Area: First established via *Federal Register* notice in 2001 as an overfished species rebuilding measure. Incorporated into the FMP (Section 4.5.4.6) via Amendment 16-3 and established in Federal regulation in 2005 to reduce the bycatch of cowcod taken incidentally in all commercial and recreational fisheries for groundfish. The Eastern CCA is an area west of San Diego defined by a series of coordinates describing straight lines enclosing a polygon.
5. Yelloweye Rockfish Conservation Area (YRCA): First established via *Federal Register* notice 2003 as an overfished species rebuilding measure. Incorporated in the FMP (Section 4.5.4.8) via Amendment 16-3 and established in Federal regulation in 2005 to reduce the bycatch of yelloweye rockfish in the recreational fisheries for groundfish and halibut. The YRCA is a C-shaped area off the northern Washington coast defined by a series of coordinates describing straight lines enclosing a polygon.

6.8.5 Ecologically Important Habitat Closed Areas

The Council has identified discrete areas that are closed to fishing with specified gear types, or are only open to fishing with specified gear types. These ecologically important habitat closed areas are intended to mitigate the adverse effects of fishing on groundfish EFH. They may be categorized as bottom trawl closed areas (BTCAs) and bottom contact closed areas (BCCAs). For the purpose of regulation each type of closed area should be treated differently. For the purposes of BTCAs, the definition of bottom trawl gear in Federal regulations applies (see also Section 6.6.1.2). For the purposes of BCCAs, the definition of bottom contact gear in this FMP (Section 6.6.3) and in Federal regulations applies.

The extent and configuration of these areas do not vary seasonally and they are not usually modified through inseason or biennial management actions. For this reason, they may be considered MPAs (Section 6.8.7). The location and extent of these areas are described by a series of latitude-longitude coordinates enclosing a polygon published in permanent Federal regulations. For areas closed to bottom trawl gear, the habitat conservation framework may be used to eliminate such closed areas or modify their location or extent. Modification of permanent regulations describing these closed areas would require full notice-and-comment rulemaking as described at Section 6.2 D. As of June 30, 2006, there are 51 such closures: *[NB: Amendatory language should be consistent with the areas implemented by final rule.]*

Bottom Trawl Closed Areas

Off of Washington:

1. Olympic_2
2. Biogenic_1
3. Biogenic_2
4. Grays Canyon
5. Biogenic_3

Off of Oregon:

1. Nehalem Bank / Shale Pile
2. Astoria Canyon
3. Siletz Deepwater
4. Daisy Bank / Nelson Island
5. Newport Rockpile / Stonewall Bank
6. Heceta Bank
7. Deepwater off Coos Bay
8. Bandon High Spot
9. Rogue Canyon

Off of California:

1. Eel River Canyon
2. Blunts Reef
3. Mendocino Ridge
4. Delgada Canyon
5. Tolo Bank
6. Point Arena Offshore
7. Cordell Bank
8. Biogenic Area 12
9. Farallon Islands / Fanny Shoal
10. Half Moon Bay
11. Monterey Bay / Canyon
12. Point Sur Deep
13. TNC/ED Area 2
14. TNC/ED Area 1
15. TNC/ED Area 3
16. Potato Bank
17. Cherry Bank
18. Hidden Reef / Kidney Bank
19. Catalina Island
20. Cowcod Conservation Area East

For the purpose of regulating the use of fishing gear in BTCAs in waters off of California, Scottish seine (or fly dragging) gear is not considered bottom trawl gear. The Scottish seine method deploys a weighted rope on the sea bottom in a large polygonal shape, attached to a codend net. The rope is pulled across the bottom, herding the fish towards the codend, which is then hauled back to the vessel.

Bottom Contact Closed Areas

Off of Oregon:

1. Thompson Seamount
2. President Jackson Seamount

Off of California:

1. Cordell Bank (within 50 fm isobath)
2. Davidson Seamount (fishing below 500 fathoms prohibited, see below)
3. Anacapa Island MCA
4. Anacapa Island MR
5. Carrington Point
6. Footprint
7. Gull Island
8. Harris Point
9. Judith Rock
10. Painted Cove
11. Richardson Rock
12. Santa Barbara
13. Scorpion
14. Skunk Point
15. South Point

All of the BCCAs off of California occur within the Cordell Bank, Monterey, or Channel Islands National Marine Sanctuaries. Mitigation measures implemented under MSA authority are also intended to support the goals and objectives of these sanctuaries. In the case of Davidson Seamount, it is unlawful for any person to fish with bottom contact gear, or any other gear that is deployed deeper than 500 fathoms, within the area defined in Federal regulations. Closing the water column below 500 fathoms to fishing in addition to prohibiting fishing that contacts the bottom addresses Sanctuary goals and objectives while practicably mitigating the adverse effects of fishing on groundfish EFH.

Maps showing the locations of these closures and coordinates defining their boundaries, as published in Federal regulations, appear in FMP Appendix C.

6.8.6 Bottom Trawl Footprint Closure

As a precautionary measure, to mitigate the adverse effects of fishing on groundfish EFH, the West Coast EEZ seaward of a line approximating the 700 fm isobath is closed to bottom trawling. This is called the footprint closure because the 700 fm isobath is an approximation of the historic extent of bottom trawling in the management area. This closure is therefore intended to prevent the expansion of bottom trawling into areas where groundfish EFH has not historically been adversely affected by bottom trawling. The closure encompasses the part of the EEZ deeper than 3,500 m, the isobath defining the deepest extent of groundfish EFH. Therefore, this closure applies to a part of the management area not identified as groundfish EFH. This measure is intended to be precautionary, recognizing that in the future the best available scientific information

may indicate that habitat not currently identified as groundfish EFH is indeed groundfish EFH.

Although primarily intended to mitigate the adverse effects of fishing on EFH, the trawl footprint closure encompasses the part of the EEZ (depths greater than 3,500 m) not currently identified as EFH. As noted above, the closure is precautionary; there is limited information on the importance to groundfish of habitats in all areas at depths greater than 700 fm. This closure is intended to prevent adverse effects from bottom trawling while over time more information is gathered about groundfish habitat within this area or the relationship between habitats in this area and groundfish EFH. Because this closure applies to an area where bottom trawling effort has been limited or nonexistent, the socioeconomic impacts of this closure are modest.

6.8.7 Marine Protected Areas

Executive Order (EO) 13158 on MPAs was signed on May 26, 2000. This EO defines MPAs as “any area of the marine environment that has been reserved by Federal, state, territorial, tribal, or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein.” Under this FMP, MPAs include all marine areas closed to fishing for any or all gear group(s), by the FMP or implementing Federal regulations for conservation purposes, and which have stable boundaries over time (thereby providing lasting protection). In 2005, the Marine Protected Areas Federal Advisory Committee on Establishing and Managing a National System of Marine Protected Areas made several recommendations on specifying this definition of MPA. They define lasting protection as enduring long enough to enhance the conservation, protection, or sustainability of natural or cultural marine resources. The minimum duration of “lasting” protection ranges from ten years to indefinite, depending on the type and purpose of MPA. The use of the term “indefinite” indicates permanent protection while recognizing that an MPA designation and level of protection may change for various reasons, including changes in the resources so protected and in how society values those resources. Although all of the time/area closures described in Sections 6.8.2-6.8.6 may be modified through full notice-and-comment rulemaking, most either are practically permanent (portions of the GCAs) or are intended to be permanent (habitat closed areas and the trawl footprint closure). These time/area closures offer lasting protection and may be considered MPAs. New MPAs may be established or these MPAs may be revised through either a specifications-and-management-measures rulemaking (Section 6.2, C.) or a full rulemaking (Section 6.2, D.)

6.9 Measures to Control Fishing Capacity, Including Permits and Licenses

[6.1.1 Permits, Licenses, and Endorsements]

Permits and licenses are used to enumerate participants in an industry and, if eligibility requirements are established or the number of permits is limited, to restrict participation. Participation in the Washington, Oregon, and California groundfish fishery was partially limited beginning in 1994 when the Federal vessel license limitation program was implemented (Amendment 6). Subsequently, Amendment 9 further limited participation in the fixed-gear sablefish fishery by establishing a sablefish endorsement. (Chapter 11 describes the groundfish limited entry program in detail.) In December 2003, NMFS reduced participation in the limited entry trawl fleet by buying the fishing rights to 91 limited entry trawl vessels and the Federal and state permits associated with those vessels. There is currently no Federal permit requirement for other commercial participants (fishers or processors) or recreational participants (private recreational or charter). The Council may determine that effective management of the fishery requires accurate enumeration of the number of participants in these sectors and may establish a permit requirement to accomplish this. In addition, some form of limitation on participation may be necessary in order to protect the resource or to achieve the objectives of the FMP.

[6.1.9 Other Forms of Effort Control]

Other forms of effort control commonly used include vessel length endorsements, restrictions on the number of units of gear, or restrictions on the size of trawls, or length of longlines, or the number of hooks or pots. ~~These measures~~ Effort restrictions related to gear may also be useful in reducing bycatch.

[6.5.2.4 Reporting Requirements]

Permit applications for the domestic groundfish fishery, including, but not limited to exempted fishing permits, are authorized by this FMP. Such applications may include vessel name, length, type, documentation number or state registration number, radio call sign, home port, and capacity; owner and/or operator's name, mailing address, telephone number, and relationship of the applicant to the owner; type of fishing gear to be used, if any; signature of the applicant, and any other information found necessary for identification and registration of the vessel.

6.9.1 General Provisions For Permits

[6.5.1.1 Permits]

Federal permits may be required for individuals or vessels that harvest groundfish and for individuals or facilities (including vessels) that process groundfish or take delivery of live groundfish. In determining whether to require a harvesting or processing permit, and in establishing the terms and conditions for issuing a permit, the Council may consider any relevant factors, including whether a permit:

1. Will enhance the collection of biological, economic, or social data.
2. Will provide better enforcement of laws and regulations, including those designed to ensure conservation and management and those designed to protect consumer health and safety.
3. Will help achieve the goals and objectives of the FMP.
4. Will help prevent or reduce overcapacity in the fishery.
5. May be transferred, and under what conditions.

Separate permits or endorsements may be required for harvesting and processing or for vessels or facilities based on size, type of fishing gear used, species harvested or processed, or such other factors that may be appropriate. The permits and endorsements are also subject to sanctions, including revocation, as provided by section 308 of the MSA.

In establishing a permit requirement, the Council will follow the full-rulemaking procedures in Section 6.2, D.

6.9.1.1 Commercial Fisheries Permits

[6.5.2.1 Permits (General)]

All U.S. commercial fishing vessels are required by state laws to be in possession of a current fishing or landing permit from the appropriate state agency in order to land groundfish in the Washington, Oregon, and California area. Federal limited entry permits authorize fishing within limits and restrictions specified for those permits. ~~Nonpermitted vessels~~ Vessels without such permits are also subject to the specified limits and restrictions for the open access fishery. Federal permits also may be required for groundfish processors. In the event that a Federal fishing or access permit is required, failure to obtain and possess such a Federal permit will be in violation of this FMP.

6.9.1.2 Recreational Fisheries Permits

[6.5.3.1 Permits (General)]

All U.S. recreational fishermen are required by state laws to obtain a recreational permit or license in order to

fish for groundfish. In the event that a Federal license or permit is required, failure to obtain and possess such Federal permit will be in violation of this FMP.

6.9.2 Sector Endorsements

The Council may establish sector endorsements, such as with the limited entry fixed gear sablefish fishery. Sector endorsements would limit participation in a fishery for a particular species or species group to persons, vessels, or permits meeting Council-established qualifying criteria. Participants in a sector-endorsed fishery may be subject to sector total catch limit management. A sector endorsement, whether it is applied to vessels that already hold limited entry permits or to those in the open access or recreational fisheries, is a license limitation program.

6.9.3 Individual Fishing Quota Programs

Under the MSA, “an ‘individual fishing quota’ 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.” The Council may establish IFQ programs for any commercial fishery sector. IFQ programs would be established for the purposes of reducing fishery capacity, minimizing bycatch, and to meet other goals of the FMP. Participants in an IFQ fishery may be subject to individual total catch limit management (Section 6.7.1).

6.9.4 Facilitating Public-Private Partnerships that Mitigate EFH Impacts and May Reduce Capacity

If consistent with the goals and objectives of this FMP, the Council may facilitate and encourage private purchases of groundfish limited entry permits and corresponding vessels in order to mitigate EFH impacts by reducing fleet capacity. Private purchases intended solely to reduce fishing capacity would permanently foreclose the future use of subject permits and vessels in West Coast groundfish fisheries, if like the Federally-sponsored West Coast groundfish trawl buyout program. Aside from any socioeconomic benefits, reducing fleet fishing capacity can mitigate adverse impacts of fishing to groundfish EFH to the degree that fishing activity with adverse consequences is reduced. In such cases, where multiple objectives are being addressed, arrangements other than the immediate or permanent retirement of the permit and/or vessel may be a feature of the agreement. Contracts for the purchase of groundfish limited entry permits and/or vessels may contain conditions specifying that the execution of the contract is contingent on the implementation of other measures to mitigate the adverse impacts of fishing on groundfish EFH. At the same time, the Council will take into account impacts on the segment of the fishing industry and fishing communities that are not a party to such contracts, and also take into account related FMP objectives 13, 15, 16, and 17 (Section 2.1). Mitigation measures may be contingent on Council action or recommendations, and the Council will strive to conduct its decision-making in such a way as to facilitate the private negotiation of such contract conditions. If contingent mitigation measures include establishing new areas closed to bottom trawl, or the modification of the location and extent of existing areas, the habitat conservation framework described in Section 6.2.4 may be used to implement such areas by regulatory amendment, using the procedures described under, Section 6.2, D.

6.9.5 Capacity Reduction Data Collection

[6.5.8 Access Limitation and Capacity Reduction Programs]

The current condition of the groundfish fisheries of the Washington, Oregon, and California region is such that further reduction of the limited entry fleet may be required in the near future. Research and monitoring programs may need to be developed and implemented for the fishery so that information required in a

capacity reduction program is available. Such data should indicate the character and level of participation in the fishery, including (1) investment in vessel and gear; (2) the number and type of units of gear; (3) the distribution of catch; (4) the value of catch; (5) the economic returns to the participants; (6) mobility between fisheries; and (7) various social and community considerations.

6.10 Fishery Enforcement and Vessel Safety

The enforceability of fishery management measures affects the health of marine resources and the safety of human life at sea. When considering new management measures or reviewing the current management regime, the Council will consider the fishery and its characteristics, assess whether the measures are sufficiently enforceable to accomplish the objective of those management measures, and describe measures to be taken to reduce risks to the measures' enforceability. For example, the Council introduced depth-based management (See RCAs at Section 6.8.3) in 2003 to protect overfished groundfish species with areas closed to fishing. The Council's subsequent recommendation to implement VMS requirements improved the enforceability of the closed areas so that the closed areas could accomplish the Council's management objective of reducing overfished species catch by preventing vessels from fishing in areas where overfished species are more abundant.

If new management measures are under development, the Council will determine whether requirements are needed to facilitate the enforcement of new management measures.

During the development of new management measures, the Council will consider what measures are also needed to facilitate enforcement. When assessing if the measures are sufficiently enforceable, information should be obtained from:

- Fish tickets inspections and audits
- Enforcement reports
- Discussions with State and Federal fisheries agents and officers
- USCG input
- Observer program reports
- Stakeholder input
- Other relevant information suggested by the Enforcement Consultants and the public

When assessing if the measures are sufficiently enforceable, consideration should be given to enforcement risks from:

- Regulations that are complex and difficult to understand: Regulations that are clear in meaning and devoid of exemptions allow little interpretation of their meaning, making it clear to fishers what they can or cannot do.
- Catch limit evasion: This describes the potential for operators to either not declare, under-declare or report catch as other species or species groups on fish tickets; the potential for fishing vessels to offload to unauthorized processing or tending vessels at sea.
- Obscure chain of possession: Required documentation and labeling requirements make the fish distribution system more transparent. The ability to track a product back from the distributor to the harvester gives enforcement officers a powerful tool. It also promotes voluntary compliance by distributors and harvesters alike.
- Unaccounted for bycatch: This describes the potential for vessels to high grade their catch (discard undesirable sizes or species of fish in order to retain desirable sizes or species) in a manner that increases bycatch mortality.
- Unauthorized fishing: This describes the potential for operators to fish undetected in closed areas, in restricted areas with unauthorized gear, or during closed seasons.

6.10.1 Managing Enforcement Risks

The objective of enforcement is to ensure, in a cost effective way, that all fishing is conducted in accordance with fishery regulations. During the development of new management measures, the Council will consider what measures are also needed to facilitate enforcement. When managing the enforcement risks, consideration should be given to:

- Complexity: Complexity in a management regime can reduce enforceability by making the regime confusing to both fishery participants and enforcement agents. When the Council is developing new management measures, it shall evaluate those measures for their complexity to determine whether management complexity is necessary and whether there are ways to reduce the complexity of new management recommendations.
- Availability and adequacy of surveillance, monitoring, and inspections: What fishery surveillance, monitoring, and inspection methods are available from Federal and State agencies? Are these methods adequate to enforce the measure or measures under Council consideration?
- Compliance behavior: Are the proposed measures adequately enforceable such that they will change fisher behavior in a way that achieves intended results? Are the proposed measures adequately enforceable such that fishers who attempt to evade detection of illegal behavior are not reducing fishing opportunities for those fishers who comply with management measures?
- Unintended consequences: The Council should evaluate the range of behaviors and possible effects that could result if regulations were not adequately enforceable, including: collusion between processors and harvesters, high-value catch recorded as low-value catch, direct sales to retailers without fish tickets being recorded, offloading at-sea to unauthorized vessels, etc.
- Educational programs for public: How does the Council plan to educate the public on new management measures and requirements? Do Council public education efforts, in combination with Federal, State, and Tribe efforts allow adequate time for fishery participants to be made aware of changes to regulations?
- Officer training: Have Federal and State enforcement agents and officers been adequately trained in new fishery management regulations? Does the EC or the Council have training recommendations to ensure that new regulations are clearly understood by those enforcing the regulations?
- Consistent regulations: To the extent possible, similar management measures across the Pacific Council's FMPs, and between State and Federal jurisdictions, should be implemented through a consistent and common regulatory structure.

6.10.2 Vessel Safety

[6.5.1.4 Vessel Safety Considerations]

The Council will take safety issues into account in developing management recommendations, although some safety issues may not be under Council control. For example, the Council may set a fishing season such that participants are able to choose when they participate, but the Council cannot assure that weather conditions will be favorable to all participants throughout that season. The Council will review any new regulatory or management measures recommendations it makes to determine whether such recommendations:

- Improve the safety of fishing conditions for fishery participants.
- Offer new safety risks for fishery participants that could be remedied with revisions to the proposed requirements that would not otherwise weaken the effects of those requirements.

On safety issues, the Council shall consult with its EC and the public, and particularly with the U.S. Coast Guard on any search-and-rescue issues that might arise through proposed regulatory requirements.

6.10.3 Vessel and Gear Identification

[6.5.2.5 Vessel Identification]

The FMP authorizes vessel and gear identification requirements, which may be modified as necessary to facilitate enforcement and vessel recognition. Vessel marking requirements are described in Federal regulations at 50 CFR 660.305 and generally require that each vessel be clearly marked with its vessel number, such that it may be identified from the air or from approaching rescue/enforcement vessels at sea. Vessels may also be identified via transmissions of their position locations under a VMS program. Federal requirements implementing the Council's VMS program are found in regulation at 50 CFR 660.312. Gear identification requirements are described in Federal regulations at 50 CFR 660.382 and 660.383 and generally require that fixed gear be marked with the associated vessel's number so that the gear's owner may be identified.

6.10.4 Prohibitions and Penalties

[11.7 Prohibitions]

Fishery participants are subject both to Federal prohibitions that apply nationwide and to those that apply just to participants in the West Coast groundfish fisheries. Federal regulations on nationwide fishery prohibitions are found at 50 CFR 600.725. Federal regulations on fishery prohibitions specific to the West Coast groundfish fisheries are found at 50 CFR 660.306. Participants in the West Coast groundfish fisheries are also subject to vessel operation and safety requirements of the U.S. Coast Guard (see Federal regulations at Titles 33 and 46).

[11.9 Penalties]

Federal regulations at 50 CFR 600.735 state "Any person committing, or fishing vessel used in the commission of a violation of the MSA or any other statute administered by NOAA and/or any regulation issued under the MSA, is subject to the civil and criminal penalty provisions and civil forfeiture provisions of the MSA, to this section, to 15 CFR part 904 (Civil Procedures), and to other applicable law."

7.06.6 ESSENTIAL FISH HABITAT

[6.6 Essential Fish Habitat]

7.1 How This FMP Addresses Provisions in the MSA Relating to Essential Fish Habitat

[6.6.1 Magnuson-Stevens Act Directives Relating to Essential Fish Habitat]

■ The MSA (as amended by the Sustainable Fisheries Act) requires FMPs to “describe and identify essential fish habitat..., minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat” (§303(a)(7)). The MSA defines EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” NMFS interpreted this definition in its regulations as follows: “waters” include aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate; “substrate” includes sediment, hard bottom, structures underlying the waters, and associated biological communities; “necessary” means “the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem”; and “spawning, breeding, feeding, or growth to maturity” covers the full life cycle of a species. For the purposes of identifying groundfish EFH, artificial structures are excluded from the definition of substrate unless designated a habitat area of particular concern (HAPC) in this FMP (Section 7.3); notwithstanding other criteria, HAPCs are part of groundfish EFH under the descriptive criteria listed in Section 7.2 of this FMP.

■ The description and identification of EFH must include habitat for an individual species, but may be designated for an assemblage of species, if appropriate to the FMP. Regulations at 50 CFR 600, Subpart J provides further guidance on these required FMP contents. These guidelines recommend that FMPs identify HAPCs, which are specified areas of EFH meeting the criteria described in Section 7.3 of this FMP.

■ In addition to requiring FMPs to include practicable measures to minimize to the extent practicable the adverse effects of fishing on EFH, the MSA also provides a mechanism for NMFS and the Council to address nonfishing impacts to EFH.

These requirements are addressed as follows:

- Section 7.2 provides a succinct description of groundfish EFH. Appendix B to this FMP provides detailed descriptions of EFH for groundfish FMU species, including maps showing EFH for individual groundfish species/lifestages.

- Section 7.3 describes the groundfish HAPCs that have been identified by the Council, including the criteria used to identify those areas.

- Section 7.4 provides an overview of the management measures available to the Council for minimizing the adverse impacts of fishing to EFH. Measures adopted by the Council are described in the appropriate sections of Chapter 6. Appendix C describes an assessment methodology for the effects of fishing on Pacific Coast groundfish EFH. This provides the basis for determining the need for management measures.

- Section 7.5 describes how Federal agencies must consult with NMFS and/or the Council about any ongoing or proposed action they may authorize, fund, or undertake that may adversely affect any EFH. If the action would adversely affect EFH, NMFS will provide recommendations to conserve EFH. In support of these consultations, Appendix D describes nonfishing effects on EFH and recommended conservation measures.

- Section 7.6 describes how the Council will support habitat-related monitoring and research activities through the ongoing management program. Such programs will help close the knowledge gap about many Pacific Coast groundfish species' habitat needs. In support of appropriate monitoring and research, Appendix B identifies many of those data gaps and makes suggestions regarding future research efforts, including needed research on fishing and nonfishing impacts to groundfish EFH.

Protecting, conserving, and enhancing EFH are long-term goals of the Council, and these EFH provisions of the FMP are an important element in the Council's commitment to a better understanding, and conservation and management, of Pacific Coast groundfish populations and their habitat needs.

7.2 Description and Identification of Essential Fish Habitat for Groundfish

[6.6.2 Definition of Essential Fish Habitat for Groundfish]

The Pacific Coast Groundfish FMP manages 80-plus species over a large and ecologically diverse area. Information on the life histories and habitats of these species varies in completeness, so while some species are well-studied, there is relatively little information on certain other species. Information about the habitats and life histories of the species managed by the FMP will certainly change over time, with varying degrees of information improvement for each species. For these reasons, it is impractical for the Council to include descriptions identifying EFH for each life stage of the managed species in the body of the FMP. Therefore, the FMP includes a description of the overall area identified as groundfish EFH and describes the assessment methodology supporting this designation. Life histories and EFH identifications for each of the individual species are provided in Appendix B, which will be revised and updated to include new information as it becomes available. Such changes will not require FMP amendment. This framework approach is similar to the Council's stock assessment process, which annually uses the SAFE document to update information about groundfish stock status without amending the FMP. Like the SAFE document, any EFH updates will be reviewed in a Council public forum.

The overall extent of groundfish EFH for all FMU species is identified as all waters and substrate within the following areas:

- Depths less than or equal to 3,500 m (1,914 fathoms) to mean higher high water level (MHHW) or the upriver extent of saltwater intrusion, defined as upstream and landward to where ocean-derived salts measure less than 0.5 ppt during the period of average annual low flow.
- Seamounts in depths greater than 3,500 m as mapped in the EFH assessment GIS.
- Areas designated as HAPCs not already identified by the above criteria.

This EFH identification is precautionary because it is based on the currently known maximum depth distribution of all life stages of FMU species. This precautionary approach is taken because uncertainty still exists about the relative value of different habitats to individual groundfish species/life stages, and thus the actual extent of groundfish EFH. For example, there were insufficient data to derive habitat suitability probability (HSP) values for all species/life stages. Furthermore, the data used to determine HSP values is subject to continued refinement. While recognizing these limitations, the 100% HSP area, all of which occurs in depths less than 3,500 m, is identified as a part of groundfish EFH, recognizing that the best scientific information demonstrates this area is particularly suitable groundfish habitat. While precautionary, groundfish EFH still constitutes an area considerably smaller than the entire West Coast EEZ.

Figure 7-1 shows the extent of this EFH identification.

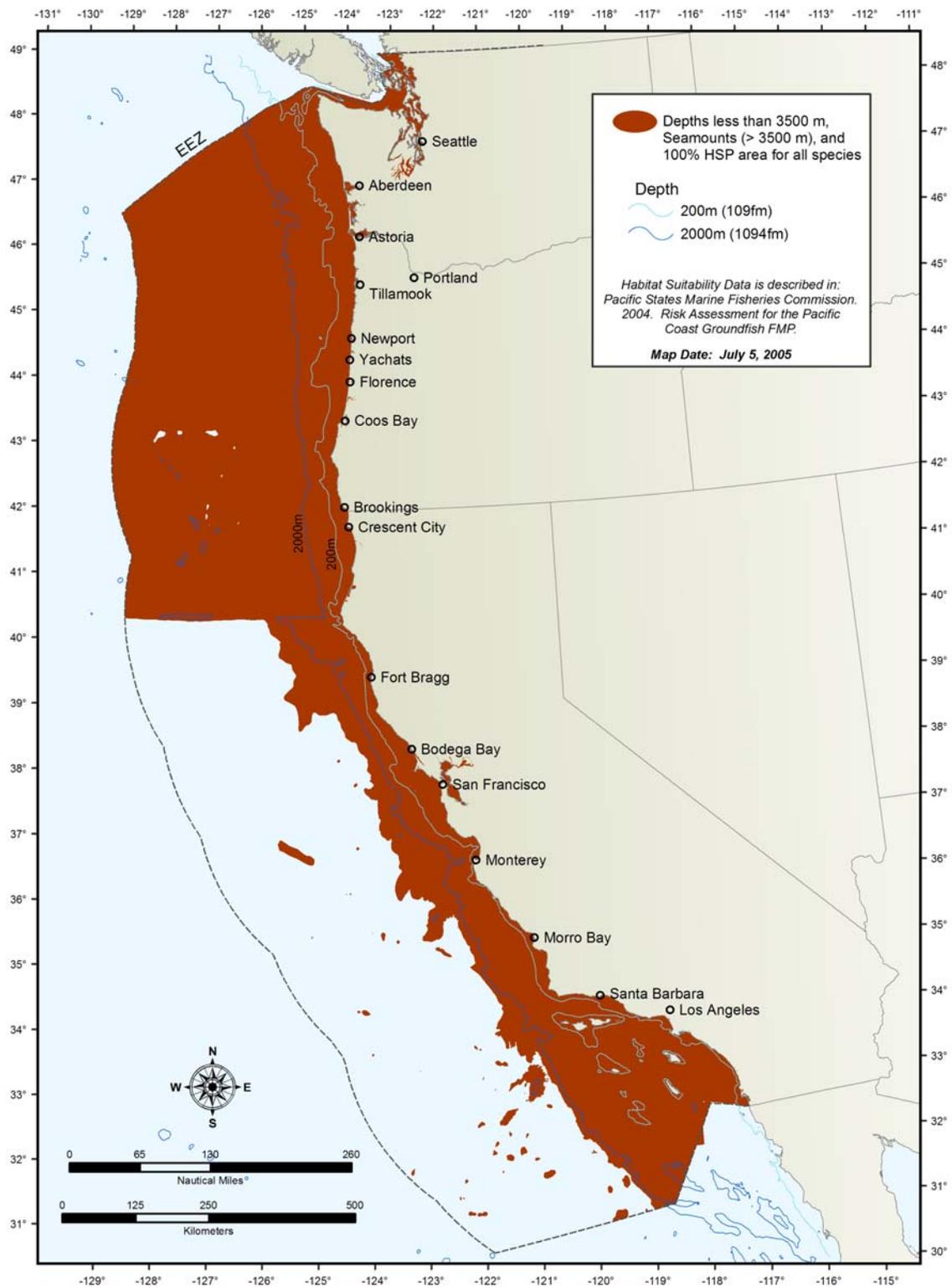


Figure 7-1. Groundfish EFH

7.2.1 Use of Habitat Suitability Probability to Identify EFH

The HSP, mentioned above, provides more evaluative detail about EFH for groundfish species. It was developed by NMFS and their outside contractors through a modeling and assessment process (MRAG Americas Inc., *et al.* 2004). This assessment differs slightly from the approach in these guidelines to organize the information necessary to describe and identify EFH. The guidelines recommend organizing the information by kind of data, and then suggest describing EFH based on the highest level of data. The HSP approach is a more sophisticated method to analyze the information and provides a better way to scientifically analyze the information used to describe and identify EFH. The model considers basic pieces of information used to describe and identify EFH: location, depth, and substrate. It then determines areas used by the different life stages of groundfish, provides profiles for individual species by life stage, combines them in a GIS analysis into an ecosystem level set of fish assemblages, and predicts groundfish habitat. By using this approach to analyzing the information, HSP provides a better method to analyze the EFH information and develop the description and identification of EFH than the method outlined in the guidelines at 50 CFR 600.815. This is because it takes advantage of computer analyses of a large amount of information that is organized in such a way that it provides a clear understanding of the relationship between groundfish and habitat. The EFH Model used to develop HSP values for individual groundfish species/life stage is further described in Appendix B.

The assessment consolidates the best available ecological, environmental, and fisheries information into various databases, including a geographic information system (GIS) and the habitat use database (HUD). The following types of data were used in this process to identify groundfish EFH:

- Geological substrate (GIS)
- Estuaries (GIS)
- Canopy kelp (GIS)
- Seagrass (GIS)
- Structure-forming invertebrate information
- Bathymetric data (GIS)
- Latitude (GIS)
- Information on pelagic habitat
- Data quality (GIS and other databases)
- Information on the functional relationships between fish and habitat (including a literature review consolidated in the HUD).

Ideally, EFH would be defined by delineating habitat in terms of its contribution to spawning, breeding, feeding, growth to maturity, and production; however, comprehensive data on these functions are not available. Because of these data limitations, a model was developed to predict an overall measure of the suitability of habitat in particular locations for as many groundfish species as possible. This model uses available information on the distribution and habitat-related density of species. Where possible, the suitability of habitat was measured using the occurrence of fish species in NMFS trawl survey catches. For species not well represented in the trawl catches, information from the scientific literature was used.

The model characterizes habitat in terms of three variables: depth, latitude, and substrate (both physical and biogenic substrate, where possible). For the purposes of the model, these three characteristics provide a reasonable representation of the essential features of habitat that influence the occurrence of fish. Depending on these characteristics and the observed distributions of fish in relation to them, each location (a parcel or polygon of habitat in the GIS) is assigned a suitability value between zero and 100%. This is the HSP, which was calculated for as many species and life stages in the FMU as possible, based on available data. These scores and the differences between scores for different locations are then used to develop a proxy for the areas

that can be regarded as “essential.” The higher the HSP, the more likely the habitat is suitable for the habitat needs of a given groundfish species.

The EFH assessment model provides spatially explicit estimates of HSP for 160 groundfish species/life stage combinations, including the adults of all FMU species. Distribution ranges for depth and latitude were derived where possible from in-situ observations of occurrence in NMFS trawl survey catches. Where survey data were insufficient, depth and latitude ranges were extracted from reports and papers in the scientific literature. Preferences for substrate types were also taken from the scientific literature. The HSP values for each habitat polygon are mapped using GIS software. EFH regulations at 50 CFR 600, Subpart J suggest that inferences may be made about the extent of EFH, through appropriate means, where data are lacking to determine EFH for each species and life stage. Such is the case for the current EFH identification, which infers that no groundfish species/life stage will occupy EFH beyond the currently-known maximum depth for groundfish species, the basis for identifying EFH out to a maximum depth of 3,500 m. This inference is based on the supposition that the life history characteristics of species for which information is unavailable are sufficiently similar to the characteristics of those species for which information is available such that the identified groundfish EFH encompasses all species.

HSP values, assigned to discrete areas represented by the polygons in the GIS, can be used to better understand where favorable groundfish habitat occurs. The EFH identification described above, all waters and bottom areas in depths less than 3,500 m, is a precautionary approach encompassing the maximum range of groundfish species within the management area, based on the best scientific information. As noted above, this precautionary identification has been adopted because there is not enough information to determine the relative value of different habitats for all groundfish species/life stages. Therefore, EFH for all groundfish is identified in a manner that provides the greatest opportunity to apply conservation measures. Within this precautionary EFH identification it is recognized that HSP values provide additional information about groundfish EFH. For this reason all areas assigned an HSP value greater than 0% for any given species are included as a subset of this broader, precautionary identification of groundfish EFH. The model and resulting HSP values also can be used to support future habitat-related management decisions, which may involve considering tradeoffs between management effects on different habitats. These tradeoffs could be compared with respect to the suitability (HSP value) of different areas potentially affected by the management action, for example.

In addition to supporting the description and identification of EFH for the individual species and life stages, these assessment-related techniques can be used as a basis for an ecosystem approach to management. For example, the HSP profiles for individual species/life stages can be combined by GIS analyses into ecosystem-level fish assemblages to investigate and predict environmental consequences of proposed projects.

As new data become available, they can be incorporated into the assessment to refine and improve HSP modeling. The Council supports and coordinates this effort through its standing committees and any ad hoc committees that may be formed for this purpose.

7.3 Habitat Areas of Particular Concern

EFH guidelines published in Federal regulations identify habitat areas of particular concern as types or areas of habitat within EFH that are identified based on one or more of the following considerations:

- The importance of the ecological function provided by the habitat.
- The extent to which the habitat is sensitive to human-induced environmental degradation.
- Whether, and to what extent, development activities are or will be stressing the habitat type.
- The rarity of the habitat type.

(50 CFR 600.815(a)(8))

Based on these considerations, the Council has designated both areas and habitat types as HAPCs. In some cases, HAPCs identified by means of specific habitat type may overlap with the designation of a specific area.

The HAPC designation covers the net area identified by habitat type or area. Designating HAPCs facilitates the consultation process described in Section 7.5 by identifying ecologically important, sensitive, stressed or rare habitats that should be given particular attention when considering potential nonfishing impacts. Their identification is the principal way in which the Council can address these impacts.

HAPCs based on habitat type may vary in location and extent over time. For this reason, the mapped extent of these areas offers only a first approximation of their location. Defining criteria of habitat-type HAPCs are described below, which may be applied in specific circumstances to determine whether a given area is designated as a groundfish HAPC. HAPCs include all waters, substrates, and associated biological communities falling within the area defined by the criteria below.

Figure 7.2 is a map showing the location of these HAPCs. For HAPCs defined by habitat type, as opposed to discrete areas, this map offers a first approximation of their location and extent. The precision of the underlying data used to create these maps, and the fact that the extent of HAPCs defined by key benthic organisms (canopy kelp, seagrass) can change along with changes in the distribution of these organisms, means that at fine scales the map may not accurately represent their location and extent. Defining criteria are provided in the following descriptions of HAPCs, which can be used in conjunction with the map to determine if a specific location is within one of these HAPCs. The areas of interest HAPCs and oil platform HAPCs are defined by discrete boundaries. The coordinates defining these boundaries are listed in Appendix B.

7.3.1 *Designated HAPC*

Figure 7-2 shows the location and extent of the HAPC described below.

7.3.1.1 Estuaries

Estuaries are protected nearshore areas such as bays, sounds, inlets, and river mouths, influenced by ocean and freshwater. Because of tidal cycles and freshwater runoff, salinity varies within estuaries and results in great diversity, offering freshwater, brackish and marine habitats within close proximity (Haertel and Osterberg 1967). Estuaries tend to be shallow, protected, nutrient rich, and are biologically productive, providing important habitat for marine organisms, including groundfish.

Defining characteristics: The inland extent of the estuary HAPC is defined as MHHW, or the upriver extent of saltwater intrusion, defined as upstream and landward to where ocean-derived salts measure less than 0.5 ppt during the period of average annual low flow. The seaward extent is an imaginary line closing the mouth of a river, bay, or sound; and to the seaward limit of wetland emergents, shrubs, or trees occurring beyond the lines closing rivers, bays, or sounds. This HAPC also includes those estuary-influenced offshore areas of continuously diluted seawater. This definition is based on Cowardin, et al. (1979)

7.3.1.2 Canopy Kelp

Of the habitats associated with the rocky substrate on the continental shelf, kelp forests are of primary importance to the ecosystem and serve as important groundfish habitat. Kelp forest communities are found relatively close to shore along the open coast. These subtidal communities provide vertically-structured

habitat throughout the water column: a canopy of tangled blades from the surface to a depth of ten feet, a mid-water, stipe region, and the holdfast region at the seafloor. Kelp stands provide nurseries, feeding grounds, and shelter to a variety of groundfish species and their prey (Ebeling, *et al.* 1980; Feder, *et al.* 1974). Giant kelp communities are highly productive relative to other habitats, including wetlands, shallow and deep sand bottoms, and rock-bottom artificial reefs (Bond, *et al.* 1998). Their net primary production is an important component to the energy flow within food webs. Foster and Schiel (1985) reported that the net primary productivity of kelp beds may be the highest of any marine community. The net primary production of seaweeds in a kelp forest is available to consumers as living tissue on attached plants, as drift in the form of whole plants or detached pieces, and as dissolved organic matter exuded by attached and drifting plants (Foster and Schiel 1985).

GIS data for the floating kelp species, *Macrocystis* spp. and *Nereocystis* sp., are available from state agencies in Washington, Oregon, and California. These data have been compiled into a comprehensive data layer delineating kelp beds along the West Coast. The kelp source data were provided for each state by Washington Department of Natural Resources, Oregon Department of Fish and Wildlife, and California Department of Fish and Game. Source data were collected using a variety of remote sensing techniques, including aerial photos and multispectral imagery. Because kelp abundance and distribution is highly variable, these data do not necessarily represent current conditions. However, data from multiple years were compiled together with the assumption that these data would indicate areas where kelp has been known to occur. Washington State has the most comprehensive database, covering ten years (1989-1992, 1994-2000) of annual surveys of the Straits of Juan de Fuca and the Pacific Coast. Oregon conducted a coastwide survey in 1990 and then surveyed select reefs off southern Oregon in 1996-1999. A comprehensive kelp survey in California was performed in 1989 and additional surveys of most of the coastline occurred in 1999 and 2002.

Defining characteristics: The canopy kelp HAPC includes those waters, substrate, and other biogenic habitat associated with canopy-forming kelp species (e.g., *Macrocystis* spp. and *Nereocystis* sp.).

7.3.1.3 Seagrass

Seagrass species found on the West Coast of the U.S. include eelgrass species (*Zostera* spp.), widgeongrass (*Ruppia maritima*), and surfgrass (*Phyllospadix* spp.). These grasses are vascular plants, not seaweeds, forming dense beds of leafy shoots year-round in the lower intertidal and subtidal areas. Eelgrass is found on soft-bottom substrates in intertidal and shallow subtidal areas of estuaries and occasionally in other nearshore areas, such as the Channel Islands and Santa Barbara littoral. Surfgrass is found on hard-bottom substrates along higher energy coasts. Studies have shown seagrass beds to be among the areas of highest primary productivity in the world (Herke and Rogers 1993; Hoss and Thayer 1993).

Despite their known ecological importance for many commercial species, seagrass beds have not been as comprehensively mapped as kelp beds. Wyllie-Echeverria and Ackerman (Wyllie-Echeverria and Ackerman) published a coastwide assessment of seagrass that identifies sites known to support seagrass and estimates of seagrass bed areas; however, their report does not compile existing GIS data. GIS data for seagrass beds were located and compiled as part of the groundfish EFH assessment process.

Eelgrass mapping projects have been undertaken for many estuaries along the West Coast. These mapping projects are generally done for a particular estuary, and many different mapping methods and mapping scales have been used. Therefore, the data that have been compiled for eelgrass beds are an incomplete view of eelgrass distribution along the West Coast. Data depicting surfgrass distribution are very limited—the only GIS data showing surfgrass are for the San Diego area.

Defining characteristics: The seagrass HAPC includes those waters, substrate, and other biogenic features associated with eelgrass species (*Zostera* spp.), widgeongrass (*Ruppia maritima*), or surfgrass (*Phyllospadix* spp.).⁴

7.3.1.4 Rocky Reefs

Rocky habitats are generally categorized as either nearshore or offshore in reference to the proximity of the habitat to the coastline. Rocky habitat may be composed of bedrock, boulders, or smaller rocks, such as cobble and gravel. Hard substrates are one of the least abundant benthic habitats, yet they are among the most important habitats for groundfish.

Defining characteristics: The rocky reefs HAPC includes those waters, substrates and other biogenic features associated with hard substrate (bedrock, boulders, cobble, gravel, etc.) to MHHW. A first approximation of its extent is provided by the substrate data in the groundfish EFH assessment GIS. However, at finer scales, through direct observation, it may be possible to further distinguish between hard and soft substrate in order to define the extent of this HAPC.

7.3.1.5 Areas of Interest

Areas of interest are discrete areas that are of special interest due to their unique geological and ecological characteristics. The following areas of interest are designated HAPCs:

- Off of Washington: All waters and sea bottom in state waters shoreward from the three nautical mile boundary of the territorial sea shoreward to MHHW.
- Off of Oregon: Daisy Bank/Nelson Island, Thompson Seamount, President Jackson Seamount.
- Off of California: all seamounts, including Gumdrop Seamount, Pioneer Seamount, Guide Seamount, Taney Seamount, Davidson Seamount, and San Juan Seamount; Mendocino Ridge; Cordell Bank; Monterey Canyon; specific areas in the Federal waters of the CINMS; specific areas of the Cowcod Conservation Area.

The Washington State waters HAPC encompasses a variety of habitats important to groundfish, including other HAPCs such as rocky reef habitat supporting juvenile rockfish (primarily north of Grays Harbor) and estuary areas supporting numerous economically and ecologically important species, including juvenile lingcod and English sole. Sandy substrates within state waters (primarily south of Grays Harbor) are important habitat for juvenile flatfish. A large proportion of this area is also contained within the Olympic Coast National Marine Sanctuary and three offshore national wildlife refuges, which provide additional levels of protection to these sensitive nearshore coastal areas.

Seamounts and canyons are prominent features in the coastal underwater landscape, and may be important in rockfish management because “rockfish distributions closely match the bathymetry of coastal waters” (Williams and Ralston 2002).

Seamounts rise steeply to heights of over 1,000 m from their base and are typically formed of hard volcanic substrate. They are unique in that they tend to create complex current patterns (Lavelle, *et al.* 2003; Mullineaux and Mills 1997) and have highly localized species distributions (de Forges, *et al.* 2000). Seamounts have relatively high biodiversity and up to a third of species occurring on these features may be

⁴ The extent and effect of non-native species in seagrass HAPC, such as *Zostera japonica*, may be considered in conservation recommendations NMFS makes to other Federal and state agencies (see Section 7.5)

endemic (de Forges, *et al.* 2000). Because the faunal assemblages on these features are still poorly studied, and species new to science are likely to be found, human activities affecting these features need careful management. Currents generated by seamounts retain rockfish larvae (Dower and Perry 2001; Mullineaux and Mills 1997) and zooplankton, a principal food source for rockfish (Genin, *et al.* 1988; Haury, *et al.* 2000). Several species observed on seamounts, such as deepsea corals, are particularly vulnerable to anthropogenic impacts (Monterey Bay National Marine Sanctuary 2005).

Canyons are complex habitats that may provide a variety of ecological functions. Shelf-edge canyons have enhanced biomass due to onshore transport and high concentrations of zooplankton, a principal food source of juvenile and adult rockfish (Brodeur 2001). Canyons may have hard and soft substrate and are high relief areas that can provide refuge for fish, and localized populations of groundfish may take advantage of the protection afforded by canyons and the structure-forming invertebrate megafauna that grow there (Monterey Bay National Marine Sanctuary 2005). A canyon in the North Pacific was observed to have dense aggregations of rockfish associated with sea whips (*Halipterus willemoesi*), while damaged sea whip “forests” had far fewer rockfish (Brodeur 2001).

Daisy Bank is a highly unique geological feature that occurs in Federal waters due west of Newport, Oregon and appears to play a unique and potentially rare ecological role for groundfish and large invertebrate sponge species. The bank was observed in 1990 to support more than 6,000 juvenile rockfish per hectare; a number thirty times higher than those observed on adjacent banks during the same study period. The same study also indicated that Daisy Bank seems to support more and larger lingcod and large sponges than other nearby banks (Mark Hixon, pers. comm., August 2004).

Discrete areas at Cordell Bank and the Channel Island National Marine Sanctuary, and the Cowcod Conservation Areas, are designated HAPCs because they are afforded high levels of protection through their inclusion in a National Marine Sanctuary and/or designation as an ecologically important closed area (see Section 7.4). These designations both reflect and enhance their value as groundfish habitat.

Defining characteristics: As noted above, the shoreward boundary of the Washington State waters HAPC is defined by MHHW while the seaward boundary is the extent of the three-mile territorial sea. The remaining area-based HAPCs are defined by their mapped boundaries in the EFH assessment GIS. The coordinates defining these boundaries may be found in Appendix B to this FMP.

7.3.1.6 Oil Production Platforms

Waters and substrate associated with the platform jackets of 13 specified oil production platforms in Southern California waters are designated groundfish HAPCs. (See Table 7-1 for the names and locations of these platforms.) Surveys demonstrate that high concentrations of groundfish have been observed in association with these platforms, including overfished species such as bocaccio and cowcod (Love, *et al.* 2003). In addition to providing suitable habitat, most of these structures are not fished and act as de facto reserves. The platforms rise steeply from the bottom and provide unique high-relief habitat.

Defining characteristics: The HAPC area is defined by a circle around each platform whose center is the published location given by latitude-longitude coordinates with a radius 1.5 times the maximum published platform jacket dimension (U.S. Department of the Interior, Minerals Management Service, OCS Pacific Region).

Table 7-1: Oil production platforms designated as groundfish HAPCs.

Name	Location (Latitude, Longitude)
Platform A	34° 19.91317' N, 119° 36.74817' W
Platform B	34° 19.94050' N, 119° 37.29217' W
Platform C	34° 19.97550' N, 119° 37.84600' W
Edith	33° 35.74717' N, 118° 8.441167' W
Gail	34° 7.504830' N, 119° 24.01300' W
Gilda	34° 10.94050' N, 119° 25.11383' W
Grace	34° 10.77433' N, 119° 28.06967' W
Habitat	34° 17.19700' N, 119° 35.28567' W
Harvest	34° 28.14817' N, 120° 40.84900' W
Hermosa	34° 27.30500' N, 120° 38.78333' W
Hidalgo	34° 29.70083' N, 120° 42.13733' W
Hondo	34° 23.44383' N, 120° 7.231833' W
Irene	34° 36.62516' N, 120° 43.76567' W

7.3.2 Process for Modifying Existing or Designating New HAPCs

Recognizing that new scientific information could reveal other important habitat areas that should be designated HAPCs or call into question the criteria for existing HAPCs, the Council may designate a new HAPC or modify or eliminate an existing HAPC through the process described below. This process allows organizations and individuals to petition the Council at any time to consider a new designation, or modify or eliminate an existing designation, and ensures, provided they submit the required information described below, their proposal will be considered by the Council. The process includes the following elements, which may be described in more detail in Council Operating Procedures:

1. A petitioner submits a proposal to eliminate or modify an existing HAPC, or designate a new HAPC, by letter to the Chairman and Executive Director of the Council. Proposals must include a description of: (a) for a new HAPC, the location of the HAPC, defined by specified geographic characteristics such as coordinates, depth contours, or distinct biogeographic characteristics; (b) for a new HAPC, how the HAPC meets the criteria specified in regulations at 50 CFR 600.815 (a)(8), or for changes to an existing HAPC, how such a change would better meet these criteria; and (c) a preliminary assessment of potential biological and socioeconomic effects of the proposed change or new designation.
2. Council/NMFS staffs determine whether the proposal contains the mandatory components outlined in step one. If this technical review determines that the proposal is inadequate, staff return it to the petitioner for revision and resubmission. If it is determined adequate, staff forward it to the Council for full consideration over three Council meetings as described below.
3. At the first meeting, the Council establishes a timeline for consideration, including merit review by the EFH OC and the SSC.
4. At the second meeting, the EFH OC and SSC provide their merit review to the Council. Depending on the results of this review, the Council directs staff to begin developing any documentation necessary for implementation. The proposal is also be forwarded to other advisory bodies for additional review.

5. At the third meeting the Council receives advisory body reports, reviews implementing documentation, and decides whether to approve an FMP amendment for Secretarial review.

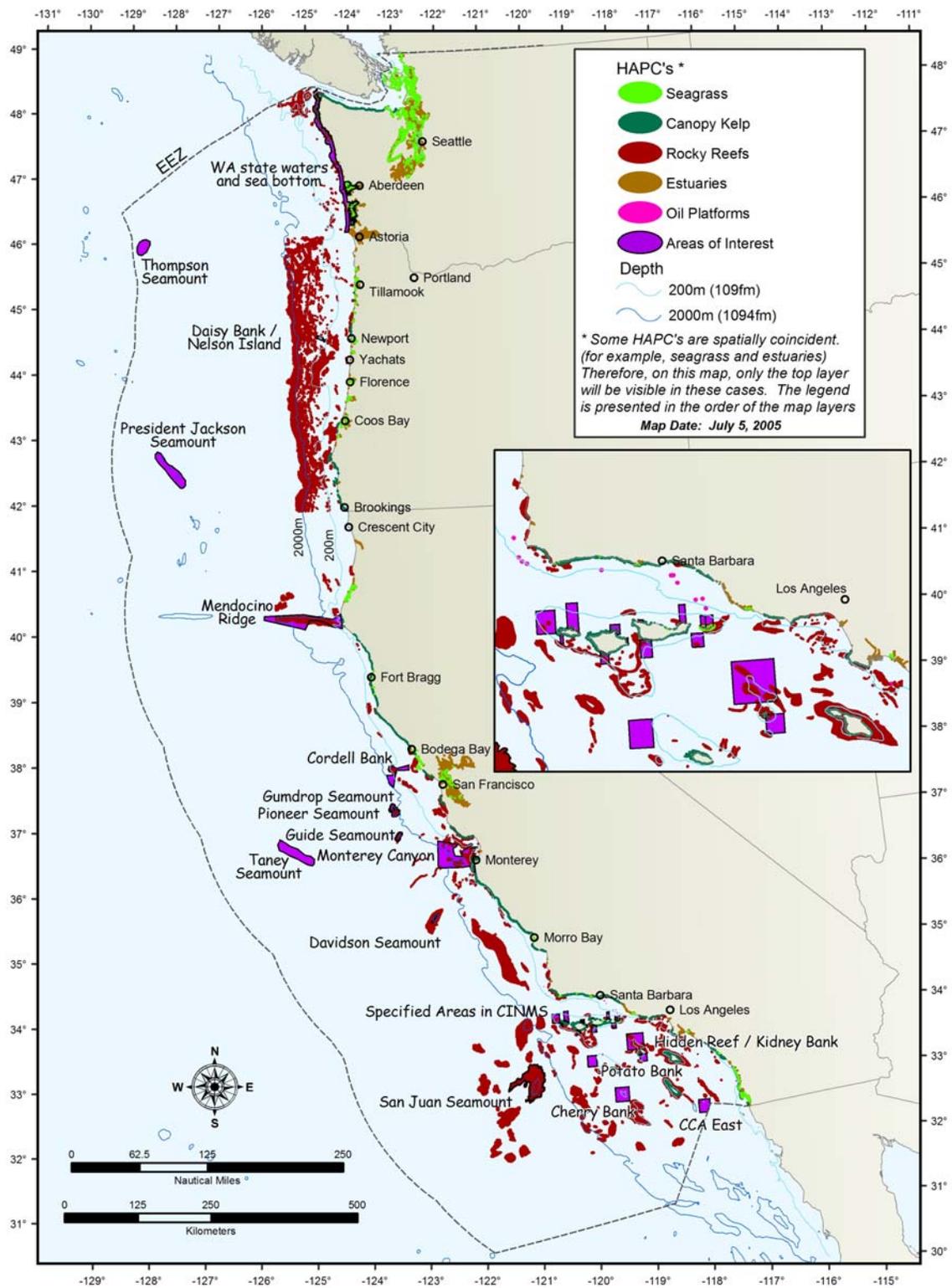


Figure 7-2. Groundfish HAPC

7.4 Management Measures To Minimize Adverse Impacts on Essential Fish Habitat from Fishing

[6.6.3 Management Measures To Minimize Adverse Impacts on Essential Fish Habitat from Fishing]

Chapter 6 describes the range of measures available to the Council for managing groundfish fisheries. These include measures with permanent effect and those that may be periodically adjusted in concert with the specification of harvest levels described in Chapter 5. Management measures are typically established through Federal rulemaking, using one of the procedures described in Section 6.2. Some of the management measures described in Chapter 6 have been implemented specifically to mitigate adverse impacts to EFH while others may have another primary purpose (such as bycatch reduction) but may have a corollary mitigating effect on adverse impacts to EFH. Those measures specifically intended to conserve EFH are summarized below by reference to the relevant section in Chapter 6.

Three broad categories of management measures are recognized as being effective for mitigating adverse impacts to EFH: gear modifications, closed areas, and overall reductions of fishing effort (National Research Council 2002). Section 6.6 defines legal groundfish gear and describes restrictions on their use. The Council has established several prohibitions and restrictions on gear to mitigate adverse impacts to EFH. These include restrictions on trawl footrope size, and prohibition of the use of dredges and beam trawls in the management area. Section 6.8 describes time/area closures, including the trawl footprint closure and ecologically important habitat closures, implemented to mitigate adverse impacts to EFH. The bottom trawl footprint closure prohibits the use of bottom trawl gear in depths greater than 700 fathoms, preventing the expansion of the use of this gear type into where its historical use has been limited. Additional ecologically important habitat areas are also closed to specified gear types shoreward of the trawl footprint boundary. These are areas that are thought to be especially ecologically important or vulnerable to the effects of fishing based on information about substrate type, topography, and the occurrence of biogenic habitat. Section 6.9 describes the range of measures available to control fishing capacity. Reductions in fishing capacity, which may be loosely defined as the number, size, and configuration of vessels participating in a fishery, may reduce overall fishing effort. Reducing fishing effort is relevant to mitigating the effects of fishing on EFH if the areal or temporal extent of gear contact with EFH is reduced. Although the rationale for measures that result in capacity reduction may be to prevent overfishing, reduce bycatch, or increase economic efficiency, they may have a corollary mitigating effect for EFH impacts. The Council will consider any such mitigating effects when developing capacity reduction programs or measures.

In determining whether it is practicable to minimize an adverse effect from fishing, the Council will consider whether, and to what extent, the fishing activity is adversely affecting EFH, the nature and extent of the adverse effect on EFH, and whether management measures are practicable. The Council will consider the long-term and short-term costs and benefits to the fishery and to EFH, along with any other factors consistent with national standard 7.

As described in Section 6.2.5, Indian treaty rights apply in U AND A grounds of the Makah, Hoh, and Quileute Tribes, and the Quinalt Indian Nation. In recognition of the sovereign status and co-manager role of these Indian tribes over shared Federal and tribal fishery resources, the regulations at 50 CFR 660.324(d) establish procedures that will be followed for the development of regulations regarding tribal fisheries within the U AND A grounds. They state that the agency will develop regulations in consultation with the affected tribe(s) and insofar as possible, with tribal consensus. Application of management measures intended to mitigate the adverse impacts of fishing on EFH within U AND A grounds will be subject to these procedures.

7.5 EFH Coordination, Consultation, and Recommendations

[6.6.1 MSA Directives Relating to Essential Fish Habitat]

[11.10.5 Consultation Procedures—Nonfishing Impacts]

The MSA (§305(b)) also provides a mechanism for NMFS and Council to address nonfishing impacts to EFH. Federal agencies are required to consult with NMFS on all activities, and proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH, whether it occurs within or outside EFH.

(For example, certain terrestrial activities may adversely affect EFH.) NMFS must provide recommendations to conserve EFH to Federal agencies undertaking such activities. Federal agencies must respond within 30 days of receiving conservation recommendations from NMFS, describing measures to avoid, mitigate, or offset the impact of the proposed action on EFH. If the response is inconsistent with NMFS's conservation recommendations, the agency will explain why it did not follow them.

NMFS must also provide recommendations to conserve EFH to state agencies if it receives information on their actions. However, they are not required to initiate consultation with NMFS, nor are they required to respond to any recommendations provided by NMFS.

The Council may provide recommendations on actions that may affect habitat, including EFH. Such recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions authorized, funded, or undertaken by that agency. The Council will encourage Federal agencies conducting or authorizing work that may adversely affect groundfish EFH to minimize disturbance to EFH. The Council must provide recommendations if the action is likely to substantially affect salmon habitat or EFH.

Whenever possible, EFH consultations will be combined with other interagency consultations and environmental review procedures, which may be required under the Endangered Species Act, Clean Water Act, National Environmental Policy Act, Fish and Wildlife Coordination Act, Federal Power Act, Rivers and Harbors Act, or other statutes. EFH consultation may be either programmatic (concerning agency programs or policies) or project-specific. Programmatic consultations involve broad Federal actions as defined under NEPA (40 CFR 1502.4(b)), such as the adoption of new programs or policies. Programmatic actions may encompass several project-specific actions sharing common geographic scope, project elements, or timing. When appropriate, NMFS will use programmatic consultations to consider related projects, thereby eliminating repetitive discussions and helping to focus on the appropriate level of analysis. Considering the broad geographic scope of groundfish EFH, this approach can help address a wide variety of related development activities while also considering their cumulative effects.

7.6 Review and Revision of Essential Fish Habitat Definitions and Descriptions and Identification

[6.6.4 Review and Revision of Essential Fish Habitat Definitions and Descriptions]

The Council will periodically review the available information on EFH descriptions and identification, HAPC designations, and information on fishing impacts and nonfishing impacts included in this FMP at least every five years, and include a New information may be included in the annual SAFE document or similar document and, if necessary, the FMP may be amended. A review and update of available information will be conducted at least once every five years as appropriate, but The Council may schedule more frequent reviews in response to recommendation by the Secretary or for other reasons.

7.7 Habitat-related Research and Monitoring

The five-year review cycle described above accommodates progress in scientific understanding of marine habitat. New data on the habitat needs of groundfish species will improve the assessment model described in Section 7.2.1. Better information about the location, function, and consequences of human activity on habitat underpins efforts to conserve EFH and could enable more precise quantification of adverse impacts to EFH resulting from human activities, including fishing. The Council supports the use of existing research and monitoring programs to increase scientific understanding about EFH. Where practicable, these programs may be supplemented or modified to gather habitat-related information.

Currently, groundfish limited entry trawl vessels are required to record information on the time and location of fishing activities, along with estimates of catch composition, in a logbook. Some of these data are entered into the Pacific Fisheries Information Network (PacFIN) data system and may be accessed by managers. Information on fishing location has proved invaluable to managers. These data show the spatial distribution of fishing effort, which can be used to evaluate what EFH area may be adversely affected by fishing. The Council supports expansion of the logbook program to cover other fishery sectors besides groundfish limited entry trawl, where practicable. The Council also supports entering more of the existing information gathered by means of logbooks, such as the haul-back position of trawl tows, into the data system.

This FMP authorizes the use of VMS programs (see Section 6.4.2). As of 2004, specified groundfish limited entry permitted vessels were required to carry VMS transceivers in order to enforce the RCAs. Because the bottom trawl footprint closure and ecologically sensitive area closures (see Sections 7.4 and 6.8) apply to vessels beyond those holding groundfish limited entry permits, the Council will consider expansion of this requirement to other fishery sectors, as appropriate, to effectively enforce habitat-related closed areas. VMS data also could be valuable in continuing efforts to assess the effects of fishing on EFH if information on track lines of trawl or fixed gear sets could be accessed for research purposes.

Establishing research sites, unaffected by fishing, could be used in comparative studies to better understand the effects of fishing on habitat. Area closures established to manage bycatch, promote stock rebuilding, protect habitat, and for other reasons, offer opportunities to measure the length of time needed for habitat features and function to recover. Over time, these sites could also be compared with sites where fishing is ongoing in order to research the effects of fishing. The Council will support, through the work of its advisory bodies, such as the Habitat Committee, efforts to identify discrete sites within closed areas in order to focus research efforts. By encouraging research at identified sites, results can be more easily compared. Such a system or research sites should include a representative sample of habitat types in order to allow comparison of the effects of fishing across these different types.

78.0 EXPERIMENTAL FISHERIES

~~Among the objectives of this FMP is to provide for the orderly development of the domestic groundfish fisheries, including promotion of new domestic fisheries, or otherwise contribute to effective management of the stock. In order to accomplish this objective, it is desirable to permit limited domestic experimental fishing (recreational or commercial) for groundfish species covered by this plan. This provision is intended to promote increased utilization of underutilized species, realize the expansion potential of the domestic groundfish fishery, and increase the harvest efficiency of the fishery consistent with the MSA and the~~

Experimental fisheries may be useful to the Council in allowing members of the public to work with government agencies to bring new fishery management ideas into the Council process. For example, there may be some modification to current gear types that will reduce the effects of that gear on habitat, or reduces bycatch rates with that gear in otherwise closed areas. The Council supports the use of EFPs to promote public and agency innovation in furthering the FMP's fishery management goals of this FMP goal and objectives. Experimental fishing will be conducted under Federal EFPs issued under Section 303(b)(1) of the MSA.

The Regional ~~Director~~Administrator may authorize, for limited experimental purposes, the direct or incidental harvest of groundfish managed under this FMP ~~which that~~ would otherwise be prohibited. No experimental fishing may be conducted unless authorized by an EFP issued by the Regional ~~Director~~Administrator to the participating vessel in accordance with the criteria and procedures specified in this section. EFPs will be issued without charge. EFPs may be issued to Federal or state agencies, marine fish commissions, or other entities, including individuals. An applicant for an EFP need not be the owner or operator of the vessel(s) for which the EFP is requested. Nothing in this section is intended to inhibit the authority of the Council or any other fishery management entity from requesting that the Regional ~~Director~~Administrator consider issuance of EFPs for a particular experiment in advance of the Regional ~~Director's~~Administrator's receipt of applications for EFPs to participate in that experiment.

EFPs that would result in the directed or incidental take of groundfish should be reviewed through the Council process prior to application to NMFS. The Council review process allows the Council determine whether portions of the harvest specifications of any groundfish species or species group would need to be set aside for harvest expected to be taken under EFPs. EFP proposals must contain a mechanism, such as at-sea fishery monitoring, to ensure that the harvest limits for targeted and incidental species are not exceeded and are accurately accounted for. Also, EFP proposals must include a description of the proposed data collection and analysis methodology used to measure whether the EFP objectives will be met.

EFP applicants may have their proposals reviewed through the Council process in accordance with Council Operating Procedure #19, Protocol for Consideration of EFPs for Groundfish Fisheries. This protocol includes requirements for EFP submission, proposal contents, review and approval, and progress reporting. The Council will give priority consideration to those EFP applications that:

1. Emphasize resource conservation and management with a focus on bycatch reduction (highest priority).
2. Encourage full retention of fishery mortalities.
3. Involve data collection on fisheries stocks and/or habitat.
4. Encourage innovative gear modifications and fishing strategies to reduce bycatch.
5. Encourage the development of new market opportunities.
6. Explore the use of higher trip limits or other incentives to increase utilization of underutilized species while reducing bycatch of non-target species.

Criteria and procedures for the issuance of EFPs ~~are~~ apply nationwide and are found in Federal regulations at 50 CFR 600.745:

1. Applicants must submit a completed application in writing to the Regional ~~Director~~Administrator at least 60 days prior to the proposed effective date of the permit. The application must include, but is not limited to, the following information:
 - a. The date of the application;
 - b. The applicant's name, mailing address, and telephone number;
 - c. A statement of the purposes and goals of the ~~experiment~~exempted fishery for which an EFP is needed, including a ~~general description of the arrangements for disposition of all species harvested under the EFP;~~
 - ~~d. Valid justification for why issuance of the EFP is warranted;~~
 - ~~e. A statement of whether the proposed experimental fishing has broader significance than the applicant's individual goals;~~
 - f. d For each vessel to be covered by the EFP:
 - ~~(1) vessel name;~~
 - ~~(2)-(1) A copy of the USCG documentation, state license, or registration of each vessel, or the information contained on the appropriate document;~~
 - (2) The current name, address, and telephone number of owner and master;
 - ~~(3) Coast Guard documentation, state license, or registration number;~~
 - ~~(4) home port;~~
 - ~~(5) length of vessel;~~
 - ~~(6) net tonnage;~~
 - ~~(7) gross tonnage;~~
 - ~~g. A description of the~~
 - e. The species (target and incidental) expected to be harvested under the EFP and, the amount(s) of such harvest necessary to conduct the experiment; h. exempted fishing, the arrangements for disposition of all regulations species harvested under the EFP, and any anticipated impacts on marine mammals and endangered species.
 - h. For each vessel covered by the EFP, the approximate time(s) and place(s) fishing will take place, and the type, size and amount of gear to be used; and~~—~~
 - i. The signature of the applicant.

The Regional ~~Director~~Administrator may request from an applicant additional information necessary to make the determinations required under this section.

2. The Regional ~~Director~~Administrator will review each application and will make a preliminary determination whether or not the application contains all of the required information and constitutes a ~~valid experimental program activity~~ appropriate for further consideration. If the Regional ~~Director~~Administrator finds any application does not warrant further consideration, ~~he shall notify~~ both the applicant and the Council will be notified in writing of the reasons for ~~his~~the decision. If the Regional ~~Director~~Administrator determines that any application warrants further consideration, ~~he will publish a notice of notification receipt of the application will be published in the Federal Register with a brief description of the proposal, and will give interested the intent of NMFS to issue an EFP. Interested persons an will be given a 15-day to 45-day opportunity to comment and/or comments will be requested during public testimony at a Council meeting. The notice notification may establish a cutoff date for receipt of additional applications to participate in the same or a similar experiment exempted fishing activity.~~

The Regional ~~Director~~Administrator also will forward copies of the application to the ~~Pacific Fishery Management Council~~, the United States Coast Guard, and the fishery management agencies of Oregon, Washington, California, and Idaho, accompanied by the following information:

- a. ~~The current utilization of domestic annual harvesting and processing capacity (including existing experimental harvesting, if any) of~~The effect of the proposed EFP on the target and incidental species, including the effect on any OY; ———
 - b. A citation of the regulation or regulations ~~which that, absent~~without the EFP, would prohibit the proposed activity; and
 - c. Biological information relevant to the proposal, including appropriate statements of environmental impacts, including impacts on marine mammals and threatened or endangered species.
3. At a Council meeting following receipt of a complete application, the Regional ~~Director~~Administrator may choose to consult with the Council and the directors of the state fishery management agencies concerning the permit application. The Council shall notify the applicant in advance of the meeting, if any, at which the application will be considered and invite the applicant to appear in support of the application if the applicant desires.
4. As soon as practicable after receiving responses from the agencies identified above, or after consultation, if any, in paragraph 3 above, the Regional ~~Director~~Administrator shall notify the applicant in writing of his decision to grant or deny the EFP, and, if denied, the reasons for the denial. ~~Grounds to deny issuance for denial~~ of an EFP include, but are not limited to, the following:
- a. The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with his or her application; or——
 - b. According to the best scientific information available, the harvest to be conducted under the permit would detrimentally affect the well-being of the stock of any regulated species of fish, marine mammal, or threatened or endangered species in a significant way; or ——
 - c. Issuance of the EFP ~~would inequitably allocate fishing privileges among domestic fishermen or~~ would have economic allocation as its sole purpose; or
 - d. Activities to be conducted under the EFP would be inconsistent with the intent of ~~this section~~national goals for MSA implementation or the management objectives of this FMP; ~~or~~
 - e. The applicant has failed to demonstrate a valid justification for the permit; or
 - e.f. The activity proposed under the EFP could create a significant enforcement problem.
5. The decision of a Regional Administrator to grant or deny an EFP is the final action of NMFS. If the permit is granted, the Regional Director will publish a notice, as granted, is significantly different from the original application, or is denied, NMFS may publish notification in the Federal Register describing the experimental/exempted fishing to be conducted under the EFP or the reasons for denial.
6. The Regional ~~Director~~Administrator may attach terms and conditions to the EFP consistent with the purpose of the ~~experiment/exempted fishing~~, including, but not limited to:
- a. The maximum amount of each regulated species ~~which that~~ can be harvested and landed during the term of the EFP, including trip limitations, where appropriate;-

- b. The number, size(s), ~~names~~name(s), and identification ~~numbers~~number(s) of the ~~vessels~~vessel(s) authorized to conduct fishing activities under the EFP;—
- c. The time(s) and place(s) where ~~experimental~~exempted fishing may be conducted;—
- d. The type, size, and amount of gear ~~which~~that may be used by each vessel operated under the EFP;—
- e. The condition that observers, a vessel monitoring system, or other electronic equipment be ~~allowed aboard~~carried on board vessels operated under an EFP; and any necessary conditions, such as predeployment notification requirements;
- f. Reasonable data reporting requirements; —
- g. ~~Such other~~Other conditions as may be necessary to assure compliance with the purposes of the EFP consistent with the objectives of this FMP and other applicable law; and, —
- h. ~~provisions~~Provisions for public release of data obtained under the EFP; that are consistent with NOAA confidentiality of statistics procedures. An applicant may be required to waive the right to confidentiality of information gathered while conducting exempted fishing as a condition of an EFP.

67. Failure of a permittee to comply with the terms and conditions of an EFP shall be grounds for revocation, suspension, or modification of the EFP with respect to all vessels conducting activities under that EFP. Any action taken to revoke, suspend, or modify an EFP shall be governed by ~~50~~ 50 C.F.R. Part 621, Subpart D Federal regulations.

8.09.0 SCIENTIFIC RESEARCH

No changes to the text in this chapter.

10.0 PROCEDURE FOR REVIEWING STATE REGULATIONS

10.1 Background

There are and will continue to be state regulations affecting groundfish fisheries off the West Coast, which are in addition to Federal regulations. This potential extends to waters off all three West Coast states, to all gear types, and to both the commercial and recreational fisheries. In some cases, it may be desirable to ensure consistency between state and Federal regulations by implementing Federal regulations that complement state regulations. In other cases, the Council may determine that Federal regulations are not necessary to complement state regulations, but wish to assure a state that its regulations are consistent with the FMP insofar as they are applied to vessels registered in that state when fishing in the EEZ. ~~Amendment 4 addresses this need by establishing a~~ Section 10.2 describes the framework review process by which any state may petition the Council to initiate a review of its regulations, determine consistency with the FMP, and, ~~if national standards to ensure that the state regulations are enforceable. If appropriate, recommend the implementation of complementary Federal regulations.~~

~~For example, current regulations implementing the FMP prohibit the use of setnets (gill and trammel nets) to catch groundfish in waters north of 38° N latitude. The purpose of this regulation is to prevent the incidental take of salmon. South of 38° N latitude, setnet gear is used primarily by small vessel fishermen to catch California halibut, white croaker, and rockfish. Only rockfish are included in the groundfish fishery management unit. Fishing for these species, which mainly are taken inshore, is regulated by the State of California. Thus, some of the setnet fisheries regulated by the state harvest species of groundfish which are also managed under this FMP.~~

~~When the FMP was developed and approved by the Secretary, the Council acknowledged the State of California was regulating the set net fishery off central and southern California. It was the Council's desire that state regulations regarding setnets also be applicable to vessels fishing in the EEZ to the extent that each state regulation was consistent with the goals of the FMP and the national standards of the MSA. The Council realized that it would be difficult to apply state regulations to non-California registered vessels in the EEZ. However, this was not considered a significant problem because most vessels in the fishery were registered in the State of California and were subject to its regulations even when fishing in the EEZ. Federal regulations were not considered necessary.~~

~~For a variety of reasons, California setnet regulations have changed several times over the years. However none of these changes have been formally reviewed to determine if they remain consistent with the FMP and the national standards of the MSA. A system is required to determine consistency of state regulations with the FMP and the national standards to ensure that the regulations continue to be enforceable against vessels fishing in the EEZ.~~

~~Amendment 4 establishes a framework process by which any state may obtain a determination that its regulations are consistent with the FMP and the national standards. As necessary, the Council may also recommend to the NMFS that duplicate or different Federal regulations be implemented in the EEZ. While the Council retains the authority to recommend Federal regulations be implemented in the EEZ, the preference is to continue to rely on state regulations in that area as long as they are consistent with the FMP.~~

10.2 Review Procedure

Any state may propose that the Council review a particular state regulation for the purpose of determining its consistency with the FMP and the need for complementary Federal regulations. Although this procedure is directed at the review of new regulations, review of existing regulations affecting the harvest of groundfish managed by the FMP also will utilize this process. The state making the proposal will include a summary of the regulations in question and concise arguments in support of consistency.

Upon receipt of a state's proposal, the Council may make an initial determination whether or not to proceed with the review. If the Council determines that the proposal has insufficient merit or little likelihood of being found consistent, it may terminate the process immediately and inform the petitioning state in writing of the reasons for its rejection.

If the Council determines sufficient merit exists to proceed with a determination, it will review the state's documentation or prepare an analysis considering, if relevant, the following factors:

1. How the proposal furthers or is not otherwise inconsistent with the objectives of the FMP, the MSA, and other applicable law.
2. The likely effect on or interaction with any other regulations in force for the fisheries in the area concerned.
3. The expected impacts on the species or species group taken in the fishery sector being affected by the regulation.
4. The economic impacts of the regulation, including changes in catch, effort, revenue, fishing costs, participation, and income to different sectors being regulated as well as to sectors which might be indirectly affected.
5. Any impacts in terms of achievement of quotas or HGs, maintaining year-round fisheries, maintaining stability in fisheries, prices to consumers, improved product quality, discards, joint venture operations, gear conflicts, enforcement, data collection, or other factors.

The Council will inform the public of the proposal and supporting analysis and invite public comments before and at the next scheduled Council meeting. At its next scheduled meeting, the Council will consider public testimony, public comment, advisory reports, and any further state comments or reports, and determine whether or not the proposal is consistent with the FMP and whether or not to recommend implementation of complementary Federal regulations or to endorse state regulations as consistent with the FMP without additional Federal regulations.

If the Council recommends the implementation of complementary Federal regulations, it will forward its recommendation to the NMFS Regional Director for review and approval.

The NMFS Regional Director will publish the proposed regulation in the *Federal Register* for public comment, after which, if approved, he will publish final regulations as soon as practicable. If the Regional Director disapproves the proposed regulations, he will inform the Council in writing of the reasons for his disapproval.

12.011.0 GROUND FISH LIMITED ENTRY

No changes to the text in this chapter, except headings are renumbered.

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GUIDE TO APPENDICES

In the July 1993 version of the FMP the Appendices appeared as Chapter 11.0. Section 11.10 was added by Amendment 11 in 1998. Sections 11.1–11.9 contain descriptive material about stocks, fisheries, habitat, and other applicable laws, which under the proposed revision will become Appendix A. Prior to the currently proposed amendments, this material was moved out of a chapter format to a separate volume, causing the remaining chapters in the FMP to be renumbered. The Appendices contain descriptive information in support of the management program. This material may be updated without the need for a formal FMP amendment process. Language to this effect is added to Chapter 1 of the FMP. The appendices incorporated into the FMP by Amendment 19 are described below.

APPENDIX A: Information in Support of the Management Program

- Biological and Environmental Characteristics of the Resource
- Description of the Fishery
- Social and Economic Characteristics of the Fishery
- History of Management
- History of Research
- Weather-Related Vessel Safety
- Relationship of this FMP to Existing Laws and Policies
- Management and Enforcement Costs

APPENDIX B: Pacific Coast Groundfish Essential Fish Habitat

1. Assessment Methodology for Groundfish Essential Fish Habitat
2. Groundfish Life History Descriptions
3. Essential Fish Habitat Text Descriptions (Habitat Use Database Output of Species/Life Stage Distribution/Associations)
4. Habitat Suitability Probability Maps for Individual Groundfish Species and Life History Stages
5. Research Needs and Data Gaps Analysis for Groundfish Essential Fish Habitat

APPENDIX C: The Effects of Fishing on West Coast Groundfish Essential Fish Habitat and Current Conservation Measures

1. Description of the Impacts Model
2. MRAG Americas, Inc. 2004. *The effects of fishing gears on habitat: West Coast perspective* (Draft 6). Portland: Pacific States Marine Fisheries Commission. July 28, 2004.

APPENDIX D: Nonfishing Effects on West Coast Groundfish Essential Fish Habitat and Recommended Conservation Measures

Hanson, J., M. Helvey, and R. Strach (eds.). 2003. *Nonfishing Effects on West Coast Groundfish Essential Fish Habitat and Recommended Conservation Measures* (Version 1). National Marine Fisheries Service. August 2003.