

Progress on the Bering Sea Fishery Ecosystem Plan Update for the Council, April 2017

This document provides an update on progress with developing the Bering Sea Fishery Ecosystem Plan (FEP), which is an informational item for the Council at the April 2017 meeting. This document summarizes the FEP concept from December 2015, when the Council initiated the development of a Bering Sea FEP, and describes how that starting point compares to more recent FEP guidance that has come from NMFS, and from a Lenfest report published last year. This document then provides an update on the discussions and plans of the Bering Sea FEP team, created by the Council in December 2016 as a scientific and technical team to write the FEP, working closely with the Council's Ecosystem Committee.

What is our starting point for developing the FEP?

The Council conducted extensive scoping before deciding to initiate development of a Bering Sea FEP in December 2015. One of the key questions was whether having an FEP would provide additional value that would justify the time and resources required to develop it. There was resounding support from all of the Council's stakeholders that there is value in developing an FEP, and the [December 2015 discussion paper](#) evaluated a list of potential short and long-term benefits, including as a communication tool and interface for ecosystem science and Council policy, as a framework for strategic planning, considering policy risks, opportunities, and tradeoffs, and as an opportunity to build resiliency into Council management strategies. In the Council discussion, it was acknowledged that the Council has the authority to do all of these things under the Magnuson-Stevens Act without specifically developing an FEP, but at the same time, having an FEP provides transparency to stakeholders about the Council's ecosystem goals and management responses, and helps to formalize and explain the various ways in which the Council's management embodies ecosystem-based management.

The FEP is being designed as a strategic planning document that describes a process for addressing Council management concerns about ecological goals, as expressed in the Council's [ecosystem policy statement](#), and is able to be flexible to new information and changing resources. The Council agreed with the Ecosystem Committee recommendation to develop an FEP that:

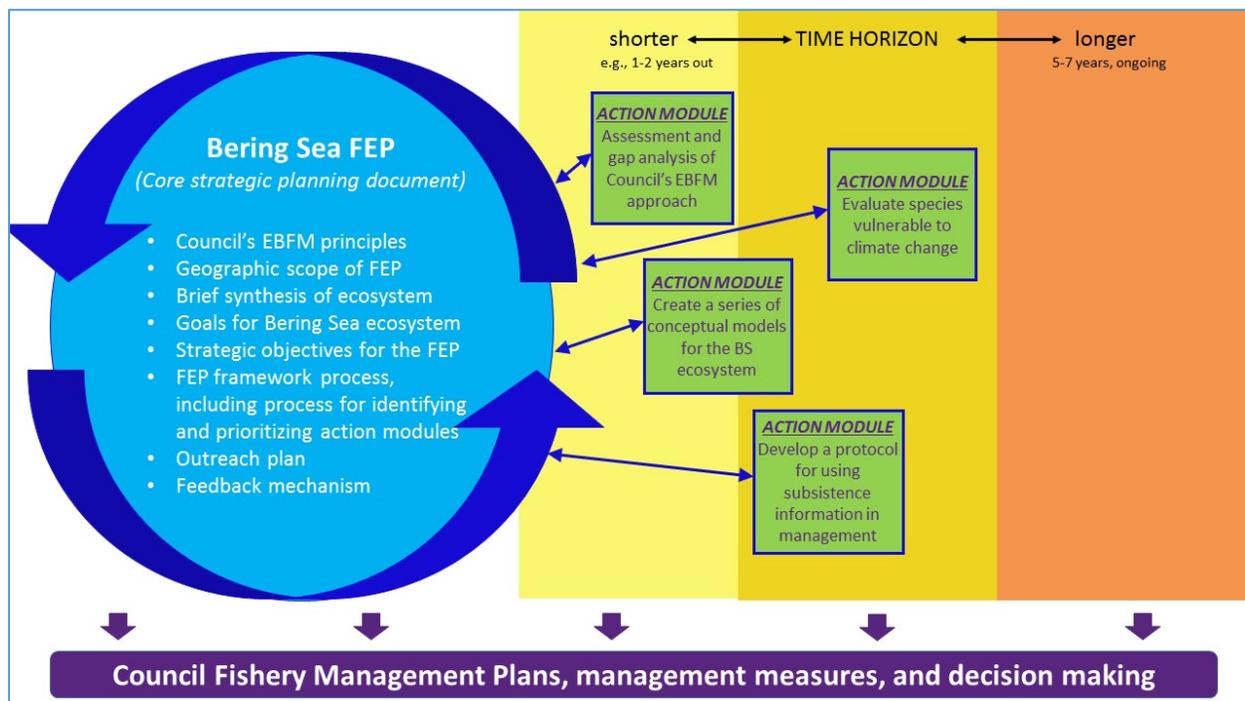
- 1) provides **added value** to existing Council documents, processes, and decision-making;
- 2) delivers targeted, evolving ecosystem evaluations that **inform but do not overwhelm** the audience with a compilation of ecosystem information; and
- 3) results in measurable improvements to Bering Sea fishery management, but does not directly authorize management actions (**action-informing rather than action-forcing**).

Design of the FEP: Core FEP with action modules

The starting point for the design of the FEP is to develop a core FEP document identifying Council goals and policies, which forms a structured framework to regularly evaluate and initiate specific analyses or tasks (action modules) to address Council priorities (Figure 1). The **core FEP** would contain a series of strategic components for the FEP. There would be sections describing the purpose and structure of the FEP. The FEP would need to describe how the FEP functions as a framework process, with strategic elements in the core document, and tasking of individual projects through specific action modules. This would include explaining how the FEP process is adaptive to new information and changing circumstances.

- Core FEP outline:**
- 1) Introduction
 - 2) Purpose of the FEP
 - 3) Background/EBFM theory
 - 4) Scope of FEP – geographic, jurisdictional, fisheries
 - 5) Brief synthesis of Bering Sea ecosystem (i.e., the Eastern Bering Sea Ecosystem Assessment), and current data sources, surveys, models
 - 6) Bering Sea ecosystem goals
 - 7) Bering Sea FEP strategic objectives
 - 8) Framework of FEP action modules
 - a. Process for identifying, prioritizing, tasking, and periodic reevaluating modules
 - b. List of initial action modules
 - 9) Outreach plan and public involvement
 - 10) Recurrence/feedback mechanism

Figure 1 Illustration of the relationship between the core FEP and example action modules



Action modules are specific analyses or research efforts that can be initiated within the framework of the FEP, but are projects with their own scope, tasking, and timeline. The action modules are linked directly to the FEP's strategic objectives, and the purpose and scope of each task, as well as a description of how the outcome will be used in management (e.g., whether it will lead to an FMP amendment analysis), is defined in the core FEP. In this way, the action modules will be responsive to the Council's management needs, and their outcomes will have a direct effect on the Council's decision-making process. The Council also has the flexibility to prioritize action modules, and initiate them concurrently or sequentially depending on Council needs and resource constraints. As they are completed, modules should be synthesized and evaluated in aggregate; modules should leverage other modules where possible.

The core FEP would include the Council's approved list of action modules, and a description of each one. Additionally, the core FEP would also prioritize modules, assess progress that has been made in each active action module, and review findings of previous modules. In the description of each module in the core FEP, a series of specific questions must be addressed:

1. Synopsis of the task, including how it will be accomplished
2. Purpose it will achieve (relationship to the FEP’s objectives)
3. How it will inform and be integrated in the Council’s decision making and management process
4. Estimate of time and staff resources required to achieve it
5. Plan for public involvement

There were four example action modules included in the December 2015 discussion paper, to illustrate how the module concept would work: 1) an assessment of Bering Sea fishery management with respect to EBFM best practices; 2) conceptual models of the Bering Sea based around key focal points; 3) vulnerability of species and fisheries to climate change; and 4) a protocol for using subsistence information in management. The Council has tasked staff to work on the first of these, concurrently with the development of the FEP. With the adoption of the FEP, the Council would consider and identify a more comprehensive list of action modules.

How does the FEP starting point compare to new national guidance?

Since the Council’s initial scoping work on the FEP, two relevant guidance documents have been published, the 2016 Lenfest report, *Building Effective Fishery Ecosystem Plans*, and the NMFS Ecosystem-based Fishery Management (EBFM) Roadmap. The following table compares the major components of those documents with the outline of the FEP. It is the view of the FEP team that the elements of the Lenfest report and EBFM Roadmap can be included within the existing core FEP outline.

BS Core FEP draft outline (2015)	Lenfest (2016)	NOAA’s EBFM Roadmap (2016)
<ol style="list-style-type: none"> 1. Introduction 2. Purpose of FEP 3. Background / EBFM theory 4. Scope of FEP <ol style="list-style-type: none"> a. Geographic b. Jurisdictional c. Fisheries 5. Synthesis of ecosystem information 6. Ecosystem goals 7. BS FEP objectives 8. Framework for action modules <ol style="list-style-type: none"> a. Process b. List 9. Outreach / public involvement 10. Recurrence / feedback mechanism 	<ol style="list-style-type: none"> 1. Where are we now? <ol style="list-style-type: none"> a. system inventory and model b. indicators c. threats 2. Where are we going? <ol style="list-style-type: none"> a. vision statement b. strategic objectives c. assess risk to objectives d. prioritize objectives e. operational objectives 3. How will we get there? <ol style="list-style-type: none"> a. performance measures b. management strategies c. evaluate strategies d. select strategy 4. Implementation 5. Did we make it? 	<ol style="list-style-type: none"> 1. What are our objectives? <ol style="list-style-type: none"> a. engage partners and stakeholders b. support FEPs 2. What foundational science is needed? <ol style="list-style-type: none"> a. ecosystem science to understand interactions – biological, physical, social, habitat b. ecosystem status reports 3. What are our priorities? <ol style="list-style-type: none"> a. identify ecosystem-level risk and vulnerability across LMRs b. identify pressures with most risk to communities and resources 4. What are our options? <ol style="list-style-type: none"> a. analyze tradeoffs when maximizing benefits within ecosystem b. develop ecosystem MSE capability for providing management advice 5. What is our management advice? <ol style="list-style-type: none"> a. monitor ecosystem reference points b. incorporate ecosystem considerations in assessments, control rules, fisheries management c. integrated advice for other (non-fishery) management 6. Maintain resilient ecosystems <ol style="list-style-type: none"> a. evaluate resilience b. evaluate community well-being

Discussions at first FEP team meeting

The FEP team held their kickoff meeting on January 19-20, 2017. Team membership is structured to include a diversity of expertise and representatives from different agencies (NMFS AFSC and AKR, Council, ADFG, USFWS, USGS, IPHC, NPRB, APU). The Team's primary responsibilities are to develop the core FEP document, to discuss potential and ongoing FEP action modules, make recommendations to the Ecosystem Committee and the Council about future steps, and to help communicate results to the Council. While the team is a scientific and technical team, the focus is also to ensure that FEP action modules interface with the Council's management needs, and can be integrated into the Council's decision making and management process.

The Team reviewed the December 2015 discussion paper, and considered how to move forward. There was discussion about whether the articulation of FEP and Bering Sea ecosystem goals and objectives is sufficiently clear so that we can tell what we are trying to accomplish, and measure whether we have succeeded. This is an important component for tracking the Council's requirement to produce a document that provides added value. The team suggested preliminary revisions to the objectives, which were modified subsequently by the Ecosystem Committee, and noted that further dialogue will be needed to refine these. The Team also discussed the various mechanisms available for bringing information into the fishery management process, as a way to track how information from the action modules is having effect, and will develop a list as part of the FEP, that could be used for a tracking report as well as circulated to researchers developing projects that respond to management needs.

Synthesis of Bering Sea ecosystem and action modules

The Team noted that at present, the distinction between some elements of the core FEP and action modules is not necessarily consistent. For example, the development of a synthesis of the Bering Sea ecosystem could be considered as an action module (a discrete task, with an objective) although it is included as a core component of the FEP, and the evaluation of the Council's current baseline for incorporating EBFM, which is an action module, will become a core component of the FEP once it is completed. Rather than reproduce an encyclopedic description of the Bering Sea ecosystem, the Team intends to develop the synthesis chapter to include a series of graphics or diagrams, supported by text as appropriate, that illustrate natural and ecosystem processes.

There was also preliminary discussion about how the action module process will work, including how to build on the action module example list from the December 2015 discussion paper. The Team initially suggested two new potential action modules, related to research tracking and developing habitat effects indicators. The Ecosystem Committee agreed with the former, but suggested that including the latter module was premature given the ongoing review of the habitat effects model on which it would be based. Even though there is not funding specifically associated with the FEP to implement the action modules, emphasizing them as a Council priority is of benefit to research agencies, including NOAA and NPRB.

Outreach / public involvement

The Council has asked for a public involvement plan to be included in the FEP, and the Team discussed how that might be developed, noting there will be different needs for outreach during the development of the core FEP and during work on particular action modules, and periodic FEP review. The timing for any concerted outreach effort on the development of the core FEP may be best suited to occur after an initial draft FEP has been prepared, and there is a more concrete document to review.

The Team had the benefit of participation by one of the AFSC media group staff during the outreach discussion, and it was noted that as effective public involvement will vary for different stakeholders, it is

important to identify clearly the audiences for the FEP. The plan should identify that there are several, and lay out the various public involvement plans accordingly. The Team also developed the following strategic objective for outreach and public involvement:

Objective: To engage stakeholders and the public in the process of implementing EBFM through the Bering Sea FEP so that the BS FEP is informed by the broadest realm of perspectives and to increase public connection with the Bering Sea marine ecosystem.

Scheduling and next steps

The Team laid out a series of individual or subgroup work assignments to begin building the core FEP and the EBFM gap analysis module, with a tentative goal to having an initial draft to present to the Council in October. The intention is for the Council to review a draft FEP document, provide feedback and stakeholder input, and for the Team to revise and finalize the FEP for adoption by the Council at a subsequent meeting.

The Team laid out the following draft timeline for developing the FEP:

January 31, 2017	FEP Team co-chairs update Ecosystem Committee on progress
April	FEP update at April Council meeting, in conjunction with Lenfest report
April 24-26	FEP team meeting, in Homer, AK at USFWS Islands and Oceans center
June 2016	Feedback from Ecosystem Committee
July-Aug - tentative	Team meeting? Teleconference?
early/mid-August	Internal draft for Team review
mid-August - tentative	Feedback from Ecosystem Committee
early/mid-September	Distribute Draft FEP to Council
October	Council reviews Draft FEP, provides feedback
Oct-Dec	Outreach/public feedback on FEP?
Jan-Mar	Team meeting to address Council, public feedback
April 2018 (T)	Council review/approval of Final FEP