

RECORD OF DECISION

FINAL ALASKA GROUND FISH FISHERIES PROGRAMMATIC SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

National Marine Fisheries Service
Alaska Region

1. INTRODUCTION

This Record of Decision (ROD) documents the decision by the National Marine Fisheries Service (hereinafter referred to as NOAA Fisheries) to select the Preferred Alternative set forth in the Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement (PSEIS) as its policy choice for the management of the Bering Sea and Aleutian Islands (BSAI) and Gulf of Alaska (GOA) groundfish fisheries. As a first step, NOAA Fisheries approves Amendment 74 to the GOA Fishery Management Plan (FMPs) and Amendment 81 to the BSAI FMP, which amend the previous FMPs to include the management approaches, goals and objectives contained in the Preferred Alternative.

2. BACKGROUND

A. Purpose, Need and Federal Action Addressed in the PSEIS

Environmental Impact Statements (EISs) for the GOA and BSAI Groundfish FMPs were prepared in 1978 and 1981, respectively. The National Environmental Policy Act (NEPA) requires preparation of an EIS or Supplemental EIS (SEIS) when significant environmental changes have occurred. Significant changes have occurred in the GOA and BSAI groundfish fisheries and the GOA and the BSAI environment since the original EISs for the GOA and BSAI FMPs were published approximately 25 years ago. These changes include (but are not limited to) the following: the fisheries have shifted from primarily foreign fisheries to completely domestic fisheries; the FMPs governing the fisheries have been amended numerous times; new information is available about the ecosystem; the science of fisheries management has progressed substantially; public opinion about the management of these fisheries has changed; and several bird and marine mammal species have been listed as threatened or endangered under the Endangered Species Act (ESA).

While Environmental Assessments (EAs) and several EISs have been prepared for BSAI and GOA FMP amendments over the ensuing years, none have comprehensively examined the groundfish FMPs at a programmatic level. In 1999, U.S. District Court Judge Thomas S. Zilly issued a ruling in *Greenpeace v. National Marine Fisheries Service*, 55 F.Supp.2d 1248 (W.D.Wash.1999) that a 1998 SEIS prepared for BSAI and GOA FMPs was legally inadequate and remanded the document to NOAA for additional analyses, directing NOAA Fisheries to produce a “programmatic” SEIS. The Alaska Groundfish Fisheries PSEIS has multiple purposes. First, it serves as the central

environmental document supporting the management of the BSAI and GOA groundfish fisheries. The historical and scientific information and analytical discussions contained therein are intended to provide a broad, comprehensive analysis of the general environmental consequences of fisheries management in the Exclusive Economic Zone (EEZ) off Alaska. The document also provides Agency decision-makers and the public with an analytical reference document necessary for making informed policy decisions in managing the groundfish fisheries and sets the stage for future management actions. In addition, it describes and analyzes current knowledge about the physical, biological, and human environment in order to assess impacts resulting from past and present fishery activities. The PSEIS is intended to bring both the decision-maker and the public up to date on the current state of the environment, while describing the potential environmental consequences of alternative policy approaches and their corresponding management regimes for management of the groundfish fisheries off Alaska. In doing so, it serves as the overarching analytical framework that will be used to define future management policy with a range of potential management actions.

The federal action addressed in the PSEIS is defined as the management of groundfish fisheries and the authorization of groundfish fishery activities off Alaska, pursuant to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area and the Fishery Management Plan for the Gulf of Alaska Groundfish Fishery.

B. Roles of the Department of Commerce/NOAA and North Pacific Fishery Management Council in the EIS Process

The roles of the Secretary of Commerce, NOAA Fisheries, the North Pacific Fishery Management Council (NPFMC) and stakeholders in the decision-making and fisheries management process are explained in detail in the Final PSEIS, Section 2.4 and Appendix B, Sections B.3.1.1 and B.3.1.2. The Secretary of Commerce, Department of Commerce (DOC) is responsible for marine fisheries management in the United States as prescribed by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC 1801, *et. seq.*). NOAA Fisheries is responsible for executing the day-to-day management of the fisheries as well as the enforcement of fisheries management regulations (in conjunction with the U.S. Coast Guard). The MSA established and defined the role of the NPFMC as recommending FMPs, FMP amendments and regulations to the Secretary of Commerce for approval.

Through this NEPA process and Amendments 74 and 81, the NPFMC is setting a course to follow in the future management of the groundfish fisheries of the North Pacific. Future assessments of the impacts and results obtained from such future fishery management actions recommended by the NPFMC and undertaken by NOAA Fisheries will be based on future NEPA analyses. Also, the authority given to the Secretary by the MSA to approve or—if the proposed FMPs or FMP amendments are inconsistent with applicable law—to disapprove or partially approve the FMPs or FMP amendments submitted by the NPFMC for consideration ensures that NPFMC-recommended management measures comply with applicable law.

C. Procedural History of the PSEIS and Amendments 81/74

A Notice of Intent to prepare a PSEIS on the Alaska groundfish fisheries was published in the *Federal Register* on October 1, 1999 (64 FR 53305). NOAA Fisheries released a Draft PSEIS on the Alaska groundfish fisheries for public review and comment in January 2001 (February 2, 2001, 66 FR 8788). In November 2001, NOAA Fisheries announced its intent to revise the 2001 Draft PSEIS (November 27, 2001, 66 FR 59228). Based on its review and preliminary analysis of the comments received on the 2001 Draft PSEIS, NOAA Fisheries determined that the Draft PSEIS should be revised to include additional analyses concerning environmental, economic and cumulative impacts; that the alternatives examined in the Draft PSEIS should be restructured from single-focus alternatives to more comprehensive, multiple-component alternatives; and that it should be edited to evaluate more concisely the proposed action. Given these decisions, NOAA Fisheries determined that it would release a revised Draft PSEIS for public review and comment before issuing the Final PSEIS. After extensive public input in the development of the alternatives to be analyzed in the revised Draft PSEIS, NOAA Fisheries released the revised Draft PSEIS for public review and comment in August 2003 (August 29, 2003; 68 FR 52018).

At its April 2004 meeting, the NPFMC recommended that the preliminary Preferred Alternative identified in the 2003 Draft PSEIS be modified, recommended that the modified alternative be identified as the Preferred Alternative in the Final PSEIS, and adopted Amendments 81/74 to the FMPs. The NPFMC's recommendations were based on its review of the findings contained in the 2003 Draft PSEIS and public comment. The NPFMC submitted Amendments 81/74 for Secretarial and public review, and consistent with the requirements of the MSA, NOAA Fisheries published in the *Federal Register* a Notice of Availability of Amendments 81/74 and solicited public comments on the Amendments (June 2, 2004; 69 FR 31091). The Notice of Availability for the Final PSEIS was published by the Environmental Protection Agency on June 4, 2004 (69 FR 31613). While not specifically requesting public comments on the Final PSEIS, NOAA did provide the public with an address and a July 6, 2004, deadline for submitting comments on the document should they wish to do so. The public comment period on Amendments 81/74 closed on August 2, 2004.

As approved by the Secretary of Commerce, Amendments 81/74 amend the existing Goals and Objectives sections of the FMPs to incorporate the management approach and objectives contained in the Preferred Alternative of the Final PSEIS.

D. PSEIS as a Planning Tool

For purposes of the PSEIS, NOAA Fisheries presumes that the Alaska groundfish fisheries result in some significant effects, both positive and negative, to the natural and socio-economic environments. The PSEIS has been structured in a manner that identifies these effects (direct, indirect, and cumulative) to the extent possible and explores alternative fisheries policies and specific management actions that might serve to mitigate adverse impacts. It is expected that managers and the public will work together in determining the most efficient ways of achieving the goals and objectives stated in the FMPs.

Producing this PSEIS has served its purpose of informing the decision-maker and the public on the issues and potential environmental consequences of the Preferred Alternative and other alternatives. This PSEIS will also serve managers and the public in the future as a reference and guide for the mutual development of FMP amendments. To the degree that the effects of proposed management measures already fall within the Preferred Alternative FMP bookends, or within the range illustrated by the bookends, anticipated efficiencies in preparing second-level tiered EAs or EISs can be achieved to the benefit of managers, the public, and the resource. The Agency recognizes that the PSEIS will require periodic updates as new information becomes available and/or significant changes occur in relation to the fisheries or the environment.

The lead agency for the PSEIS is the Alaska Region of NOAA Fisheries. The Alaska Department of Fish & Game (ADF&G) and the U.S. Fish & Wildlife Service (USFWS) were cooperating agencies under NEPA regulations at 40 CFR section 1501.6.

3. ALTERNATIVES CONSIDERED

The following is a brief summary of the programmatic alternatives considered in detail in the Final PSEIS (including the no action alternative) and other alternatives considered but eliminated from detailed study in the PSEIS. Further detailed information on the programmatic alternatives may be found in Chapter 2 (Section 2.6) and Chapter 4 (Sections 4.2 and 4.3) of the PSEIS and a description of the evolution of the alternatives considered in detail in the Final PSEIS may be found on pages 2-44 of the Final PSEIS. NOAA Fisheries is selecting the Preferred Alternative in the Final PSEIS as the groundfish fisheries management policy for the GOA and BSAI groundfish fisheries off Alaska.

As mentioned above, two Draft PSEISs were prepared and released to the public for review and comment. In the 2001 Draft PSEIS, six alternatives to status quo were considered in detail. Based on public comment, those alternatives were modified from single-focus alternatives to more comprehensive, multiple component alternatives. The 2003 revised Draft PSEIS analyzed five alternatives: a no action alternative (Alternative 1), an aggressive harvest management alternative (Alternative 2), a precautionary management alternative (Alternative 3), a highly precautionary alternative (Alternative 4) and a preliminarily Preferred Alternative that is a modified version of Alternative 3 that also incorporates elements of Alternatives 1 and 4. The Final PSEIS also presents an analysis of five alternatives. With the exception of the Preferred Alternative, the alternatives in the Final PSEIS are identical to those presented in the 2003 Draft PSEIS. The preliminarily Preferred Alternative presented in the 2003 Draft PSEIS was modified in response to public comments and finalized as the Preferred Alternative in the Final PSEIS.

The alternatives analyzed in the Final PSEIS are comprised of three elements: a management approach statement that describes the goals, rationale, and assumptions behind the alternative; a set of management objectives that complement and further refine the goals set forth in the management approach; and, except for the no action/status quo alternative (Alternative 1), a pair of example FMP “bookends” that illustrate and frame the range of implementing management measures for that alternative.

The management approach statement and objectives serve to define the policy direction NOAA Fisheries and the NPFMC will follow in the management of the fisheries under each alternative. The example FMP bookends serve two purposes: first, they provide an additional level of analytical detail that facilitates the comparison of the physical, biological and socioeconomic effects of the alternatives in relation to the environmental baseline (i.e., the condition of the environment and the fisheries up through 2001 and 2002); and second, they provide the public with an illustration of the types and range of management measures NOAA Fisheries and the NPFMC envision using to achieve the goals of the alternative in 2004 and beyond. It is important to note that because the FMP bookends and the associated management measures are illustrative in nature (i.e. they are not binding to NOAA Fisheries or the NPFMC), they are not integral to Amendments 81/74 and will not be included in the revised FMPs. As programmatic policies, the alternatives provide NOAA Fisheries and the NPFMC with a range of potential management measures that allows flexibility under the MSA to adaptively manage the groundfish fishery through more specific FMP amendments.

A. No Action Alternative

Alternative 1. Alternative 1 is the no action alternative for the PSEIS. Under this alternative, the groundfish fisheries would continue to be managed based upon the present risk-averse policy. This policy assumes that fishing does result in some adverse impacts to the environment and that, as these impacts become known, mitigation measures will be developed and appropriate FMP amendments will be implemented.

Alternative 1(a) represents the policy language currently stated in the FMPs, dating from 1979 and 1985 for the BSAI and GOA FMPs, respectively.

Alternative 1(b) is a substitute for the written policy language in the current FMPs and would include objectives that explicitly address the variety of concerns that are balanced by the NPFMC and NOAA Fisheries in current management considerations. Alternative 1(b) encapsulates a risk-averse conservation and management program that is based on a conservative harvest strategy. The Alternative 1(a) and 1(b) policies are both represented by current BSAI and the GOA FMPs (i.e. FMP 1) and incorporate and analyze all of the management measures adopted by the NPFMC through its June 2002 meeting.

In the current FMPs, the total allowable catch (TAC) is determined annually based on a conservative harvest strategy that calculates the overfishing level (OFL) and maximum acceptable biological catch level (*max* ABC) by means of a six-tier system wherein the amount and quality of information available for a given stock or stock complex determines the formula that is used to define the rate of fishing mortality and the size of buffer between OFL and ABC. The status of each stock (in Tiers 1-3) is also examined annually with respect to the minimum stock size threshold (MSST), as defined in the National Standard Guidelines.

Optimum yield (OY) is specified in the current FMPs as a range that is aggregated across all stocks and does not vary with biomass. The current FMPs require the sum of the individual groundfish

TACs to fall within the OY range specified in the plan (2 million metric ton (mt) cap in the BSAI; 800,000 mt cap in the GOA). Taking into account the ecosystem considerations of the food web, the FMPs also prohibit directed fishing for forage fish species. Through amendments over the last 25 years, the current FMPs have built up a network of spatial and temporal closures, intended to protect resources of concern, as well as to minimize gear conflicts. In the BSAI, various areas around the Pribilof Islands and in Bristol Bay are closed year-round to trawling in order to protect red and blue king crab habitat, and areas of historically high bycatch of chinook and chum salmon are closed seasonally. Also in the BSAI, waters within 12 nautical miles (nm) of Walrus Islands are closed to groundfish fishing to minimize fishery disturbance of walrus haulouts sites. In the BSAI and the GOA, Steller sea lion protection measures permanently close the area within 3 nm of rookeries to all fishing. Additionally, these measures impose trawl prohibitions within 3 to 20 nm of most sea lion rookeries and haulouts, and prohibit fishing in Seguam Pass to address concerns over the potential loss of sea lion prey species to commercial fishing. In the GOA, trawling is prohibited in southeast Alaska east of 140° W, and a 2.5 nm² area designated as the Sitka Pinnacles Marine Reserve is closed to groundfish fishing to protect habitat for rockfish and lingcod.

The current BSAI FMP prohibits directed fishing for pollock with non-pelagic trawl gear. Directed fishing for sablefish with pot gear is prohibited in the GOA. Non-pelagic trawling is prohibited in the Bristol Bay Red King Crab Savings Area in the BSAI and in Cook Inlet in the GOA. Additionally, various areas around Kodiak Island are closed to non-pelagic trawling either year-round or seasonally to protect crab stocks.

Groundfish fisheries in the BSAI and GOA are required to discard any incidental catch of halibut, Pacific salmon (including steelhead trout), crab, and herring. These species are known collectively as prohibited species. The FMPs currently set prohibited species catch (PSC) limits on many of these species, with penalties ranging from closure of a particular zone or of the whole management area to a directed fishery or fisheries for a specified season or the remainder of the year. Also under FMP 1, the Improved Retention/Improved Utilization (IR/IU) program requires full retention, by vessels fishing for groundfish, of all incidentally caught pollock and Pacific cod fit for human consumption, as well as full utilization of the two species by inshore processors. A minimum utilization standard of 15 percent is set for all at-sea processors. The NPFMC has also adopted a policy to require full retention of demersal shelf rockfish by longline and jig vessels in the southeast Outside District of the GOA. A Vessel Incentive Program encourages bycatch reduction by setting bycatch reduction standards biannually. Inseason bycatch management measures establish fishing seasons for bycatch management and give the Regional Administrator, NOAA Fisheries Alaska, the authority to close areas with high bycatch.

“The Reasonable and Prudent Measures” adopted from the most recent USFWS Biological Opinion for short-tailed albatross stipulate the use of certain seabird avoidance measures and require that take of more than four short-tailed albatross within two years trigger consultation with the USFWS. Pending the results of the consultation, there is potential for the fisheries to close. To further reduce the possibility of the take of albatross impacting the fisheries, in 2001 the NPFMC adopted a policy to require all longline vessels to adopt more stringent seabird avoidance methods.

A License Limitation Program for groundfish vessels over 32 feet (ft) length overall (LOA) (with certain jig gear exceptions) and a moratorium on entry into the groundfish fisheries are in place for the BSAI and the GOA. An Individual Fishing Quota (IFQ) program is in place for sablefish in the BSAI and GOA, which includes provisions for community purchase of quota share. In the BSAI, the directed fishery for pollock is organized into cooperatives as authorized under the American Fisheries Act (AFA). A multi-species Community Development Quota (CDQ) program apportions 7.5 to 10 percent of all BSAI groundfish quota to 65 western Alaska communities currently participating in the CDQ Program.

Alternative 1 monitors the groundfish fishing effort through federal and state reporting requirements and through the use of the North Pacific Groundfish Observer Program. All vessels equal to or more than 60 ft but less than 125 ft LOA are required by regulation to have an observer on board 30 percent of the time; for vessels 125 ft or more LOA, this increases to 100 percent. For AFA and CDQ catcher boats greater than 60 ft LOA, one observer must be on board at all times, and for catcher processors and motherships, two observers must be on board at all times. The program also has observers at inshore processing plants. Additional monitoring tools include reporting requirements for BSAI and GOA vessels that submit daily or weekly logbooks including information on the composition of catch and the locations of the hauls. The ADF&G also collects data from fish tickets at the point that catch is sold. Mandatory vessel monitoring systems for all directed Atka mackerel, pollock, and Pacific cod fishing verify vessel location. FMP 1 is described in full in Table 4.2-1 of the Final PSEIS.

B. Other Policy Alternatives Considered in Detail

Alternative 2. This alternative represents a more aggressive harvest management policy than Alternative 1. This alternative would maximize biological and economic yield from the resource while still preventing overfishing of the groundfish stocks. Such a management approach would, among other things, be based on the best scientific information available, take into account individual stock and ecosystem variability, and continue the cooperation between NOAA Fisheries and other agencies in protecting threatened and endangered species. A more aggressive harvest strategy would be implemented based upon the concept that the present policy is overly conservative and that higher harvests can be taken without overfishing the target groundfish stocks. This policy alternative assumes that fishing at the recommended levels would have no adverse impact on the environment, except in specific cases that are known and mitigated.

Example FMP 2.1 illustrates a more aggressive harvest strategy than Alternative 1 by removing many of the existing constraints from the fisheries. As the policy is based on an assumption that the impacts of fishing on the environment are generally known and mitigated, the precautions currently built into the existing TAC-setting process would be alleviated. The buffer between the ABC level and the OFL is removed, and the maximum OY for the groundfish stocks in the BSAI is released from its two million mt cap and allowed to float as the sum of the OFLs for the BSAI groundfish stocks.

Example FMP 2.1 also removes physical constraints from the fisheries by repealing the various closure areas currently in place. The fishery would be returned to an open-access scenario, where time and area closures, gear restrictions, and PSC restrictions are repealed. The potential impact of the groundfish fisheries on Steller sea lions, however, means that the current mitigating suite of protection measures that constrain fishing around rookeries and haulouts and protect Steller sea lion prey species (pollock, Pacific cod and Atka mackerel) when at low biomass levels would remain in place (Figures 4.2-2 and 4.6-1; specific details on the example FMP 2.1 map are provided in Section 4.2.3 of the Final PSEIS). This is required by the ESA to avoid determinations of jeopardy and adverse modification. The same applies to the impact of groundfish fishing on short-tailed albatross, with the consequent take limits remaining in effect.

The federally-mandated effort limitation program for the directed BSAI pollock fishery, enacted under the AFA, would remain in place, with its accompanying CDQ allocation, but all other effort limitation programs (such as the sablefish IFQ program and the multi-species CDQ program) would be repealed. Reporting requirements would remain in place, in order to keep track of the impact of the fisheries, but the Observer Program, except as federally mandated by the AFA, would be repealed, as would vessel monitoring system requirements. Example FMP 2.1 is described in full in Table 4.2-1 of the Final PSEIS.

Example FMP 2.2 represents a more moderate illustration of Alternative 2, but continues the policy of a more aggressive harvest strategy than Alternative 1. In this case, the mechanisms for setting ABC and TAC remain the same as in the current FMPs (see Alternative 1 for further detail), but the existing regulatory-capped maximum OY of 2 million mt in the BSAI would be removed in favor of a maximum OY equaling the sum of individual groundfish ABCs in the BSAI. Additionally, bycatch reduction incentives and bycatch restrictions would be repealed, other than those related to PSC limits or IR/IU. Under the assumption that fishing does not have an impact on the environment other than what is generally known and mitigated, the NPFMC's more stringent seabird avoidance measures recommended in 2001 would be repealed, leaving only the mitigation measures recommended by USFWS to avoid jeopardy or adverse modification for short-tailed albatross. Closure areas in example FMP 2.2 mirror those in Alternative 1. Example FMP 2.2 is described in full in Table 4.2.-1 of the Final PSEIS.

Alternative 3. This alternative represents a more precautionary management policy than Alternative 1. This alternative would accelerate the existing precautionary management measures through community or rights-based management, ecosystem-based management principles and, where appropriate and practicable, increased habitat protection and additional bycatch constraints. Under this approach, additional conservation and management measures would be adopted as necessary to respond to social, economic or conservation needs, or if scientific evidence indicated that the fishery was negatively impacting the environment. This policy recognizes the need to balance many competing uses of marine resources and different social and economic goals for fishery management.

Example FMP 3.1 illustrates a management approach that accelerates precautionary management measures by increasing conservation-oriented constraints on the fisheries where necessary, formalizing precautionary practices in the FMPs, and initiating scientific review of existing practices as a necessary precursor to the decision of how best to incorporate adequate precautions.

Example FMP 3.1 would implement changes to the TAC-setting process following a comprehensive review of existing TAC-setting processes. Precautionary measures such as setting TAC less than or equal to the ABC and specifying MSSTs for Tiers 1 through 3 in accordance with National Standard Guidelines, would be formalized in the FMP. Sharks and skates would be removed from the Other Species management category and given their own TACs, and criteria to do the same for other target stocks would be developed. Efforts would be accelerated to develop ecosystem indicators for setting TAC limits, as per ecosystem management principles.

In order to balance the needs of social and economic stability with habitat protection and resource conservation, a review would be conducted of the existing closure areas in the BSAI and the GOA (for closure areas under FMP 3.1, see Figure 4.2-4 and Section 4.2.3 of the Final PSEIS). The closure areas would be evaluated against a Marine Protected Area (MPA) methodology, which would be developed as part of this alternative. The NPFMC and NOAA Fisheries would also seek to initiate joint consultation and research with USFWS to develop fishing methods that reduce incidental take of threatened and endangered species. To mitigate any adverse impacts of fisheries management decisions on fishing communities, and to comply with other national directives, formal procedures would be implemented to encourage increased participation of Alaska Natives in fishery management.

Example FMP 3.1 recognizes that the anticipated community or rights-based management programs may ultimately address bycatch reduction objectives (a review of bycatch rates under current programs has already begun) but, a moderate reduction of PSC limits will be pursued as an intermediary step. Additionally, PSC limits for crab, herring, and salmon would be authorized in the GOA, in addition to the halibut PSC limits authorized under the current GOA FMP. Effective monitoring and timely reaction to change in the environment and the fisheries would be enhanced through improvements in the Observer Program and third party verification of economic data. Example FMP 3.1 is described in full in Table 4.2-1 of the Final PSEIS.

Example FMP 3.2 implements the acceleration of existing precautionary measures on a more rapid timeline than Example FMP 3.1. Rather than reviewing existing practices prior to incorporating increased precaution, this bookend implements changes to many aspects of the FMPs concurrently with the initiation of scientific research efforts necessary to bring management measures in line with a precautionary policy.

Example FMP 3.2 significantly accelerates precautionary management by incorporating an uncertainty correction into the estimation of ABC for all species. Additionally, OY would be specified separately for each stock or stock complex rather than for the groundfish complex as a whole (i.e., OY would be set as a formula rather than as a range, eliminating the BSAI 2 million mt

cap), and would be set equal to the respective stock or stock complex's TAC. The current precautionary practice of setting TAC less than or equal to ABC would be formalized in the FMP. Example FMP 3.2 would also incorporate stock-specific biological reference points in the tier system where scientifically justifiable. This could result in Tier 3 rockfish stocks, for example, being capped at $F_{60\%}$, a lower and more conservative harvest rate, compared to $F_{40\%}$, the rate currently used. In implementing this bookend, criteria would be developed for specifying MSSTs for Tiers 4 through 6, along with a list of priority candidate stocks; and the development of criteria for moving stocks from the Other Species and Non-specified Species management categories would minimally result in sharks and skates being given their own TACs.

Example FMP 3.2 also reexamines the existing closure system in the BSAI and the GOA. The bookend sets a guideline of 0 to 20 percent of the EEZ (3 to 200 nm) to be closed as an MPA, of which no more than five percent should be completely closed to commercial fishing as a designated No-Take Marine Reserve. The remainder of the closed area would be designated as a no-bottom-contact MPA. The objective of these measures would be to provide greater protection to a full range of marine habitats within the 1,000 m bathymetric line (Figure 4.2-5; specific details on the example FMP 3.2 map are provided in Section 4.2.3 of the Final PSEIS). The guideline aims to provide greater protection for a wide range of species, from Steller sea lions to slope rockfish to prohibited species, while at the same time respecting traditional fishing grounds and maintaining open area access for coastal communities. Additionally, the bookend would extend the existing bottom-trawl ban on pollock to the GOA.

Additional conservation benefits would be realized in example FMP 3.2 through the comprehensive rationalization of all fisheries (except those already part of a cooperative or IFQ program.) In adopting rationalization programs such as cooperative-style programs with built-in community protections, habitat and bycatch concerns would also be addressed by reducing concentrated effort in the fisheries. To increase precautions regarding bycatch, PSC limits would be significantly reduced (and set for all prohibited species in the GOA), but would not be expected to act as a proportionate restraint on the fisheries due to the incentives for bycatch reduction under cooperatives, or other bycatch incentive programs implemented as necessary under this bookend.

In accordance with ecosystem principles, the NPFMC and NOAA Fisheries would seek to initiate joint consultation and research with USFWS to develop fishing methods that reduce incidental take of all seabird species. Formal procedures would also be implemented to increase consultation with and representation of Alaska Natives in fishery management. Example FMP 3.2 is described in full in Table 4.2-1 of the Final PSEIS.

Alternative 4. This policy alternative represents a highly precautionary approach to managing fisheries when faced with scientific uncertainty. This alternative policy shifts the burden of proof to the users of the resource, the NPFMC, and NOAA Fisheries, to demonstrate that the fisheries would not have a detrimental effect on the environment. It would involve a strict interpretation of the precautionary principle. Management decisions would involve and be responsive to the public, but would decrease emphasis on industry and community concerns in favor of ecosystem processes and principles. This policy assumes that fishing does produce adverse impacts on the environment, but

due to a lack of information and uncertainty, characterization of these impacts is difficult. The initial restrictive and precautionary conservation and management measures would be modified or relaxed when additional, reliable scientific information becomes available that indicates that such measures are no longer necessary to protect the resource from potentially adverse impacts caused by fishing.

Example FMP 4.1 illustrates an FMP where current levels of fishing are significantly reduced and other precautionary restrictions are implemented until scientific research shows that the fisheries have no adverse effect on the sustainability of the resource and its environment. A modified TAC-setting process would create a more substantial buffer between ABC and the OFL by setting a fishing mortality rate at a very low level ($F_{75\%}$) for all Steller sea lion prey species and for rockfish (a long-lived, slow-growing species). Also, the ABC for each stock or stock complex in Tiers 1 through 5 would be adjusted downward based on the lower bound of a confidence interval surrounding the survey biomass estimate. OY would be specified separately for each stock or stock complex rather than for the groundfish complex as a whole (i.e., OY would be set as a formula rather than as a range, eliminating the BSAI 2 million mt cap), and would be set equal to the respective stock or stock complex TAC. The current precautionary practice of setting TAC less than or equal to ABC would be formalized in the FMP. For species managed as members of a stock complex, rather than setting TAC as the aggregate of the individual members' ABCs, the maximum ABC value for each stock would be determined and the TAC set equal to the lowest value among the group. Where sufficient biological information is available, such as with eastern Bering Sea pollock, TAC would be distributed on a smaller spatial scale. MSSTs would be determined for all tiers.

To further mitigate the possibility of the fisheries having a detrimental biological and ecosystem impact, 20 to 50 percent of the EEZ would be designated as no-take marine reserves (i.e., no commercial fishing), covering the full range of marine habitats within the 1,000-m bathymetric line (Figure 4.2-6 of the Final PSEIS; specific details on the example FMP 4.1 maps are provided in Section 4.2.3 of the Final PSEIS). As part of this area in the Aleutian Islands, a Special Management Area would be established to protect coral and other live bottom habitats. The closed area would include spawning reserve areas for intensively fished species. Under the FMP 4.1 example, comprehensive trawl exclusion zones would be set to protect all Steller sea lion critical habitat, and trawling would be restricted to only those fisheries that cannot be prosecuted with other gear types (i.e., the flatfish fisheries).

In an effort to reduce waste and the risk of adverse impact to the environment, existing PSC limits would be halved under this bookend, as would bycatch (discard) and incidental catch rates. IR/IU would be extended to all target species. Stringent PSC limits would be set for salmon, crab, and herring in the GOA, and as information becomes available, bycatch limits would be set for non-target species also. Protection measures would be set for all seabird species.

Because this policy alternative necessitates greater research and data-gathering efforts, example FMP 4.1 would expand observer coverage to 100 percent for all vessels over 60 ft LOA and require 30 percent observer coverage on vessels presently exempted from observer coverage (i.e., vessels under 60 ft LOA). Vessel monitoring systems would be made mandatory for all groundfish vessels,

as would motion-compensated scales for weighing all catches at sea or at shore-based processors. Cooperative research and data-gathering programs would be initiated as well to expand the use of Traditional Knowledge in fisheries management. Example FMP 4.1 is described in full in Table 4.2-1 of the Final PSEIS.

Example FMP 4.2 expands the precautionary principles of Alternative 4 by temporarily suspending all fishing until the fisheries can be shown to have no adverse effect on the resource and its environment. Scientific research and data-gathering efforts would continue under this FMP. The Agency would conduct an environmental review of each groundfish fishery. Such an environmental review would likely require up to two years to complete. Until such a review is completed and a fishery certified, the TAC for all species in that fishery would be set at zero. All areas of the EEZ would be closed to all fishing (i.e. commercial, recreational, and subsistence); bycatch and incidental catch, as well as the take of seabirds and marine mammals, would then necessarily be reduced to zero in the short-term. Once the reviews are completed, those fisheries that are found to have no significant adverse impacts on the environment would be authorized under a specific set of regulations. If a fishery is found by this review to produce significantly adverse environmental effects, and mitigation measures can not be designed to mitigate those effects, that fishery would not be certified and would remain closed until more scientific information is known. Example FMP 4.2 is described in full in Table 4.2-1 of the Final PSEIS.

Preferred Alternative. The Preferred Alternative and its example FMPs represent a management approach that incorporates forward looking conservation measures that address differing levels of uncertainty about the effects of fishing and the marine ecosystem. It is a modified version of Alternative 3 that also incorporates elements of Alternatives 1 and 4.

For purposes of soliciting public comment, the NPFMC and NOAA Fisheries identified a Preferred Alternative (preliminary) in the 2003 Draft PSEIS. Comments received on the preliminary Preferred Alternative were used by the NPFMC to further refine the alternative. The Preferred Alternative in the Final PSEIS maintains the ecosystem approach embodied in the preliminary preferred alternative, while expanding on the protection of non-ESA-listed seabirds and marine mammals, and emphasizing the importance of cooperation and consultation with state and federal agencies and organizations. The NPFMC and NOAA Fisheries believe that the Preferred Alternative identified in the Final PSEIS is a realistic and responsible approach that addresses and complies with the various goals, objectives, and requirements of the MSA and other applicable law. The policy elements contained in the Preferred Alternative are consistent with the National Standards and reasonably balance the competing interests reflected therein.

The management approach and the objectives in the Preferred Alternative reflect a conservative precautionary approach to fisheries management and communicate a policy direction for the future. This management approach has, in recent years, been labeled the precautionary approach. As part of the policy, measures will be considered and adopted, as appropriate, which accelerate the precautionary adaptive management approach through community or rights-based management, ecosystem-based management principles that protect managed species from overfishing, and, where appropriate and practicable, increased habitat protection and bycatch constraints. All management

measures will be based on the best scientific information available. Given this intent, the fishery management goal is to provide sound conservation of the living marine resources; provide socially and economically viable fisheries and fishing communities; minimize human-caused threats to protected species; maintain a healthy marine resource habitat; and incorporate ecosystem-based considerations into management decisions. This management approach recognizes the need to balance many competing uses of marine resources and different social and economic goals for fishery management, and will utilize and improve upon the NPFMC and NOAA Fisheries' existing open process to involve the public in decision-making. For the full text of the alternative, including a description of the example FMP bookends for the Preferred Alternative, see Section 2.6.9 of the Final PSEIS.

The example FMP bookends for the Preferred Alternative (FMP PA.1 and PA.2) serve to illustrate management concepts and future actions that logically flow from the Preferred Alternative and provide sufficient detail to allow for focused analysis of their environmental consequences. Example FMP PA.1 and FMP PA.2 are described in full in Table 4.2-2 of the Final PSEIS.

Example FMP PA.1 illustrates a conservative management approach that continues current risk-averse practices, increases conservation-oriented constraints on the fisheries as appropriate, formalizes precautionary practices in the FMPs, and initiates scientific review of existing practices to assess and improve fishery management.

FMP PA.1 implements changes to the TAC-setting process following a comprehensive review. Precautionary practices such as setting TAC less than or equal to the ABC, and specifying MSSTs for Tiers 1-3 in accordance with National Standard Guidelines, would be formalized in the FMP. The NPFMC and NOAA Fisheries would continue to use and improve harvest control rules to maintain a spawning stock biomass with the potential to produce sustained yields on a continuing basis, and to distribute allocations by area, season, and gear as appropriate. Efforts to develop ecosystem indicators to be used in TAC-setting, as per ecosystem management principles, would be continued.

To balance the needs of social and economic stability with habitat protection and resource conservation, the NPFMC and NOAA Fisheries would develop an MPA efficacy methodology, including the development of definitions, program goals, objectives, and criteria for establishing MPAs. Additionally, the existing habitat and bycatch area restrictions would be maintained. Measures are also retained to protect ESA-listed species. To minimize bycatch, a moderate reduction of PSC limits in the BSAI will be initiated, and PSC limits or other appropriate measures for protection of crab, herring and salmon would be authorized in the GOA. Effective monitoring and timely reaction to change in the environment and the fisheries would be enhanced through improvements in the Observer Program and existing reporting requirements.

Existing programs addressing excess capacity and overcapitalization are maintained under this example FMP, with continued development of rights-based management to be undertaken as needed. In order to mitigate adverse impacts of fisheries management decisions on fishing communities and

to comply with other national directives, procedures to encourage increased participation of Alaska Natives in fishery management would be pursued.

Example FMP PA.2 accelerates adaptive precautionary management by increasing conservation measures that provide a buffer against uncertainty, instituting research and review of existing measures, and expanding data collection and monitoring programs. Example FMP PA.2 significantly accelerates precautionary management by incorporating an uncertainty correction into the estimation of ABC for all species. The current precautionary practice of setting TAC less than or equal to ABC would be formalized in the FMP. The calculation of the OY caps would be periodically reviewed to determine their relevancy to current environmental conditions and stock levels. Example FMP PA.2 would also develop and implement criteria for using key ecosystem indicators in TAC-setting, and other precautionary practices such as developing appropriate harvest strategies for rockfish stocks. In implementing this bookend, data would be collected and analysis undertaken to allow the specification of MSSTs for priority stocks in Tiers 4-5. The development of criteria to manage target and non-target species consistently, and for removing some stocks from the Other Species and Non-specified Species management categories, would initially consider breaking sharks out of the Other Species category for TAC-setting and management purposes in the BSAI, as well as consider breaking sharks and skates out of the Other Species category in the GOA.

FMP PA.2 also re-examines area restrictions in the BSAI and the GOA by reviewing the existing system of closure areas in the BSAI and the GOA (see Section 4.2.3 of the Final PSEIS), and evaluating them in conjunction with developing MPAs. The example FMP considers adopting MPAs, with a guideline of 0 to 20 percent of the EEZ (3 to 200 nm) to be closed as a MPA. The objective of these measures is to provide greater protection to a full range of marine habitats within the 1,000-m bathymetric line. This area would incorporate an Aleutian Islands Special Management Area to protect coral and living bottom habitat, and also any modification to the 2002 Steller sea lion closures. The closed area may also mitigate adverse effects that occur due to fishing. The guideline aims to provide greater protection for a wide range of species, from Steller sea lions to slope rockfish to prohibited species, while at the same time respecting traditional fishing grounds and maintaining open area access for coastal communities. Additionally, the bookend would extend the existing BSAI bottom-trawl ban on pollock to the GOA.

To increase precaution regarding bycatch, existing PSC limits would be reduced, and limits would be set for all prohibited species in the GOA, with appropriate in-season closure areas. The achievement of these bycatch reductions is expected to be realized through the comprehensive rationalization of all fisheries (except those already part of a cooperative or IFQ program), which reduces concentrated effort in the fisheries, or through bycatch incentive programs implemented in this example FMP.

In accordance with ecosystem principles, the NPFMC and NOAA Fisheries would seek to cooperate with USFWS to develop fishing methods that reduce incidental take of seabird and marine mammal species in the groundfish fisheries, if appropriate and practicable. Procedures would also be pursued to increase consultation with and representation of Alaska Natives in fishery management.

Increases in observer coverage and improvements to the observer data that are collected would enhance effective monitoring and timely reaction to change in the environment and the fisheries. Additionally, the bookend explores programs that would expand the mandatory economic data collected from industry.

C. Alternatives Not Considered in Detail

A No-fishing Policy. A permanent “no-fishing” policy would end all commercial groundfish fishing in the EEZ off Alaska. Adoption of such a policy would be inconsistent with one stated purpose of the MSA: “to promote domestic commercial and recreational fishing under sound conservation and management principles.” When the NPFMC first prepared its GOA and BSAI groundfish FMPs, it considered a no-fishing policy. In its analysis of this alternative, the NPFMC found that adopting this policy would result in the economic ruin of the fishing industry and place great hardship on fishing communities economically and socially dependent upon the BSAI and GOA groundfish resources. The NPFMC believed this policy violated the MSA by preventing the U.S. from exploiting the social and economic benefits of groundfish of the BSAI and GOA in the Nation’s interest.

NOAA Fisheries subsequently reviewed and prepared a detailed analysis of the effects of a no-fishing policy in its 1998 Final SEIS. Such a policy would reduce EEZ fishing mortality to zero for all target groundfish and non-target species, resulting in no commercial catch except for harvests within the State of Alaska’s jurisdiction and beyond 200 miles. The primary impact of this action would be to eliminate the impact of fishing on the physical and biological environment in the EEZ.

However, closing the BSAI and GOA groundfish fisheries would likely result in alterations to existing predator–prey relationships, which over time could influence the population dynamics of particular marine resources. Some fish stocks could decline below current levels. A no-fishing policy also would eliminate thousands of jobs in the groundfish harvesting, processing, and support sectors. It would idle over \$1 billion of harvesting and processing capital, decrease the income of groundfish fishermen and processing plant employees by several hundred millions of dollars, and decrease the value of U.S. seafood exports by more than \$500 million. Few opportunities appear to offset these losses to the fishing industry, to the communities that depend on the fisheries, and to the Nation. In short, implementation of such a policy would have widespread effects on the natural, physical and socio-economic environment.

NOAA Fisheries concluded that such a policy was not a reasonable choice among the alternatives considered in its 1998 SEIS. NOAA Fisheries again considered “no fishing” as a policy alternative during the development of this PSEIS but rejected full consideration of such a policy alternative because it would be based on the premise that no fishing could occur in the Federal groundfish fisheries off Alaska regardless of the level of scientific data demonstrating the sustainability of such a fishery. Such a policy runs counter to the MSA requirement that conservation and management measures prevent overfishing while achieving, on a continuing basis, OY from each fishery for the U.S. fishing industry (16 USC 1851(a)(1)). In contrast, approval of Alternative 4 would establish an extremely precautionary policy to fisheries management that permits fishing when it can be

demonstrated that the fishery would not have a detrimental effect on the environment and that relieves restrictions on fishing when new scientific data support such a change.

Alternatives that Result in Specific Fishery Regulations. A number of public comments received either during the scoping process or on the 2001 and 2003 Draft PSEISs requested the development of alternatives that go beyond policy and actually include regulatory changes to the fisheries. NOAA Fisheries rejected these requests as beyond the scope and purpose of this programmatic EIS. As explained in the PSEIS, NOAA Fisheries prepared this NEPA analysis by applying the applicable guidelines and procedures found in the Council on Environmental Quality's (CEQ) NEPA implementing regulations at 40 CFR 1500 *et seq.* (CEQ regulations). The specific regulatory changes requested by some members of the public qualify as action-specific federal actions that fall outside the scope of a programmatic EIS and will require individual NEPA analyses tiered to this programmatic document, should they be adopted. Accordingly, such analyses will tier to this document under applicable regulations.

A PSEIS on the federal groundfish fisheries off Alaska that included specific regulatory changes would require an intricate level of detailed alternatives and a commensurately detailed analysis. However, neither NEPA nor the courts require NOAA Fisheries to prepare such a document. NOAA's own NEPA guidelines (NAO 216-6 Section 5.09a) state that "a programmatic environmental review should analyze the broad scope of actions within a policy or programmatic context by defining the various programs and analyzing the policy alternatives under consideration and the general environmental consequences of each" (emphasis added). Furthermore, the court stated that "... a programmatic analysis would not require consideration of detailed alternatives with respect to each aspect of the plan—otherwise a programmatic analysis would be impossible to prepare and would merely be a vast series of site-specific analyses," *Greenpeace v. National Marine Fisheries Service*, 55 F. Supp. 2d 1248, 1276 (W.D. Wash. 1999).

NOAA Fisheries has determined that a PSEIS for the federal groundfish fisheries off Alaska should essentially be a broad environmental review of the GOA and BSAI groundfish FMPs and alternatives to them. The PSEIS includes a cumulative impact analysis of management actions as a whole, and examines policies and potential future actions from a variety of environmental perspectives. The

PSEIS therefore provides a broad look at the long-range policy alternatives and the associated issues and is therefore more qualitative in nature.

Findings contained within this analysis could result in FMP amendments that, in turn, could lead to formal rule-making and implementation of regulatory changes to the current management regime governing the groundfish fisheries off Alaska. Such specific regulatory changes will be attended by case-specific, detailed analyses in subsequent second-level tiered EAs or EISs. In this PSEIS, however, NOAA Fisheries' goal is to provide the public with insight into the environmental effects that result from the current management regime as a whole as well as from alternative management regimes at a broad, programmatic level.

The Oceans Alternative. In a letter dated November 6, 2003, and in more than three thousand form letters, a collection of environmental interest groups, as part of their comments in the 2003 Draft PSEIS, submitted the “Oceans Alternative.” The interest groups included the Alaska Oceans Program, Center for Biological Diversity, Earthjustice, Greenpeace USA, National Environmental Trust, The Ocean Conservancy, and Trustees for Alaska. Attachment E of the Final PSEIS Comment Analysis Report (Appendix G of the Final PSEIS) provides an excerpt of the joint submission, which outlines the specific elements of the Oceans Alternative. For the most part, these are the same environmental groups who had previously submitted comments on the alternatives contained in the 2001 Draft PSEIS. Their 2001 comments served, in part, as the basis for restructuring Alternatives 3 and 4 for analysis in the 2003 Draft PSEIS. The November 2003 letter, as well as letters, were provided in their entirety to members of the NPFMC and NOAA Fisheries officials prior to their making a final decision on the Preferred Alternative. Using the description of the alternative as stated in the form letters, the Oceans Alternative can be summarized as a management policy that “requires resource managers to: 1) proactively avoid harm rather than assuming that fisheries cause no harm; 2) maintain large margins of safety to avoid unforeseen impacts; and 3) protect all types of marine habitat, reduce overall catch levels, conserve biological diversity, ensure the integrity of the food web, protect marine fish, birds, mammals and invertebrates (such as crab and corals), and provide for ecologically sustainable fishing opportunities across generations.”

Upon receipt of these comment letters, NOAA Fisheries carefully reviewed them to determine whether the Oceans Alternative was in fact a new alternative distinguishable from the range of alternatives already defined and analyzed in the 2003 Draft PSEIS. The Agency has concluded that it is not. The determination is based on a number of factors. The first component of the Oceans Alternative is to pro-actively avoid harm rather than assume that fisheries cause no harm. This component of the Oceans Alternative is embodied in the Preferred Alternative as well as Alternatives 1, 3, and 4 in the Final PSEIS. Under the existing management policy, neither NOAA Fisheries nor the NPFMC assume that fisheries cause no harm. Fisheries can be found to certainly cause harm at the level of individual fishes. However, the analysis of the federal groundfish fisheries off Alaska has shown there is no evidence that groundfish fishing causes harm at the target groundfish stock or population level. This PSEIS and prior MSA and NEPA documents show that there is considerable uncertainty with regard to the impacts of the groundfish fishery on non-target and non-specified species. Any fisheries-induced adverse impacts on these species are unknown at this time. For this reason, NOAA Fisheries and the NPFMC have taken management actions to reduce these potential impacts by setting bycatch limits, restricting certain gear types, and establishing closed areas. All the PSEIS alternatives, as well as the Oceans Alternative, incorporate an adaptive management strategy whereby managers will revise the FMPs based on new scientific information and public input.

The second component of the Oceans Alternative is to maintain large margins of safety to avoid unforeseen impacts. This component also can be found in Alternatives 1, 3, 4 and the Preferred Alternative. Each of these alternatives differs in matters of degree. The PSEIS describes the steps scientists and managers take to insert a protective buffer between the ecosystem and the commercial groundfish fisheries. For example, the NPFMC and NOAA Fisheries routinely adopt groundfish TAC levels that are below a target species ABC. The determination of a species ABC has built-in

safety margins to reduce the risk of adverse impacts, although under Alternative 1, most of these precautionary measures are not formalized. Alternatives 3 and 4 differ from Alternative 1 by instituting formal precautionary measures in the TAC-setting process, with Alternative 4 representing the most highly precautionary management approach. Other examples also are provided in the PSEIS for each alternative and by their FMP bookends. Therefore, the concept of establishing a certain margin of safety is already captured in the range of alternatives and need not be analyzed further at the programmatic level.

The third component of the Oceans Alternative, “protect all types of marine habitat, reduce overall catch levels, conserve biological diversity, ensure the integrity of the food web, protect marine fish, birds, mammals and invertebrates (such as crab and corals), and provide for ecologically sustainable fishing opportunities across generations,” can reasonably be shortened to “maintaining healthy ecosystems and sustainable fisheries.” It is important to point out that this component encompasses key elements of the MSA, the Sustainable Fisheries Act (SFA), the NOAA Fisheries Strategic Plan, and many of the recommendations of the National Research Council (NRC). NOAA Fisheries relied heavily on all these documents in its restructuring of the programmatic alternatives adopted in June 2002 and analyzed in the 2003 Draft PSEIS, and indeed this component is encompassed to a greater or lesser degree in all the alternatives.

NOAA Fisheries evaluated each of the alternatives and the Preferred Alternative against federal statutory requirements, the NOAA Fisheries Strategic Plan, the recommendations of the Agency’s Ecosystem Principles Advisory Panel and the National Research Council in Section 4.11.1 of the Final PSEIS. As stated previously, Alternatives 1, 3, 4 and the Preferred Alternative all contain the basic components of ecosystem-based management, but to varying degrees, with Alternatives 3, 4 and the Preferred Alternative providing the strongest examples of this approach. The Oceans Alternative recommends both policy changes as well as specific management tools and measures that illustrate the alternative. The recommended policy changes are very similar to those presented in the organizations’ earlier comments and in Alternative 4. All the ecosystem-based management concepts are captured in Alternative 4. All the Oceans Alternative recommended management measures are either already reflected in the Alternative 4 FMP bookends, or fall within the range of actions that could be considered under the Alternative 4 policy. It also was determined that some, but not all, of the recommended management goals and measures in the Oceans Alternative could also be considered within the range of the Preferred Alternative FMP bookends. For example, the organizations recommend that a way to implement the Oceans Alternative policy goal of reducing the bycatch of prohibited species is to reduce the PSC caps by 10 percent over five years. Currently the Agency’s Preferred Alternative contains an identical goal with FMP bookends illustrating a range of actions ranging from maintaining the PSC caps at existing levels to reducing them by as much as 20 percent (no time limit specified); thus the proposed measure provided in the Oceans Alternative clearly fits within the range of actions to be pursued by managers in the years ahead as the Preferred Alternative.

Similarly, to achieve the Oceans Alternative goal to protect habitat, the organizations have proposed filling necessary data gaps and establishing a network of MPAs, understood as no-take reserves, to protect 20 to 50 percent of the fishable EEZ. Under Alternative 4, an identical goal exists and in its

FMP bookends the Agency illustrated and analyzed a management plan where 50 percent of the fishable area was designated as no-take marine reserves. This scenario was developed using proposed site locations obtained from Greenpeace and other public comments. NOAA Fisheries also analyzed as part of Alternative 3, FMP 3.2, a less restrictive MPA scenario. The Agency believes these differences provided sufficient contrast for comparing the programmatic alternatives and the environmental consequences of different MPA proposals including the Oceans Alternative. The Agency's conclusion at both the policy and FMP-level was that the Oceans Alternative would be indistinguishable from Alternative 4.

4. THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

The CEQ regulations require that the ROD specify “the alternative or alternatives which were considered to be environmentally preferable” (40 CFR 1505.2(b)). This alternative has generally been interpreted to be the alternative that will promote the national environmental policy as expressed in section 101 of NEPA. Ordinarily, this means that the alternative causes the least damage to the physical and biological environment and is the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.

Alternative 4 of the Final PSEIS, which is described in the earlier section on alternatives, is the environmentally preferred alternative. Alternative 4 represents a highly precautionary management policy. Alternative 4 explicitly shifts the burden of proof from the resource to the managers and users of the federal groundfish resources off Alaska. This alternative, as defined by its policy goals and objectives and illustrated by its FMP bookends, would substantially reduce the harvest levels in the fisheries, establish a system of marine reserves where a large portion of the continental shelf would be closed to all commercial fishing, phase out bottom trawl gear, and establish lower bycatch limits. As a result, this alternative would produce the lowest amount of fish harvest, the least amount of bycatch, the least adverse impact to marine mammals, seabirds, and species listed under the ESA, and the least adverse impact to benthic habitat.

5. NOAA FISHERIES DECISION AND FACTORS CONSIDERED IN THE DECISION

A. Public Comments

NOAA Fisheries received two letters from the public on the Final PSEIS. Oceana and the Trustees for Alaska continued to express their concern that, in their opinion, the PSEIS is legally deficient and cannot serve as the basis for legitimate decision-making. Both organizations recommend Secretarial approval of the Oceans Alternative and submitted (by reference) their previously submitted letters on the Draft PSEIS.

The commentors continue to believe that significant changes to the management of the Alaska groundfish fisheries are necessary and that the Preferred Alternative will not bring about those changes. NOAA Fisheries disagrees. The Agency believes that the PSEIS is fully compliant with NEPA, MSA, MMPA, ESA, and other applicable law. NOAA Fisheries also believes that the Preferred Alternative would institute a new policy framework that would apply the principles of ecosystem-based management to these fisheries. The NPFMC is developing a list of management priorities as a workplan for achieving the new policy direction.

The Trustees letter provided comments on the Agency's formal response to their earlier comments. NOAA Fisheries believes that the response to comments as published in the 2004 Comment Analysis Report (Appendix G of the Final PSEIS) adequately addresses those comments and issues. The Trustee's letter did introduce two new comments that are addressed in the following paragraphs.

Final PSEIS New Comment 1: NOAA Fisheries failed to provide information in a format decision makers and the public can readily understand, and failed to reduce paperwork.

Response: NOAA Fisheries disagrees. The Agency recognizes that the seven volume document is substantial and somewhat complex, but its length and level of complexity are commensurate with the scope of the action, the analyses and the complex nature of the subject matter as well as the Agency's NEPA requirements that the PSEIS "... shall provide [a] full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of reasonable alternatives..." (40 CFR 1502.1) and shall "...rigorously explore and objectively evaluate..." (40 CFR 1502.14(a)) those alternatives while "...devoting substantial treatment to each alternative considered in detail..." (40 CFR 1502.14(b)). NEPA also requires that the PSEIS "...succinctly describe the environment of the areas to be affected...by the alternatives under consideration." (40 CFR 1502.15). To meet these NEPA requirements, the PSEIS describes one of the most complex and little understood environments with which humans interact and analyzes the environmental effects of five different alternatives at a policy level and nine FMPs at a management measures level. In preparing the document, the Agency attempted to present all the information and analyses required of it by NEPA in as accessible a format as possible without sacrificing the integrity and usefulness of that information and those analyses.

In recognition of the potential complexity of the PSEIS, a professional editor was utilized to translate highly technical information in an effort to ensure the information is accessible to the lay person. The editor also supervised the document layout, ensuring that each section of the document was prefaced by an informative summary, that the document was organized in a logical manner, and that useful and descriptive tables of contents and indexes were provided for easy navigation through the document. In response to public comments, the graphics and tables were moved from the body of the document and published in their own separate volume, with all figures and tables numerically indexed to make it easier for a reader to use these often referred-to illustrations no matter where in the document they were reading. Also in response to public comments, analyses and information not considered fundamental to the impact statement were moved to appendices or referenced. In preparing the Final PSEIS, the Agency made the document readily available in both printed and electronic formats. In the electronic version, links were inserted that would take the reader to each cited figure, table, or reference.

In order to comply with the reduction of excessive paperwork requirements of NEPA (40 CFR 1500.4) and in addition to the editorial elements and changes discussed above, the Agency, among other things, reduced the number of pages from approximately 7,000 in the 2003 Draft to about 6,000 pages in the Final, encouraged the use of CD or Internet copies of the PSEIS, rather than printed copies, conducted an extensive scoping process to identify and narrow the scope of significant issues and, in response to public comments, reduced the number of alternatives and subalternatives in the 2001 draft from six to five in the Final PSEIS. The PSEIS also includes an Executive Summary on which interested parties could rely to inform them of the purpose and scope of the document, the action being addressed, the results of the analyses and the final Agency action. In the Executive Summary the Agency published a list of “fifty frequently asked questions and answers” as a method of improving the transfer of information contained in the document as well as to better inform the public as to the public decision-making process being followed by NOAA Fisheries. In taking these steps, NOAA Fisheries has, to the extent practicable, reduced excessive paperwork and fully complied with the NEPA paperwork reduction requirements.

Final PSEIS New Comment 2: NOAA Fisheries failed to objectively evaluate environmental impacts.

Response: NOAA Fisheries disagrees. The Agency used scientifically sound and accepted methods for analyzing the alternatives and their FMP bookends. The entire PSEIS, including sections describing new methodology, was submitted to the NPFMC Scientific and Statistical Committee for review. NOAA Fisheries also subjected the 2001 Draft PSEIS to an external review by nationally recognized experts on NEPA prior to its release to the public. The results were generally positive, and where improvements and clarifications were recommended, the PSEIS was revised accordingly. The claim that NOAA Fisheries “...violated NEPA by failing to draw conclusions where adverse data or data gaps indicate significant adverse impacts”, is inaccurate. The commentors provided no specific examples of where NOAA Fisheries has “...violated NEPA by failing to draw conclusions where adverse data or data gaps indicate significant adverse impacts.” Impact tables based on our analysis of each of the alternatives are found in Sections 4.5 – 4.9 and in Appendix A of the PSEIS (Tables 4.1-1 through 4.9-7). In fact, the Agency has received national recognition by the American

Association of Environmental Professionals for introducing a new finding category (conditionally significant adverse effect). Where in the past the traditional NEPA finding of “unknown” would have been used in cases where there was insufficient data to definitively conclude the significance of an effect, NOAA Fisheries chose in this PSEIS to instead elevate those fishery effects where professional opinion suggests that significant adverse effects might be occurring. In doing so, the Agency is applying a precautionary approach in this PSEIS and believes that both the decision-maker and the public are better informed as to the data gaps and uncertainties of fishery impacts on the environment. NOAA Fisheries considers this an appropriate and reasonable approach for evaluating the different policy alternatives in the PSEIS. In cases where the Agency found conditionally significant effects, NOAA Fisheries has recommended that these effects serve as topics for further research so that in the future the data can be available to determine the significance of an effect.

B. The Decision

NOAA Fisheries selects the Preferred Alternative in the Final PSEIS as its policy choice for management of the BSAI and GOA groundfish fisheries. As a first step, NOAA Fisheries approves Amendments 81 and 74 to the BSAI and GOA FMPs, which amend the FMPs to contain the management approach and goals and objectives contained in the Preferred Alternative. The rationale for this decision is discussed below. The rationale is fully supported by the environmental analysis documented in the Final PSEIS, as required by law and regulation.

NOAA Fisheries has made this decision after careful review of the public comments on a series of draft environmental impact statements prepared pursuant to NEPA, including the Draft PSEIS issued January 2001 and the revised Draft PSEIS issued August 2003.

C. Rationale for the Decision

NOAA Fisheries’ decision to select the Preferred Alternative in the Final PSEIS and thereby approve Amendments 81/74, was reached after a comprehensive review of the relevant environmental, economic, and social consequences of the Final PSEIS alternatives. Taking into account the MSA National Standards, the MMPA, the ESA, other applicable statutory and policy considerations, and all public comment, NOAA Fisheries identified a number of key fisheries management issues upon which to base its decision to approve the Preferred Alternative (Amendments 81 and 74 to the BSAI and GOA FMPs). Listed below is a description of each of the key fisheries management issues considered by NOAA Fisheries, as well as a brief explanation of how the fisheries management policies embodied in the Preferred Alternative successfully address each of the issues. The Preferred Alternative, taken as a whole, is the alternative that best balances its suite of management measures to enable NOAA Fisheries and the NPFMC to address the key management issues while meeting their statutory, regulatory, and national policy requirements, goals, and objectives.

Precautionary Management In Light of Scientific Uncertainty.

NOAA Fisheries has concluded that the Preferred Alternative in the Final PSEIS is substantially more precautionary than Alternative 2 and more precautionary than Alternative 1 (no action/status quo). Although the Preferred Alternative is less precautionary than Alternative 4, the Preferred Alternative is a sufficiently precautionary approach in light of the scientific uncertainty associated with fisheries management, as the Preferred Alternative incorporates forward looking conservation measures that address differing levels of uncertainty. Under this approach, NOAA Fisheries and the NPFMC will seek to accelerate precautionary management measures through community or rights-based management, ecosystem-based management principles that protect managed species from overfishing, and, where appropriate and practicable, increased habitat protection and bycatch constraints (the Preferred Alternative policy is illustrated by FMP PA.1 and FMP PA.2). Predictions about the impacts under the Preferred Alternative are difficult to describe at this time due to the uncertainties involved in defining ecosystem management and the impacts of protecting areas. The Preferred Alternative's increased emphasis on relatively less abundant species, through protection measures and increased monitoring, represents an approach towards ecosystem management. Because the implications of such management are uncertain, the tendency under the Preferred Alternative will be to tread cautiously while accelerating research and data-gathering. The large potential gain in flexibility in industry fishing practices from rationalization has the potential to create ecosystem benefits, thus enhancing the precautionary aspects of the Preferred Alternative.

Prevention of Overfishing.

While all the alternatives contain various measures to prevent overfishing at differing levels of risk, NOAA Fisheries has determined that, of the alternatives analyzed in the Final PSEIS, the Preferred Alternative represents the best balance between the prevention of overfishing and the achievement of OY on a continuing basis. Each example FMP for the Preferred Alternative contains a number of management measures that promote the sustainability of fisheries and fishery resources while providing economic and social benefits to the Nation. Also, the bookends represent a range of actions that could impose additional constraints to fishery removals beyond those currently in place, further advancing the prevention of overfishing.

Promotion of Sustainable Fisheries.

The goal of promoting sustainable fisheries and communities under the Preferred Alternative is likely to be successful. The precautionary adjustments made to quota management decrease the risk of inadvertently overfishing managed species. Additionally, the transition to rights-based management under this alternative will promote the objectives of increasing efficiency, stability, and safety in the long-term.

Preservation of the Food Web.

As a whole, through its goal to accelerate precautionary management measures through ecosystem-based principles, and its objectives to develop indices of ecosystem health and to take ecosystem

factors into account in ABC-setting, NOAA Fisheries determined that the Preferred Alternative will make many improvements beyond the status quo in achieving the goal of preserving the food web. The emphasis in the Preferred Alternative is on using the best scientific information available to determine catch levels, and on providing additional protection against uncertainty by the designation of MPAs and reserves. Although Alternative 4 contains a highly precautionary approach to preserving the food web, the Preferred Alternative is likely to provide protection to a broad range of food web components given the improvements that are likely to be implemented under its management strategy.

Management of Incidental Catch and Reduction of Bycatch and Waste.

Several policy changes adopted in the Preferred Alternative would change the incidental catch of target and non-target species, and bycatch (regulatory and economic discards). Under FMP PA.1, the cap on OY is maintained, so the absolute amount of target and non-target groundfish catch is unlikely to change. The calculation of OY caps would be revisited under FMP PA.2 to determine if the caps are still relevant to environmental conditions and the current knowledge of stock levels. However, the amount of incidental catch of groundfish and subsequent discard of groundfish (bycatch) is likely to decrease due to the policy emphasis on rationalization. Other measures would likely lead to reductions of incidental catch for various species. These additional measures include reductions in PSC limits for prohibited species, the uncertainty correction used to calculate ABC, reduced rockfish harvest rates, and the separation of sharks and skates from the other species complex. The latter would ensure that these species are not harvested above the maximum fishing mortality threshold. Furthermore, criteria would be developed for defining the membership within species complexes and the circumstances when species should be broken out of complexes. NOAA Fisheries determined that, of all the alternatives considered, the Preferred Alternative contains the best approach to managing incidental catch and reducing bycatch and waste to the extent practicable given other management concerns such as the economic and social costs to the commercial fishing industry and fishery-dependent communities.

Avoidance of Impacts to Marine Mammal and Seabirds.

The goal of minimizing human-caused threats to protected species and, if appropriate and practicable, other seabird and marine mammal species, is met in the Preferred Alternative by actively adjusting seabird and marine mammal protection measures, and by conducting periodic reviews of endangered and threatened marine mammal fishery interactions. This approach, which may provide additional conservation measures in response to scientific evidence, is expected to continue protection to ESA-listed marine mammals and seabirds and may increase protection for other seabirds and marine mammals.

Reduction and Avoidance of Impacts to Habitat.

The Preferred Alternative has the potential to reduce and avoid impacts to habitat by careful placement of MPAs. The analysis contained in the Final PSEIS demonstrates that careful placement of MPAs is required to avoid unintended consequences (see section 4.10). Under the Preferred

Alternative, placement of MPAs in lightly fished or not fished areas will provide mitigation and result in avoidance of future habitat impacts if fisheries were to move effort into surrounding areas; MPAs established in heavily fished areas likely would not encompass entire habitat types or areas of fishing intensity but likely would be kept small to minimize the displacement of large amounts of fishing effort into surrounding areas. In the short-term, information from the Observer Program could be used to identify candidate MPA sites. Although not providing the highly precautionary approach to protecting habitat contained in Alternative 4, NOAA Fisheries determined that the Preferred Alternative will result in improvements beyond the status quo in achieving the goal of reduction and avoidance of impacts to habitat that will promote the ecosystem and the sustainability of the groundfish fisheries.

Promoting Equitable and Efficient Use of Fishery Resources.

NOAA Fisheries determined that the Preferred Alternative best promotes increased social and economic benefits through the elimination of the race-for-fish while also emphasizing the long-term economic value of the fishery through the promotion of rights-based allocations to individuals, sectors, and communities. In addition, the Preferred Alternative promotes ecosystem-based management and is likely to increase non-market, recreational, and tourism values assigned to the ecosystem. It is not possible to determine the long-term effect on overall ecosystem value (commercial and non-market values combined) because it is not known whether the fishing sectors, even with rights-based allocations, will be able to adapt to the changes resulting from the increased emphasis on ecosystem tools and, in particular, the potential increase in the number and significance of closed areas.

Increasing Alaska Native Participation.

The goals and policies for Alaska Native consultation and participation in fishery management under the Preferred Alternative would increase from current levels by expanding informal and formal consultation between NOAA Fisheries and the NPFMC, and Alaska Native participants and tribal governments. Local and Traditional Knowledge would be more formally incorporated in fishery management and additional data would be collected. Other goals and objectives in the Preferred Alternative, such as reductions in PSC limits, may benefit subsistence salmon use by reducing bycatch levels in the groundfish fisheries.

Improving Data Quality, Monitoring and Enforcement.

The Preferred Alternative data quality, monitoring, and enforcement objectives conform with the overall policy intent of the alternative, namely to accelerate precautionary management in two ways: where appropriate, to take steps to incorporate uncertainty and ecosystem considerations into fishery management, and at the same time, to increase efforts to improve scientific understanding and diminish uncertainty. The objectives in the Preferred Alternative result in data collection on direct fishery impacts and interactions as well as on broader ecosystem relationships and indirect effects, and emphasize the importance of enforcement concerns in fishery management.

By selecting the Preferred Alternative and approving Amendments 81 and 74 to the BSAI and GOA groundfish FMPs, respectively, both the Agency and the NPFMC will apply the new policy to all actions currently under consideration by the Agency and the NPFMC and that all future actions must be consistent with this policy or a reasonable explanation must be provided as to why a deviation from the policy is warranted. Furthermore, the NPFMC has developed a list of priorities as part of its workplan for addressing those aspects of the new fisheries management policy that are not sufficiently addressed in the FMPs. For information on the NPFMC's workplan, see its website at <http://www.fakr.noaa.gov/npfmc>.

D. National Policy Considerations

NOAA Fisheries is mandated by a variety of federal statutes to manage, conserve, and protect the Nation's living marine resources. Some of the main tenets of the Agency's legislative mandates require a balancing of objectives. For instance, the MSA directs the Agency to manage living marine resources for optimum sustainable utilization, while the Marine Mammals Protection Act (MMPA) prohibits exploitation of marine mammals and directs the Agency to protect and maintain them at optimum sustainable population levels. The alternatives analyzed in the PSEIS consider all of the statutory requirements and Executive Order (EO) mandates relevant to fisheries management. The alternatives represent different ways in which the objectives embodied in the statutes and EOs can be balanced. The following statutes and EOs are at the heart of federal fisheries management and play an integral part in defining the scope of the policies, goals, and objectives contained in, and management measures that flow from, an FMP. The Preferred Alternative complies with each of these national policies as described below as well as in Table 4.11-1 of the Final PSEIS.

The Magnuson Stevens Fishery Conservation and Management Act of 1976 (MSA).

The Preferred Alternative seeks to provide sound conservation of living marine resources, provide socially and economically viable fisheries and fishing communities, minimize threats to listed species, and maintain a healthy habitat (see Table 4.11-1 of the Final PSEIS for further details).

Endangered Species Act of 1973 (ESA).

Protection to threatened and endangered species is explicitly incorporated into the Preferred Alternative policy with a commitment to modify its FMPs as new scientific evidence becomes available.

Marine Mammal Protection Act (MMPA).

The Preferred Alternative policy statement sets as a goal the periodic review of marine mammal populations and fishing interactions and to develop fishery management measures as necessary.

Regulatory Flexibility Act (RFA).

Initial Regulatory Flexibility Act analyses or certifications will continue to be prepared on all future regulatory packages.

EO 12866 – Regulatory Planning and Review.

Regulatory Impact Reviews will continue to be included in all regulatory packages.

EO 12898 – Environmental Justice Guidance Under NEPA.

The Preferred Alternative policy explicitly recognizes that Alaska Native consultation is an important part of the decision-making process.

EO 13084 – Consultation and Coordination with Indian Tribal Governments.

The Preferred Alternative policy explicitly recognizes that Alaska Native consultation is an important part of the decision-making process.

EO 13158 – Marine Protected Areas.

The Preferred Alternative policy seeks to maintain and protect EFH and will consider implementation of a MPA program to mitigate adverse effects and protect habitat areas of particular concern. An MPA program would review and certify existing areas and consider additional use of MPAs and No-Take Reserves.

While the statutes, EOs, and regulations under which NOAA Fisheries operates define the national fisheries management policies considered in choosing the management direction captured by the Preferred Alternative, NOAA Fisheries also incorporated into its decision-making process national policy considerations outside the statutory context, such as those recommended by the NRC and by NOAA Fisheries' own Ecosystem Principles Advisory Panel.

The NOAA Fisheries Ecosystems Advisory Panel was established under the SFA and tasked with proposing ways of expanding the application of ecosystem principles in fishery conservation and management. The Panel's report, published in 1999, developed six general ecosystem-based management policies, which have been used to guide development of the alternatives analyzed in the PSEIS and, to some degree, the selection of the final Preferred Alternative.

In 1999, the NRC published recommendations for new performance standards for fishery management in "Sustaining Marine Fisheries" (NRC 1999). Overall, the NRC recommended the adoption of an ecosystem-based approach to fishery management with the goal to "rebuild and sustain populations, species, biological communities, and marine ecosystems at high levels of productivity and biological diversity . . . while providing food, revenue, and recreations for humans"

(NRC 1999). The NRC's recommendations have also guided development of the alternatives and, to some degree, the selection of the Preferred Alternative.

The recommendations of the NRC and the Ecosystems Advisory Panel have not been formally incorporated into statute, but the policy considerations they recommend are to some extent already embodied in the MSA, MMPA, and other statutes. These policy considerations have provided significant guidance throughout the preparation of the PSEIS, the evaluation of the alternatives, and the selection of the final Preferred Alternative. See PSEIS section 4.11 for a discussion of the statutory and non-statutory National policy considerations and a detailed comparison of the recommendations of the NRC and the Ecosystems Advisory Panel and the policies encapsulated in the Preferred Alternative.

6. MITIGATION MEASURES AND MONITORING

Section 4.9 in the Final PSEIS describes a number of ways that the Preferred Alternative, as a policy framework, will mitigate the adverse effects of fishing and produce benefits to the environment over time (see generally the direct/indirect and cumulative effects analyses and discussions in Section 4.9). Using the more precautionary management approach, NOAA Fisheries and the NPFMC anticipate fully considering the ecosystem when taking future management and regulatory actions. The MSA and NEPA analyses, which will be prepared on all future actions, will explicitly evaluate each alternative in its ability to achieve the policy goals and objectives approved in the Preferred Alternative.

The PSEIS identifies numerous information gaps and scientific data needs (see Chapter 5 of the Final PSEIS). The Agency acknowledges that expanded research to collect new information and fill existing data gaps is dependent on the Agency's receiving additional research funding. While additional funds are not certain, NOAA Fisheries intends to pursue the funding necessary to meet future research needs and improve the scientific information available for managing the fisheries. With that improved knowledge, future fisheries management will have the ability to address the public's concerns about the sustainability of the Alaska groundfish fisheries and a healthy marine ecosystem. Through data collection measures that will result in reducing uncertainty, the Preferred Alternative is likely to be effective in achieving the goal of accelerating the use of precautionary management measures. The objectives to improve the Observer Program and observer data will increase the quality of fishery data by implementing increased flexibility of, and potentially expanding, observer coverage. Additionally, the expanded collection of economic data and the potential for independent verification will allow for more accurate and credible assessments of economic impacts.

The alternative also emphasizes the importance of enforcement concerns in fishery management. NOAA Fisheries Office for Law Enforcement will continue to enforce all federal fishing regulations in Alaska. Future management actions will consider the impacts of such actions on the Agency's law enforcement capabilities.

7 CONCLUSION

Through the PSEIS and documented in this ROD, NOAA Fisheries has analyzed programmatic alternatives, associated environmental consequences, the extent to which those impacts can be mitigated, and has considered the objectives of the proposed action. NOAA Fisheries also has considered public and agency comments received during the PSEIS review periods. Consequently, NOAA Fisheries concludes that at a policy level, the Preferred Alternative adopts reasonable, practical means to avoid, minimize, or compensate for environmental harm from the action. Future action-specific alternatives consistent with the approved management framework will be carefully considered following the procedures authorized by the MSA and NEPA.

CONTACT PERSON

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