Summary of Changes to the Final Groundfish PSEIS

This summary presents an overview of the changes made to the Groundfish PSEIS between Draft and Final. These changes were based on public comments received on the Draft document or changes initiated by the project team to further improve the readability and layout of the document. The changes highlighted in this list do not represent all the changes made in the Final PSEIS but include the following categories:

- 1) changes or corrections to impacts analyses (i.e., significance ratings),
- 2) incorporation of new or additional information,
- 3) new or revised analyses, or
- 4) organizational changes or clarification of existing sections.
- 1) Changes or Corrections to Impacts Analyses (i.e., significance ratings)
 - Table ES-2/4.11-2 Red light/ Green light summary table In the 2003 Draft PSEIS, the conclusions presented in the summary table (ES-2) of the Executive Summary (also discussed in Section 4.11 of the main body of the document) were inconsistent among resource categories. The intent of the table is to present an overall summary of how each Alternative contributes to the general condition of the resource in the future. This is different from the cumulative effects analyses presented in Chapter 4 as it does not include the influence of persistent past effects on each resource. The definitions of the colors used in this table have been revised to better describe what they represent. As a result of this change, the colors for habitat have changed under Alternatives 1, 3, 4 and the Preferred Alternative. See Table ES-2 / 4.11-2.
 - Mammals The cumulative effect of mortality is considered significantly adverse for the Western DPS (or stock) of the Steller sea lion as is prey availability and spatial and temporal effects. The ratings provided in cumulative effects table were correct in the 2003 Draft PSEIS. The insignificant (I) rating in the narrative of Sections 4.5.8, 4.6.8, 4.7.8 and 4.8.8 (Alternatives 1-4) was a misprint that has been corrected. Please refer to response to comment MAM 8 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
 - GOA red king crab In the 2003 Draft PSEIS, NOAA Fisheries did not consider Gulf of Alaska Observer data or NOAA biomass estimates as part of the comparative baseline and therefore, was unable to determine significance giving it a rating of unknown (U). These data have since been reviewed and are now incorporated into the cumulative effects analysis. Significance ratings were changed for the following FMPs. Under FMP 1, direct/indirect and cumulative significance ratings were changed from unknown (U) to insignificant (I) in Section 4.5.2. Under FMP 2.2, the ratings were changed from unknown (U) to significantly adverse (S-) in Section 4.6.2. Under FMPs 4.1 and 4.2, the cumulative effects ratings for mortality was changed from unknown (U) to conditionally significant beneficial (CS+) in Section 4.8.2 of the Final PSEIS.
 - Target Species Greenland turbot Under FMP 2.1 the significance rating for genetic structure of population and reproductive success was corrected from being insignificant (I) to significantly adverse (S-). This correction was made because the change in biomass drops below MSST, the significance threshold for this species. This was an oversight in the 2003 Draft PSEIS. See Section 4.6.1 of the Final PSEIS.

- Habitat Under FMP 2.1 for Aleutian Islands, the rating for the direct/indirect effect on geographic diversity is insignificant (I). The cumulative effect rating was insignificant (I) and has been corrected to conditionally significant adverse (CS-). Although the closures under FMP 2.1 are similar to FMP 1 in the Aleutian Islands, they do not protect diverse types of habitat. The cumulative effect rating of insignificant was an error in the 2003 Draft PSEIS. See Section 4.6.6 of the Final PSEIS.
- GOA chinook and other salmon- Under FMP 2.2, direct/indirect and cumulative effects ratings were changed from insignificant (I) to conditionally significant adverse (CS-). These ratings are the same as for BSAI chinook and other salmon ratings because 50 to 70 percent of salmon caught as bycatch in the federal groundfish fisheries are from the Western stocks which are currently depressed. This was an error in the 2003 Draft PSEIS. See Section 4.6.2 of the Final PSEIS.
- Socioeconomic Under FMP 2.2, significance ratings related to the Community Development Quota (CDQ) program have been corrected to match the ratings under FMP 1 because the CDQ program does not change under FMP 2.2. This was an error in the 2003 Draft PSEIS. See Section 4.6.9 of the Final PSEIS.
- Habitat Under FMP 4.2, a cumulative effect rating of no effect was changed to insignificant (I). While commercial fishing under FMP 4.2 is temporarily closed, it is assumed that as fisheries become authorized through the process described in Section 4.2.2, they would re-open under a highly precautionary management strategy best illustrated by FMP 4.1. Therefore the rating of no effect was an error that has been corrected in the Final PSEIS. See Section 4.8.6 of the Final PSEIS.

2) Incorporation of New or Additional Information

- Mammals There is evidence that bottom-up forcing (i.e. nutritional stress resulting from food limitation and/or reduced prey quality) was likely to have been an important contributor to the decline in the 1970's and 1980's along with direct mortality from anthropogenic sources but during the 1990's, top-down forcing (i.e. predation) may have been a primary factor in this period of less steep decline. The narrative in Section 3.8.1 has been modified to better describe the current schools of thought regarding the causes for the phases of the decline of Steller sea lions. Please refer to response to comment MAM 15 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- Mammals Additional information was added to comparative baseline summaries in Section 3.8 and tables in Appendix A of the Final PSEIS for Steller sea lions, northern fur seal, harbor seal, and sea otter. In 1994, an amendment to the Marine Mammal Protection Act included provisions for the development of cooperative agreements between U.S. Fish and Wildlife Service, NOAA Fisheries, and Alaska Native organizations to conserve marine mammals and provide for co-management with Alaska Natives. These agreements were added to the baseline summaries where applicable. Please refer to response to comment MAM 21 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).

3) New or Revised Analyses

Mammals - The narrative for marine mammals impact analyses has been modified to make
persistent past effects consistent across all alternatives and is shown in Sections 4.5.8, 4.6.8, 4.7.8,
4.8.8 and 4.9.8 of the Final PSEIS. This correction did not result in changes to significance ratings.

Please refer to response to comment MAM 22 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).

- Mammals Northern fur seal sections in the 2003 Draft PSEIS were confusing and inconsistent in some cases and warranted improvements and clarifications. The discussions of northern fur seals and the indirect/direct effects analyses have been rewritten to reflect the best available information on northern fur seals and potential impacts from the groundfish fisheries. Please see Sections 3.8.2, 4.5.8, 4.6.8, 4.7.8, 4.8.8, and 4.9.8 for updates and improvements to these sections. Please refer to response to comment MAM 13 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- The caveat in the 2003 Draft PSEIS that Individual Fishing Quotas (IFQs) set aside for smaller vessels could mitigate effects of area closures is important and is potentially lost in the overall discussion of rationalization; smaller vessels are particularly vulnerable to cumulative impacts from adverse conditions in multiple fisheries. This point has been further elaborated on in Section 4.7.9.2 and in Appendix F-8 of the Final PSEIS. Please also refer to response to comment ESE 7 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- The Total Allowable Catch (TAC) Qualitative Analysis (QA) paper in Appendix F-1, p. F1-19, has been revised to reflect the fact that the impacts of the existing TAC policy on other components of the ecosystem are evaluated annually in the TAC specification Environmental Assessments (EA). The assessments and analysis of the status quo policy in this PSEIS have shown that groundfish target stocks are not being overfished and that TAC levels have had insignificant impacts on three categories of non-target species (forage, prohibited species, and other species). Please refer to response to comment BYC 18 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- In addition to the analysis of the indirect/direct effects in Chapter 4, NOAA Fisheries has appended a biological assessment of the effects of the preferred alternative on listed species since the 2003 Draft PSEIS which resides in Appendix O. Please refer to response to comment MAM 17 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).

4) Organizational Changes or Clarification of Existing Sections

- Seabirds Shearwaters Several public comments suggested that the analysis of shearwaters be separated from albatross based on 1) different feeding ecology/prey, 2) the fact that shearwaters are so numerous they make up about half of the numbers of all birds in the BSAI/GOA, and 3) shearwaters can dive deeper than albatross such that the new seabird deterrent devices on longliners are not effective in reducing incidental take of these shearwaters (but are highly effective for albatross). Please refer to response to comment SEA 5 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- Seabirds Red-legged kittiwakes Public comments suggested that the "species of management concern" group be split up because red-legged kittiwakes have a very different feeding ecology than the two murrelet species. While this is true, this group was formed because of a specific protection measure for these species under Alternative 4. The analysis is broken down to the species level within this group and the decision was made to keep them together for simplicity. Please refer to response to comment SEA 5 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).

- Seabirds Piscivores Public comments suggested that the piscivore group be split up because they also have different feeding ecologies. This change was not made because, at the policy-level of the analysis, there was not enough detailed information available to make useful distinctions between alternatives or species. Much more information is needed on the spatial/temporal effects on different forage fish populations to address some of these concerns. This primary concern is expressed in the data gaps section. Please refer to response to comment SEA 5 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- Mammals The text under each whale group has now been modified in order to separate the discussion of ESA listed species from non-listed species. Whales were grouped according to species groups (baleen whales and toothed whales) and within each group, species were discussed together where potential impacts are expected to be similar among species. Please refer to response to comment MAM 6 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- Mammals In response to public comment, NOAA Fisheries revised the PSEIS to remove references to the eastern population of Steller sea lions from the narrative in sections on the western population (Section 3.8.1.). The reference to the western population of Steller sea lion in the discussion of the eastern populations of Steller sea lion in Alternative 2 analysis was also corrected. Please refer to response to comment MAM 11 in the draft Comment Analysis Report (Appendix G of the Final PSEIS).
- Sections throughout Chapter 4 for each of the major resource categories in the 2003 Draft PSEIS
 were expanded to incorporate criteria-based significance evaluations in the direct and indirect impact
 analyses, add clarifications to the cumulative impact analyses, and provide transitional paragraphs,
 introductions, conclusions, and summaries where needed to make the rationale more transparent for
 readers.

Comparison of policy-level impacts of the alternatives. Table ES-2 (cont.).

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Preliminary Preferred Alternative
	Likely effective in protecting habitat components that are more well studied than others; uncertain whether sufficient protection provided to habitat components for which there is less complete information. Concerns exist with continued reduction of long-lived slow growing benthic habitat species and reduced levels of benthic organisms in areas of high fishing intensity.	Increased impacts to habitat because of less precautionary management measures. Potential changes may result in adverse impacts that may be hard to reverse, especially for long-lived, slow recovering living habitats.	Potential to reduce and avoid future impacts to habitat by careful placement of closures. A careful strategy can minimize geographic redistribution and increases in effort, and thus reduce chances of unintended consequences.	A careful strategy can minimize	Potential to reduce and avoid future impacts to habitat by careful placement of closures. A careful strategy can minimize geographic redistribution and increases in effort, and thus reduce chances of unintended consequences.
What is the impact of the policy on the value of marine resources (commercial and non-commercial)?					
	Continues to generate substantial producer and consumer benefits in the United States (U.S.), while adapting management programs when the need arises. Continues policies that have generated environmental concerns tending to keep recreation, tourism and non-market values low.	Potential to increase allowable catches is expected to significantly increase revenues, but would also increase operating costs. Non-market, recreational, and tourism values are expected to decline because of the reduced emphasis on these benefits.	Increased social and economic benefits through the elimination of the race-for-fish while also emphasizing the long-term economic value of the fishery. Promotes ecosystem based management and is likely to increase noncommercial values assigned to the ecosystem.	Results in substantial reductions in allowable catches and could also result in the closure of large portions of traditional fishing areas, could jeopardize the continued viability of coastal communities. Goals of incorporating and enhancing non-consumptive use values are met.	Increased social and economic benefits through the elimination of the race-for-fish while also emphasizing the long-term economic value of the fishery. Considers ecosystem-based management and is unlikely to decrease non-commercial values assigned to the ecosystem.
What is the impact of the policy on Alaska Native participation in fishery management, and their traditional ways of life?					
	Alaska Native consultation and participation in fishery management, and subsistence, would continue to comply with federal law.	Alaska Native consultation and participation in fishery management, and subsistence, would continue to comply with federal law. Increased fishing effort would result in increased economic benefits to fishery participants (particularly community development quota [CDQ]), but potentially increased salmon bycatch.	Increase current participation and consultation in fishery management by expanding informal and formal consultation and traditional knowledge (TK) data collection. Rationalization and additional area closures may benefit subsistence by reducing salmon bycatch.	Directly involves Alaska Natives in fishery management through the development of co-management or cooperative research programs. Other goals, that greatly reduce or eliminate commercial fishing, would adversely impact Native communities.	Increase current participation and consultation in fishery management by expanding informal and formal consultation and TK data collection. Rationalization and additional area closures may benefit subsistence by reducing salmon bycatch.
What is the impact of the policy on data quality, monitoring, research, and enforcement requirements?					
	Data collection program will continue to meet minimum acceptable standards. Aspects of the program, such as non- random coverage in the 30% component of the fleet, could be improved.	Maintains a minimum level of data collection to meet conservation requirements. Consideration to repeal the Observer Program may compromise management on the best science available.	Likely to be effective at reducing uncertainty through data collection measures, such as improved observer catch monitoring data of target and non-target species, and expanded economic reporting data.	Expands research and monitoring programs to fill critical data gaps that may result in the modification of restrictive conservation and management measures. Expansion of observer program coverage would result in more complete fishery data, particularly on vessels <125 ft length overall (LOA).	Likely to be effective at reducing uncertainty through improved data collection and monitoring, promotes research to fill data gaps. Explicitly promotes enforceability.

Adverse impact; may include adverse conclusions that are based on assumptions.

High potential for adverse impacts if any assumptions used to manage the resource are wrong.

Potentially beneficial impact; assumptions used to manage the resource incorporate some precaution.

Beneficial impact; assumptions used to manage the resource incorporate a high level of precaution.

Comparison of policy-level impacts of the alternatives. Table ES-2.

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Preliminary Preferred Alternative			
NOTE: The implication of a split color rating is that major components within the category will undergo a different impact under the alternative in question. To the extent possible, the rationale is explained in the bullets ben								
What is the impact of								
	Successful at preventing overfishing of target stocks, ensures sustainable fishery. No incentive to research those stocks on which impacts of fishing are unknown; possible to overharvest a vulnerable member of a stock complex.	Maximizes economic yield while preventing overfishing of target stocks, but not effective at preventing stocks from becoming overfished. Increases the chance of unintentionally overfishing a stock.	Prevents overfishing of target stocks through precautionary harvest policies. Acceleration of efforts to identify methods for reducing the number of stocks where the status relative to an overfished condition is unknown.	Establishes a very conservative harvest policy which is likely to prevent stocks from becoming overfished. Protects most vulnerable species of a complex, but the resulting management would be difficult to implement.	Prevents overfishing of target stocks through precautionary harvest policies. Acceleration of efforts to improve the current harvest strategy.			
What is the impact of								
communities?	Continues to provide economic and community stability within the current system while adapting management programs when the need arises. Some fisheries and communities are stressed due to negative effects of the race for fish.	Long-term sustainability of fisheries and communities may be problematic if scenarios depicted in 2.1 are implemented; in the short-run fisheries and communities will likely see improved economic conditions. If less aggressive actions are pursued, likely to be no better or worse than Alternative 1.	Rationalization of fisheries holds the promise of improved fishery and community sustainability. Extensive area closures associated with more aggressive ecosystem-based management may reduce small-boat and Alaska community involvement in fisheries.	Extensive total allowable catch (TAC) reductions and area closures reduce viability of fisheries and fishery dependent communities. Some fisheries may survive if assumptions of impacts are correct.	Rationalization of fisheries holds the promise of improved fishery and community sustainability. Incorporation of community protection elements into rationalization and ecosystem-based management programs are likely to ensure coastal community stability.			
What is the impact of								
the policy on the stability of the food web and community structures (preserving the food web)?	Likely effective in protecting food web components that are more well-studied than others and those that are at critical population thresholds. Uncertain whether sufficient protection is provided to others for which less-complete information is available.		Many improvements provide additional protection against uncertainty in order to achieve the goal of preserving the food web. If implemented, this strategy is likely to provide protection to a broad range of food web components.	Very successful in meeting the goal of preserving the food web, by providing large buffers against scientific uncertainty about ecosystem impacts. Achieves protection of virtually all food web components and thus ecosystem function.	Many improvements provide additional protection against uncertainty in order to achieve the goal of preserving the food web. If implemented, this strategy is likely to provide protection to a broad range of food web components.			
What is the impact of								
the policy on bycatch (discards) and incidental catch?	Effective at limiting incidental catch of non-target species and reducing of bycatch. Insufficient reporting of individual species catch, and catch in shallow water environments.	May not be consistent with the goal of reducing and avoiding bycatch through developing practical measures that minimize bycatch.	Likely successful at reducing prohibited species catch. Reductions likely to be achieved through incentives for more efficient use of fishery resources under cooperatives, comprehensive rationalization of fisheries or other bycatch incentive programs.	Bycatch and incidental catch reduction policies are effective. Achieved through extreme reductions in target groundfish catch and strong bycatch and incidental catch limits.	Likely successful at reducing prohibited species catch. Reductions likely to be achieved through incentives for more efficient use of fishery resources under cooperatives, comprehensive rationalization of fisheries or other bycatch incentive programs.			
What is the impact of								
the policy on seabird and marine mammal interactions?	Effective at providing protection to Endangered Species Act (ESA)-listed seabirds and marine mammals. No objectives for protecting non-listed species.	Retains protection measures for ESA-listed species, but does not go beyond ESA-required measures. High potential to increase fishery interactions with seabirds and marine mammals which may result in adverse impacts to those species.	Goal of minimizing human-caused threats to protected species is largely met. Likely to provide increased protection to marine mammals and seabirds.	Very successful at avoiding impacts to seabirds and marine mammals. Specific objectives to protect all seabirds from fishing interactions, and extend protection measures for Steller sea lion critical habitat and prey base.	Effective at providing protection to ESA-listed seabirds and marine mammals. May provide increased protection to seabirds. No objectives for protecting non-listed marine mammal species.			

Adverse impact; may include adverse conclusions that are based on assumptions.

High potential for adverse impacts if any assumptions used to manage the resource are wrong.

Potentially beneficial impact; assumptions used to manage the resource incorporate some precaution.

Beneficial impact; assumptions used to manage the resource incorporate a high level of precaution.



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 21668 Juneau, Alaska 99802-1668

March 23, 2004

MEMORANDUM FOR:

Susan Salveson

Assistant Regional Administrator

for Sustainable Fisheries

FROM:

ames/W.Balsiger

dyninistrator, Alaska Region

SUBJECT:

Consultation for Listed Species Under the Endangered Species Act (ESA) for the Adoption of a Preferred Alternative in the Alaska Groundfish Fisheries Programmatic Supplemental Environmental

Impact Statement (PSEIS).

This is in response to your memorandum dated March 18, 2004, requesting concurrence with your determination that the proposed action to amend the fishery management plans (FMPs) for the groundfish fishery of the Bering Sea and Aleutian Islands Area and groundfish of the Gulf of Alaska according to the preferred alternative in the Alaska groundfish fisheries PSEIS is not likely to adversely affect listed turtles, salmon, whales, or the eastern or western distinct population segments (DPS) of Steller sea lions or their designated critical habitat.

The Protected Resources Division has reviewed the biological assessment, which describes the proposed action and its possible effects on listed species and has concurred with your determination that re-initiation of formal consultation is not necessary at this time. None of the triggers for re-initiation of consultation codified at 50 CFR §402.16 have been met. We concur with your determination in the BA that the proposed action is not likely to have any new adverse effects on listed species or their designated critical habitat that have not been previously considered in the formal consultations listed above. Should activities under this action change or new information become available that changes the basis for this determination, then consultation must be reinitiated.

cc: Kaja Brix, Alaska Region PRD ARA Jon Pollard, NOAA General Counsel Lori Gravel, Administrative Records





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 21668 Juneau, Alaska 99802-1668

March 18, 2004

MEMORANDUM FOR:

Kaja Brix

Assistant Regional Administrator

for Protected Resources

FROM:

Susan Salveson

Assistant Regional Administrator

for Sustainable Fisheries

SUBJECT:

Consultation for Listed Species Under the Endangered Species Act (ESA) for the Adoption

of a Preferred Alternative in the Alaska

Groundfish Fisheries Programmatic

Supplemental Environmental Impact Statement.

This document initiates consultation as required under section 7 of the Endangered Species Act of 1971, as amended (ESA; 16 U.S.C. 1531 et seq.) on the effects of adoption of a preferred alternative in the Alaska groundfish fisheries Programmatic Supplemental Environmental Impact Statement (PSEIS). The proposed action and the effects this action on listed species and designated critical habitat are described in the attached Biological Assessment (BA).

Based on the analyses presented in the BA, the proposed action to adopt the preferred alternative as presented in the PSEIS is not likely to adversely affect listed turtles, salmon, whales, nor the eastern or western distinct population segments (DPS) of Steller sea lions or their critical habitat. Therefore, I request informal consultation on these species with your concurrence that the proposed actions are not likely to adversely affect these listed species or their critical habitat.

Based on the attached BA, the Division of Sustainable Fisheries requests your concurrence with our determination that none of the criteria for re-initiation of formal consultation in regulations at 50 CFR §402.16 have been met by the proposed action.





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 21668 Juneau, Alaska 99802-1668

March 24, 2004

Ms. Stephanie Madsen Chairperson North Pacific Fishery Management Council 605 West Fourth Avenue, Suite 306 Anchorage, Alaska 99501-2252

Subject:

Identification of the environmentally preferable alternative in the Alaska

Groundfish Fisheries Programmatic Supplemental Environmental Impact

Statement

Dear Ms. Madsen:

The Council of Environmental Quality's (CEQ) regulations implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), require the decision maker to identify in the Record of Decision the alternative or alternatives which were considered to be environmentally preferable. According to question 3 of the CEQ's Forty Most Asked Questions Concerning CEQ's NEPA Regulations: "The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

For the Alaska Groundfish Fisheries Programmatic Supplemental Environmental Impact Statement (PSEIS), we have tentatively identified Alternative 4, which represents a highly precautionary management policy, as the environmentally preferable alternative. As stated in the PSEIS, Alternative 4 is the only policy alternative that explicitly shifts the burden of proof from the resource to the managers and users of the Alaska groundfish resource. This alternative 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 species listed under the Endangered Species Act as well as non-listed marine mammals and seabirds, and the least adverse impact to benthic habitat.



The CEQ regulations for implementing NEPA do not require a decision maker to choose the environmentally preferable alternative. To avoid misunderstanding, that fact is also stated in the PSEIS. The purpose of this letter is to put the Council on notice of the alternative tentatively identified as the environmentally preferable alternative.

Sincerely,

James W Balsiger Administrator, Alaska Region