Development of a Bering Sea Fishery Ecosystem Plan
Preliminary Discussions for the Ecosystem Committee
March 2015

1 Introduction

In February 2014, the Council reviewed a discussion paper on the development of a Bering Sea Fishery Ecosystem Plan (FEP), and decided to seek public input on what the objectives might be for a Bering Sea FEP, and how the plan could be structured to be of benefit to fishery management decisionmaking. The Council heard from stakeholders and the Council’s Scientific and Statistical Committee (SSC), Ecosystem Committee, and Advisory Panel between February and October 2014. The Council requested the Ecosystem Committee to continue development of the Bering Sea FEP, including developing a draft set of goals and objectives for Council consideration, and proposing an approach and format for an FEP. Given concerns about staff resources and dwindling budgets, the Council has not yet committed to tasking of the FEP, but rather has asked the Committee to investigate possible objectives and structure for a future Council discussion. This preliminary paper lays out some of the issues raised by stakeholders, the Ecosystem Committee, the SSC, and staff.

2 Synthesis of public comments

Public comment hearings on the Bering Sea FEP were held in Nome, Seattle, and Anchorage in June, September, and October 2014, respectively. The Council also heard public testimony during their discussion in October 2014. The Council requested the following input from stakeholders:

- What should be the objectives of the Bering Sea FEP? What questions should the FEP answer?
- What kind of actions should be considered in the FEP? Should the FEP provide specific or general guidance for fishery management? (for example, strategies to respond to climate change, preserve subsistence fishing and hunting resources, maintain healthy populations of top level predators, etc.)
- Would the FEP provide added value over existing Council documents, and if so, how? (for example, annual SAFE reports, essential fish habitat descriptions, etc.)

A synthesis of public comments from each venue was prepared and is available on the Council’s website. Generally, public comment themes were similar at the various hearings, including broad support for continuing with development of a Bering Sea FEP. The following provides a summary of comments that addressed the process of developing an FEP, goals and objectives for the FEP, and tasks (syntheses, evaluations, research) that might be included within an FEP. There is some overlap between categories.

Process:

- FEP must have a nexus to management action
- FEP should be a planning process rather than a plan
- Need to identify how the FEP fits within Council management
- Concerns raised about staff resources and time, FEP planning should take into account.

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1 Prepared by Diana Evans, Council staff.
2 http://www.npfmc.org/bsfep/
• FEP should be a framework for how we move forward/setting priorities
• Utilize a tool similar to the PFMC initiative process to prioritize tasks every couple of years
• FEP should focus on procedural objectives in order to achieve ecosystem goals (tools)
• FEP should be a social contract with the public, telling the public how the Council intends to act (tool for accountability and transparency)
• Now is the time to do an FEP, while stocks are sustainable as we are looking ahead to change to come
• Scope of FEP should include subsistence and other fisheries (halibut, State) as well as Council FMPs
• Clear statement of what can and cannot be done is important to manage expectations
• FEP should be developed with close collaboration of Bering Sea communities, subsistence users, and other stakeholders

Goals/objectives:
• Understand and plan for impacts of climate change
• Understand tradeoffs among ecological, social, and economic factors of fishery harvest
• Identify buffers needed to mitigate uncertainty
• Create a cohesive plan for BS EBFM (rather than current piecemeal approach); define EBFM for the Council
• Precautionary management, and shifting the burden of proof
• Prioritize research, management based on ecosystem understanding, identify pathway of research to management
• Identify areas of risk and opportunities to mitigate
• Consider subsistence needs and traditional ecological knowledge
• Define the Council’s management process for broader public (for transparency and accountability – social contract); fishery audience, but also include importance of food security for broader audience
• Balance the different values of Bering Sea user groups

Tasks:
• Information on the BS ecosystem
  o Describe the function on the Bering Sea ecosystem, its processes, ecosystem services, baseline information on habitat
  o Identify human linkages with the ecosystem
  o Describe Bering Sea forage fish, the fisheries, forage fish habitat, and their relationship with the food web
  o MSE games re what happens when we perturb the ecosystem, how if affects resiliency, key nodes without functional resiliency
  o Document and collect information on subsistence
  o Describe the values different user groups have for the Bering Sea
• Compile information on climate change and its impacts
  o effects of shipping
  o information on presence of new species (including traditional knowledge)/ winners and losers under different climate scenarios
  o impacts to coast communities (especially small ones with few jobs)
  o research to understand how recruitment relationships will change under a changing climate – where are the thresholds
- Council management
  - Explain the **Council’s current ecosystem-based management** (how science is used, adaptive management)
  - **Gap analysis** of the Council’s EBM
  - **Risk assessment** of the Council fisheries/FMPs
  - Identify **ecological, social, and economic factors that contribute to optimum yield**, tradeoffs among them, and uncertainty associated with each
  - Develop a framework for **explicit protocols for ecosystem consideration** in TAC setting
  - Develop a framework for an **explicit process to include traditional knowledge** in management
  - Explore models/other tools to evaluate the impact of management actions on the ecosystem
  - Evaluate the **effects of fishing** over time on the ecosystem; specific focus on bottom-contact fisheries
- Monitoring/action
  - Identify and monitor **indicators**, including social and economic indicators, and consider in management measures
  - Identify **indicator thresholds** based on Council objectives, that tie to action or at least an alert

3 Preliminary Ecosystem Committee discussions on FEP purpose and objectives

In September 2014, the Ecosystem Committee held a workshop to discuss recommendations for the Council about initiating a BS FEP. The Council supported the Committee’s identification of primary and secondary objectives for the FEP, as follows:
- **Primary**: sets up a framework for considering policy choices and tradeoffs affecting FMP species and the ecosystem
  - Resiliency of Council management strategies, and options for responding to changing circumstances (e.g., climate change scenarios, changes in shipping patterns, etc.)
  - Evaluation of management tradeoffs – among FMPs, fisheries, or with other activities
- Identifies most relevant BS ecosystem characteristics from a fishery management perspective
- Communication tool for ecosystem science and Council policy
- Transparent public process for Council to identify ecosystem values and management responses

The following is a short summary of other key points from the Ecosystem Committee’s discussions:
- The Committee considers that a Bering Sea FEP provides the Council a tool for comprehensive integrated information to assist the Council in decisionmaking, and help them to realize the Ecosystem Vision statement, and to avoid catastrophes and conflicts.
- The Committee believes that the FEP should be action-informing rather than action-forcing. The FEP should not replace FMPs, but also acknowledges that there needs to be clear forethought about how the development of the FEP will affect the Council management process.
- Committee members suggested that the FEP should provide specific, actionable metrics. Some examples (although not exhaustive) of tangible objectives were:
  - the 15 management actions in the Science Advisory Board Report (including, among others, developing a regionally specific description of the ecosystem, and an assessment of the food web)
  - assessing Bering Sea fishery management comprehensively with respect to EBFM best practices
o utilize the modeling capacity at the AFSC, and integrated ecosystem assessment work, to evaluate climate change scenarios and options for management response
o lays out fishery impact considerations for other agencies to use in evaluating non-fishery activities impacting the marine environment (PFMC FEP chapter 5)
o summary of key ecosystem interactions, and associated risks, as in the Aleutian Islands FEP (e.g., Table 6-1, on page 141)