AGENDA C-1
APRIL 2004

MEMORANDUM

TO: Council and AP Members

FROM: Chris Oliver
Executive Director

ESTIMATED TIME
18 HOURS

DATE: March 24, 2004

SUBJECT: Alaska Groundfish Fisheries Programmatic SEIS

ACTION REQUIRED

(a) Final Action on Groundfish PSEIS

(1) Select a Preferred Alternative to be identified in the Final PSEIS, including: (a) policy goals and objectives, and (b) bookends to illustrate the intended implementation of the Preferred Alternative.

(2) Approve the public release of the Final PSEIS, and provide any comments on document.

(3) Discuss procedure to develop the timeline for addressing management policy actions.

(b) Final Review of Groundfish FMP Revisions

Approve the FMP amendment to modify the management policy and revise the FMPs

BACKGROUND

(a)(1) Select a Preferred Alternative to be identified in the Final PSEIS, including a) policy goals and objectives, and b) bookends to illustrate the intended implementation of the Preferred Alternative.

In June 2003, the Council adopted a Preliminary Preferred Alternative for the PSEIS. This alternative was identified in the revised draft PSEIS published in late August 2003. The Council now needs to finalize their Preferred Alternative. The Preferred Alternative will be identified in the Final PSEIS, and the chosen management policy will be forwarded as an FMP amendment to the Secretary of Commerce. The Preferred Alternative contains two elements: a) a management policy, consisting of a management approach statement and policy goals and objectives; and b) a set of FMP bookends that represent the range of management actions that would implement the policy.

Attached as Item C-1(a)(1)1 is a copy of the Preliminary Preferred Alternative policy language, selected by the Council in June 2003. Item C-1(a)(1)2 is a copy of the bookends of the Preliminary Preferred Alternative. Item C-1(a)(1)3 presents the Preliminary Preferred Alternative in a format that lays out the applicable bookend actions for each objective. A review of the impacts of the Preliminary Preferred Alternative is attached as Item C-1(a)(1)4.

The public comment period on the 2003 revised draft PSEIS lasted for 70 days, and NOAA Fisheries received over 13,000 comments. These comments are summarized in the draft Comment Analysis Report (draft CAR) that was mailed to you on March 1, 2004, and which is available on the PSEIS website. Many of the comments focused on the Preliminary Preferred Alternative, or suggested other considerations for the Council and Agency's final choice of preferred alternative. Item C-1(a)(1)5 is the section of the draft CAR that summarizes the comments that relate to the identification of a final preferred alternative.

Some of the comments suggested specific language changes to the Preliminary Preferred Alternative. The full text of these comments is included in Attachments C and D to the draft CAR. For the Council's ease of reference, these comments have been superimposed on the Preliminary Preferred Alternative in line/strikeout mode in Item C-1(a)(1)6 (policy) and Item C-1(a)(1)7 (bookends).

Many of the comments supported a substitute preferred alternative, submitted as the Oceans Alternative. The text of this alternative is included as Attachment E to the draft CAR. Although submitted as an independent alternative, the key elements of this alternative have already been analyzed in the 2003 revised draft PSEIS, predominantly in Alternative 4. A staff discussion paper (Item C-1(a)(1)8) on the Oceans Alternative focuses on the question of whether the proposed alternative fits within the range of alternatives analyzed in the PSEIS.

Finally, staff has prepared some other considerations for the Council in finalizing the Preferred Alternative, which are summarized in Item C-1(a)(1)9.

(a)(2) Approve the public release of the Final PSEIS, and provide any comments on document.

The Final PSEIS is scheduled to be published in late May/early June. Staff will report on the changes that have been made to the 2003 revised draft PSEIS, many in response to public comment, in order to prepare the document for final publication. Some of the revisions have resulted in revised analysis of the environmental impacts of the alternatives. Item C-1(a)(2)1 summarizes those areas where the preliminary Final PSEIS differs from the 2003 revised draft PSEIS. Item C-1(a)(2)2 is a policy-level summary of the impacts of the PSEIS alternatives. This table has been updated since the 2003 revised draft.

A copy of the complete preliminary Final PSEIS will be available in binder form during the AP, SSC, and Council presentations. The draft Comment Analysis Report that was distributed in early March will also be finalized following this meeting, and made an appendix to the Final PSEIS.

NOAA Fisheries' intra-agency ESA consultation on the Final PSEIS has concluded that the groundfish fisheries are not likely to have adverse effects on ESA listed species under their management jurisdiction which have not been considered in previous formal Section 7 Consultations. The ESA consultation has further concluded that none of the triggers for re-initiation of consultation have been met. NOAA Fisheries' has requested concurrence from the U.S. Fish and Wildlife Service that formal consultation is not required for listed species under their management jurisdiction. The biological assessment supporting this finding is Appendix O of the Final PSEIS. Correspondence relating to ESA consultation is attached as Item C-1(a)(2)3.

Another element of the Final PSEIS is the identification of the Environmentally Preferred Alternative. NEPA requires that the Record of Decision on an EIS identify the alternative that is the most beneficial to the environment. The identification of this alternative does not mean that NOAA Fisheries or the Council is bound to act on this alternative, all the more so because the criteria for

selecting the Environmentally Preferred Alternative specifically excludes consideration of economic and socioeconomic effects. NOAA Fisheries has written the Council a letter (Item C-1(a)(2)4) regarding this identification.

(a)(3) Discuss procedure to develop the timeline for addressing management policy actions.

In previous discussions regarding the implementation of the chosen management policy, the Council has professed its intent to develop a timeline that would schedule the relative start dates of further actions to implement the management policy. In June 2003, NOAA General Counsel provided a memo to the Council addressing questions regarding the nature of the timeline, which is attached here for reference (Item C-1(a)(3)1). The development of the timeline by the Council is currently scheduled for June 2003. In order to prepare for the June agenda item, staff have suggested a sample format for proceeding with the timeline.

The sample format consists of two elements. Item C-1(a)(3)2 represents a 'to do list'. Using the Preliminary Preferred Alternative as an example, the list matches each policy objective with its related bookend actions. The status of each bookend action is also identified. A "✓" indicates that the bookend action is currently in the FMP or in regulations. "P" indicates those actions which are currently the practice of the Council, but which would need an amendment analysis to formalize in the FMP or in regulations. "O" indicates that an amendment analysis has been initiated, that the action is ongoing. "A" indicates that the action would require an amendment analysis to be initiated. "R" indicates that initiating action would require the Council to make a recommendation to NOAA Fisheries.

Item C-1(a)(3)3 is a sample timeline, that is currently filled out with ongoing groundfish actions. To develop a timeline for the chosen management policy, the Council could schedule "P" and "A" actions from the 'to do list', and if appropriate, reconsider the schedule of ongoing actions.

(b) Approve the FMP amendment to modify the management policy and revise the FMPs.

The initial implementation of the Preferred Alternative from the Final PSEIS will be an FMP amendment (BSAI 81/GOA 74) to change the management policy section of the two groundfish FMPs. The chosen management policy will be determined by the Council under Agenda Item C-1(a)(1) above. The FMP amendment will also implement housekeeping changes to the FMPs to revise outdated information and improve readability. Chapters 1-5 of the revised FMPs were mailed out on March 22, 2003. The remaining sections have been included in the supplemental folder. A description of the changes between the existing and revised versions of the FMPs is attached as Item C-1(b)1.

The FMP review process has highlighted several sections of the existing FMPs that are brought to the Council's attention in Item C-1(b)2 for the BSAI and Item C-1(b)3 for the GOA. Changes to these sections have not been included by staff in the revised FMPs. However, the Council may wish to include some or all of these changes as part of the April amendment. Where possible, staff has drafted potential amendment language.

PRELIMINARY PREFERRED ALTERNATIVE

Management Approach

The productivity of the North Pacific ecosystem is acknowledged to be among the highest in the world. For the past 25 years, the Council management approach has incorporated forward looking conservation measures that address differing levels of uncertainty. This management approach has, in recent years, been labeled the precautionary approach. The Council's precautionary approach is about applying judicious and responsible fisheries management practices, based on sound scientific research and analysis, proactively rather than reactively, to ensure the sustainability of fishery resources and associated ecosystems for the benefit of future as well as current generations. Recognizing that potential changes in productivity may be caused by fluctuations in natural oceanographic conditions, fisheries, and other, non-fishing activities, the Council intends to continue to take appropriate measures to insure the continued sustainability of the managed species. It will carry out this objective by considering reasonable, adaptive management measures as described in the Magnuson Stevens Act and in conformance with the National Standards, the Endangered Species Act, the National Environmental Policy Act and other applicable law. This management approach takes into account the National Academy of Science's recommendations on Sustainable Fisheries Policy.

As part of its policy, the Council intends to consider and adopt as appropriate measures that accelerate the Council's 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, increase habitat protection and bycatch constraints. All management measures will be based on the best scientific information available. This policy objective seeks 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 sustainable fishery management including protection of the long-term health of the resource and the optimization of yield. This policy will utilize and improve upon the Council's existing open and transparent process to involve the public in decision-making.

Adaptive management requires regular and periodic review. Objectives identified in this policy statement will be reviewed annually by the Council. The Council will also review, modify, eliminate or consider new issues as appropriate to best carry out the goals and objectives of this management policy.

To meet the goals of this overall management approach, the Council and NMFS will use the PSEIS as a planning document. To help focus its consideration of potential management measures, it will use the following objectives as guideposts to be re-evaluated as amendments to the FMP are considered over the life of the PSEIS.

Prevent Overfishing:

1. Adopt conservative harvest levels for multi-species and single species fisheries and specify optimum yield.
2. Continue to use existing optimum yield cap for BSAI and GOA groundfish fisheries.
3. Provide for adaptive management by continuing to specify optimum yield as a range.
4. Initiate a scientific review of the adequacy of F_{40} and adopt improvements as appropriate.

Promote Sustainable Fisheries and Communities:

5. Promote conservation while providing for optimum yield in terms of providing the greatest overall benefit to the nation with particular reference to food production, and sustainable opportunities for recreational, subsistence and commercial fishing participants and fishing communities
6. Develop management measures that, when practicable, increase the efficient use of fishery resources taking into account the interest of harvesters, processors, and communities.
7. Promote management measures that, while meeting conservation objectives, are also designed to avoid significant disruption of existing social and economic structures.
8. Promote fair and equitable allocation of identified available resources in a manner such that no particular sector, group or entity acquires an excessive share of the privileges.
9. Promote increased safety at sea.

Preserve Food Web:

10. Develop indices of ecosystem health as targets for management.
11. Improve the procedure to adjust ABCs as necessary to account for uncertainty and ecosystem factors.
12. Continue to protect the integrity of the food web through limits on harvest of forage species.
13. Incorporate ecosystem-based considerations into fishery management decisions as appropriate.

Manage, Reduce and Avoid Bycatch and Incidental Catch:

14. Continue and improve current incidental catch and bycatch management program.
15. Develop incentive programs for incidental catch and bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.
16. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.
17. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce bycatch which includes economic discards.
18. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.
19. Continue to account for bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, PSC bycatch, and non-commercial species.
20. Control the bycatch of prohibited species through PSC limits or other appropriate measures.

Avoid Impacts to Seabirds and Marine Mammals:

21. Continue to cooperate with USFWS to protect ESA-listed species.
22. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions.
23. Encourage programs to review status of endangered or threatened marine mammal stocks and fishing interactions and develop fishery management measures as appropriate.

Reduce and Avoid Impacts to Habitat:

24. Review and evaluate efficacy of existing habitat protection measures for managed species.
25. Identify and designate EFH and HAPC.
26. Develop a Marine Protected Area policy in coordination with national and state policies.
27. Encourage development of a research program to identify regional baseline habitat information and mapping, subject to funding and staff availability.
28. Develop goals, objectives and criteria to evaluate the efficacy and suitable design of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity. Implement marine protected areas if and where appropriate.

Promote Equitable and Efficient Use of Fishery Resources:

29. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.
30. Maintain LLP program and further decrease excess fishing capacity and overcapitalization by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries.
31. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of access rights based on performance.

Increase Alaska Native Consultation:

32. Continue to incorporate traditional knowledge in fishery management.
33. Consider ways to enhance collection of traditional knowledge from communities, and incorporate such knowledge in fishery management where appropriate.
34. Increase Alaska Native participation and consultation in fishery management.

Improve Data Quality, Monitoring and Enforcement:

35. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.
36. Improve groundfish Observer Program, and consider ways to address the disproportionate costs associated with the current funding mechanism.
37. Improve community and regional economic impact assessments through increased data reporting requirements.
38. Increase the quality of monitoring and enforcement data through improved technological means.
39. Encourage a coordinated, long-term ecosystem monitoring program to collect baseline information and compile existing information from a variety of ongoing research initiatives, subject to funding and staff availability.
40. Cooperate with research institutions such as the North Pacific Research Board (NPRB) in identifying research needs to address pressing fishery issues.
41. Work with NPRB and other research entities to develop and prioritize research programs, and seek funding for appropriate research projects to inform the Council as it seeks to meet the goals and objectives of this management approach.
42. Promote enhanced enforceability.

Preliminary Preferred Alternative Bookends

		PPA.1	PPA.2
TAC-setting Process	ABC & OFL	- Set ABC < OFL	- Set ABC < OFL
	TAC	- Sum of TACs has to be within OY range	- Set TAC =< ABC for all targets and "other spp." category
	OY	- OY specified as range for BSAI: 1.4-2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down	- No change from PPA.1
	B 20 rule	- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No change from PPA.1
	Forage Fish	- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	- No change from PPA.1
	MSST	- Specify MSSTs for Tiers 1-3 - Continue to use and improve current harvest control rules to maintain a spawning stock biomass with the potential to produce sustained yields on a continuing basis	- Initiate analysis of MSSTs for priority stocks based on the timeframe determined by additional availability of required resources taking into account SSC comments and concerns -Improve collection of biological information necessary to determine spawning stock biomass estimates, particularly for species in Tier 4-5
	"Other species", Species Complexes, Non-specified species	- Set group TAC for "other species". - Maintain species categories (target, "other species", PSC and non-specified species)	- Develop criteria for 'splitting and lumping' of species in order to have a consistent approach over as wide a range as possible ('other species', rockfish, non-specified, etc.) - Consider breaking sharks and skates and additional groups out of "other species" group for TAC setting - Develop criteria to bring a non-specified species into a managed category
	ABC Tier system	- Conduct F_{40} review and adopt appropriate measures as necessary	- Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC, species-specific production patterns, and ecosystem considerations

		PPA.1	PPA.2
TAC-setting Process (continued)	Ecosystem Indicators	- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process - Use F_{60} for rockfish as proxy for analysis
	Target Species closures	- Target species closures when harvest limit is reached	- No change from PPA.1
Spatial/ Temporal Mgmt of TAC		- Species TAC distributed spatially for some BSAI and GOA species	- No change from PPA.1
MPAs and EFH	MPA Process	- Executive Order 13158: Initiative establishes MPA Advisory Committee, MPA Center, MPA website, agency tasks and list of existing US MPAs - Development and adoption of definitions of MPAs, marine reserves, marine fishery reserves, protected marine habitats etc. - Develop MPA efficacy methodology including program goals, objectives, and criteria, for establishing MPAs	- Consider adopting 0-20% of BS, AI, GOA as MPAs and no-take marine reserves (e.g., 5% = no take, 15% = MPA) across a range of habitat types
	Closures	- Maintain current closed/ restricted areas such as Walrus Island closures, RKC Savings Area, Bogoslof, Pribilof Island closures, nearshore Bristol Bay closures, Kodiak Type I-III areas, EGOA trawl closures, closures for herring and salmon, Sitka Pinnacles, etc.	- Review all existing closures to see if these areas qualify for MPAs under established criteria. MPAs could include no-take reserves or have restrictions of specific gear types or specific fisheries or specific time periods
	EFH & HAPC	- Identify and designate EFH and HAPC	- Identify and designate EFH and HAPC - Determine extent of adverse effects from fishing, if any. Implement mitigation measures, if necessary. - Establish Aleutian Island management area to protect coral/live bottom habitats

		PPA.1	PPA.2
SSL Measures	SSL closures	- 2002 SSL closures: no fishing in Seguam Pass; 3nm no transit zones around rookeries; trawl and fixed gear closures in nearshore and critical habitat areas	- Modify 2002 SSL closures and designation of Critical Habitat as appropriate scientific information becomes available
	AI	- Review cumulative impacts of opening AI pollock fishery	- Modify AI SSL closures and designation of Critical Habitat as appropriate scientific information becomes available
Bycatch and Incidental Catch Restrictions	PSC limits	- Maintain PSC limits for herring, crab, halibut, and salmon in BSAI; maintain PSC limit for halibut in GOA - Review effectiveness of coop managed PSC reduction - BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%) - GOA: Identify salmon savings areas and establish PSC limits to manage - GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data - For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes) - GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data - GOA: consider reducing all PSC by 0-10% - BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based approach to setting limits
	IRIU	- IR/IU for Pollock and P. cod, yellowfin and rocksole (BSAI only), shallow water flatfish (GOA only)	- Extend to other species as appropriate
	Bycatch restrictions	- Maintain current bycatch and incidental catch restrictions. Full retention of DSR in SEO - Maintain coop managed 'hot spot' closures to control	- Incentive program for incidental catch and bycatch reduction, e.g.: (a) Individual Bycatch Quota (b) Harvest Priority (10% of TAC reserved to reward clean fishing) (c) bycatch reduction standards established (d) Coop managed Harvest Priority (0-10% TAC or PSC reserved to reward clean fishing)

		PPA.1	PPA.2
Bycatch and Incidental Catch Restrictions (continued)	VIP program	- Maintain VIP program	- Repeal VIP program
	Closures	- Maintain existing inseason bycatch closures	- Evaluate effectiveness of existing closures. Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species
	Inseason bycatch measures	- Maintain MRAs	- Repeal or modify MRAs and establish a system of caps and quotas
Seabird Measures	Incidental take	- Take of more than 4 short-tailed albatross within 2 years triggers consultation in groundfish longline fisheries	- No change from PPA.1
	Seabird avoidance measures	- Longline: Maintain current seabird avoidance measures. Implement measures approved in 2001 when final rule is published - Trawl: Evaluate interactions of endangered seabirds with trawl gear	- Longline: Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all seabird species - Trawl: Evaluate avoidance measures for endangered seabirds and implement as necessary.
Gear Restrictions and Allocations	closures	- Retain existing no trawl zones and fixed gear restrictions. Bottom trawl ban in BSAI for pollock	- BSAI and GOA prohibition on pollock bottom trawl
	allocations	- Retain existing gear restrictions and allocations. No pot fishing in GOA for sablefish. Sablefish and P. cod allocated by gear in BSAI. Sablefish allocated by gear in GOA.	- Evaluate pot fishing in GOA for sablefish
Overcapacity	Restricted access management	- Maintain existing restricted access programs (LLP and moratorium, AFA, IFQ sablefish, etc.) - Continue development of rights-based mgmt, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities

		PPA.1	PPA.2
Alaska Native Issues	Traditional Knowledge	- Develop and implement procedures to incorporate traditional knowledge into fisheries management	- Incorporate additional traditional knowledge from research
	AP/Council representation	- Increase consultation with Alaska Native and encourage increased participation	- Increase consultation with and representation of Alaska Natives in fishery management
Observer Program	Coverage and monitoring	- Continue existing Observer coverage or modify based on data and compliance needs - Modification should be scientifically-based (e.g., random placement, flexibility, variable rate)	- Extend to 100% > 60'; CDQ & AFA to stay the same as Alt 1 - Expand/modify observer coverage based on scientific data and compliance needs (applies to all vessels: <60' and >= 60') - Improve species identification for non-target species - Develop uncertainty estimates for target species data
	Fee Structure	- Industry pays for observer deployment related costs - Explore: (a) Federal contract funding (annual appropriation); use of contract hires vs Federal employees (b) Research Plan (e.g., fee-based) (c) TAC set aside	- Develop and implement alternate funding mechanisms a) Federal funding b) Research Plan
Data and Reporting Requirements	Reporting Requirments	- Maintain current reporting requirements (a) AFA requirement that all CPs and motherships to weigh all pollock catch on NMFS approved scales (b) CDQ requirement that all CDQ groundfish catch is to be weighed on NMFS-approved scales	- Explore programs that collect and verify economic data through independent third party (accounting firm/other) - Collect mandatory economic data reporting by vessels and processors, i.e. earnings, expenditure and employment data - Collect and verify aggregate economic data through independent third party (e.g. accounting firm)
	VMS	- Maintain mandatory VMS requirement for Atka mackerel, p.cod, and pollock fleets	- Modify VMS to incorporate new technology and system providers

PRELIMINARY PREFERRED ALTERNATIVE

Goals, objectives, and bookend actions

Prevent Overfishing:

1. Adopt conservative harvest levels for multi-species and single species fisheries and specify optimum yield.

PPA.1	PPA.2
- Set ABC < OFL	- Set ABC < OFL
- Sum of TACs has to be within OY range	- Set TAC =< ABC for all targets and "other spp." category
- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No change from PPA.1
- Specify MSSTs for Tiers 1-3	- Initiate analysis of MSSTs for priority stocks based on the timeframe determined by additional availability of required resources taking into account SSC comments and concerns
- Continue to use and improve current harvest control rules to maintain a spawning stock biomass with the potential to produce sustained yields on a continuing basis	- Improve collection of biological information necessary to determine spawning stock biomass estimates, particularly for species in Tier 4-5
- Set group TAC for "other species". - Maintain species categories (target, "other species", PSC and non-specified species)	- Develop criteria for 'splitting and lumping' of species in order to have a consistent approach over as wide a range as possible ('other species', rockfish, non-specified, etc.) - Consider breaking sharks and skates and additional groups out of "other species" group for TAC setting - Develop criteria to bring a non-specified species into a managed category
	- Use F_{60} for rockfish as proxy for analysis
- Target species closures when harvest limit is reached	- No change from PPA.1
- Species TAC distributed spatially for some BSAI and GOA species	- No change from PPA.1

2. Continue to use existing optimum yield cap for BSAI and GOA groundfish fisheries.

PPA.1	PPA.2
- Sum of TACs has to be within OY range	
- OY specified as range for BSAI: 1.4- 2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down	- No change from PPA.1

3. Provide for adaptive management by continuing to specify optimum yield as a range.

PPA.1	PPA.2
- OY specified as range for BSAI: 1.4- 2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down	- No change from PPA.1

4. Initiate a scientific review of the adequacy of F_{40} and adopt improvements as appropriate.

PPA.1	PPA.2
- Conduct F_{40} review and adopt appropriate measures as necessary	- Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC, species-specific production patterns, and ecosystem

Promote Sustainable Fisheries and Communities:

5. Promote conservation while providing for optimum yield in terms of providing the greatest overall benefit to the nation with particular reference to food production, and sustainable opportunities for recreational, subsistence and commercial fishing participants and fishing communities.

6. Develop management measures that, when practicable, increase the efficient use of fishery resources taking into account the interest of harvesters, processors, and communities.

PPA.1	PPA.2
- Continue development of rights-based mgmt, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities

7. Promote management measures that, while meeting conservation objectives, are also designed to avoid significant disruption of existing social and economic structures.

8. Promote fair and equitable allocation of identified available resources in a manner such that no particular sector, group or entity acquires an excessive share of the privileges.

PPA.1	PPA.2
- Retain existing gear restrictions and allocations. No pot fishing in GOA for sablefish. Sablefish and P. cod allocated by gear in BSAI. Sablefish allocated by gear in GOA.	- Evaluate pot fishing in GOA for sablefish
- Continue development of rights-based management, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/ sablefish) - Ensure CDQ program maximizes benefits in rural communities

9. Promote increased safety at sea.

Preserve Food Web:

10. Develop indices of ecosystem health as targets for management.

PPA.1	PPA.2
- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process

11. Improve the procedure to adjust ABCs as necessary to account for uncertainty and ecosystem factors.

PPA.1	PPA.2
- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process
- Continue to use and improve current harvest control rules to maintain a spawning stock biomass with the potential to produce sustained yields on a continuing basis	
	- Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC, species-specific production patterns, and ecosystem considerations

12. Continue to protect the integrity of the food web through limits on harvest of forage species.

PPA.1	PPA.2
- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No change from PPA.1
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	- No change from PPA.1

13. Incorporate ecosystem-based considerations into fishery management decisions as appropriate.

PPA.1	PPA.2
- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process
- Species TAC distributed spatially for some BSAI and GOA species	- No change from PPA.1

Manage, Reduce and Avoid Bycatch and Incidental Catch:

14. Continue and improve current incidental catch and bycatch management program.

PPA.1	PPA.2
- Set group TAC for "other species". - Maintain species categories (target, "other species", PSC and non-specified species)	- Develop criteria for 'splitting and lumping' of species in order to have a consistent approach over as wide a range as possible ('other species', rockfish, non-specified, etc.) - Consider breaking sharks and skates and additional groups out of "other species" group for TAC setting - Develop criteria to bring a non-specified species into a managed category
- Maintain current closed/ restricted areas such as Walrus Island closures, RKC Savings Area, Bogoslof, Pribilof Island closures, nearshore Bristol Bay closures, Kodiak Type I-III areas, EGOA trawl closures, closures for herring and salmon, Sitka Pinnacles, etc.	
- Maintain PSC limits for herring, crab, halibut, and salmon in BSAI; maintain PSC limit for halibut in GOA	
- Review effectiveness of coop managed PSC reduction	
- BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%)	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes)
- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data	- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data - GOA: consider reducing all PSC by 0-10%
- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits	- BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based approach to setting limits
- Maintain current bycatch and incidental catch restrictions. Full retention of DSR in SEO - Maintain coop managed 'hot spot' closures to control	
- Maintain VIP program	- Repeal VIP program
- Maintain MRAs	- Repeal or modify MRAs and establish a system of caps and quotas

15. Develop incentive programs for incidental catch and bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.

PPA.1	PPA.2
	- Incentive program for incidental catch and bycatch reduction, e.g.: (a) Individual Bycatch Quota (b) Harvest Priority (10% of TAC reserved to reward clean fishing) (c) bycatch reduction standards established (d) Coop managed Harvest Priority (0-10% TAC or PSC reserved to reward clean fishing)
- Maintain VIP program	- Repeal VIP program
	- Repeal or modify MRAs and establish a system of caps and quotas

16. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.

17. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce bycatch which includes economic discards.

PPA.1	PPA.2
- Review effectiveness of coop managed PSC reduction	
- BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%)	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes)
- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data	- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data - GOA: consider reducing all PSC by 0-10%
- IR/IU for Pollock and P. cod, yellowfin and rocksole (BSAI only), shallow water flatfish (GOA only)	- Extend to other species as appropriate

18. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.

PPA.1	PPA.2
- Species TAC distributed spatially for some BSAI and GOA species	- No change from PPA.1
- Maintain current closed/ restricted areas such as Walrus Island closures, RKC Savings Area, Bogoslof, Pribilof Island closures, nearshore Bristol Bay closures, Kodiak Type I-III areas, EGOA trawl closures, closures for herring and salmon, Sitka Pinnacles, etc.	
- Maintain existing inseason bycatch closures	- Evaluate effectiveness of existing closures.
- GOA: Identify salmon savings areas and establish PSC limits to manage	- Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species
- Retain existing no trawl zones and fixed gear restrictions. Bottom trawl ban in BSAI for pollock	- BSAI and GOA prohibition on pollock bottom trawl

19. Continue to account for bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, PSC bycatch, and non-commercial species.

20. Control the bycatch of prohibited species through PSC limits or other appropriate measures.

PPA.1	PPA.2
- Maintain existing inseason bycatch closures	- Evaluate effectiveness of existing closures. - Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species
- Maintain PSC limits for herring, crab, halibut, and salmon in BSAI; maintain PSC limit for halibut in GOA	
- BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%)	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes)
- GOA: Identify salmon savings areas and establish PSC limits to manage - GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data	- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data - GOA: consider reducing all PSC by 0-10%
- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits	- BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based approach to setting limits

Avoid Impacts to Seabirds and Marine Mammals:

21. Continue to cooperate with USFWS to protect ESA-listed species.

PPA.1	PPA.2
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	- No change from PPA.1
- Take of more than 4 short-tailed albatross within 2 years triggers consultation in groundfish longline fisheries	- No change from PPA.1
- Longline: Maintain current seabird avoidance measures. Implement measures approved in 2001 when final rule is published	- Longline: Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all seabird species
- Trawl: Evaluate interactions of endangered seabirds with trawl gear	- Trawl: Evaluate avoidance measures for endangered seabirds and implement as necessary.

22. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions.

PPA.1	PPA.2
- B_{20} rule for prey species (pollock, P.cod, Atka mackerel)	- No change from PPA.1
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	- No change from PPA.1
- Species TAC distributed spatially for some BSAI and GOA species	- No change from PPA.1
- Maintain current closed/ restricted areas such as Walrus Island closures, RKC Savings Area, Bogoslof, Pribilof Island closures, nearshore Bristol Bay closures, Kodiak Type I-III areas, EGOA trawl closures, closures for herring and salmon, Sitka Pinnacles, etc.	
- 2002 SSL closures: no fishing in Seguam Pass; 3nm no transit zones around rookeries; trawl and fixed gear closures in nearshore and critical habitat areas	- Modify 2002 SSL closures and designation of Critical Habitat as appropriate scientific information becomes available
- Review cumulative impacts of opening AI pollock fishery	- Modify AI SSL closures and designation of Critical Habitat as appropriate scientific information becomes available

23. Encourage programs to review status of endangered or threatened marine mammal stocks and fishing interactions and develop fishery management measures as appropriate.

Reduce and Avoid Impacts to Habitat:

24. Review and evaluate efficacy of existing habitat protection measures for managed species.

PPA.1	PPA.2
	- Review all existing closures to see if these areas qualify for MPAs under established criteria. MPAs could include no-take reserves or have restrictions of specific gear types or specific fisheries or specific time periods
	- Evaluate effectiveness of existing closures. - Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species
	- Determine extent of adverse effects from fishing, if any. Implement mitigation measures, if necessary.

25. Identify and designate EFH and HAPC.

PPA.1	PPA.2
- Identify and designate EFH and HAPC	- Identify and designate EFH and HAPC
	- Determine extent of adverse effects from fishing, if any. Implement mitigation measures, if necessary.
	- Establish Aleutian Island management area to protect coral/live bottom habitats

26. Develop a Marine Protected Area policy in coordination with national and state policies.

PPA.1	PPA.2
- Executive Order 13158: Initiative establishes MPA Advisory Committee, MPA Center, MPA website, agency tasks and list of existing US MPAs	
- Development and adoption of definitions of MPAs, marine reserves, marine fishery reserves, protected marine habitats etc.	
- Develop MPA efficacy methodology including program goals, objectives, and criteria, for establishing MPAs	

27. Encourage development of a research program to identify regional baseline habitat information and mapping, subject to funding and staff availability.

28. Develop goals, objectives and criteria to evaluate the efficacy and suitable design of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity. Implement marine protected areas if and where appropriate.

PPA.1	PPA.2
- Develop MPA efficacy methodology including program goals, objectives, and criteria, for establishing MPAs	- Consider adopting 0-20% of BS, AI, GOA as MPAs and no-take marine reserves (e.g., 5% = no take, 15% = MPA) across a range of habitat types
	- Establish Aleutian Island management area to protect coral/live bottom habitats

Promote Equitable and Efficient Use of Fishery Resources:

29. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.

PPA.1	PPA.2
- Retain existing gear restrictions and allocations. No pot fishing in GOA for sablefish. Sablefish and P. cod allocated by gear in BSAI. Sablefish allocated by gear in GOA.	- Evaluate pot fishing in GOA for sablefish
- Continue development of rights-based mgmt, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities

30. Maintain LLP program and further decrease excess fishing capacity and overcapitalization by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries.

PPA.1	PPA.2
- Maintain existing restricted access programs (LLP and moratorium, AFA, IFQ sablefish, etc.)	
- Continue development of rights-based mgmt, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/ sablefish) - Ensure CDQ program maximizes benefits in rural communities

31. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of access rights based on performance.

Increase Alaska Native Consultation:

32. Continue to incorporate traditional knowledge in fishery management.

PPA.1	PPA.2
- Develop and implement procedures to incorporate traditional knowledge into fisheries management	- Incorporate additional traditional knowledge from research

33. Consider ways to enhance collection of traditional knowledge from communities, and incorporate such knowledge in fishery management where appropriate.

PPA.1	PPA.2
- Develop and implement procedures to incorporate traditional knowledge into fisheries management	- Incorporate additional traditional knowledge from research

34. Increase Alaska Native participation and consultation in fishery management.

PPA.1	PPA.2
- Increase consultation with Alaska Native and encourage increased participation	- Increase consultation with and representation of Alaska Natives in fishery management

Improve Data Quality, Monitoring and Enforcement:

35. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.

PPA.1	PPA.2
	- Improve collection of biological information necessary to determine spawning stock biomass estimates, particularly for species in Tier 4-5
	- Improve species identification for non-target species
	- Develop uncertainty estimates for target species data

36. Improve groundfish Observer Program, and consider ways to address the disproportionate costs associated with the current funding mechanism.

PPA.1	PPA.2
- Continue existing Observer coverage or modify based on data and compliance needs - Modification should be scientifically-based (e.g., random placement, flexibility, variable rate)	- Extend to 100% > 60'; CDQ & AFA to stay the same as Alt 1 - Expand/modify observer coverage based on scientific data and compliance needs (applies to all vessels: <60' and ≥ 60')
- Industry pays for observer deployment related costs - Explore: (a) Federal contract funding (annual appropriation); use of contract hires vs Federal employees (b) Research Plan (e.g., fee-based) (c) TAC set aside	- Develop and implement alternate funding mechanisms (a) Federal funding (b) Research Plan

37. Improve community and regional economic impact assessments through increased data reporting requirements.

PPA.1	PPA.2
- Maintain current reporting requirements (a) AFA requirement that all CPs and motherships to weigh all pollock catch on NMFS approved scales (b) CDQ requirement that all CDQ groundfish catch is to be weighed on NMFS-approved scales	- Explore programs that collect and verify economic data through independent third party (accounting firm/other) - Collect mandatory economic data reporting by vessels and processors, i.e. earnings, expenditure and employment data - Collect and verify aggregate economic data through independent third party (e.g. accounting firm)

38. Increase the quality of monitoring and enforcement data through improved technological means.

PPA.1	PPA.2
- Maintain mandatory VMS requirement for Atka mackerel, p.cod, and pollock fleets	- Modify VMS to incorporate new technology and system providers

39. Encourage a coordinated, long-term ecosystem monitoring program to collect baseline information and compile existing information from a variety of ongoing research initiatives, subject to funding and staff availability.

40. Cooperate with research institutions such as the North Pacific Research Board (NPRB) in identifying research needs to address pressing fishery issues.

41. Work with NPRB and other research entities to develop and prioritize research programs, and seek funding for appropriate research projects to inform the Council as it seeks to meet the goals and objectives of this management approach.

42. Promote enhanced enforceability.

Environmental Consequences of the Preliminary Preferred Alternative

The key policy elements that predominantly influence the impacts under the Preliminary Preferred Alternative (PPA) are: the emphasis on rationalizing the fisheries (resulting in increased efficiency and flexibility); the incorporation of ecosystem considerations (increasing the uncertainty buffers in management accounting); and the likelihood of additional closure areas (which may result in a variety of impacts, depending how the closures are situated). The following sections provide brief summaries of the potential consequences of the PPA policy, organized by policy goal.

Prevent Overfishing

- Overfishing would not occur in the stocks or stock complexes modeled under PPA.1 or PPA.2.
- There would be no significant impact on any of the target groundfish stocks.
- Consideration of cumulative impacts does not change the expectations for direct or indirect impacts of this alternative on fishing mortality.
- The likelihood of a stock falling below the level where the stock is capable of producing MSY is reduced under the PPA.
- None of the stocks managed in Tiers 1-3 would be expected to become overfished.
- The direct and indirect impact of the PPA on changes in biomass of all of the Tier 1-3 target groundfish stocks would be insignificant relative to the baseline.
- The direct and indirect impact of commercial fishing on the biomass of target groundfish stocks managed in Tiers 4-6 is unknown because the status of such stocks relative to their respective MSSTs is unknown.
- Consideration of cumulative impacts does not change the expectations for direct or indirect impacts of this alternative on changes in biomass.
- Commercial fishing is expected to have insignificant impacts on the genetic makeup, reproductive success, or prey availability of the 19 stocks managed in Tiers 1-3.
- The direct and indirect impact of commercial fishing on the genetic makeup, reproductive success, or prey availability of stocks managed in Tiers 4-6 is unknown because the status of such stocks relative to their respective MSSTs is unknown.
- Relative to the comparative baseline, the impacts on target species resulting from habitat disturbance are considered insignificant for all stocks managed in Tiers 1-3. The impacts are unknown for stocks or stock complexes managed in Tiers 4-6.
- The PPA would establish formal specifications for MSST.

Promote Sustainable Fisheries and Communities

- Management measures to account for uncertainty ensure the sustainability of the managed species by maintaining a spawning stock biomass for the target species with the potential to produce sustained yields.

- The transition to rationalization in the short-term could disrupt stability, however in the long-term, the stability of fisheries would be increased in comparison to a derby-style fishery.
- Communities would also tend to experience an increase in stability as a result of built-in community protections to the rationalization programs.

Preserve Food Web

- Changes in pelagic forage, top predators, spatial/temporal availability of prey, exotic species introductions, energy removal and redirection through fishery catch removals and discards/offal production, and various measures of diversity showed there were insignificant impacts on ecosystem attributes
- There were unknown effects of this alternative on top predator species and species diversity due to our lack of knowledge of abundance levels and life history characteristics of species such as skates, sharks, and grenadiers, although breaking these species out of the other species group and giving each its own TAC (PPA.2) would provide additional protection.
- Additional area closures, including the Aleutian Islands management area to protect corals and live bottom habitat.
- Increased protection would be provided to slower-growing, long-lived species such as rockfish, skates, and sharks, and would thus reduce the possibility of adverse impacts to those groups and to their role in the food webs of these ecosystems.

Manage, Reduce and Avoid Bycatch and Incidental Catch

- Bycatch reduction objectives (0-10 percent for PPA.1 or 0-20 percent for PPA.2) and reductions in incidental catch are likely to be achieved due to the incentives for more efficient use of fisheries resources under cooperatives, comprehensive rationalization of fisheries, or other bycatch incentive programs.
- The impacts of mortality and change in biomass associated with the PPA policy would be insignificant for prohibited species that are currently in a depressed or overfished condition (BSAI and GOA chinook salmon, *C. bairdi* crab, *C. opilio* crab, BSAI and GOA red king crab, and BSAI blue king crab).
- The PPA is expected to have an insignificant impact on forage fish.
- The impact of the PPA on other species and non-specified groups is unknown

Avoid Impacts to Seabirds and Marine Mammals

- The goal of minimizing human-caused threats to protected species is largely met in the PPA by actively adjusting seabird and marine mammal protection measures, and status review of endangered and threatened marine mammal fishery interactions.
- Elimination of the race-for-fish in this alternative may also tend to decrease direct takes of marine mammals and seabirds.
- The PPA provides increased protection to seabirds and marine mammals relative to the baseline.
- Incidental take of albatross, fulmars, shearwaters, and gulls is substantially reduced due to new mitigation measures in the longline fleet.

- The impact of the policy on Steller sea lions is likely to be insignificant relative to the baseline, except as new research indicates appropriate modifications to existing protection measures.

Reduce and Avoid Impacts to Habitat

- Analysis of specific management measures indicated mixed ratings relative to the comparative baseline for effects to mortality and damage to living habitat under PPA.2. These mixed ratings result from the specific location of bottom trawl closure MPAs and the uncertainty of how changes in TAC will interact with MPAs.
- This policy could lead to improved benthic community diversity and geographic diversity of impacts.
- From a cumulative impacts perspective, the baseline condition is adversely impacted due to historical impacts that have potentially caused long-term and possibly irreversible loss of living habitat, especially to long-lived, slow-growing species which are slow to recover.
- Overall, this policy has the potential to reduce and avoid future impacts to habitat by careful placement of closures. Placement of closures in lightly fished or not fished areas could result in avoidance of future habitat impacts, if effort expands to new or lightly fished areas. Placement of small closures within heavily fished areas can potentially mitigate impacts, reduce unintended consequences, and achieve overall benefits to habitat and meet policy goals and objectives. Strategic placement of small closures will also help meet the policy objective of evaluating the efficacy of MPAs.

Promote Equitable and Efficient Use of Fishery Resources

- The PPA promotes increased social and economic benefits through the promotion of rights-based allocations to individuals, sectors and communities. For this reason the alternative is likely to increase the commercial value generated from the groundfish fisheries.
- As the race-for-fish is eliminated, the alternative could result in positive effects in terms of producer net revenue, consumer benefits, and participant health and safety.
- The elimination of the race-for-fish will likely result in a decrease in overall participation levels. In the long-run, communities are likely to see fewer persons employed in jobs related to the fishing industry (fishing, processing, or support sectors), but the jobs that remain could be more stable and provide higher pay.
- The alternative's promotion of rights-based allocations is also expected to increase consumer benefits and health and safety of participants.

Increase Alaska Native Consultation

- Increased participation and representation of Alaska Natives in fishery management would be encouraged under the PPA. NOAA Fisheries and the NPFMC would work with Alaska Natives to identify and develop measures that would increase participation and representation in fishery management.
- Rationalization of fisheries would result in mixed benefits to Alaska Native communities, with CDQ communities receiving increased revenues, while non-CDQ Native communities could experience a reduction in employment and support services due to rationalization of fisheries.

- Under the PPA, subsistence uses would continue consistent with federal law.

Improve Data Quality, Monitoring and Enforcement

- PPA.2 expands the range of economic data requested from industry participants, and sets up a third party verification system, potentially in aggregate, for reported data.
- This additional information would enhance the ability of analysts to provide accurate estimates of the costs and benefits of proposed regulatory actions.
- The PPA 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.

Identifying a Preferred Alternative

Overview

Many of the public comments focused on identifying a Preferred Alternative (PAL). Comments included those recommending adoption of the PPA, those suggesting changes to various elements of the policy or bookends, and those citing deficiencies. Some comments focused on other alternatives from the 2003 Draft PSEIS, while others suggested new options for a Preferred Alternative, or considerations that should guide the selection of a Preferred Alternative for the Final PSEIS.

Preliminary Preferred Alternative (PPA) Identified in the 2003 Draft PSEIS

PAL 1
We support the adoption of the Preliminary Preferred Alternative as the recommended action.

The balance of objectives in the PPA will preserve the sustainability of the resource and of communities. The alternative is precautionary, and includes ecosystem considerations, yet still allows flexibility to respond to fishery management needs.

Sample Quote(s)

'After reviewing the document, we are in support of the PPA recently identified by the NPFMC and NOAA Fisheries as its preferred policy choice in the 2003 Draft PSEIS. We believe that the PPA will maintain the current proven management policy for the groundfish fisheries of the North Pacific and continued protection for the fishery dependant communities such as Unalaska.'

Frank Kelty — *Local/Municipal Government* — *Unalaska, AK*

'NOAA Fisheries and NPFMC PPA reflects an ecosystem rights-based management approach that, where appropriate and practicable, increases habitat protection and bycatch constraints. The PPA accounts for potential changes in productivity that may be caused by fluctuations in natural oceanographic conditions, fisheries, and other non-fishing activities, and takes a precautionary approach that applies fisheries management practices based on sound scientific research and analysis, in a proactive manner.'

Judith Leckrone Lee — *Federal Agency* — *Seattle, WA*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as the Council and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 2
The Preliminary Preferred Alternative protects seabirds.

Sample Quote(s)

'Simply put, the cumulative impacts of Alternative 2 would, in our opinion, involve unacceptable risks.'

Ronald G. Clarke — *Industry Advisory Committee* — *Juneau, AK*

'The North Pacific Longline Association (NPLA) supports the PPA objectives for protecting seabirds, as well as the measures implementing those objectives. We do not believe that different or additional objectives or measures are necessary. We recommend adoption of the PPA as the agency's final action.'

Thom Smith — *Commercial Fishing* — *Seattle, WA*

'Although Alternative 2 serves as a useful contrast to the approaches embodied in the other alternatives, the fundamental approach of Alternative 2 is unacceptable to the MCA. In our view, it represents a step backwards in the evolution of the BSAI and GOA FMPs.'

Ronald G. Clarke *Industry Advisory Committee* *Juneau, AK*

Response

NOAA Fisheries agrees that the PPA is protective of seabirds. The PPA contains one policy goal and one policy objective that is specific to protecting seabirds. The policy goal in the PPA is, "Avoid Impacts to Seabirds and Marine Mammals". The policy objective is to "continue to cooperate with U.S. Fish and Wildlife Service to protect Endangered Species Act-listed species". The Agency, in consultation with the NPFMC, will consider revising (or expanding) this part pf the policy to clarify our position on this issue.

PAL 3
The Preliminary Preferred Alternative is not sufficiently precautionary to ensure long-term sustainability and economic viability.

The Preliminary Preferred Alternative (PPA) does not adequately incorporate uncertainty, and will not protect sustainable productivity of the fisheries. There is no commitment to ecosystem-based management, and the PPA continues destructive fishing practices.

Sample Quote(s)

'Neither the status quo FMP nor the nearly identical PPA constitute a systematic commitment to ecosystem-based management or reconcile goals for economic production under MSY with objectives for protecting ecosystems.'

Marc Spalding *Environmental Group* *Anchorage, AK*

'I oppose the NOAA Fisheries' PPA, which is heavily weighted toward optimization of yield and fails to protect all elements of the marine ecosystem in the Gulf of Alaska and Bering Sea. Although this alternative is described as merging the goals and objectives of Alternative 3 with elements of Alternatives 1 and 4, it appears fundamentally to endorse the no-action, status quo Alternative 1. NOAA Fisheries has already concluded that status quo fishery management strategies have decimated threatened and indentured wildlife, including seabirds, fish and marine mammals such as the Steller sea lion, whose population has declined over 80% due to reductions in prey species and catch concentrated in critical habitat.'

Alexandra J Lamb *Citizen* *Sherman Oaks, CA*

Response

NOAA Fisheries believes that the PPA is precautionary and that the fishery management regime resulting from the policy goals and objectives in the PPA would promote conservation and sustainability of the managed stocks while minimizing adverse impacts of the fisheries on the human environment. The PPA supports an ecosystem-based approach to fishery management through objectives that consider all aspects of the North Pacific ecosystems, not just target fish. Additionally, specific actions to limit the harvest of forage species, and include the consideration of ecosystem factors in the setting of harvest quota, are adopted in the PPA. NOAA Fisheries acknowledges that there is a lack of complete information regarding the interactions of species within the North Pacific ecosystems. As a result, the Agency is unable to predict with certainty the impacts of fishing and fishery interactions with the environment. In order to account for this uncertainty, precautions are built into the management regime that provide a buffer against the possibility of an adverse impact. The PPA management policy strongly supports precautionary conservation measures, including conservative harvest quotas, a constraining cap on optimum yield for the BSAI, improvements in bycatch and incidental catch management, measures to avoid impacts to habitat, seabirds and marine mammals, and continued monitoring and research efforts to improve the

PAL 4
The Preliminary Preferred Alternative does not achieve habitat protection and bycatch reduction goals.

The Preliminary Preferred Alternative (PPA) does not sufficiently protect EFH such as corals and sponges, and does not commit to minimizing bycatch.

Sample Quote(s)

'The PPA is particularly vague and insufficient with regard to protecting EFH such as corals and sponges. The PPA makes no substantive commitment to reducing bycatch of all plant and animal species in the EEZ as required by the Magnuson-Stevens Fishery Management and Conservation Act and as is necessary if fishery managers expect to sustain our vibrant ocean resources. Ecosystem-based management depends on this type of precautionary approach that considers the status of other species in the marine ecosystem besides FMP species.'

Geoff Shester *Academia* *Stanford, CA*

'The PPA would not remedy shortcomings in EFH compliance under the status quo.'

Marc Spalding *Environmental Group* *Anchorage, AK*

Response

The PPA management policy supports management measures that "increase habitat protection and bycatch constraints". Specific objectives in the PPA address both habitat and bycatch reduction goals. Consistent with the PPA objective to identify and designate EFH and HAPC, NPFMC and NOAA Fisheries are currently reviewing their EFH designations and beginning a review of HAPC proposals for corals and sponges, and seamounts. Additionally, the PPA requires the consideration of MPAs "as tools to maintain abundance, diversity, and productivity". Bycatch objectives in the PPA require the continuation of catch limits for prohibited species, and the development of incentive programs and modified gear and fishing techniques for bycatch reduction. Also, the PPA incorporates the requirements of the MSA National Standards, which require bycatch to be minimized to the extent practicable. Through the NPFMC process, the public will be invited to submit management proposals on ways to implement the PPA's goals and objectives.

PAL 5
We suggest specific changes to the Preliminary Preferred Alternative policy and objectives.

For this statement of concern, the full comment text is included in Appendix A.

Sample Quote(s)

'Under Goals and Objectives change the category heading entitled "Management, Reduce and Avoid Bycatch and Incidential Catch" to"Manage incidental catch and reduce bycatch". The change in the category heading is that it is more appropriate to manage incidental catch rather than always reducing incidental catch.'

Julie Bonney *Commercial Fishing* *Kodiak, AK*

'At a minimum, we suggest that the PPA commit to the following measures, some of which are actually ongoing or would cost little.1) Commit to management policies consistent with all Federal laws that mandate seabird protection, including not only Endangered Species Act, but also Migratory Bird Treaty Act and Executive Order 13186 of January 10, 2001 ("Responsibilities of Federal Agencies to Protect Migratory Birds). 2) Commit to fixing the problem with observers' reports from trawlers, which has prevented useful estimation of the mean incidental take of seabirds in trawl gear. (page 3.7-10).3) Improve observer training for identification of dead seabirds. In addition, collect documentation of birds that observers cannot identify (including, apparently, all auks)4) Support and cooperate with USFWS on populations, trends, foraging behavior, and food requirements of selected seabird species of concern. It is not necessary to commit to studying all species as proposed in Alt 3.

Stanley E., Craig S. Senner, Harrison *Environmental Group* *Anchorage, AK*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS. Attachment C provides a list of the public comments with specific suggestions for changes to the PPA policy objectives and bookends. Attachment E is an excerpt from the Marine Conservation Alliance joint submission which lists specific changes suggested for the PPA policy objectives and bookends.

PAL 6
We suggest specific changes to the Preliminary Preferred Alternative bookends.

For this statement of concern, the full comment text is included in Appendix A.

Sample Quote(s)

'The overcapacity management measure presented under the PPA to promote sustainable fisheries and communities should be modified to: "Maintain existing restricted access programs while developing rationalization that maximizes benefits to rural communities."

Alice Ruby *Local/Municipal Government* *Anchorage, AK*

'Fishing gear closures can serve as a conservation tool to reduce bycatch and protect foraging birds and mammals that also congregate in these zones. Gear allocations and catch priorities to cleaner gear types should also be employed in conjunction with an integrated system of gear closure areas and marine reserves in order to reduce and avoid bycatch.'

Marc Spalding *Environmental Group* *Anchorage, AK*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS. Attachment C provides a list of the public comments with specific suggestions for changes to the PPA policy objectives and bookends. Attachment E is an excerpt from the Marine Conservation Alliance joint submission which lists specific changes suggested for the PPA policy objectives and bookends.

PAL 7
The Preliminary Preferred Alternative (PPA) appears to endorse the status quo management strategy that some believe has threatened wildlife populations.

Sample Quote(s)

'I oppose the NOAA Fisheries' PPA, which is heavily weighted toward optimization of yield and fails to protect all elements of the marine ecosystem in the Gulf of Alaska and Bering Sea. Although this alternative is described as merging the goals and objectives of Alternative 3 with elements of Alternatives 1 and 4, it appears fundamentally to endorse the no-action, status quo Alternative 1. The NMFS has already concluded that status quo fishery management strategies have decimated threatened and indentured wildlife, including seabirds, fish and marine mammals such as the Stellar sea lion, whose population has declined over 80% due to reductions in prey species and catch concentrated in critical habitat.'

Alexandra J Lamb *Citizen* *Sherman Oaks, CA*

Response

The PPA management policy differs from the status quo management policy. The status quo management policy has evolved over the last several years, and has been characterized in Alternative 1(b) in the 2003 Draft PSEIS. The PPA does incorporate many of the conservation objectives that characterize the current management policy. However, the PPA also sets many goals and objectives, recommended through public comment, that prescribe the future direction

of fishery management under the PPA management policy, including community or rights-based management, consideration of MPAs, increased economic data reporting requirements, and research programs to improve management in particular areas (such as population estimates for non-target species and fishery interactions with endangered or threatened marine mammals). NOAA Fisheries has assessed the impacts of environmental conditions on future production of groundfish resources in documents prepared for NPFMC (e.g., the Stock Assessment and Fishery Evaluation document, including its Ecosystem Chapter), and EAs or EISs developed in response to plan amendments. These analyses indicate that current harvest policies are sustainable. The 2003 Draft PSEIS builds on previous studies and undertakes a comprehensive examination of environmental impacts from groundfish fishing under the FMPs and alternatives to them. The 2003 Draft PSEIS concludes that while current practices can be improved, the current practices are effective at building sustainable fisheries in Alaskan waters.

Other Alternatives Identified in the 2003 Draft PSEIS

PAL 8
Adopt Fishery Management Plan 4.1 as the Preferred Alternative.

The alternative is not perfect but would be risk-averse.

Sample Quote(s)

'I strongly support the adoption of Alternative 4.1. The PPA is not sufficiently precautionary or risk averse to ensure the long-term sustainability and economic viability of Alaska's fisheries with a level of certainty that is acceptable for resources of such high value.'

Geoff Shester *Academia* *Stanford, CA*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 9
Do not adopt Alternative 4 as the Preferred Alternative.

The alternative represents an extreme application of the precautionary approach, which we do not support.

Sample Quote(s)

'The MCA supports the use of such a precautionary approach to fishery management. The MCA does not, however, endorse the more extreme versions of the "precautionary principle" that are the subject of ongoing academic debate.'

Ronald G. Clarke *Industry Advisory Committee* *Juneau, AK*

'I am writing to ask you to consider a stronger PSEIS than currently proposed for the Bering Sea and Gulf of Alaska. Specifically, I would like to see large bycatch operations eliminated, bottom trawling practices ended, and smaller fish quotas established for sustainable harvests.'

Douglas Rivalsi *Citizen* *Fayetteville, GA*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 10
Do not adopt Alternative 2 as the Preferred Alternative.

This would be a step backward in responsible fishery management.

Sample Quote(s)

'After reviewing the document, we are in support of the PPA recently identified by the NPFMC and the NOAA Fisheries as its preferred policy choice in the 2003 Draft PSEIS. We believe that the PPA will maintain the current proven management policy for the groundfish fisheries of the North Pacific and continued protection for the fishery dependant communities such as Unalaska.'

Frank Kelty *Local/Municipal Government* *Unalaska, AK*

'NOAA Fisheries and NPFMC's PPA reflects an ecosystem rights-based management approach that, where appropriate and practicable, increases habitat protection and bycatch constraints. The PPA accounts for potential changes in productivity that may be caused by fluctuations in natural oceanographic conditions, fisheries, and other non-fishing activities, and takes a precautionary approach that applies fisheries management practices based on sound scientific research and analysis, in a proactive manner.'

Judith Leckrone Lee *Federal Agency* *Seattle, WA*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

Other Suggestions for the Preferred Alternative

PAL 11
Adopt the 'Oceans Alternative' as the Preferred Alternative.

We support a new alternative to promote sustainability and ecosystem-based management. This alternative includes, among other components, habitat protection plans and research and monitoring plans. The full text of the proposed alternative is included in Appendix B.

Sample Quote(s)

'Please adopt the "Oceans Alternative" in order to incorporated ecosystem based management policies into fishery ecosystem plans to sustain fisheries for the long term. Long term solutions are needed in order to preserve the oceans and protect the future of all life on this planet. All life depends on a healthy natural balance.'

Cynthia Fabian *Citizen* *Prescott, AZ*

'I support the Ocean's Alternative which will promote managing fisheries via ecosystem-friendly policies. Our oceans are valuable to sustain the life of the planet and the marine life within. Please do everything you can to preserve our oceans.'

Julie Ann *Citizen* *New Rochelle, NY*

'I urge NOAA Fisheries to adopt the "Oceans Alternative," which incorporates ecosystem based management policies into fishery ecosystem plans and sustains fisheries for the long term.'

Sally Marie Gorsline *Citizen* *New York, NY*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 12
Adopt a management regime that recognizes biodiversity and incorporates ecosystem-based management.

We need to manage the ecosystem to maintain fisheries, while protecting all marine life and improving water quality.

Sample Quote(s)

'Please ensure that all areas of the ecosystem are looked after when considering fishery management. It is very important and beneficial in the long run.'

Ellen Gibbling *Citizen* *Halifax, NA*

'I urge you to consider an ecosystems based approach to marine legislation. Maximizing short term economic interests will ultimately harm long term economic interests.'

Anne Marie Ruff *Citizen* *Los Angeles, CA*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 13
Adopt a Preferred Alternative with stronger environmental protections.

Protections against uncertainty should include, among others, conservative catch quotas, reductions in bycatch, restrictions of bottom trawling.

Sample Quote(s)

'I urge you to seek a stronger management than is proposed in 2003 Draft PSEIS for groundfish fisheries in the Bering Sea and the Gulf of Alaska.'

Barbara Russell *Citizen* *Pine Bush, NY*

'There had been a tremendous amount of the new information in recent years about the impact of fisheries on the entire marine ecosystem. There have been vast changes and, secondary to those, important decisions in marine life of many species. Considering the environment problems emerging in the sea it is critical at this time to waste no more time in learning what activities are doing the damage and to find ways to diminish or stop them. It is imperative that the protection of the marine environment looks at the needs of the entire ecosystem if, in the long run, the sea is to remain healthy with viable fisheries.'

Norma Hamilton *Citizen* *Punta Gorda, FL*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 14
Stop groundfish fishing.

Sample Quote(s)

'I believe that we need to get rid of groundfish fisheries because they are destroying the wildlife and ecosystem in Alaska. Alaska is home to many unique species that cannot survive anywhere else. We need to stop the killing of animals that are caught in nets and then disposed of. This is absolutly horrible. Please get rid of groundfish fisheries or at least reduce the amount of fishing significantly.'

Stephanie Jackson *Citizen* *Charleston, SC*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 15
The Preferred Alternative should promote responsible stewardship and sustainability, in order to leave healthy ocean ecosystems for future generations.

Sustainability is about creating an environmental balance that will help fisheries in the long-term. We need to stop the decline in populations and biodiversity, including the use of fishing restrictions as necessary. We have the opportunity to set an international example with this 2003 Draft PSEIS.

Sample Quote(s)

'Please institute a comprehensive fisheries management plan, to protect both the marine life that is currently threatened by mismanagement, and the livelyhood of those who depend upon fisheries for their income, who will be out of jobs if unmanaged fisheries go the way of many Atlantic Ocean fisheries.'

Ernest Hartt *Citizen* *Cardiff, CA*

'Many species in Alaskan waters, such as marine mammals, fish, and seabirds, face serious declines. Our oceans are vital to the survival of our species and our planet, and they are now in crisis. This is our last, best opportunity to ensure that they remain healthy and recover from our shortsighted management regime now in effect.'

Karsten Holland *Citizen* *LISLE, IL*

'Because this is the first comprehensive environmental impact statement for fisheries management in the United States, and because it covers one of the most productive ecosystems on Earth, this PSEIS will set an important national precedent and must be done with the sustainability of the Bering Sea ecoregion as the ultimate goal.'

Elaine Koplik *Citizen* *Delmar, NY*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PAL 16
The Preferred Alternative should protect marine life.

The sea life of the North Pacific is of primary importance and we should make sure that it is protected.

Sample Quote(s)

'Please protect the seals, sea lions and other marine life,manage the ecosystem balance to improve the quality of water and maintain the fisheries.'

Bobi Gallagher *Citizen* *Cleveland, OH*

'Please adopt a fishery managment plan that protects wildlife, water quality, and sustains fisheries for the long-term. Animals are very important to our environment. They're enjoyable bundles of personality that provide not only unconditional love, but we as higher intelligence need to take care of them. It is our responsibility to ensure that other creatures do not end up in danger due to our selfish reasons.'

Karen Lewis *Citizen* *Pueblo, CO*

Response

NOAA Fisheries acknowledges the recommendation, and will take it into consideration as NPFMC and the Agency identify the Preferred Alternative for the Final PSEIS.

PRELIMINARY PREFERRED ALTERNATIVE

Management Approach

The productivity of the North Pacific ecosystem is acknowledged to be among the highest in the world. For the past 25 years, the Council management approach has incorporated forward looking conservation measures that address differing levels of uncertainty. This management approach has, in recent years, been labeled the precautionary approach. The Council's precautionary approach is about applying judicious and responsible fisheries management practices, based on sound scientific research and analysis, proactively rather than reactively, to ensure the sustainability of fishery resources and associated ecosystems for the benefit of future as well as current generations. Recognizing that potential changes in productivity may be caused by fluctuations in natural oceanographic conditions, fisheries, and other, non-fishing activities, the Council intends to continue to take appropriate measures to insure the continued sustainability of the managed species. It will carry out this objective by considering reasonable, adaptive management measures as described in the Magnuson Stevens Act and in conformance with the National Standards, the Endangered Species Act, ***the Migratory Bird Treat Act, Executive Order 13186,*** the National Environmental Policy Act and other applicable law. This management approach takes into account the National Academy of Science's recommendations on Sustainable Fisheries Policy.

As part of its policy, the Council intends to consider and adopt as appropriate measures that accelerate the Council's 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, increase ***and*** habitat protection and bycatch constraints. ***Under this management strategy, fishery impacts to the environment will be mitigated, to the extent practicable, if scientific evidence indicates a fishery is adversely impacting the productivity of managed species.*** All management measures will be based on the best scientific information available. This policy objective seeks 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.

***************NO COMMENTS ON INTERVENING SECTIONS***************

Manage~~, Reduce and Avoid Bycatch and~~ Incidental Catch *and Reduce Bycatch*:

14. Continue and improve current incidental catch and bycatch management program.
15. Develop incentive programs for ~~***incidental catch and***~~ bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.
16. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.
17. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce bycatch which includes economic discards.
18. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.
19. Continue to account for bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, PSC bycatch, and non-commercial species.
20. Control the bycatch of prohibited species through PSC limits or other appropriate measures.

Avoid Impacts to Seabirds and Marine Mammals:

21. Continue to cooperate with USFWS to protect ESA-listed species.
22. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions.
23. Encourage programs to review status of endangered or threatened marine mammal stocks and fishing interactions and develop fishery management measures as appropriate.

- ***Improve observer training for identification of dead seabirds. In addition, collect documentation of birds that observers cannot identify (including auks). Fix problem with observers' reports from trawlers.***
- ***Support and cooperate with the USFWS on populations, trends, foraging behavior, and good requirements of selected seabird species of concern.***
- ***Begin incorporating "thresholds of mortality" for incidental take of seabirds, for those species where it may be feasible.***

Reduce and Avoid Impacts to Habitat:

24. Review and evaluate efficacy of existing habitat protection measures for managed species.
25. Identify and designate ***and protect*** EFH and HAPC.
26. Develop a Marine Protected Area policy in coordination with national and state policies.
27. Encourage development of a research program to identify regional baseline habitat information and mapping, subject to funding and staff availability.
28. Develop goals, objectives and criteria to evaluate the efficacy and suitable design of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity ***of managed species***. Implement marine protected areas if and where appropriate.

Promote Equitable and Efficient Use of Fishery Resources:

29. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.
30. Maintain LLP program ***as necessary*** and further decrease excess fishing capacity and overcapitalization by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries.
31. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of access rights based on performance.

***************NO COMMENTS ON REMAINING SECTIONS***************

Preliminary Preferred Alternative Bookends

		PPA.1	PPA.2
***********NO COMMENTS ON INITIAL SECTIONS**********			
TAC-setting Process (continued)	Ecosystem Indicators	- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process - ***Develop appropriate harvest strategies for rockfish.*** Use F_{60} for rockfish as proxy for analysis
***********NO COMMENTS ON INTERVENING SECTIONS**********			
MPAs and EFH	EFH & HAPC	- Identify and designate EFH and HAPC	- Identify and designate EFH and HAPC - Determine extent of adverse effects from fishing, if any. Implement mitigation measures, if necessary. - Establish Aleutian Island management area ~~***to protect***~~ ***for*** coral/live bottom habitats
***********NO COMMENTS ON INTERVENING SECTIONS**********			

		PPA.1	PPA.2
Bycatch and Incidental Catch Restrictions	PSC limits	- Maintain PSC limits for herring, crab, halibut, and salmon in BSAI; maintain PSC limit for halibut in GOA - Review effectiveness of coop managed PSC reduction - BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%) ~~***- GOA: Identify salmon savings areas and establish PSC limits to manage***~~ ~~***- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data***~~ ~~***- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits***~~	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes) - GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap ~~***for***~~ ***on*** Chinook and a 20,500 fish cap for 'other salmon'); ***identify and establish salmon savings area to manage*** ***- GOA:*** establish PSC limits on crab and herring based on biomass or other fishery data ***that would trigger inseason closure areas*** - GOA: consider reducing ~~***all***~~ ***halibut*** PSC by 0-10% - BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based ***and abundance-based*** approach to setting limits
***************NO COMMENTS ON INTERVENING SECTIONS**************			
Gear Restrictions and Allocations	allocations	- Retain existing gear restrictions and allocations. No pot fishing in GOA for sablefish. Sablefish and P. cod allocated by gear in BSAI. Sablefish allocated by gear in GOA.	- Evaluate pot fishing in GOA for sablefish ***- GOA: Pacific cod allocated by gear in GOA***

		PPA.1	PPA.2
Overcapacity	Restricted access management	- Maintain existing restricted access programs (LLP and moratorium, AFA, IFQ sablefish, etc.) ***while developing rationalization that maximizes benefits to rural communities*** - Continue development of rights-based mgmt, on a fishery by fishery basis as needed including: (a) IFQs (b) Coops (i) community-based (ii) sector-based (c) CDQs (d) Other community-based programs (e.g., halibut community share program as applied to other species)	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities
********** ***NO COMMENTS ON INTERVENING SECTIONS*** **********			
Observer Program	Coverage and monitoring	- Continue existing Observer coverage or modify based on data and compliance needs - Modification should be scientifically-based (e.g., random placement, flexibility, variable rate)	~~***- Extend to 100% > 60'; CDQ & AFA to stay the same as Alt 1***~~ - Expand/modify observer coverage based on scientific data and compliance needs (applies to all vessels: <60' and >= 60') - Improve species identification for non-target species - Develop uncertainty estimates for target species data
	Fee Structure	- Industry pays for observer deployment related costs ~~***- Explore:***~~ ~~***- (a) Federal contract funding (annual appropriation); use of contract hires vs Federal employees***~~ ~~***- (b) Research Plan (e.g., fee-based)***~~ ~~***- (c) TAC set aside***~~	- Develop and implement alternate funding mechanisms a) Federal funding b) Research Plan

		PPA.1	PPA.2
Data and Reporting Requirements	Reporting Requirements	- Maintain current reporting requirements (a) AFA requirement that all CPs and motherships to weigh all pollock catch on NMFS approved scales (b) CDQ requirement that all CDQ groundfish catch is to be weighed on NMFS-approved scales	- Explore programs that collect and verify economic data through independent third party (accounting firm/other) ***while protecting confidential information on an individual/firm basis*** ~~***- Collect mandatory economic data reporting by vessels and processors, i.e. earnings, expenditure and employment data***~~ - Collect and verify aggregate economic data through independent third party (e.g. accounting firm)
********** ***NO COMMENTS ON FINAL SECTION*** **********			

Summary of NOAA Fisheries' Analysis of the Oceans Alternative

Summary: *The Oceans Alternative is similar to Alternative 4 and FMP 4.1 with respect to the major factors that determine the environmental impacts of a fishery management regime. For this reason, a separate impact assessment of the Oceans Alternative at the policy-level and FMP-level would not be likely to produce results that would differ significantly from the Alternative 4 and FMP 4.1 assessments.*

NOAA Fisheries has conducted a systematic, comprehensive analysis of the provisions of the Oceans Alternative (OA), which was submitted during the 2003 Draft PSEIS public comment period, to assist NOAA Fisheries and the North Pacific Fishery Management Council (Council) with the following question:

Is the Oceans Alternative significantly different in effect from alternatives analyzed in the 2003 Revised Draft PSEIS?

As explained in the 2003 Draft PSEIS Frequently Asked Questions (FAQ #12), the three FMP components that are the principal drivers affecting the analytic modeling and environmental impact assessments are (1) TAC-setting, (2) resource allocation, and (3) spatial closures.

Policy Level

At the policy level, both the OA and Alternative 4 closely follow the precautionary principle and are structured around essentially the same ecosystem-based approach, incorporating key recommendations of the NOAA Ecosystems Principles Advisory Panel (EPAP). Broadly stated, both would reduce directed catch and bycatch levels, restrict fishing to fixed gear and phase out trawling, and close large areas of the continental shelf to commercial groundfish fishing. As noted above, these are the principal drivers that influence the analytic modeling conducted for the impact assessments, and the provisions of both the OA and Alternative 4 linked to these drivers would most likely produce similar results.

FMP/Regulatory Level

At the regulatory level, with respect to setting total allowable catch (TAC), the OA and FMP 4.1 are remarkably similar. The fishing mortality rate is limited to no greater than $F_{75\%}$ for forage species (broadly defined, not limited to Council's 'forage fish species' category), vulnerable species, and species for which there is a high degree of uncertainty. In FMP 4.1 and the OA, ABC and TAC would be set on the basis of species with life-history characteristics most vulnerable to fishing mortality. The OA also specifies a number of elements that are not directly addressed in FMP 4.1, but which are common practice in managing the BSAI and GOA groundfish fisheries, such as specifying that bycatch counts against TAC.

The OA does include several new provisions, for example with respect to spatial/temporal management of TAC, such as the use of a criteria checklist to assess appropriate spatial/temporal management of each fishery and to identify critical information needs and gaps, providing "Hot Spot" authority to managers so that they can make timely and responsive inseason adjustments to TAC specifications. These are

reasonable process-oriented recommendations that could be incorporated into the implementation of any of the alternatives, but they do not lend themselves to quantitative modeling as performed for the FMP impact assessments, and would not significantly alter the impact assessment.

With respect to allocations and closures, the OA would expand trawl closures in areas of high bycatch and trawling damage to vulnerable habitats such as living coral habitats. Data to support modeling of these measures are largely lacking. With respect to closures specifically intended to protect Steller sea lion habitat, the OA would extend this approach to the spatial/temporal redistribution of the pollock trawl fishing effort in northern fur seal foraging habitat. However, modeling the effects of a hypothetical pollock fishery redistribution for northern fur seal would not produce results different from those obtained for the FMP 4.1 Steller sea lion closures at the level of spatial resolution used to model the FMP bookends.

Other regulatory-level provisions of the OA are primarily process-oriented and would not lend themselves to quantitative modeling. In some cases, FMP 4.1 uses a different approach from the OA to achieve a similar result. For example, the OA's phasing-out of fisheries with bycatch or discard rates exceeding 25 percent is mirrored by the large BSAI and GOA bycatch reduction targets of 30 to 50 percent in FMP 4.1.

In conclusion, it is likely that modeling the impact assessment drivers of TAC-setting, allocation, and closures as addressed in the OA would produce model outputs essentially the same as the results for FMP 4.1. As a result, the analysis of the OA would have small differences from the analysis of FMP 4.1, but these would not trigger different significance ratings based on the significance criteria used to assess the environmental impacts of the FMP bookends.

OTHER CONSIDERATIONS FOR THE PREFERRED ALTERNATIVE

1. Seabird and marine mammal objective language
    - public comments point out contradictions in the PPA vs current practice; Council may wish to consider modifying the objective language to reflect the extent of current seabird and marine mammal protection/consideration
    - staff recommends changing PPA.1 language under seabird avoidance measures for Longlines to: "Maintain current seabird avoidance measures approved in 2001."

2. Management categories/species groups objective
    - Council may wish to consider adding an objective under 'prevent overfishing' that addresses the ongoing efforts and PPA bookend actions regarding the FMP species categories and efforts to address the potential for overfishing vulnerable species when they are managed as part of a species group
    - perhaps, "Continue to improve the management of species through species categories."

3. Objectives under "Promote Sustainable Fisheries and Communities'
    - objective 6 seems like it would more appropriately belong under the goal "promote equitable and efficient use of fishery resources"
    - objectives 8 and 29 seem to be very similar; Council may wish to consider combining them under one or other of the goals

4. NPRB research cooperation objectives
    - Council may wish to consider combining PPA objectives 40 and 41, which are very similar

5. FMP policy language
    - although the Council has considered the formal management policies in the existing FMPs (Alternative 1a), various snippets of policy appear in other parts of the FMPs that the Council has not explicitly considered
    - the Council may wish to incorporate these policy elements into the Preferred Alternative, or may feel that the intent is already addressed
    - language is in Attachment A

Attachment A: Policy language in the FMPs

Language in BSAI and GOA FMPs

old BSAI FMP Section 13.4.10,
old GOA FMP Section 4.3.1.2.2

[**NOTE**: language will still be in the revised FMPs, in **Section 3.6.3.1** dealing with utilization restrictions]

Roe-stripping of pollock is prohibited, and the Regional Administrator is authorized to issue regulations to limit this practice to the maximum extent practicable. It is the Council's policy that the pollock harvest shall be utilized to the maximum extent possible for human consumption.

Language in GOA FMP only

old GOA FMP Section 4.2.3

[**NOTE**: language will be still be in the revised FMP, in **Section 3.6.2.1** dealing with the halibut PSC limit]

The Council believes that discarding incidental catches of fish is wasteful and should be minimized. However, recognizing that in the groundfish fisheries halibut incidentally caught are managed outside this FMP, the treatment of halibut as a prohibited species is appropriate in the short term.

Language in BSAI FMP only

old BSAI Section 13.4.2

[**NOTE**: language will be **deleted** from the revised FMP unless the Council directs otherwise]

Prohibited Species

B. Objective

The objective of this section is to provide an environment which supports domestic harvesting of groundfish with an awareness of principles and techniques for keeping incidental catches of Pacific halibut, Pacific herring, Pacific salmon, steelhead, king crab, and Tanner crab to a minimum.

C. Guideline

Procedures chosen for controlling the incidental catch of prohibited species should provide incentives and opportunities for fishermen to modify their gear, fishing techniques, or whatever else is appropriate to result in long-term incidental catch reductions.

D. Policy

The North Pacific Fishery Management Council believes that domestic fishermen targeting on the groundfish fisheries of the Bering Sea and Aleutians share a responsibility to avoid to the fullest extent practicable the incidental taking of halibut, salmon, king crab, and Tanner crab. They also share with the North Pacific Fishery Management Council a responsibility to develop an accurate information base concerning these species through maintenance of logbooks, accurate reporting of catch, and contributions to knowledge of fish distribution, behavior, etc.

The North Pacific Fishery Management Council advocates and strongly supports development of domestic harvesting and processing of the groundfish of the Bering Sea and Aleutian Islands.

However, the Council also is fully committed to protection from needless waste of stocks of salmon, halibut, king crab, and Tanner crab which are fully utilized in other domestic fisheries. Furthermore, in accordance with MFCMA provisions, the Council has a continuing obligation to assure their management in accordance with optimum use objectives. Therefore, the Council charges domestic fishermen to develop their fishing strategies, techniques, and practices with full regard for and attention to the objectives of the Council for protection of species not properly a target of those groundfisheries, as demonstrated by the measures taken to assure protection by foreign fleets. The Council urges domestic fishermen to study the techniques used by foreign fleets to meet Council requirements for protection of non-target species, to adapt those techniques where appropriate for domestic use, and to experiment actively with gear modifications, selection of time and area fishing strategies designed to avoid concentrations of prohibited species, and other techniques designed to develop a clean fishery. The Council will work with domestic fishermen to facilitate transfer of useful information and technology from foreign sources, and to insure the collection of relevant fisheries data and information from all sources, foreign and domestic.

The Council will follow the development of Bering Sea and Aleutian Islands groundfish fisheries with much interest, and with particular attention to the success of those fisheries in avoiding unnecessary or excessive taking of prohibited species.

The Council hopes that through voluntary measures developed with the cooperation of domestic fishermen, stocks of salmon, halibut, king crab, and Tanner crab can be sufficiently sequestered from needless and wasteful bycatch to make unnecessary the imposition of special protective regulations upon the domestic groundfish fishery.

Public Testimony Sign-Up Sheet

and

Other Handouts Received

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM C-1 PSEIS

	NAME (PLEASE PRINT)	AFFILIATION
1	Whit Sheard	TOConserv.
2	Ron Clarke	MCA
3	Donna Parker	HSCC
4	Terry Leitzell	Icicle Seafoods 3
5	Paul MacGregor	APA Do handout
6	Ed Richardson	PCC
7	Lori Swanson	Gov. GFF
8	Thorn Smith	NPLA 3
9	John Gauvin	~~CARPETS + HALLWAYS~~ GFF 3
10	Gerry Merrigan	Prowler Fisheries 3
11	Julie Bonney	AGDB
12	Glenn Reed	PSPA
13	Brent Paine	UCB
14	Karen Pletnikoff	ARPIA
15	Dave Fraser	Muir Milach 3
16	Frank Kelty	The #1 fishing port in the nation
17		
18		
19		
20		
21		
22		
23		
24		
25		

NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

Handout C-1
AP draft Minutes (partial)
DRAFT

North Pacific Fishery Management Council
Advisory Panel Minutes
Anchorage Hilton Hotel
Anchorage Alaska, March 29-April 2, 2004

The following members were present for all or part of the meeting:

John Bruce
Al Burch
Cora Crome
Craig Cross
Tom Enlow
Dan Falvey
Lance Farr
Duncan Fields
Dave Fraser
Jan Jacobs
Bob Jacobson
Teressa Kandianis
Mitch Kilborn
Kent Leslie
John Moller
Kris Norosz
Eric Olson
Jim Preston
Michelle Ridgway
Jeff Stephan

C-1 Draft Programmatic Groundfish SEIS

The AP recommends accepting the preliminary preferred alternative identified by the Council in June 2003, with the following modifications to the objectives and bookends as noted in attachment 1. *Motion carries 18/1.*

Additionally, the AP recommends the Council release the final PSEIS for public comment. *Motion passed 19/0.*

The AP also recommends the Council release the revised FMP to be sent out as a draft document with further action to be taken at the next Council meeting with the deletion of the old BSAI section 13.4.2 "prohibited species." This policy is outdated and is replaced by concepts in the PPA. *Motion passed 17/0.*

A motion to create a timeline at the June meeting after consideration of current staff tasking issues and new actions resulting from the PPA failed 4/12.

AP CHANGES TO THE PREFERRED ALTERNATIVE
Noted in Reverse Text

Prevent Overfishing:

1. Adopt conservative harvest levels for multi-species and single species fisheries and specify optimum yield.
2. Continue to use existing optimum yield cap for BSAI and GOA groundfish fisheries.
3. Provide for adaptive management by continuing to specify optimum yield as a range.
4. Initiate a scientific review of the adequacy of F_{40} and adopt improvements as appropriate.

- ***Continue to improve the management of species through species categories.***

Promote Sustainable Fisheries and Communities:

5. Promote conservation while providing for optimum yield in terms of providing the greatest overall benefit to the nation with particular reference to food production, and sustainable opportunities for recreational, subsistence and commercial fishing participants and fishing communities

~~6.~~

7. Promote management measures that, while meeting conservation objectives, are also designed to avoid significant disruption of existing social and economic structures.
8. Promote fair and equitable allocation of identified available resources in a manner such that no particular sector, group or entity acquires an excessive share of the privileges.
9. Promote increased safety at sea.

Manage~~, Reduce and Avoid Bycatch and~~ Incidental Catch, *Reduce Bycatch, and Minimize Waste:*

14. Continue and improve current incidental catch and bycatch management program.
15. Develop incentive programs for ~~***incidental catch and***~~ bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.
16. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.
17. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce bycatch which includes economic discards.
18. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.
19. Continue to account for bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, PSC bycatch, and non-commercial species.
20. Control the bycatch of prohibited species through PSC limits or other appropriate measures.

- ***Minimize waste to the extent practicable.***

Avoid Impacts to Seabirds and Marine Mammals:

21. Continue to cooperate with USFWS to protect ESA-listed species, ***and if appropriate and practicable, other seabird species.***
22. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions.
23. Encourage programs to review status of endangered or threatened marine mammal stocks and fishing interactions and develop fishery management measures as appropriate.

- ***Continue to cooperate with NMFS and USFWS to protect ESA-listed marine mammal species, and if appropriate and practicable, other marine mammal species.***

Reduce and Avoid Impacts to Habitat:

24. Review and evaluate efficacy of existing habitat protection measures for managed species.
25. Identify and designate EFH and HAPC, *and mitigate fishery impacts to the extent practicable, if scientific evidence indicates a fishery is adversely impacting the productivity of the managed species.*
26. Develop a Marine Protected Area policy in coordination with national and state policies.
27. Encourage development of a research program to identify regional baseline habitat information and mapping, subject to funding and staff availability.
28. Develop goals, objectives and criteria to evaluate the efficacy and suitable design of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity *of managed species.* Implement marine protected areas if and where appropriate.

Promote Equitable and Efficient Use of Fishery Resources:

29. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.
30. Maintain LLP program *as necessary* and further decrease excess fishing capacity and overcapitalization by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries.
31. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of access rights based on performance.

- *Develop management measures that, when practicable, increase the efficient use of fishery resources taking into account the interest of harvesters, processors, and communities.*

Improve Data Quality, Monitoring and Enforcement:

35. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.
36. Improve groundfish Observer Program, and consider ways to address the disproportionate costs associated with the current funding mechanism.
37. Improve community and regional economic impact assessments through increased data reporting requirements.
38. Increase the quality of monitoring and enforcement data through improved technological means.
39. Encourage a coordinated, long-term ecosystem monitoring program to collect baseline information and compile existing information from a variety of ongoing research initiatives, subject to funding and staff availability.
40. Cooperate with research institutions such as the North Pacific Research Board (NPRB) in identifying research needs to address pressing fishery issues.
~~41. *Work with NPRB and other research entities to develop and prioritize research programs, and seek funding for appropriate research projects to inform the Council as it seeks to meet the goals and objectives of this management approach.*~~
42. Promote enhanced enforceability.

Preliminary Preferred Alternative Bookends

AP comments included in reverse text

		PPA.1	PPA.2
***********NO AP COMMENTS ON INITIAL SECTIONS**********			
TAC-setting Process	OY	- OY specified as range for BSAI: 1.4-2.0 mill MT and OY specified as range for GOA: 116,000 - 800,000 MT; BSAI OY cap: if the sum of TAC > 2 mill mt then TAC will be adjusted down	- ~~No change from PPA.1~~ *Conduct a scientific and policy review of the OY caps for the BSAI and GOA*.
	***********NO AP COMMENTS ON INTERVENING SECTIONS**********		
	Ecosystem Indicators	- Develop ecosystem indicators for future use in TAC-setting	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process - Develop appropriate harvest strategies for rockfish. ~~Use F_{60} for rockfish as proxy for analysis~~
***********NO AP COMMENTS ON INTERVENING SECTIONS**********			
Bycatch and Incidental Catch Restrictions	PSC limits	- Maintain PSC limits for herring, crab, halibut, and salmon in BSAI; maintain PSC limit for halibut in GOA - Review effectiveness of coop managed PSC reduction - BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%) ~~- GOA: Identify salmon savings areas and establish PSC limits to manage~~ ~~- GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits on crab and herring based on biomass or other fishery data~~ ~~- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits~~	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes) - GOA: Establish PSC limits on salmon (for example, NTE a 25,000 fish cap on Chinook and a 20,500 fish cap for 'other salmon'); identify and establish salmon savings area to manage - GOA: establish PSC limits on crab and herring based on biomass or other fishery data that would trigger inseason closure areas - GOA: consider reducing halibut PSC by 0-10% - BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based and abundance-based approach to setting limits
***********NO AP COMMENTS ON INTERVENING SECTIONS**********			

		PPA.1	PPA.2
Seabird Measures	Seabird Avoidance Measures	- Longline: Maintain current seabird avoidance measures *as approved in 2001* - Trawl: ~~Evaluate interactions of endangered seabirds with trawl gear~~ *Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take of ESA-listed seabird species.*	- Longline: Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all seabird species - Trawl: ~~Evaluate avoidance measures for endangered seabirds and implement as necessary.~~ *Cooperate with USFWS to evaluate and implement scientifically-based fishing methods that reduce incidental take of ESA-listed, and if appropriate and practicable, other seabird species.*
********** ***NO AP COMMENTS ON INTERVENING SECTIONS*** **********			
Gear Restrictions and Allocations	allocations	- Retain existing gear restrictions and allocations. No pot fishing in GOA for sablefish. Sablefish and P. cod allocated by gear in BSAI. Sablefish allocated by gear in GOA.	~~- Evaluate pot fishing in GOA for sablefish~~ *- BSAI: Sector allocations for non-pollock groundfish.* *- GOA: Groundfish rationalization program to be developed and implemented.*
********** ***NO AP COMMENTS ON INTERVENING SECTIONS*** **********			
Observer Program	Coverage and monitoring	- Continue existing Observer coverage or modify based on data and compliance needs - Modification should be scientifically-based (e.g., random placement, flexibility, variable rate)	~~Extend to 100% > 60'; CDQ &AFA to stay the same as Alt 1~~ - Expand/modify observer coverage based on scientific data and compliance needs (applies to all vessels: <60' and >= 60') - Improve species identification for non-target species - Develop uncertainty estimates for target species data
Observer Program (continued)	Fee Structure	- Industry pays for observer deployment related costs ~~- Explore:~~ ~~- (a) Federal contract funding (annual appropriation); use of contract hires vs Federal employees~~ ~~- (b) Research Plan (e.g., fee-based)~~ ~~- (c) TAC set aside~~	- Develop and implement alternate funding mechanisms a) Federal funding b) Research Plan *(e.g. fee based)*
Data and Reporting Requirements	Reporting Requirements	- Maintain current reporting requirements (a) AFA requirement that all CPs and motherships to weigh all pollock catch on NMFS approved scales (b) CDQ requirement that all CDQ groundfish catch is to be weighed on NMFS-approved scales	- Explore programs that collect and verify economic data through independent third party (accounting firm/other) while protecting confidential information on an individual/firm basis ~~- Collect mandatory economic data reporting by vessels and processors, i.e. earnings, expenditure and employment data~~ - Collect and verify aggregate economic data through independent third party (e.g. accounting firm)
********** ***NO AP COMMENTS ON FINAL SECTION*** **********			

C-1 Handout
SSC draft min.
(partial)

DRAFT
MINUTES
SCIENTIFIC STATISTICAL COMMITTEE
March 29-31, 2004

The Science Statistical committee met March 29-31, 2004 at the Hilton Hotel in Anchorage, AK. Members present:

Gordon Kruse, Vice Chair	Keith Criddle	Mark Herrmann
Doug Woodby	Sue Hills	Steve Parker
Farron Wallace	Anne Hollowed	Steve Hare
Mark Herrmann		

Absent: Rich Marasco, Terry Quinn, Seth Macinko, Frantz Meuter, Ken Pitcher

C-1 DPSEIS

The SSC received an excellent and detailed report from Steve Davis (NMFS) and Diana Evans (Council staff). Joe Moore, Ecosystem Program Manager for the Ocean Conservancy, presented the only public testimony. Staff provided an overview of the Comment Analysis Report (CAR) that summarizes public comment on the PSEIS and NOAA Fisheries response to these comments. Staff also provided a copy of the revised preliminary preferred alternative and a summary of changes to the PPA, and a revised amendment document. As usual, the materials to be reviewed, supplementary information, and the staff presentation were thorough and excellent.

Comments on the Preliminary Preferred Alternative C-1(a)(1)1

- The SSC recommends that the general structure of the Preliminary Preferred Alternative should prominently identify the overall goal of the described management approach. The SSC recommends modifying last sentence of the 2nd paragraph to begin with "Given this intent, the fishery management goal is to provide". Further we suggest explicitly defining the terminology used for "objectives" or "tasks" to aid in clarity.
- The SSC requests that the Council clarifies its authority for imposing management actions regarding habitat as discussed in detail in SSC comments regarding C-2 on HAPC. Clearly, as a statement of Council management policy, the PPA should include the range of actions and interpretations used by the Council.
- The SSC recommends broadening bullet 4 under "Prevent Overfishing" to read "Conduct periodic reviews of the adequacy of current harvest policies and adopt improvements, as appropriate".
- The SSC supports the AP and Staff recommendation to add a bullet to highlight management of non-target species. However, the SSC cautions NMFS to choose words that will allow flexibility regarding designation of species groups to accommodate

potential changes to management categories identified by NMFS National Standard Guidelines.

- Although recent Congressional legislation has codified the 2 million mt OY cap as law, the SSC encourages the Council to revisit the calculation of the OY caps to determine their relevancy to current environmental conditions and our knowledge of current stock levels.

- The SSC cautions against any amendment that reduces the responsibility of harvesters and processors to provide detailed timely information required to ensure responsible management of FMP fisheries. Fishery resources are the property of the people of the United States. The management agencies have a trustee responsibility to ensure that these resources are being used in a manner that maintains that the expected flows of use, option, and nonuse benefits. In order to discharge this responsibility and to ensure compliance with federal law and regulation, the management agencies must have access to detailed information on the magnitude, composition, and location of catches as well as detailed information on the costs, revenues, and expenditures associated with fishing and processing.

- With reference to task 37, the SSC cautions that "economic impact assessments" only describes the patterns of flow of expenditures and do not characterizes the net benefits of alternative actions that may be contemplated by the Council. It is possible to have actions that result in large regional economic impacts and generate negative net benefits. It is also possible to have actions that generate positive net benefits and yet have negligible regional economic impacts. Impact analyses and net benefit assessments are both important for characterizing the economic consequences of alternative actions. Increased data reporting requirements can support both types of analyses.

Comments on the PPA Bookends C-1(a)(1)2

- The SSC recommends changing the phase "minimize waste". Minimizing could be taken to mean zero. For example, the sentence might state "reduce waste to biologically and socially acceptable levels".

Comments on the CAR

- The SSC approves the release of the CAR and the PSEIS.
- The SSC commends NMFS on developing a process for summarizing comments to key issues and for developing concise answers to comment.
- The SSC recommends, that in addition to the response provided to public comment, the CAR should include information indicating what action was taken regarding the comment. For example, the CAR should indicate whether the comment was already

addressed in a particular section of the document or whether new material was added to the document in specific sections to address the comment (e.g., definition of surplus production).

- At top of Page 59, the SSC requests additional clarification of thresholds used to estimate fishing effects on marine mammals.

Comments on the timeline C-1(A)3

- The SSC recommends that Staff conduct periodic updates of the PSEIS and FMP and that the schedule for these be included on the timeline. Additionally, the recurring HAPC proposal process should be indicated in the timeline.
- The SSC was surprised to see that the timeline included specific tasks from the "bookends"; we understood that they were to serve as illustrations of the range of possible actions that could take place under the policy language of the PPA. Staff explained that these tasks were illustrative of how a timeline could look and that the actual timeline developed by the Council could look considerably different. The SSC cautions that the items in the "bookends" should not be treated as a detailed "to do" list for future actions without closer scrutiny.

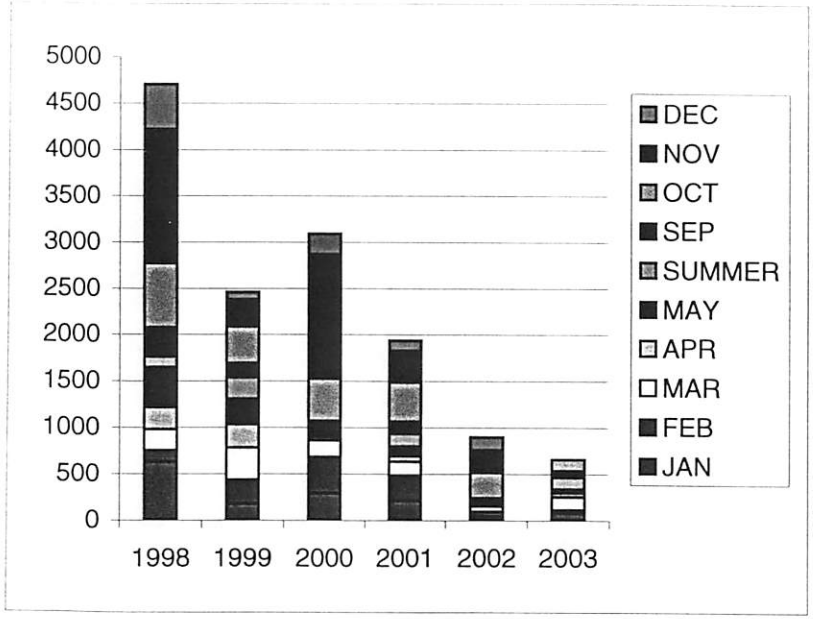
Comments on the FMP amendments C-1(b)1

The SSC did not have adequate time to fully review the housekeeping portions of the FMP amendments. Therefore, the SSC recommends that the "housekeeping" FMP amendments be severed from those required for approval of the PSEIS. This would allow more time to review the other proposed changes without affecting the PSEIS timeline. However, if the Council chooses to let all the FMP amendments go forward together, the SSC notes a few issues that should be addressed.

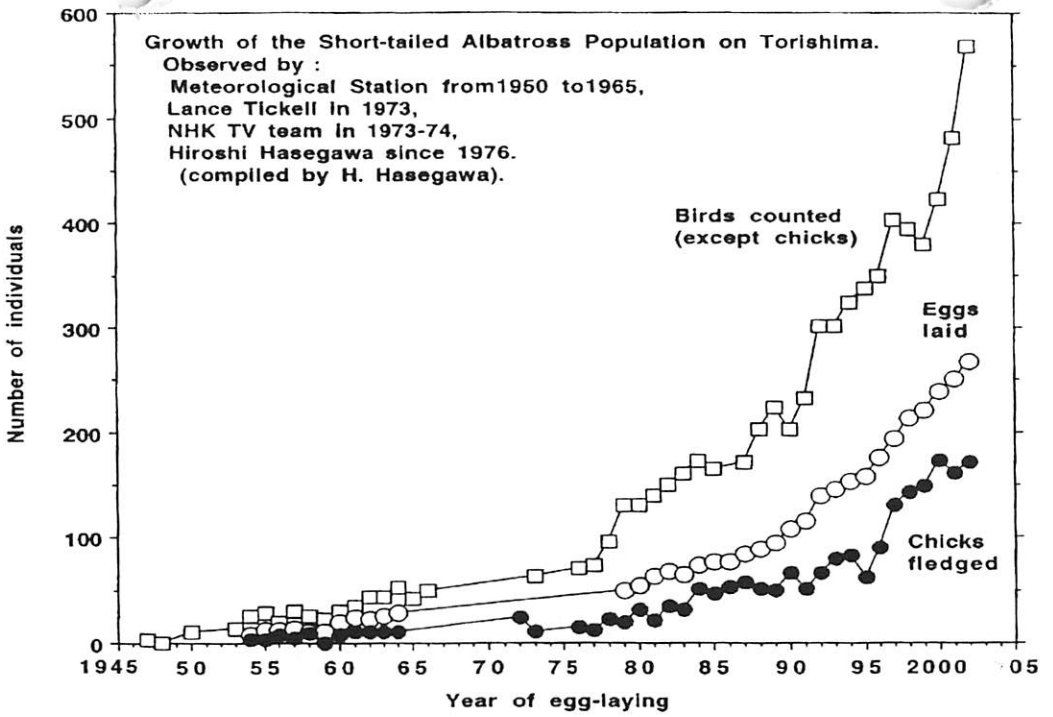
- The SSC noted that some finfish are not governed by the FMP (Page 5 of GOA) and are not mentioned. Several finfish are managed by the State: e.g., black rockfish, lingcod, pollock in Prince William Sound. The SSC recommends that the jurisdictional authorities be more fully explained and that two lists be created to show which species are managed by NMFS and which by the State of Alaska. Footnotes may be useful to explain special situations, such as sablefish in inside waters and parallel seasons for Pacific cod. These state-managed fisheries should be referenced in other appropriate sections, e.g., Chapter 4, as well.
- The SSC recommends that Section 3.10 on Council FMP review should be reconciled between the two FMPs. Specifically, bullet 1 of section 3.10.1 in the BSAI plan seems to have been omitted from section 3.10.1 of the GOA plan.

- The SSC did not have time to review the proposed revised MSY and OY definitions. These definitions are important, and the SSC wishes to have more time to review them in detail.

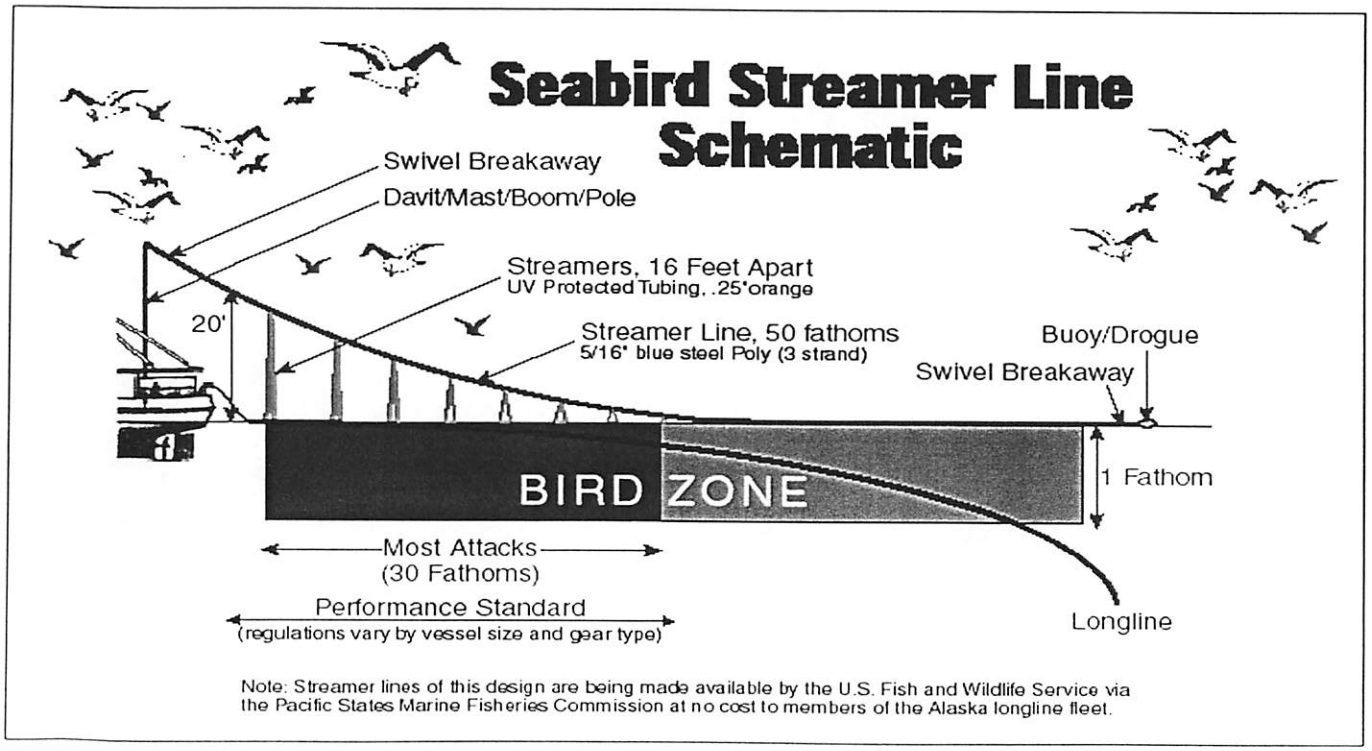
FREEZI LONGLINER INCIDENTAL TAKE OF SEABIRDS IN THE BERING SEA / ALEUTIAN ISLANDS AND GULF OF ALASKA



*2003 DATA TO OCTOBER 23rd



C-1 Thorn Smith & Paul MacGregor



North Pacific Longline Association

MARINE CONSERVATION ALLIANCE

References:

Solutions to Seabird Bycatch in Alaska's Demersal Longline Fisheries
www.wsg.washington.edu/pubs/seabirds/seabirdpaper.html

Seabird Avoidance Gear & Methods for Alaska Fishermen
www.fakr.noaa.gov/protectedresources/seabirds/guide.htm

Focusing and Testing Fisher Know-How to Solve Conservation Problems: a Common Sense Approach
http://fisheries.ubc.ca/publications/reports/11-1/24_Melvin_Parrish.pdf

C-1 handout

ALTERNATIVE 1(a)

Current BSAI Policy Statement (same as original 1979 FMP)

Section 3.2 of Bering Sea/Aleutian Islands FMP Goals for Management Plan

The North Pacific Fishery Management Council has determined that all its fishery management plans should, in order to meet the requirements of its constituency, the resources and FCMA, achieve the following goals:

1. Promote conservation while providing for the optimum yield from the Region's groundfish resource in terms of: providing the greatest overall benefit to the nation with particular reference to food production and recreational opportunities; avoiding irreversible or long-term adverse effects on the fishery resources and the marine environment; and insuring availability of a multiplicity of options with respect to the future uses of these resources.
2. Promote, where possible, efficient use of the fishery resources but not solely for economic purposes.
3. Promote fair and equitable allocation of identified available resources in a manner such that no particular group acquires an excessive share of the privileges.
4. Base the plan on the best scientific information available.

In accomplishing these broad objectives a number of secondary objectives have been considered:

1. Conservation and management measures have taken into account the unpredictable characteristics of future resource availability and socioeconomic factors influencing the viability of the industry.
2. Where possible, individual stocks of fish are managed as a unit throughout their range, but such management is in due consideration of other impacted resources.
3. In such instances when stocks have declined to a level below that capable of producing MSY, management measures promote the rebuilding the stocks. In considering the rate of rebuilding, factors other than biological considerations have been taken into account.
4. Management measures, while promoting efficiency where practicable, are designed to avoid disruption of existing social and economic structures where fisheries appear to be operating in reasonable conformance with the Act and have evolved over a period of years as reflected in community characteristics, processing capability, fleet size and distribution. These systems and the resources upon which they are based are not static, but change in the existing regulatory regime should be the result of considered action based on data and public input.
5. Management measures should contain a margin of safety in recommending allowable biological catches when the quality of information concerning the resource and ecosystem is questionable. Management plans should provide for accessing biological and socioeconomic data in such instances where the information base is inadequate to effectively establish the biological parameters of the resource or to reasonably establish optimum yield. This plan has identified information and research required for further plan development.
6. Fishing strategy has been designed in such a manner as to have minimal impact on other fisheries and the environment.

Current GOA Policy Statement (adopted through Amendment 14 in 1985)

Section 2.1 of GOA FMP Goals and Objectives for Management of Gulf Groundfish Fisheries

The North Pacific Fishery Management Council (NPFMC or the Council) is committed to develop long-range plans for managing the Gulf of Alaska groundfish fisheries that will promote a stable planning environment for the seafood industry and will maintain the health of the resource and the environment for the seafood industry and will maintain the health of the resource and the environment. In developing allocations and harvesting systems, the Council will give overriding considerations to maximizing economic benefits to the United States. Such management will:

1. Conform to the National Standards and to the NPFMC Comprehensive Fishery Management Goals.
2. Be designed to assure that to the extent possible:
    1. Commercial, recreational, and subsistence benefits may be obtained on a continuing basis.
    2. Minimize the chances of irreversible or long-term adverse effects on fishery resources and the marine environment.
    3. A multiplicity of options will be available with respect to future use of the resources.
    4. Regulations will be long-term and stable with changes kept to a minimum.

Principal Management Goal. Groundfish resources of the Gulf of Alaska will be managed to maximize positive economic benefits to the United States, consistent with resource stewardship responsibilities for the continuing welfare of the Gulf of Alaska living marine resources. Economics benefits include, but are not limited to, profits, benefits to consumers, income and employment.

To accomplish this goal, a number of objectives will be considered:

Objective 1: The Council will establish annual harvest guidelines, within biological constraints, for each groundfish fishery and mix of species taken in that fishery.

Objective 2: In its management process, including the setting of annual harvest guidelines, the Council will account for all fishery-related removals by all gear types for each groundfish species, sport fishery and subsistence catches, as well as by directed fisheries.

Objective 3: The Council will manage fisheries to minimize waste by:

1. Developing approaches to treating bycatches other than as a prohibited species. Any system adopted must address the problems of covert targeting and enforcement.
2. Developing management measures that encourage the use of gear and fishing techniques that minimize discards.

Objective 4: The Council will manage groundfish resources of the Gulf of Alaska to stimulate development of fully domestic fishery operations.

Objective 5: The Council will develop measures to control effort in a fishery, including systems to convert the common property resource to private property, but only when requested to do so by industry.

Objective 6: Rebuilding stocks to commercial or historic levels will be undertaken only if the benefits to the United States can be predicted after evaluating the associated costs and benefits and the impacts on related fisheries.

Objective 7: Population thresholds will be established for economically viable species complexes under Council management on the basis of the best scientific information, and acceptable biological catches (ABCs) will be established as defined in this document. If population estimates drop below these thresholds, ABC will be set to reflect necessary rebuilding as determined in Objective 6.

ALTERNATIVE 1(b)

Management Approach

Continue to work toward the goals of maintaining sustainable fisheries, protecting threatened and endangered species, and to protect, conserve, and restore living marine resource habitat through existing institutions and processes. Continue to manage the groundfish fisheries through the current risk averse conservation and management program that is based on a conservative harvest strategy. Under this management strategy, fishery impacts to the environment are mitigated as scientific evidence indicates that the fishery is adversely impacting the ecosystem. Management decisions will utilize the best scientific information available; the management process will be adaptive to new information and reactive to new environmental issues; incorporate and apply ecosystem-based management principles; consider the impact of fishing on predator-prey, habitat, and other important ecological relationships; maintain the statutorily mandated programs to reduce excess capacity and the race-for-fish; draw upon federal, state, and academic capabilities in carrying out research, administration, management, and enforcement; and consider the effects of fishing and encourage the development of practical measures that minimize bycatch and adverse effects of essential fishing habitat. This strategy is based on the assumption that fishing does produce some adverse impact on the environment and that as these impacts become known, mitigation measures are developed and FMP amendments are implemented. Issues will be addressed as they ripen and are identified through Council staff tasking and research priorities. The Council will continue to use the National Standards and other applicable law as its guide in practicing adaptive management and responsible decision making and to consistently amend FMPs accordingly. To meet the goal of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Adopt conservative harvest levels for single species fisheries and specify Optimum Yield (OY). [M, MSA-NS1; NAS SF]
2. Continue to use existing OY cap for BSAI and GOA groundfish fisheries.
3. Provide for adaptive management by continuing to specify OY as a range. [M, MSA to set OY; D to set as range]

Preserve Food Web:

4. Incorporate ecosystem considerations into fishery management decisions. [NAS SF]
5. Continue to protect the integrity of the food web through limits on harvest of forage species.
6. Develop a conceptual model of the food web. [EPAP]

Reduce and Avoid Bycatch:

7. Continue current incidental catch and bycatch management program.
8. Continue to manage incidental catch and bycatch through seasonal distribution of TAC and geographical gear restrictions.
9. Continue to account for bycatch mortality in monitoring annual TACs.
10. Control the bycatch of prohibited species through PSC limits.
11. Continue program to require full utilization of target species.
12. Continue to respond to evidence of population declines by closing areas and implementing gear and seasonal restrictions in affected areas.

Avoid Impacts to Seabirds and Marine Mammals:

13. Continue to cooperate with USFWS to protect ESA-listed and other seabird species. [M, ESA - listed species; D, other species]
14. Maintain current protection measures in order to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

Reduce and Avoid Impacts to Habitat:

15. Respond to new scientific information regarding areas of critical habitat by closing those regions to all fishing (i.e., no-take marine reserves such as Sitka Pinnacles).
16. Evaluate the impacts of trawl gear on habitat through the stepwise implementation of a comprehensive research plan, to determine appropriate habitat protection measures.
17. Continue to evaluate candidate areas for marine protected areas. [EO 13158]

Allocation Issues:

18. Continue to reduce excess fishing capacity, overcapitalization and the adverse effects of the race for fish. [M, SFA to continue AFA Pollock cooperative program; D, other programs; NAS SF]
19. Provide economic and community stability by maintaining current allocation percentages to harvesting and processing sectors.

Increase Alaska Native Consultation:

20. Continue to incorporate traditional knowledge in fishery management.
21. Continue current levels of Alaska Native participation and consultation in fishery management. [EO 13084]

Data Quality, Monitoring and Enforcement:

22. Continue the existing reporting requirements and Observer Program to provide catch estimates and biological information.
23. Continue on-going effort to improve community and regional economic impact assessments.
24. Increase the quality of monitoring data through improved technological means.

ALTERNATIVE 2

Management Approach

Amend the current FMPs to establish a more aggressive harvest strategy while still preventing overfishing of target groundfish stocks. The goal would be to maximize biological and economic yield from the resource. Such a management approach will be based on the best scientific information available, take into account individual stock and ecosystem variability; involve and be responsive to the needs and interests of affected states and citizens; continue to work with state and federal agencies to protect threatened and endangered species; maintain the statutorily mandated programs to reduce excess capacity and the race-for-fish; draw upon federal, state, and academic capabilities in carrying out research, administration, management, and enforcement; and consider the effects of fishing and encourage the development of practical measures that minimize bycatch and adverse effects of essential fishing habitat. This strategy is based on the assumption that fishing does not have an adverse impact on the environment except in specific cases as noted. To meet the goal of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Prevent overfishing by setting an Optimum Yield (OY) cap at the sum of OFL or the sum of the ABCs for each species.
2. Provide for adaptive management by continuing to specify OY as a range. [M - MSA to set OY; D - to set as range]

Preserve Food Web:

(none)

Reduce and Avoid Bycatch:

3. Monitor the bycatch of prohibited species and adjust or eliminate PSC limits.
4. Manage incidental catch and bycatch through closure areas for selected gear types.

Avoid Impacts to Seabirds and Marine Mammals:

6. Maintain current protection measures to protect ESA-listed seabird species. [M, ESA]
7. Maintain current protection measures to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

Reduce and Avoid Impacts to Habitat:

8. Evaluate the impacts of trawl gear on habitat through the implementation of the existing research plan, identify EFH, and determine appropriate habitat protection measures.
9. Continue to evaluate candidate areas for marine protected areas. [EO 13158]

Allocation Issues:

10. Maintain AFA and CDQ program as authorized by MSA. [M, SFA to continue AFA Pollock cooperative program; D other programs; NAS SF]

Increase Alaska Native Consultation:

11. Continue to incorporate traditional knowledge in fishery management.
12. Continue current levels of Alaska Native participation and consultation in fishery management.

Data Quality, Monitoring and Enforcement:

13. Continue the existing reporting requirements to provide catch estimates and biological information.
14. Continue on-going effort to improve community and regional economic impact assessments.
15. Consider repealing the Observer Program.

ALTERNATIVE 3

Management Approach

Accelerate 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. This policy objective seeks 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 policy recognizes the need to balance many competing uses of marine resources and different social and economic goals for fishery management. This policy will utilize and improve upon existing processes to involve a broad range of the public in decisionmaking. Further, these objectives seek to maintain the balanced goals of the National Standards and other provisions of the MSA as well as the requirements of other applicable law, all as based on the best scientific information available. This policy takes into account the National Academy of Science's Sustainable Fisheries Policy Recommendations. Under this approach, additional conservation and management measures will be taken as necessary to respond to social, economic or conservation needs, or if scientific evidence indicates that the fishery is negatively impacting the environment.

Prevent Overfishing:

1. Adopt conservative harvest levels for multi-species and single species fisheries.
2. Provide for adaptive management. Continue to specify OY as a range or a formula. [M - MSA to set OY; D - to set as range]
3. Initiate a scientific review of the adequacy of F_{40} and implement improvements accordingly. [D, MSA]
4. Continue to collect scientific information and improve upon MSSTs including obtaining biological information necessary to move Tier 4 species into Tiers 1-3 in order to obtain MSSTs.

Preserve Food Web:

5. Incorporate ecosystem-based considerations into fishery management decisions. [NAS SF]
6. Develop indices of ecosystem health as targets for management. [EPAP]
7. Improve the procedure to adjust ABCs as necessary to account for uncertainty and ecosystem factors such as predator-prey relationships and regime shifts.
8. Initiate a research program to identify the habitat needs of different species that represent the significant food web. [EPAP]

Reduce and Avoid Bycatch:

9. Continue and improve current incidental catch and bycatch management program.
10. Developing incentive programs for incidental catch and bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, VBAs, or other bycatch incentive systems.
11. Encourage research programs to evaluate current population estimates for non-target species with a view to setting appropriate bycatch limits as information becomes available.
12. Continue program to reduce discards by developing management measures that encourage the use of gear and fishing techniques that reduce discards.

Avoid Impacts to Seabirds and Marine Mammals:

13. Continue to cooperate with USFWS to protect ESA-listed and other seabird species. [M, ESA - listed species; D, other species]
14. Initiate joint research program with USFWS to evaluate current population estimates for all seabird species that interact with the groundfish fisheries.
15. Maintain or adjust current protection measures as appropriate to avoid jeopardy to ESA-listed Steller sea lions. [M, ESA]

16. Encourage programs to review status of other marine mammal stocks and fishing interactions (right whales, sea otters, etc.) and develop fishery management measures as appropriate.

Reduce and Avoid Impacts to Habitat:

17. Develop goals, objectives and criteria to evaluate the efficacy of marine protected areas and no-take marine reserves as tools to maintain abundance, diversity, and productivity of marine organisms. Consider implementation of MPAs if and where appropriate, giving due consideration to areas already closed to various types of fishing operations. [NRC MPA; EO 13158]
18. Develop a research program to identify regional baseline habitat information and mapping.
19. Evaluate the impacts of all gear on habitat through the implementation of a comprehensive research plan, to determine habitat protection measures as necessary and appropriate.
20. Identify and designate EFH and HAPC.

Allocation Issues:

21. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.
22. Maintain LLP program and further decrease excess fishing capacity and other adverse effects of the race for fish by eliminating latent licences and extending programs such as community or rights-based management to some or all groundfish fisheries. [NAS SF]
23. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of property rights based on performance.
24. To support fishery management, extend the cost recovery program to all rationalized groundfish fisheries.

Increase Alaska Native Consultation:

25. Continue to incorporate traditional knowledge in fishery management.
26. Consider ways to enhance collection of traditional knowledge from communities, and incorporate such knowledge in fishery management where appropriate.
27. Increase Alaska Native participation and consultation in fishery management.

Data Quality, Monitoring and Enforcement:

28. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.
29. Improve groundfish Observer Program, and consider ways to address the disproportionate costs associated with the current funding mechanism.
30. Improve community and regional economic impact assessments through increased data reporting requirements.
31. Increase the quality of monitoring data through improved technological means.
32. Establish a coordinated, long-term ecosystem monitoring program to collect baseline information and compile existing information from a variety of ongoing research initiatives.
33. Adopt the recommended research plan included in this document.
34. Cooperate with research institutions such as the North Pacific Research Board in identifying research priorities to address pressing fishery issues.

ALTERNATIVE 4

Management Approach

Adopt an extremely precautionary approach to managing fisheries under scientific uncertainty in which the burden of proof is shifted to the user of the resource to demonstrate that the intended use will not have a detrimental effect on the environment. Modify restrictive conservation and management measures as additional, reliable scientific information becomes available. Establish a fishery conservation and management program to maintain ecological relationships among exploited, dependent and related species as well as ecosystem processes that sustain them. Management decisions assume that science cannot eliminate uncertainty and that action must be taken in the face of large uncertainties, guided by policy priorities and the strict interpretation of the precautionary principle. Management decisions will involve and be responsive to the public but decrease emphasis on industry and community concerns; incorporate and apply strict ecosystem principles; address the impact of fishing on predator-prey, habitat and other important ecological relationships in the marine environment; implement measures that avoid or minimize bycatch; include the use of explicit allocative or cooperative programs to reduce excess capacity and allocate fish to particular gear types and fisheries; identify and incorporate non-consumptive-use values; and draw upon federal, state, academic and other capabilities in carrying out research, administration, management, and enforcement. This strategy is based on the assumption that fishing does produce adverse impacts on the environment but due to lack of information and uncertainty, we know little about these impacts. This strategy would result in a number of significant changes to the FMPs that would significantly curtail the groundfish fisheries until more information is known about the frequency and intensity of fishery impacts upon the environment. Expanded research and monitoring programs will fill critical data gaps. Once more is known about fishery effects on the ecosystem, scientific information will be used to modify and relax the precautionary measures initially adopted. To meet the goals of this overall program, the Council and NMFS will seek to achieve the following management objectives:

Prevent Overfishing:

1. Prevent overfishing by transitioning from single-species to ecosystem-oriented management of fishing activities.
2. Close an additional 20-50% of known spawning areas of target species across the range of the stock to protect the productivity and genetic diversity.

Preserve Food Web:

3. Develop and implement a Fishery Ecosystem Plan through the modification or amendment of current FMPs. [EPAP, NRC]
4. Conserve native species and biological diversity at all relevant scales of genetic, species, and community interactions.
5. Reduce the ABC to account for uncertainty and ecological considerations for all exploited stocks, including genetic, life history, food web and habitat considerations.
6. Set fishing levels in a highly precautionary manner to preserve ecological relationships between exploited, dependent, and related species.

Reduce and Avoid Bycatch:

7. Include bycatch mortality in TAC accounting and improve the accuracy of mortality assessments for target, non-target, and PSC bycatch, including unobserved mortality.
8. Reduce bycatch, incidental catch, and PSC limits (e.g., by 10%/year for five years).
9. Phase out fisheries with >25% incidental catch and bycatch rates.
10. Establish PSC limits for salmon, crab and herring in the Gulf of Alaska.
11. Set stringent bycatch limits for vulnerable non-target species based on best available information.

Avoid Impacts to Seabirds and Marine Mammals:

12. Set protection measures immediately for all seabird species and cooperate with USFWS to develop fishing methods that reduce incidental takes to levels approaching zero for all threatened or endangered species and for USFWS's list of species of management concern.
13. Initiate joint research program with USFWS to evaluate current population estimates for all seabird species that interact with the groundfish fisheries and modify protection measures based on research findings.
14. Increase existing protection measures for ESA-listed Steller sea lions by further restricting gear in critical habitat and setting more conservative harvest levels for prey base species.

Reduce and Avoid Impacts to Habitat:

15. Zone and delimit fishing gear use in the action area and establish no-take marine reserves (both pelagic and nearshore) encompassing 20-50% of management areas to conserve EFH, provide refuges from fishing, serve as experimental controls to test the effects of fisheries, protect genetic and biological diversity, and foster regeneration of depleted stocks in fished areas.
16. To protect habitat and reduce bycatch, prohibit trawling in fisheries that can be prosecuted with more selective gear types and establish trawl closure areas.
17. Manage fisheries in an explicitly adaptive manner to facilitate learning (including large no-take marine reserves that provide experimental controls).
18. Protect marine habitats, including EFH, HAPC, ESA-designated critical habitats and other identified habitat types.
19. Commit to funding a comprehensive research plan in order to provide baseline habitat atlas.

Allocation Issues:

20. Reduce excess fishing capacity and employ equitable allocative or cooperative programs to end the race for fish, reduce waste, increase safety, and promote long-term stability and benefits to fishing communities.
21. Consider non-consumptive use values.

Increase Alaska Native Consultation:

22. Utilize traditional knowledge in fishery management, including monitoring and data-gathering capabilities, through co-management and cooperative research programs.
23. Increase participation of and consultation with Alaska Native subsistence users and explicitly address the direct, indirect and cumulative fishery impacts on traditional subsistence uses and cultural values of living marine resources.

Data Quality, Monitoring and Enforcement:

24. Increase the precision of observer data through increased observer coverage and enhanced sampling protocols, and address the shortcomings of the current funding mechanism by implementing either a federally funded or equitable fee-based system for a revamped Observer Program Research Plan.
25. Improve enforcement and in-season management through improved technological means.
26. Establish a coordinated, long-term monitoring program to collect baseline information and better utilize existing research information to improve implementation of the Fishery Ecosystem Plan.
27. Adopt the recommended research plan included in this document.

KEY:

ABC	Acceptable Biological Catch
AFA	American Fisheries Act
BSAI	Bering Sea and Aleutian Islands
D	Discretionary (if no indication, action is discretionary)
EFH	Essential Fish Habitat
EO	Executive Order
EPAP	Ecosystem Principles Advisory Panel Recommendations on Ecosystem-Based Management
ESA	Endangered Species Act
FCMA	Fishery Conservation and Management Act (now called the Magnuson Stevens Act)
FMP	Fishery Management Plan
GOA	Gulf of Alaska
HAPC	Habitat Areas of Particular Concern
IR/IU	Improved Retention/Improved Utilization
M	Mandatory
MSA	Magnuson Stevens Fishery Conservation and Management Act
MSA NS#	MSA National Standard #
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
NAS SF	National Academy of Sciences Policy Recommendations for Sustainable Fisheries
NMFS	National Marine Fisheries Service
NMFS BYC	NMFS National Bycatch Plan
NPFMC	North Pacific Fishery Management Council
NRC	National Research Council
NRC MPA	National Research Council Marine Protected Areas Report
OFL	Overfishing Level
OY	Optimum Yield
PSC	Prohibited Species Catch
SFA	Sustainable Fisheries Act
TAC	Total Allowable Catch
USFWS	U.S. Fish and Wildlife Service