

Programmatic Policy Evaluation Discussion Paper

For Council input on PEIS structure and alternatives

January 23, 2024¹

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1 Introduction

Staff are seeking feedback at this meeting on draft management policy(ies), goals, and objectives to be included in the Bering Sea and Aleutian Islands (BSAI) and Gulf of Alaska (GOA) Groundfish, BSAI king and Tanner crab, Scallop, and Salmon Fishery Management Plans (FMP), and for the halibut fisheries under the Council’s jurisdiction. The intent in bringing this before the Council is that the information gathered at this meeting, in conjunction with the Climate Scenario Planning Workshop in June 2024 will provide the National Marine Fisheries Service (NMFS) with adequate information to begin the National Environmental Policy Act (NEPA) Scoping process by drafting and issuing a Notice of Intent (NOI) for the Programmatic Environmental Impact Statement (PEIS) over the summer. The NOI is expected to request input from a diverse group of stakeholders and Tribes on the Council’s proposed action to revise its fisheries management policies, goals, and objectives. In October 2024, the Council will review any scoping comments that are received from Tribes and stakeholders, as well as the workshop report, to use in further refinement of alternatives for the programmatic evaluation before staff begin to prepare the analysis for initial review in 2025.

It is important to clarify that the purpose of an EIS is to support informed decision making and provide the public with information about the action and processes. NEPA, however, does not mandate particular results or substantive outcomes. Accordingly, the EIS evaluating the Council’s proposed action to revise its management policy, goals, and objectives is not meant to be action-forcing, in that it will not mandate particular results or substantive outcomes. Once the Council selects and NMFS implements the new management policy(ies), goals, and objectives, there may be follow-on actions necessary and/or appropriate to implement that new management policy, goals, and objectives.

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For definition of acronyms and abbreviations, see online list: <https://www.npfmc.org/library/acronyms>

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2 Background

Beginning in October 2022, the Council has asked for information regarding a programmatic evaluation of its fisheries management policies, with specific reference to impacts of climate change on the marine ecosystems and the people who are dependent on those ecosystems.² In 2023, the Council tasked the Ecosystem Committee with developing recommendations on a purpose and need statement and alternatives for such an action,³ and these efforts culminated in the Ecosystem Committee's May 2023 recommendations which were presented to and considered by the Council at the corresponding June 2023 meeting.⁴ The Ecosystem Committee reiterated and clarified some of its previous recommendations to the Council in the report from its September 2023 meeting, presented to the Council in October.⁵

The Council's draft purpose and need statement and alternatives (from June 2023) are included below:

Purpose and Need

The federal action under consideration is to clarify⁶ the management policy and objectives for all federal fisheries managed under the Magnuson-Stevens Act and the Halibut Act under the jurisdiction of the North Pacific Fishery Management Council (Council) in the Gulf of Alaska, the Bering Sea, and Aleutian Islands, including objectives for adapting to the effects of climate change. The purpose of this action is to ensure that the management framework of the Council is adequate to meet current and forthcoming challenges in the federal fisheries, and to describe and implement that framework in a comprehensive manner to improve the Council's ecosystem-based management approach. Given changing conditions in the fisheries, new Council efforts, and significant climate-related impacts on the marine ecosystem, there is a need to evaluate the management policy and objectives for federal fishery management to be adaptable and responsive in order to better meet the objectives of the Magnuson Stevens Act and Halibut Act, to ensure long-term sustainability of the stocks managed under those statutes, and to sustain participation in and benefits from the fisheries over time. The Council intends to ensure that the management framework is structured to use the best available science, which includes climate science and local and traditional knowledge, and also recognizes Alaska tribes and communities that rely on subsistence resources.

Alternatives

Alternative 1: Maintain current ecosystem-based management policy and objectives for Council-managed fisheries (status quo)

Alternative 2: Adopt a more adaptive ecosystem-based management policy and objectives for Council-managed fisheries which would enable the Council to develop and implement climate-resiliency tools; new pathways to incorporate indigenous, local, and traditional knowledge; and new tools to assess and adapt to risk in the face of additional uncertainty in stock status and distribution due to climate driven marine ecosystem changes.

At the December 2023 Council meeting, the Council endorsed the staff [workplan](#) for pursuing IRA funding to support climate resiliency efforts in NPFMC fishery management. One of the projects IRA funding would support is the completion of the programmatic evaluation of the Council's management policy and objectives for all active federal fisheries managed under the Council's jurisdiction, including

² [October 2022 Council motion](#)

³ [February 2023 Council motion](#)

⁴ [May 2023 Ecosystem Committee Recommendations for PEIS, May 2023 Ecosystem Committee Report](#)

⁵ [September 2023 Ecosystem Committee Report](#)

⁶ Note, this language is directly from the Council's motion. To avoid ambiguity in the Notice of Intent for the EIS in support of this programmatic evaluation, the potential Federal action will be identified as *revising* the management policies and objectives in the FMPs.




potential adjustments to be adaptive to climate-driven marine ecosystem changes and include new knowledge pathways and management tools.

The Council has emphasized continuing to provide opportunities for Tribal entities and stakeholders to contribute to the development of the programmatic evaluation and climate-related initiatives. As a result, the IRA proposal includes funding for several workshops in support of IRA-funded projects, to allow a more informal and open dialogue among Council, SSC, and AP members and stakeholders and Tribal entities as these projects develop. The intent is that these workshops may provide insights to inform the programmatic evaluation or the next steps after the programmatic evaluation (the Council's new fishery management policy, goals, and objectives) is completed.

The workplan also highlighted the scope and timeline for what might be accomplished with IRA funds, including the PEIS, if the Council is successful in its proposals. Table 1 illustrates the updated timeline and milestones for activities that could be accomplished using the grant funding, should the proposals be accepted. Proposals will be submitted before the February 2024 Council meeting.

Table 1 identifies October 2024 as the time for the Council to review scoping comments and refine alternatives. To keep to the proposed timeline, by the end of the October meeting the Council will ideally have many of the elements of its new Fisheries Management Policy identified.

Table 1 Draft timeline and milestones for Council climate work

Council meetings	Dedicated staff position	Management policy amendments through a Programmatic EIS	Assessment and climate science amendments
2024 Feb Apr Jun (summer) Oct Dec		Council input on structure and alternatives for PEIS, questions for workshop	SSC identifies dynamic reference point or other case studies for SCS8 SSC scopes contract work needed for sablefish MEY case study
		Council Climate Scenario Workshop	
		July: Issue Notice of Intent to Prepare a Programmatic EIS	August: SCS 8 national workshop
		Review scoping comments, workshop report, and refine alternatives	Discussion paper on potential for short- and long-term climate resilient adjustments (e.g. reference points, harvest control rules)
2025 (Feb) Apr Jun Oct Dec		Council Workshop on LKTK onramp opportunities, to inform PEIS	SSC Workshop to prioritize tools and procedures for FMP and non-FMP changes, and to develop an implementation workplan
		Draft PEIS	
		Final PEIS; Council adopts revised management policy and objectives	SSC and Council implement initial non-FMP amendment changes to groundfish harvest specifications process
2026 (Feb) Apr Jun Oct Dec		Council Workshop for future actions to further implement policy	
		Council develops workplan and initiates action for next steps	SSC and Council implement initial non-FMP amendment changes to BSAI crab harvest specifications process
		Tentative - Initial review(s)	
2027		Tentative - Final action(s)	Initial/Final Review of FMP analyses for harvest specification adjustments

3 Drafting a Management Policy, Goals, and Objectives

As articulated in the December 2023 IRA funding workplan, the process of developing the programmatic evaluation is an opportunity for the Council to articulate a strategic policy vision for what is climate resilient management in the North Pacific federal fisheries, which would drive operational changes (analytical and decision tools, management measures, Council process changes) as needed to bring the management framework in line with this policy. The programmatic evaluation is broad and high-level in scope, and the Council has the potential to focus it in a number of ways as different approaches to policies, knowledge pathways, and management tools are considered. The Council could use the programmatic evaluation as an opportunity to identify specific areas of the management program that are a priority for policy adjustment for the future.

The programmatic evaluation aims to transition from the current FMP-specific management approach, goals, and objectives to high-level guidance spanning several Council FMPs. The programmatic evaluation process explicitly links and extends across all Council fisheries the work-to-date on climate readiness, ecosystem-based management, and integration of diverse knowledge sources. The current FMP goals, objectives, and policies were drafted at different points in the Council's history; they are structured differently and reflect different points in the evolution of the MSA and NS guidelines. Revising goals/objectives/policies through the programmatic evaluation is an opportunity to:

- Cleanup: Revisit/refresh goals and objectives to ensure they reflect current conditions, Council policies, etc.
- Increase consistency: Achieve & communicate high level guidance in a more consistent and comprehensive way, across fisheries/FMPs.
- Look ahead: Address the purpose & need focus on “meet[ing] current and forthcoming challenges in the federal fisheries, and to describe and implement that framework in a comprehensive manner to improve the Council’s ecosystem-based management approach” and reference/incorporate IRA funded work on climate readiness.

Themes from the Council's recent discussions related to building climate readiness were highlighted in the October 2023 staff paper and are summarized in Appendix 2, **however, more direction is still needed from the Council regarding how to structure the programmatic evaluation to best meet the Council's intent.** Staff have provided some information to focus Council discussion about structure and content of the programmatic evaluation, by outlining draft policy, goals, and objectives (next section). Some specific ideas that have been raised at the SSC and Council that could be folded into the programmatic evaluation include how to modify the management process to better react to abrupt rather than gradual changes; how to frame and communicate the Council's risk tolerance and exploration of risk-based tools, both for stock considerations but also for fishing business and community outcomes; how to define community resilience; how to define precautionary management; how to integrate climate science outputs (such as ACLIM and GOACLIM) in decisionmaking; how to consider equity and environmental justice in management; and how to recognize the reliance of Alaska tribes and communities on subsistence resources affected by Council-managed fisheries.

From a staff perspective, the goal for the Council at the next review (currently scheduled for October 2024) is to develop language for the fishery management policies, goals, and objectives which would align with Alternative 2- incorporating climate resiliency, local, traditional, and indigenous knowledge, and capacity to adapt to risk. To begin thinking about the actual content and structure of these elements, staff have begun to look at where the Council's management policies and goals are consistent across the groundfish, crab, scallop, and salmon FMPs, where they differ, and how they align or where they may not align with the themes described in Appendix 2. The following section provides these high-level observations of the FMPs' status quo, which reflect Alternative 1. As Alternative 2 is currently written, staff expect that the new policy and objectives would replace the current management policy, goals, and

objectives within the FMPs for BSAI and GOA Groundfish, BSAI king and Tanner crab, Scallop, and Salmon (see Appendix 1A-D). There are significant differences across the FMPs with respect to their current policies, goals, and objectives. Structurally, a new/revised Fisheries Management Policy could be made up of several components, similar to the current Groundfish Management Policy:

- A new/revised Management Approach Statement (see Appendix 1A for the current Groundfish Management Approach Statement) that could apply to the groundfish, crab, scallop, and salmon fisheries/FMPs.
- New/revised management goals
- New/revised management objectives

The Council should consider whether the intent is to adopt a single policy statement to include in all FMPs, or whether there will be additional FMP-specific objectives that need to be retained for specific fisheries. **The Council should begin to consider specific language for the policy(ies) to be analyzed under Alternative 2**, and request any additional staff work (for example, strawman language) that would help the Council with that discussion. The “Next Steps for the Council” section at the end of this paper provides staff prompts that might help the Council clarify its intent.

4 Comparison of FMP Goals, Objectives, and Policies

The following offers examples of notable similarities and differences between FMP goals, objectives, and policies, but is not a comprehensive comparison. Additionally, staff have not yet identified halibut regulations to compare to FMP language.

High level observations of FMP content and structure

The terms goals, objectives, policies, purpose, etc. are used and structured differently across FMPs.

- Groundfish:
 - Management approach statement
 - Goal statements
 - Objectives, including intended future actions
- Crab
 - Management goal statement
 - Management objective statements, descriptions, and considerations
- Scallop
 - FMP objective statement
 - Management goal statement
 - Management objectives, descriptions, and considerations
- Salmon
 - Description of Pacific Salmon Treaty
 - Management policy
 - Management objectives with descriptions

All goal/objective/policy statements include some similar ingredients:

- A biological sustainability objective
- A social/economic objective
- All include the phrase “adaptive management”

- None refer to climate change or non-stationarity.⁷ The Groundfish Management Policy refers to “potential changes in productivity may be caused by fluctuations in natural oceanographic conditions, fisheries, and other, non-fishing activities.”
- All include references to stability, and one of the groundfish management objectives refers to disruption. While the Groundfish FMP invokes stability as an objective (“Promote management measures that, while meeting conservation objectives, are also designed to avoid significant disruption of existing social and economic structures”) the crab and scallop FMPs state that refer to stability as a form of social benefit (Economic benefits are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable social benefits such as the economic stability of coastal communities.)

Some significant differences

- Adaptive management: All except scallop include this phrase, only groundfish refers to specific steps (“implement an adaptive approach by....”)
- Crab and scallop FMPs include objectives that the groundfish and salmon FMPs do not:
 - Gear conflicts
 - Due process
- Vessel safety - all mention; but crab, scallop, and salmon include a specific statement regarding temporary adjustments due to weather or other ocean conditions affecting the safety of vessels
- Salmon is the only one that does not include a habitat conservation objective
- Crab FMP does not include reference to incidental catch of non-directed species
- Crab, scallop, and salmon FMPs include no reference to preserving food web, impacts to seabirds or marine mammals
- Crab and salmon FMP include reference to subsistence users, but none refer to LKTKS or indigenous knowledge systems
- All except salmon include avoiding impacts to habitat and some statement about collecting data and monitoring.
- Research and management objective - all except salmon include, but are structured differently.
 - E.g. groundfish includes some obj that may be considered complete, such as Develop funding mechanisms that achieve equitable costs to the industry for implementation of the North Pacific Groundfish Observer Program.
 - Crab includes potential research topics
 - Crab & scallop describe ADFG vs. NMFS responsibilities (where groundfish has a broader reference to coordination)

⁷ The SSC in April 2023 noted that there was a substantial effort to define non-stationarity at the SCS7 workshop, but a clear definition is not provided in the report and the main non-stationary process identified is spatial population changes. If non-stationarity is going to continue to be a commonly used term associated with climate change, the SSC recommends that the authors of the report better define non-stationarity for a broad audience and provide examples of which processes are less stationary than the previously observed baseline. It also should be noted that statistical non-stationarity can mean either a change in the mean of the process, the variance of the process, or both, or it could refer to a change in the covariance among related processes. Staff emphasize the need for defining this term for the public.

5 Next Steps for the Council

If the Council can provide direction on or answers to any of the questions or points below at this time, that would be helpful for staff to begin formulating a framework for analysis of the status quo. Additionally, if the Council finds that there are questions posed below that the Council wants included in the NOI for NEPA Scoping in order to receive input from Tribes and stakeholders, those should be identified at this meeting. The Council will need to provide input and direction on the points and questions below by the end of the October 2024 meeting so that staff can begin analysis of the alternatives. At the Council's direction, staff could also consider providing strawman language, potentially incorporating scoping comments, to bring to the October meeting. As a reminder, this is an iterative process and once analysis begins, the Council retains flexibility to make changes to the alternatives at any point prior to final action.

Cleanup and consistency across FMPs:

- Identify components of existing goals, objectives, & purpose statements that could be considered completed, no longer relevant, and/or reflect the time in which they were developed.
- Identify components of existing goals, objectives, & purpose statements that could be considered included by reference (or contained within, or superseded by) other guidance including other Council policies/visions/statements, the National standards and guidelines.
- Identify components of existing goals, objectives, & purpose statements that are currently specific to each FMP, to inform the Council's consideration of what might be important to carry forward into revised objectives.

Looking ahead:

- **Identify opportunities (where/how could this fit?) and begin developing language (e.g., draft objectives and policy statement)** for Council consideration in order to more closely align high level guidance with the PEIS purpose and need statement and climate readiness themes identified in the IRA discussion document.
- Ideas for a revised draft goals/purpose statement could include but are not limited to the following. The Council should clarify whether these are the right kinds of ideas to look at bringing into a revised management policy and to explore through the programmatic evaluation and scoping process and workshop discussions. Does the Council have other ideas at this point?
 - Explicitly recognizing climate change, non-stationarity, and specific concerns such as changing spatial distribution of fish stocks and productivity.
 - Systematically considering the climate resilience of management actions and supporting a timely and responsive Council process.
 - Identify high-level objectives that could map to assessment and climate science milestones (including under potential IRA funding), e.g., for further incorporating climate science and information, supporting climate resilient harvest policies, and further developing formal on-ramps for climate information.
 - Explicitly reference strengthening the Council community's ability to understand & communicate about risk and make decisions under uncertainty, for considerations regarding status of stocks as well as industry and community outcomes.
 - Identify potential objectives that would consider equity and environmental justice in fisheries management and reflect local, traditional, and indigenous knowledge, and account for impacts to marine resources that are important for subsistence users.

- Identify potential objectives for public process regarding stronger engagement with Alaska Native communities and Tribes, as well as a robust and inclusive process for engaging stakeholders & building shared understanding of resilience and adaptive capacity.
- Does the Council want to remove any objectives (from any of those in Appendix 1) that are no longer relevant? If so, is the Council ready to articulate any of these specifically?
- In addition to a high-level programmatic view, are there specific areas of the management program that the Council identifies as a priority for policy adjustment, and which might be a focus of this evaluation? These might include the robustness of the groundfish harvest control rules, groundfish interactions with other ecosystem resources through bycatch of other target fishery resources or prey species, or habitat disturbance, or equitable access to resources given changing distributions and environmental impacts. If not implemented as part of this programmatic evaluation, it is expected that these actions could be flagged as potential follow-on actions to address after the Council's recommendation for adoption of management policy(ies), goals, and objectives/the finalization of the programmatic evaluation.
- The Council could also consider what sort of analysis the programmatic evaluation could include, in terms of content, that would help inform the Council's final recommendation for adoption of management policy(ies), goals, and objectives.
 - Should the programmatic evaluation include a comprehensive analysis of the cumulative impact of Council-managed fisheries given specific management changes that have occurred since the 2004 PSEIS? This could include evaluation of the effectiveness of existing policies, goals, and objectives to inform the revision or development of new management policy(ies), goals, and objectives, and taking into account other new and ongoing non-fishery activities affecting the marine environment.
 - Should the programmatic evaluation update the environmental and socioeconomic baselines to be used in the assessment of impacts of Council-managed fisheries? This could inform whether to build off the PEIS for ongoing management actions.
 - How can the programmatic evaluation help to achieve a better understanding of the impact of changing climate conditions and what predicted conditions mean for managing fisheries? This could help evaluate whether the current management is durable in changing conditions or whether there are cumulative effects or unintended consequences of the fisheries that are being missed as a result of the increased rate of change.

6 References and Additional Resources

NPFMC. 2023, December. Inflation Reduction Act Funding for Climate Resiliency Planning: Workplan. Available at: <https://meetings.npfmc.org/CommentReview/DownloadFile?p=9ad5dbcb-4b72-4ee9-a091-2eaf57ea36d9.pdf&fileName=B1%20IRA%20Funding%20Staff%20Workplan.pdf>

NPFMC. 2023, February. Roadmap for Reevaluating the Programmatic Groundfish Supplemental Environmental Impact Statement. Available at: <https://meetings.npfmc.org/CommentReview/DownloadFile?p=fa76be3c-e664-4d45-af83-aa5ece90369d.pdf&fileName=D2%20REFERENCE%20February%202023%20PSEIS%20Roadmap%20Discussion%20Paper.pdf>

NPFMC. 2023, March. PEIS Prompt for Discussion. Available at: <https://meetings.npfmc.org/CommentReview/DownloadFile?p=595d360a-e528-446f-83c0-3f20272c11d4.pdf&fileName=Prompt%20for%20PEIS%20Discussion.pdf>

Appendix 1. Current Management Policies, Goals and Objectives for Comparison

Appendix 1A. BSAI and GOA Groundfish FMPs: Management Policy, Goals, and Objectives

Management Approach Statement

The Council's policy is to apply 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 the future, as well as current generations.

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 different levels of uncertainty. This management approach has in recent years been labeled the precautionary approach. 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 ensure 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-based 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. Given this intent, the fishery management goal is to provide sound conservation of the living marine resources; provide socially and economically viable fisheries for the well-being of 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 use and improve upon the Council's existing open and transparent process of public involvement in decision-making.

Goals & Objectives of BSAI and GOA Fishery Management Plans, as adopted through the 2004 PSEIS

Goal Statement	Objectives
Prevent Overfishing	<ol style="list-style-type: none"> 1. Adopt conservative harvest levels for multi-species and single species fisheries and specify optimum yield. 2. Continue to use the optimum yield caps for the BSAI and GOA groundfish fisheries. 3. Provide for adaptive management by continuing to specify optimum yield as a range. 4. Provide for periodic reviews of the adequacy of F40 and adopt improvements, as appropriate. 5. Continue to improve the management of species through species categories.
Promote Sustainable Fisheries and Communities	<ol style="list-style-type: none"> 6. Promote conservation while providing for optimum yield in terms of 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. 9. Promote increased safety at sea.
Preserve Food Web	<ol style="list-style-type: none"> 10. Develop indices of ecosystem health as targets for management. 11. Improve the procedure to adjust acceptable biological catch levels 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 Incidental Catch and Reduce Bycatch and Waste	<ol style="list-style-type: none"> 14. Continue and improve current incidental catch and bycatch management program. 15. Develop incentive programs for bycatch reduction including the development of mechanisms to facilitate the formation of bycatch pools, vessel bycatch allowances, 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 total allowable catch and geographical gear restrictions. 19. Continue to account for bycatch mortality in total allowable catch accounting and improve the accuracy of mortality assessments for target, prohibited species catch, and noncommercial species. 20. Control the bycatch of prohibited species through prohibited species catch limits or other appropriate measures. 21. Reduce waste to biologically and socially acceptable levels.

Goal Statement	Objectives
<p>Reduce and Avoid Impacts to Seabirds and Marine Mammals</p>	<p>22. Continue to cooperate with U.S. Fish and Wildlife Service (USFWS) to protect ESA-listed species, and if appropriate and practicable, other seabird species.</p> <p>23. Maintain or adjust current protection measures as appropriate to avoid jeopardy of extinction or adverse modification to critical habitat for ESA-listed Steller sea lions.</p> <p>24. Encourage programs to review status of endangered or threatened marine mammal stocks and fishing interactions and develop fishery management measures as appropriate.</p> <p>25. Continue to cooperate with NMFS and USFWS to protect ESA-listed marine mammal species, and if appropriate and practicable, other marine mammal species.</p>
<p>Reduce and Avoid Impacts to Habitat</p>	<p>26. Review and evaluate efficacy of existing habitat protection measures for managed species.</p> <p>27. Identify and designate essential fish habitat and habitat areas of particular concern pursuant to Magnuson-Stevens Act rules, and mitigate fishery impacts as necessary and practicable to continue the sustainability of managed species.</p> <p>28. Develop a Marine Protected Area policy in coordination with national and state policies.</p> <p>29. Encourage development of a research program to identify regional baseline habitat information and mapping, subject to funding and staff availability.</p> <p>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.</p>
<p>Promote Equitable and Efficient Use of Fishery Resources</p>	<p>31. Provide economic and community stability to harvesting and processing sectors through fair allocation of fishery resources.</p> <p>32. Maintain the license limitation program, modified as necessary, and further decrease excess fishing capacity and overcapitalization by eliminating latent licenses and extending programs such as community or rights-based management to some or all groundfish fisheries.</p> <p>33. Provide for adaptive management by periodically evaluating the effectiveness of rationalization programs and the allocation of access rights based on performance.</p> <p>34. Develop management measures that, when practicable, consider the efficient use of fishery resources taking into account the interest of harvesters, processors, and communities.</p>
<p>Increase Alaska Native & Community Consultation</p>	<p>35. Continue to incorporate local and traditional knowledge in fishery management.</p> <p>36. Consider ways to enhance collection of local and traditional knowledge from communities, and incorporate such knowledge in fishery management where appropriate.</p> <p>37. Increase Alaska Native participation and consultation in fishery management.</p>

Goal Statement	Objectives
<p>Improve Data Quality, Monitoring and Enforcement</p>	<p>38. Increase the utility of groundfish fishery observer data for the conservation and management of living marine resources.</p> <p>39. Develop funding mechanisms that achieve equitable costs to the industry for implementation of the North Pacific Groundfish Observer Program.</p> <p>40. Improve community and regional economic impact costs and benefits through increased data reporting requirements.</p> <p>41. Increase the quality of monitoring and enforcement data through improved technology.</p> <p>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.</p> <p>43. Cooperate with research institutions such as the North Pacific Research Board in identifying research needs to address pressing fishery issues.</p> <p>44. Promote enhanced enforceability.</p> <p>45. Continue to cooperate and coordinate management and enforcement programs with the Alaska Board of Fish, Alaska Department of Fish and Game, and Alaska Fish and Wildlife Protection, the U.S. Coast Guard, NMFS Enforcement, International Pacific Halibut Commission, 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.</p>

Appendix 1B. The FMP for BSAI King and Tanner Crabs: Management Goal and Objectives

The management goal is to maximize the overall long-term benefit to the nation through coordinated Federal and State management of BSAI king and Tanner crab stocks, consistent with responsible stewardship for conservation of the crab resources and their habitats. Within the scope of the management goal, seven specific objectives have been identified. These relate to stock condition, economic and social objectives of the fishery, gear conflicts, habitat, weather and ocean conditions affecting safe access to the fishery, access of all interested parties to the process of revising this FMP and any implementing regulations, and necessary research and management. Each of these objectives requires relevant management measures (see Section 3). Several management measures may contribute to more than one objective, and several objectives may mesh in any given management decision on a case-by-case basis.

2.2.1 Biological Conservation Objective

Ensure the long-term reproductive viability of king and Tanner crab populations.

To ensure the continued reproductive viability of each king and Tanner crab population through protection of reproductive potential, management must prevent overfishing (see acronyms and definitions). Management measures may also be adopted to address other biological concerns such as: restricting harvest of crabs during soft shell periods and maintaining low incidental catch of nonlegal crab. The maintenance of adequate reproductive potential in each crab stock will take precedence over economic and social considerations.

2.2.2 Economic and Social Objective

Maximize economic and social benefits to the nation over time.

Economic benefits are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable social benefits such as the economic stability of coastal communities. To ensure that economic and social benefits derived for fisheries covered by this FMP are maximized over time, the following will be examined in the selection of management measures:

1. The value of crab harvested (adjusted for the amount of crab dying prior to processing and discarded, which is known as deadloss) during the season for which management measures are considered,
2. The future value of crab, based on the value of a crab as a member of both the parent and harvestable stock,
3. Subsistence harvests within the registration area, and
4. Economic impacts on coastal communities.

This examination will be accomplished by considering, to the extent that data allow, the impact of management alternatives on the size of the catch during the current and future seasons and their associated prices, harvesting costs, processing costs, employment, the distribution of benefits among members of the harvesting, processing and consumer communities, management costs, and other factors affecting the ability to maximize the economic and social benefits as defined in this section. Social benefits are tied to economic stability and impacts of commercial fishing associated with coastal communities. While social benefits can be difficult to quantify, economic indices may serve as proxy measures of the social benefits which accrue from commercial fishing. Subsistence harvests must also be considered to ensure that subsistence requirements are met as required by law. State law requires that a reasonable opportunity be provided for subsistence use before other consumptive use is allowed. It is very difficult to evaluate the economic impact of subsistence fishing. Yet, fish, shellfish, and game harvested by subsistence users to provide food for the family or social group can greatly exceed the economic value of the product itself (Wise et. al., 2022). Some coastal communities in the BSAI region are even more heavily dependent on commercial fish harvesting and/or processing.

2.2.3 Gear Conflict Objective

Minimize gear conflict among fisheries.

Management measures developed for the king and Tanner crab fisheries will take into account the interaction of those fisheries, and the people engaged in them, with other fisheries. To minimize gear conflict among fisheries, the compatibility of different types of fishing gear and activities on the same fishing grounds should be considered. King and Tanner crab fisheries are conducted with pots, which are stationary gear. Many other fisheries in the fishery management unit, both domestic and foreign, are conducted with mobile trawl or seine gear. Seasons, gear storage, and fishing areas may be arranged to eliminate, insofar as possible, conflicts between gear types and preemption of fishing grounds by one form of gear over another.

2.2.4 Habitat Objective

To protect, conserve, and enhance adequate quantities of essential fish habitat (EFH) to support king and Tanner crab populations and maintain a healthy ecosystem.

Habitat is defined as the physical, chemical, geological, and biological surroundings that support healthy, self-sustaining populations of living marine resources. Habitat includes both the physical component of the environment which attracts living marine resources (e.g. salt marshes, sea grass beds, coral reefs, intertidal lagoons, and near shore characteristics) and the chemical (e.g. salinity, benthic community) and biological characteristics (e.g. scallop life stage histories, oceanography) that are necessary to support living marine resources. The quality and availability of habitat supporting the king and Tanner crab populations are important. Fishery managers should strive to ensure that those waters and substrate necessary to king and Tanner crabs for spawning, breeding, feeding, or growth to maturity are available. It is also important to consider the potential impact of king and Tanner crab fisheries on other fish and shellfish populations.

Those involved in both management and exploitation of king and Tanner crab resources will actively review actions by other human users of the management area to ensure that their actions do not cause deterioration of habitat. Any action by a State or Federal agency potentially affecting king and Tanner crab habitat in an adverse manner may be reviewed by the Council for possible action under the Magnuson-Stevens Act. The Council will also consider the effect on king and Tanner crab habitat of its own management decisions in other fisheries.

2.2.5 Vessel Safety Objective

Provide public access to the regulatory process for vessel safety considerations.

Upon request, and when appropriate, the Council and the State shall consider, and may provide for, temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safety of vessels.

2.2.6 Due Process Objective

Ensure that access to the regulatory process and opportunity for redress are available to all interested parties.

In order to attain the maximum benefit to the nation, the interrelated biological, economic and social, habitat, and vessel safety objectives outlined above must be balanced against one another. A continuing dialogue between fishery managers, fishery scientists, fishermen, processors, consumers, and other interested parties is necessary to keep this balance. Insofar as is practical, management meetings will be scheduled around fishing seasons and in places where they can be attended by fishermen, processors, or other interested parties.

Access to the FMP development and regulatory process is available through membership in a Council work group, testimony on the record before the Council's Advisory Panel or SSC, or before the Council itself, testimony before the Alaska Board of Fisheries, conversations with members of the plan team or officials of regulatory agencies, and by commenting on the FMP, any subsequent amendments and any regulations proposed for their implementation.

This FMP delegates much of day-to-day crab management to the State. Means of access to the regulatory process at the State level and of redress of perceived wrongs by the State are necessary.

2.2.7 Research and Management Objective

Provide fisheries research, data collection, and analysis to ensure a sound information base for management decisions.

Necessary data must be collected and analyzed in order to measure progress relative to other objectives and to ensure that management actions are adjusted to reflect new knowledge. Achieving the objective will require new and ongoing research and analysis relative to stock conditions, dynamic feedback to market conditions, and adaptive management strategies. For example, some possible research topics could include (1) the basis for exclusive registration areas, (2) the basis for sex restrictions in retained catch, (3) the basis for size limits, (4) the process for determining TACs or GHs, (5) bioeconomic analyses of specific regulatory proposals, and (6) defining oceanographic conditions important to maximizing productivity of crab stocks.

An annual area management report to the Alaska Board of Fisheries discussing current biological and economic status of the fisheries, TACs or GHs, and support for different management decisions or changes in harvest strategies will be prepared by the State Alaska Department of Fish and Game (ADF&G lead agency), with NMFS and Crab Plan Team input when appropriate. This will be available for public comment, and presented to the Council on an annual basis. TACs will be revised when new information is available. Such information will be made available to the public.

Appendix 1C. The FMP for the Scallop Fishery off Alaska: Management Goal and Objectives

The objective of the FMP is to prevent localized overfishing of scallop stocks and protect the long term productivity of the resource to allow for the achievement of optimum yield on a continuing basis. This objective is based on the premise that uncontrolled fishing for scallops in Federal waters could result in irreversible damage to the resource's ability to recover in a reasonable period of time. Fishing on a stock at a level that severely compromises that stock's future productivity is counter to the goals of the Magnuson Act and seriously jeopardizes the opportunity to harvest optimum yield on a continuing basis under a future management regime that would authorize a regulated fishery for scallops in Federal waters. Conservative management of the scallop resource is warranted given (1) unprecedented activity of vessels fishing for scallops in Federal waters outside the jurisdiction of Alaska State regulations, (2) the harvesting and processing capacity of the scallop fleet, which, if allowed to fish unregulated in Federal waters, could exceed State harvest guidelines by several orders of magnitude, (3) inadequate data on stock status and biology, and (4) the vulnerability of the scallop resource to localized depletion.

The Council, in cooperation with the State, is committed to developing a long-range plan for managing the scallop fishery that will promote a stable regulatory environment for the seafood industry and maintain the health of the resources and environment. The management system conforms to the Magnuson-Stevens Act's national standards as listed in Section 2.1.

Management Goal

The management goal is to maximize the overall long-term benefit to the nation of scallop stocks by coordinated Federal and State management, consistent with responsible stewardship for conservation of the scallop resource and its habitats.

Management Objectives

Within the scope of the management goal, seven specific objectives have been identified. These relate to stock condition, economic and social objectives of the fishery, gear conflicts, habitat, weather and ocean conditions affecting safe access to the fishery, access of all interested parties to the process of revising this FMP and any implementing regulations, and necessary research and management. Each of these objectives requires relevant management measures. Several management measures may contribute to more than one objective, and several objectives may mesh in any given management decision on a case-by-case basis.

1. Biological Conservation Objective: Ensure the long-term reproductive viability of scallop populations.

To ensure the continued reproductive viability of each scallop population through protection of reproductive potential, management must prevent overfishing. Management measures also may be adopted to address other biological concerns such as restricting harvest of scallops during spawning periods and maintaining low bycatch of finfish and crab. The maintenance of adequate reproductive potential in each scallop stock will take precedence over economic and social considerations.

2. Economic and Social Objective: Maximize economic and social benefits to the nation over time.

Economic benefits are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable social benefits such as the economic stability of coastal communities. To ensure that economic and social benefits derived for fisheries covered by this FMP are maximized over time, the following will be examined in the selection of management measures:

- The value of scallops harvested during the season for which management measures are considered,
- The future value of scallop stocks,
- Economic impacts on coastal communities.

This examination will be accomplished by considering, to the extent that data allow, the impact of management alternatives on the size of the catch during the current and future seasons and their associated prices, harvesting costs, processing costs, employment, the distribution of benefits among members of the harvesting, processing and consumer communities, management costs, and other factors affecting the ability to maximize the economic and social benefits as defined in this section.

Social benefits are tied to economic stability and impacts of commercial fishing associated with coastal communities. While social benefits can be difficult to quantify, economic indices may serve as proxy measures of the social benefits which accrue from commercial fishing. In 1984, 7% of total personal income or 27% of total personal income in the private sector in Alaska was derived from commercial fishing industries. On a statewide basis, shellfish accounted for 21% of the total exvessel value of commercial fish harvested in Alaska in 1984, however, the bulk of shellfish harvests were king and Tanner crab.

3. Gear Conflict Objective: Minimize gear conflict among fisheries.

Management measures developed for the scallop fisheries will take into account the interaction of those fisheries, and the people engaged in them, with other fisheries. To minimize gear conflict among fisheries, the compatibility of different types of fishing gear and activities on the same fishing grounds should be considered. Scallop fisheries are conducted with dredge gear. Many other fisheries in the fishery management unit are conducted with fixed gear (pot and hook-and-line). Fishing seasons, gear storage, and fishing areas may be arranged to eliminate, insofar as possible, conflicts between gear types and preemption of fishing grounds by one form of gear over another.

4. Habitat Objective: To protect, conserve, and enhance adequate quantities of essential fish habitat (EFH) to support scallop populations and maintain a healthy ecosystem

Habitat is defined as the physical, chemical, geological, and biological surroundings that support healthy, self-sustaining populations of living marine resources. Habitat includes both the physical component of the environment which attracts living marine resources (e.g. salt marshes, sea grass beds, coral reefs, intertidal lagoons, and near shore characteristics) and the chemical (e.g. salinity, benthic community) and biological characteristics (e.g. scallop life stage histories, oceanography) that are necessary to support living marine resources. The quality and availability of habitat supporting the scallop populations are important. Fishery managers should strive to ensure that those waters and substrate necessary to scallops for spawning, breeding, feeding, or growth to maturity are available. It is also important to consider the potential impact of scallop fisheries on other fish and shellfish populations. Scallop EFH is described in Appendix D of the FMP.

Those involved in both management and exploitation of scallop resources will actively review actions by other human users of the management area to ensure that their actions do not cause deterioration of habitat. Any action by a State or Federal agency potentially affecting scallop habitat in an adverse manner may be reviewed by the Council for possible action under the Magnuson-Stevens Act. The Council will also consider the effect on scallop habitat of its own management decisions in other fisheries.

5. Vessel Safety Objective: Provide public access to the regulatory process for vessel safety considerations.

Upon request, and when appropriate, the Council and the State shall consider, and may provide for, temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safety of vessels.

6. Due Process Objective: Ensure that access to the regulatory process and opportunity for redress are available to all interested parties.

In order to attain the maximum benefit to the nation, the interrelated biological, economic and social, habitat, and vessel safety objectives outlined above must be balanced against one another. A continuing dialogue between fishery managers, fishery scientists, fishermen, processors, consumers, and other interested parties is necessary to keep this balance. Insofar as is practical, management meetings will be scheduled around fishing seasons and in places where they can be attended by fishermen, processors, or other interested parties.

Access to the FMP development and regulatory process is available through membership in a Council work group, testimony on the record before the Council's Advisory Panel or SSC, or before the Council itself, testimony before the Board, conversations with members of the plan team or officials of regulatory agencies, and by commenting on the FMP, any subsequent amendments and any regulations proposed for their implementation.

This FMP defers much of day-to-day scallop management to the State. Means of access to the regulatory process at the State level and of redress of perceived wrongs by the State are necessary.

7. Research and Management Objective: Provide fisheries research, data collection, and analysis to ensure a sound information base for management decisions.

Necessary data must be collected and analyzed in order to measure progress relative to other objectives and to ensure that management actions are adjusted to reflect new knowledge. Achieving the objective will require new and ongoing research and analysis relative to stock conditions, dynamic feedback to market conditions, and adaptive management strategies.

An annual Stock Assessment Fishery Evaluation (SAFE) report discussing current biological and economic status of the fisheries, guideline harvest ranges, and support for different management decisions

or changes in harvest strategies will be prepared by the State (ADF&G lead agency), with NMFS and scallop plan team input when appropriate. Such information will be made available to the public.

The management program authorized under this FMP conforms to the Magnuson Act's national standards as listed in section 2.1. Under this FMP, the prevention of overfishing of the Alaska scallop stocks and the maintenance of adequate reproductive potential for the scallop resource takes precedence over other economic, social, management and research considerations.

Appendix 1D. Fishery Management Plan for the Salmon Fisheries in the EEZ Off Alaska: **Management Policy and Objectives**

Management Policy

The Council's salmon management policy is to facilitate State of Alaska salmon management in accordance with the Magnuson-Stevens Act, Pacific Salmon Treaty, and applicable federal law. This FMP represents the Council's contribution to a comprehensive management regime for the salmon fishery that will be achieved in concert with actions taken by the Pacific Salmon Commission and the State of Alaska. This policy ensures the application of 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.

Under this policy, all management measures will be based on the best scientific information available. This management policy recognizes the need to balance many competing uses of marine resources and different social and economic objectives for sustainable fishery management, including protection of the long-term health of the resource and the optimization of yield. This policy uses and improves upon the Council's and State's existing open and transparent process of public involvement in decision-making.

Management Objectives

The Council has identified the following six management objectives to carry out the management policy for this FMP. The Council, NMFS, and the State of Alaska will consider the following objectives in developing amendments to this FMP and associated management measures. Because adaptive management requires regular review, the management objectives identified in this section will be reviewed periodically by the Council. The Council, NMFS, and the State of Alaska will also review, modify, eliminate, or consider new management measures, as appropriate, to best carry out the management objectives for this FMP.

Objective 1 – Prevent overfishing and achieve optimum yield

Manage the commercial and sport salmon fisheries in the East Areas in concert with the Pacific Salmon Commission, and in accordance with the conservation and harvest sharing goals of the Pacific Salmon Treaty, to prevent overfishing and obtain the number and distribution of spawning fish capable of producing the optimum yield on a sustained basis (wild and hatchery). Prevent overfishing and achieve optimum yield in the West Area by prohibiting the commercial harvest of salmon. Prohibiting commercial harvest enables the State of Alaska to manage salmon fisheries to achieve escapement goals and maximize economic and social benefits from the fishery.

Objective 2 – Manage salmon as a unit throughout their range

Manage salmon fisheries in the EEZ in a manner that enables the State of Alaska to manage salmon stocks seamlessly throughout their range. In the East Area, this objective is achieved by delegating management of the sport and commercial troll fishery to the State of Alaska, to manage consistent with state and federal laws, including the Pacific Salmon Treaty. In the West Area, this objective is achieved by prohibiting commercial fishing for salmon in the West Area so that the State of Alaska can manage Alaska salmon stocks as a unit.

Objective 3 – Minimize Bycatch and Bycatch Mortality

To the extent practicable, manage salmon fisheries to minimize bycatch and minimize the mortality of unavoidable bycatch. Decrease where possible the incidental mortalities of salmon hooked and released, consistent with allocation decisions and the objective of providing the greatest overall benefit to the people of the United States.

Objective 4 – Maximize economic and social benefits to the nation over time.

Economic benefits are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable benefits such as the economic stability of coastal communities, recreational value, non-consumptive use value, and non-use value. To ensure that economic and social benefits derived for fisheries covered by this FMP are maximized over time, the following will be examined in the selection of management measures:

- Control of fishing effort and salmon catches.
- Fair and equitable allocation of harvestable surplus of salmon.
- Economic impacts on coastal communities and other identifiable dependent groups (e.g., subsistence users).

This examination will be accomplished by considering, to the extent that data allow, the impact of management measures on the size of the catch during the current and future seasons and their associated prices, harvesting costs, processing costs, employment, the distribution of benefits among members of the harvesting, processing and consumer communities, management costs, and other factors affecting the ability to maximize the economic and social benefits as defined in this section. Other benefits are tied to economic stability and impacts of commercial fishing, as well as, unguided and charter recreational fishing associated with coastal communities, subsistence fishing supporting traditional social and cultural ‘communities,’ and passive-use ‘communities’.

Objective 5 – Protect wild stocks and fully utilize hatchery production

Manage salmon fisheries to ensure sustainability of naturally spawning stocks while providing access to hatchery production.

Objective 6 – Promote Safety

Promote the safety of human life at sea in the development of fisheries management measures. Upon request, and from time to time as appropriate, the Council, NMFS, or the State of Alaska may provide for temporary adjustments, after consultation with the U.S. Coast Guard and fishery participants, for vessels that are otherwise excluded because of weather or ocean conditions causing safety concerns while ensuring no adverse effect on conservation in other fisheries or discrimination among fishery participants.

Appendix 2 Synthesis of themes related to building climate resiliency- Dec 2023 IRA Workplan

The Council has been considering needs related to climate-resilient fisheries through several recent initiatives. In order to help the Council consider what objectives, issue areas, or projects might be included in a NPFMC proposal for IRA funding, in October 2023, staff reviewed recent documents and prepared a synthesis of common themes. Documents that were reviewed include the Climate Readiness Synthesis prepared by the Council’s Climate Change Taskforce, the report from the SSC’s February 2023 workshop, and the NMFS Bering Sea, Gulf of Alaska, and Arctic Climate Science Strategy Regional Action Plans. The themes are summarized below (and described in more detail in the October 2023 [staff paper](#)). These themes will continue to guide Council work in support of climate related fisheries management planning and implementation efforts.

Theme 1: Support a Council process that can be both proactive and responsive

The Council can develop strategies to think proactively, respond quickly, and better understand linkages between management approaches and adaptive capacity, including by:

- Evaluating and improving the climate resilience of management actions: The Council can build on the Climate Readiness Synthesis (“CRS”) by taking a comprehensive look at its management tools to better understand their current flexibility and limitations, how they interact, and think about how to build approaches that are specifically designed to work well under climate change.
- Learning from past experience and “what if” scenarios: The Council has already experienced climate-related disruptions to the Gulf of Alaska Pacific cod and Bering Sea crab stocks. The Council can analyze what has been learned from these experiences, as well as explore and test hypothetical future scenarios to consider how to respond. The 2024 Climate Scenarios workshop will support this.
- Supporting a timely, responsive Council process: The decision-making and regulatory process are designed to support deliberation and public involvement and can move slowly as a result. The Council can explore how to support the public process while also enabling rapid response to change and systematically looking at management actions through a climate readiness lens. The Council can consider how to build climate adaptivity into prescriptive management actions such as harvest control rules.
- Building a shared understanding of resilience and adaptive capacity: People, communities, and fisheries are likely to respond to climate change in very different and personal ways. Discussing resilience and adaptive capacity with the Council community could help build a shared understanding of how and why people might respond to change, and how these responses might impact the effectiveness of management measures.

Theme 2: Build and use climate information on-ramps

The Council can contribute to building on-ramps and capacity for considering climate information in Council processes, including by:

- Including more climate information in analytical products: The CRS describes opportunities for increasing the uptake of climate information into SAFE reports and Ecosystem Status Reports. There are opportunities for further dialogue with SAFE report authors, especially as the Council refines its priorities and information needs for climate readiness including through the PEIS process and 2024 Climate Scenario Workshops.
- Strengthening the Council community’s ability to talk about risk: Climate change will require making decisions in the face of increasing uncertainty, and clearly communicating with stakeholders about the likelihood and consequences of climate change impacts. The Council can

become more conversant in the language of risk and risk tolerance through more dialogue with the SSC (i.e., the newly formed Council-SSC subgroup) and exploration of risk-based management approaches and tools including risk policies and risk tables.

- Linking ecosystem approaches with climate readiness: Ecosystem-based management approaches can help account for changing ecosystem conditions and provide a pathway for bringing diverse sources of knowledge into the Council process. The Council can more clearly articulate how EBFM supports climate readiness and continue building on EBFM approaches.

Theme 3: Include stakeholders and partners in building climate readiness

The Council can more fully integrate diverse knowledge bases and support two-way stakeholder engagement to support climate readiness, including by:

- Strengthening engagement with Alaska Native communities: The Council can take steps to more fully integrate traditional knowledge and support two-way dialogue with Tribes and stakeholders, as detailed in the LKTKS protocol and on-ramps documents, and the CRS.
- Communicating clearly and regularly about climate readiness planning: Climate change amplifies the need for the Council to communicate about its work and to discuss complex issues in clear, accessible terms. The Council can consider how to create new and more accessible opportunities for participation and information sharing.
- Building a stronger network of partnerships: Climate change deepens the need for coordination and collaboration across agencies, research partners, industry sectors, communities, tribal governments, and other groups to share knowledge, fill data gaps, and account for the impacts of other activities. The Council can continue efforts to increase accessibility and broad participation in the Council process. Workshops are one way to provide greater access.