

DEVELOPMENT OF TIMELINE FOR IMPLEMENTING ACTIONS FOR THE GROUNDFISH MANAGEMENT POLICY

2 files: Introduction and source actions (this file)
 Sample worksheet (excel file)

The following pages contain objectives from the groundfish management policy. For each objective, where appropriate, the range of actions that frame the Council's interpretation of that objective are listed (the applicable bookend actions). Each of the bookend actions is identified according to a key at the top of the first page. 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.

Because the bookend actions only illustrate the range of actions that frame the Council's intended implementation of the objective, it does not follow that the Council would wish to schedule the bookend actions per se into a timeline. However, the bookend actions can be used to determine the type of analysis the Council would wish to implement to address that objective. Two examples below suggests actions that the Council may wish to schedule under the headings *Prevent Overfishing* or *Promote Sustainable Fisheries and Communities*, based on the range of actions that fall under these objectives.

Suggested timeline actions for *Prevent Overfishing*:

- FMP amendment to set $TAC \leq ABC$
- rockfish harvest strategy analysis
- scientific review of optimum yield
- analysis of MSSTs for priority stocks in Tiers 4-6

Suggested timeline actions for *Promote Sustainable Fisheries and Communities*:

- evaluation of pot fishing in the GOA for sablefish
- rationalization for BSAI fisheries (except pollock and sablefish) for trawl CVs and fixed gear

KEY:	✓	currently in FMP/regs
	P	not in FMP/regs, but standard practice
	O	analysis initiated, ongoing
	A	to act on measure, Council would initiate analysis
	R	to act on measure, Council would make a priority recommendation to NMFS

PREFERRED ALTERNATIVE

Prevent Overfishing:

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

PA.1		PA.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	P/A
- B ₂₀ rule for prey species (pollock, P.cod, Atka mackerel)	✓	- No change from PA.1	✓
- Specify MSSTs for Tiers 1-3	P	- 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	R
- 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	O	- Improve collection of biological information necessary to determine spawning stock biomass estimates, particularly for species in Tier 4-5	R
		- Develop appropriate harvest strategies for rockfish	A
- Target species closures when harvest limit is reached	✓	- No change from PA.1	✓
- Species TAC distributed spatially for some BSAI and GOA species	✓	- No change from PA.1	✓

2. Continue to use existing optimum yield cap for BSAI (as stated in current law) and GOA groundfish fisheries.

PA.1		PA.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	✓	- Revisit the calculation of the OY caps to determine their relevancy to current environmental conditions and our knowledge of current stock levels	A

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

PA.1		PA.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	✓	- Revisit the calculation of the OY caps to determine their relevancy to current environmental conditions and our knowledge of current stock levels	A

4. Initiate a scientific review of the adequacy of F₄₀ and adopt improvements as appropriate.

PA.1		PA.2	
- Conduct F ₄₀ review and adopt appropriate measures as necessary	✓/O	- Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC, species-specific production patterns, and ecosystem considerations	O/R
		- Revisit the calculation of the OY caps to determine their relevancy to current environmental conditions and our knowledge of current stock levels	A

5. Continue to improve the management of species through species categories.

PA.1		PA.2	
- Set group TAC for "other 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.)	O
- Maintain species categories (target, "other species", PSC and non-specified species)	✓	- Consider breaking sharks and skates and additional groups out of "other species" group for TAC setting	A
		- Develop criteria to bring a non-specified species into a managed category	A

Promote Sustainable Fisheries and Communities:

6. 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
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.

PA.1		PA.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	A
- 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)	O	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities	O/A

9. Promote increased safety at sea.

Preserve Food Web:

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

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

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

PA.1		PA.2	
- Develop ecosystem indicators for future use in TAC-setting	O	- Develop and implement, as appropriate, criteria for using key ecosystem indicators in the TAC-setting process	R
- 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	O		
		- Develop, implement and update as necessary, procedures to account for uncertainty in estimating ABC, species-specific production patterns, and ecosystem considerations	O/R

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

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

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

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

Manage Incidental Catch and Reduce Bycatch and Waste:

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

PA.1		PA.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	O A A
- 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.	A
- 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	A		
- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits	A	- BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based and abundance based approach to setting limits	A
- 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	O
- Maintain MRAs	✓	- Repeal or modify MRAs and establish a system of caps and quotas	A

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

PA.1		PA.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)	A
- Maintain VIP program	✓	- Repeal VIP program	O
		- Repeal or modify MRAs and establish a system of caps and quotas	A

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.

R

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.

PA.1		PA.2	
- Review effectiveness of coop managed PSC reduction	A		
- BSAI: Consider reducing PSC limits for herring, crab, halibut, and salmon to the extent practicable (0-10%) (for purposes of analysis will use 10%)	A	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes)	A
- 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	O O/A	- 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%	O O/A A
- IR/IU for Pollock and P. cod, yellowfin and rocksole (BSAI only), shallow water flatfish (GOA only)	✓/O	- Extend to other species as appropriate	A

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

PA.1		PA.2	
- Species TAC distributed spatially for some BSAI and GOA species	✓	- No change from PA.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.	A
- GOA: Identify salmon savings areas and establish PSC limits to manage	O	- Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species	O/A
- Retain existing no trawl zones and fixed gear restrictions. Bottom trawl ban in BSAI for pollock	✓	- BSAI and GOA prohibition on pollock bottom trawl	✓/ A

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.

R

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

PA.1		PA.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	A A
- 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%)	A	- BSAI: Reduce PSC limits for herring, crab, halibut and salmon to the extent practicable (0-20% for analytical purposes)	A
- GOA: Identify salmon savings areas and establish PSC limits to manage - GOA: Establish PSC limits or other appropriate measures on salmon (for example, NTE a 25,000 fish cap for Chinook and a 20,500 fish cap for 'other salmon'); establish PSC limits or other appropriate measures on crab and herring based on biomass or other fishery data	A O O/A	- 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 PSC by 0-10%	O O/A A
- For those PSC species where annual population estimates exist, explore a mortality rate based approach to setting limits	A	- BSAI/GOA: For those PSC species where annual population estimates exist, explore a mortality rate-based and abundance based approach to setting limits	A

21. Reduce waste to biologically and socially acceptable levels.

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

Avoid Impacts to Seabirds and Marine Mammals:

22. Continue to cooperate with USFWS to protect ESA-listed species, and if appropriate and practicable, other seabird species.

PA.1		PA.2	
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	✓	- No change from PA.1	✓
- Take of more than 4 short-tailed albatross within 2 years triggers consultation in groundfish longline fisheries	✓	- No change from PA.1	✓
- Longline: Maintain current seabird avoidance measures as approved in 2001	✓	- Longline: Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take for all seabird species	A
- Trawl: Cooperate with USFWS to develop scientifically-based fishing methods that reduce incidental take of ESA-listed seabird species	O	- Trawl: 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	R/A

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

PA.1		PA.2	
- B ₂₀ rule for prey species (pollock, P.cod, Atka mackerel)	✓	- No change from PA.1	✓
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	✓	- No change from PA.1	✓
- Species TAC distributed spatially for some BSAI and GOA species	✓	- No change from PA.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	O/A
- Review cumulative impacts of opening AI pollock fishery	O	- Modify AI SSL closures and designation of Critical Habitat as appropriate scientific information becomes available	A

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

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

PA.1		PA.2	
- B ₂₀ rule for prey species (pollock, P.cod, Atka mackerel)	✓	- No change from PA.1	✓
- No directed fishery for forage fish (forage fish ban, Amendment 36/39)	✓	- No change from PA.1	✓
- Species TAC distributed spatially for some BSAI and GOA species	✓	- No change from PA.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	O/A
- Review cumulative impacts of opening AI pollock fishery	O	- Modify AI SSL closures and designation of Critical Habitat as appropriate scientific information becomes available	A

Reduce and Avoid Impacts to Habitat:

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

PA.1		PA.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	A
		- Evaluate effectiveness of existing closures.	A
		- Develop appropriate inseason closure areas in GOA to address bycatch of halibut, salmon, and/or crab when PSC cap is reached for that species	A
		- Determine extent of adverse effects from fishing, if any. Implement mitigation measures, if necessary.	O

27. Identify and designate EFH and HAPC, pursuant to Magnuson-Stevens Act rules, and mitigate fishery impacts as necessary and practicable to continue the sustainability of managed species.

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

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

PA.1		PA.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.	O		
- Develop MPA efficacy methodology including program goals, objectives, and criteria, for establishing MPAs	A		

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

30. 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.

PA.1		PA.2	
- Develop MPA efficacy methodology including program goals, objectives, and criteria, for establishing MPAs	A	- 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	A
		- Establish Aleutian Island management area to protect coral/live bottom habitats	A

Promote Equitable and Efficient Use of Fishery Resources:

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

PA.1		PA.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	A
- 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)	O	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities	O/A

32. Maintain LLP program and modify 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.

PA.1		PA.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)	O	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities	O/A

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

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

PA.1		PA.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)	O	- Rationalize all fisheries (all GOA, BSAI non-pollock/sablefish) - Ensure CDQ program maximizes benefits in rural communities	O/A

Increase Alaska Native Consultation:

35. Continue to incorporate local and traditional knowledge in fishery management.

PA.1		PA.2	
- Develop and implement procedures to incorporate local and traditional knowledge into fisheries management	O	- Incorporate additional local and traditional knowledge from research	R

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

PA.1		PA.2	
- Develop and implement procedures to incorporate local and traditional knowledge into fisheries management	O	- Incorporate additional local and traditional knowledge from research	R

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

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

Improve Data Quality, Monitoring and Enforcement:

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

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

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

PA.1		PA.2	
- Continue existing Observer coverage or modify based on data and compliance needs	✓/O	- Expand/modify observer coverage based on scientific data and compliance needs (applies to all vessels: <60' and ≥ 60')	A
- Modification should be scientifically-based (e.g., random placement, flexibility, variable rate)	O		
- Industry pays for observer deployment related costs	✓	- Develop and implement alternate funding mechanisms (a) Federal funding (b) Research Plan (e.g., fee-based)	O

40. Improve community and regional economic impact costs and benefits through increased data reporting requirements.

PA.1		PA.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	✓	- Develop programs for mandatory economic data collection while protecting confidential information	A
		- Explore programs that collect, verify, then aggregate economic data through independent third party (accounting firm/other) while protecting confidential information on an individual/firm basis	A
		- Collect and verify aggregate economic data through independent third party (e.g. accounting firm)	A

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

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

42. 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. R

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

44. Promote enhanced enforceability.

45. Continue to cooperate and coordinate management and enforcement programs with the Alaska Board of Fish, Department of Fish and Game, and Alaska Fish and Wildlife Protections, the U.S. Coast Guard, NMFS Enforcement, IPHC, Federal Agencies, and other organizations to meet conservation requirements, promote economically healthy and sustainable fisheries and fishing communities, and maximize efficiencies in management and enforcement programs through continued consultation, coordination, and cooperation.