



Bering Sea Fishery Ecosystem Plan Team

REPORT

May 6-7, 2019, AFSC, Seattle, WA

Plan Team Members in attendance¹:

Kerim Aydin, co-Chair (AFSC REEM)
Mike Dalton (AFSC ESSR)
Benjamin Daly (ADFG)
Anne Marie Eich (NMFS AKR)
Diana Evans, co-Chair (NPFMC)

Jim Ianelli (AFSC SSMA)
Jo-Ann Mellish (NPRB)
Elizabeth Siddon (AFSC ABL)
Stephani Zador (AFSC REFM)
Davin Holen (Sea Grant)

Members absent: Brad Harris (APU), Heather Renner (USFWS), Phyllis Stabeno (NOAA PMEL), Ian Stewart (IPHC)

Others in attendance:

Agency: Sara Cleaver (NPFMC - phone), Elizabeth Figus (NPFMC), Alan Haynie (AFSC ESSR), Kirstin Holsman (AFSC REEM), Ivonne Ortiz (University of Washington), Jeremy Sterling (AFSC NMML), Jim Thorson (AFSC HEPR), Andy Whitehouse (University of Washington), Sarah Wise (AFSC ESSR)

Public: Raychelle Daniel (Pew Charitable Trusts), Lauren Divine (Aleut Community of St Paul Island), Mellisa Heflin (Bering Sea Elders Group), Stephanie Madsen (At-sea Processors - phone), Megan Peterson (consultant for The Ocean Conservancy), Brendan Raymond-Yakoubian (Sandhill Consulting - phone), Julie Raymond-Yakoubian (Kawerak - phone)

The co-Chairs opened the meeting by acknowledging that this was the inaugural meeting of the Team in its new role of implementing the adopted Bering Sea Fishery Ecosystem Plan (BS FEP). The agenda was structured around the four tasks for the Team which are articulated in the FEP: providing strategic guidance for monitoring Bering Sea ecosystem status, managing FEP action modules, maintaining the core FEP, and outreach and communication.

Maintaining the Core FEP

The co-Chairs began this agenda item by reviewing the process that led to the Council's formal adoption of the BS FEP in December 2018. Kerim Aydin briefed the Team on comments that were provided during the FEP's review at the Council in October and December, especially from the Ecosystem Committee and the SSC. Based on SSC comments, it was explicitly clarified that the FEP Team's role should be strategic rather than tactical. General tasking for the FEP team was included in the FEP. There continue to be questions about exactly how the FEP will function, which cannot definitively be addressed until we start work under the FEP framework, especially on the action modules. Council staff have finalized the FEP

¹ ABL – Auke Bay Laboratories, ADFG – Alaska Department of Fish and Game, AFSC – NMFS Alaska Fisheries Science Center, AKR – Alaska Regional Office, APU – Alaska Pacific University, ESSR – Economic and Social Sciences Research Program, HEPR – Habitat and Ecological Processes Research Program, IPHC – International Pacific Halibut Commission, NMML – National Marine Mammal Laboratory, NPRB – North Pacific Research Board, PMEL – Pacific Marine Environmental Laboratory, REEM – Resource Ecology and Ecosystem Modeling Program, REFM – Resource Ecology and Fisheries Management Division, SSMA – Status of Stock and Multispecies Assessment Program, USFWS – U.S. Fish and Wildlife Service

based on comments that were provided at the December Council meeting, and the final January 2019 version is now available on the Council's website.

The Team also reviewed the process objectives adopted by the Council as part of the FEP (Section 2.3.1 of the core document), in the context of assessing the vehicle for their implementation, moving forward. With this review as a reference point, as well as the four general tasks articulated for the Team in Section 3.3 of the FEP, Team members discussed how the Team should focus its FEP work in order to meet the Council's objectives.

There are two ways in which work associated with implementing the FEP can move forward. The first is through defined action modules, discrete projects initiated by the Council with a specific objective, and which are assigned to a taskforce to address. The FEP team will track progress on these action modules, and ensure there is connectivity among the modules and with the core FEP, as appropriate. There is also FEP implementation work that falls to the Team, either to continue to develop aspects of the core FEP where necessary, or to provide strategic support for Bering Sea ecosystem-based fishery management (the FEP team's overarching objective). Similar to other Council Plan Teams, the FEP Team will use volunteer workgroups of team members to keep making progress on such topics between meetings.

FEP Team Terms of Reference

The Team reviewed and edited a draft Terms of Reference (TOR), prepared by Council staff based on similar TORs adopted for the other Council Plan Teams. The TOR state the objective of the FEP Team and its functions/tasking, how it will be organized and requirements for membership, and the process for reporting its recommendations. The TOR also identifies a meeting schedule for the FEP team: to hold an annual in-person meeting that will generally occur in March, with a report to the Council in April. The March meeting will focus around the four main FEP team tasks. The TOR also includes an option to hold an interim meeting, likely in the fall, by phone or videoconference. The interim meeting could allow the Team to make progress on core FEP work or might provide a planning opportunity for the process of identifying new action modules for Council consideration the following April.

The Team recommends that the Terms of Reference, as revised, be approved by the Council (see separate attachment).

Tracking uptake of FEP concepts and information

During the development of the FEP, the Team discussed how to show whether the FEP is meeting the Council's requirement to add value, and that one way to consider this was to track how conversations that were initiated through the development of the FEP have been taken up in the Council process. The Team intends to include discussion of this topic at each annual meeting

The Team highlighted that one of the really valuable aspects of the FEP is that it provides an opportunity for diverse perspectives to have a voice in the Council process from the beginning. This is true at the Team level, with interagency team members and members from across the Council's Plan Teams and SSC, and especially with the public who attend and participate in Team and Ecosystem Committee meetings. Actively including these perspectives in the FEP's development has led to a number of other changes in the Council process. These include:

- Discussions about engagement and two-way communication. These were particularly at the forefront during the Council's February 2018 Ecosystem Workshop, which was also prompted from the discussion of ecosystem-based fishery management that was developing through the BS FEP.
- Discussion of LK and TK, and how this information can be used in fishery management decision making. Guidance protocols will specifically be developed through the upcoming action module, but the concept of how LK and TK should be considered is becoming more widespread in the Council process.

- Decoupling of LK and TK terminology. Based on discussions with stakeholders, the Council has consciously moved away from the LTK term to acknowledge the separateness of local and traditional knowledge (which are defined and differentiated in the FEP).

Through scoping during development of the FEP, it also was made apparent that much is still opaque to the casual participant about how the Council operates and the information used to make decisions. The Council's staff have been actively working to improve communication of both the process and their work, especially through the use of graphics and accessible description. These ideas have also influenced the development of the annual Ecosystem Status Reports, and a specific 4-page brief was introduced in 2018 to describe hot topics in the ecosystem in an accessible way, including, importantly, how ecosystem information is used in the harvest specifications process.

Finally, in adopting the FEP, the Council articulated and adopted six broad ecosystem goals (Section 2.2 of the FEP). The FEP team encourages that these should be broadly used as an organizing theme for the Council, providing a consistent way to observe how the Council's ecosystem policy takes effect in the Council's management activities and research priorities.

Strategic guidance for monitoring Bering Sea ecosystem status

Mapping indicators to the FEP's Ecosystem Objectives

Kerim provided an overview of the different ecosystem products that are currently provided to the Council, such as the Ecosystem Status Reports (ESRs), the species-specific Ecosystem and Socio-economic Profiles (ESPs), and the Preview of Ecological and Economic Conditions (PEEC) intended to provide a preliminary look for red flags and signs of changing conditions. During the development of the FEP, the Team highlighted the need to monitor of the FEP's ecosystem objectives, perhaps through the ESR (identified Section 2.3.3 of the FEP; a preliminary evaluation of which currently-tracked indicators correspond to the FEP's ecosystem objectives was also included in that section).

It was noted in the discussion that the development of new products, especially the 4-page ESR briefs and the ESPs, emphasize that it is an appropriate time to revisit the Bering Sea ESR and especially the indicators identified in the report card. It was also noted that the ESRs are primarily focused on providing tactical advice for harvest specifications, which is different than the strategic focus on the FEP. Given that, **the Team recommends the development of a new product, an Ecosystem Health Report Card**, that would be closely tied to the Council's overarching six ecosystem goals, and specifically the 17 ecosystem objectives that are derived from them.

The Team and those present had preliminary discussions about how such a report might be structured, whether it should identify triggers/thresholds/potential responses for each objective, and how to incorporate diverse perspectives on the ecosystem goals into indicator selection. On the second day, Ebett Siddon, working with Stephani Zador, presented an initial framework working with current indicators in the ESR, crosswalked with the ecosystem objectives divided among three potential ecosystem products: the new Ecosystem Health Report Card (strategic), the ESR (tactical but multi-species perspective), and the ESPs (species-specific indicators). The Team recommended identifying of both available indicators and ideal indicators, with a view to informing future research needs, and particular consideration if a single indicator is informing multiple objectives. Also, while the next step is to identify indicators, it continues to be important to think through how to convey what the indicators mean to the Council for decision making. Finally, it was noted that the Ecosystem Health Report Card might not need to be an annual product.

The FEP Team created a workgroup, with Ebett as the lead and including Kerim, Stephani, and Jim Ianelli, to continue work on the initial framework and report back. The intention would not be to develop this product in isolation by the FEP team, but include interface with the other Plan Teams, the ESR team,

the SSC, and the Council process more generally. In terms of timing, the FEP workgroup intends to meet before September to flesh out a draft that could be presented to the Groundfish Plan Teams in September and the SSC in October, with a view to having a draft Ecosystem Health Report Card available for the FEP Team's March 2020 meeting. Council and SSC review and feedback in April 2020 would set the stage for complementary changes to the other ecosystem products for the fall 2020 harvest specifications cycle.

Action Modules

In December 2018, the Council approved the five action modules that were recommended by the Ecosystem Committee to be part of the FEP, and specifically initiated action on two of them. Diana provided input on how the action modules will be developed, including a draft template for Action Module workplans. The Council is scheduled to review the FEP Team's draft workplans for the two prioritized Action Modules at the June Council meeting, and decide how to create an Action Module Taskforce for each. The Taskforce is intended to be a group of people with the appropriate expertise to produce the Action Module's discrete workproducts, after which the Taskforce will disband. Taskforce members are uncompensated, but the Council will provide travel support for non-Federal participants to in-person meetings, similar to Council Plan Teams. The Council has not yet decided exactly how it will appoint Taskforce members; this will be a discussion item in June. The Council does, however, need input from the FEP Team about what membership is required for the Taskforces to be successful.

The Team discussed the two draft workplans, and created workgroups to refine the drafts based on FEP Team comments. **The Team recommends that the Council endorse the two workplans in principle**, including their guidance for the Council in forming Taskforces, understanding that there may be further refinement once the Taskforces are convened. Depending on the timeline (and given the FEP Team is only planning to meet twice a year), the Council may want to specify that the Taskforces report directly back to the Council if they recommend substantive changes to their workplan.

The Team also noted in their discussion that there is overlap among the modules, which should be considered. The FEP Team has a role in monitoring those connections and ensuring mutual exchange, but it may also help to organize each module around the ecosystem goals and objectives where appropriate. For the two prioritized modules, it may also be possible to identify a common focal question that would facilitate dialogue between the Taskforces.

Evaluating climate change effects in the Bering Sea

Kirstin Holsman provided a draft workplan and detailed presentation for the FEP action module: "Evaluate short- and long-term effects of climate change on fish and fisheries, and develop management considerations." The goal of the module is to scope climate change adaptation pathways and long-term resilience of the ecosystem. The module will leverage ongoing studies, such as ACLIM and an Alaska species vulnerability assessment, and consider how information from those existing studies can better filter into the Council process. These could include simple information products, such as 2 page briefings on an issue/why it matters/state of knowledge/where science is headed (along the lines of Arctic Futures 2050's "Arctic Answers"), or using the FEP's ecosystem objectives to categorize what existing tools or studies are available to help address questions associated with the objectives. They could also be more complicated requests for management strategy evaluations (MSEs) to look at specific management options, with a view to identifying which options keep the Council in a space where continued adaptation is possible.

The Team asked a lot of clarifying questions about the specific proposal, linkages with existing projects, opportunities for partnership, and the workload associated with many of the MSE options. Regarding membership, **the Team recommends that an approximately 10-person Taskforce be appointed that**

balances a mix of interdisciplinary and specialist members, includes those that are familiar with the Council process, and to the extent possible leverages people with connections to other partnerships.

Protocols for LK, TK, and subsistence

Elizabeth Figus provided a draft workplan for the FEP action module: “Develop protocols for using local knowledge (LK) and traditional knowledge (TK) in management, and understanding impacts of Council decisions on subsistence use.” The goal is to develop clear guidance for the Council regarding best practices for LK and TK, and for subsistence, and to look at how subsistence data should be incorporated in analyses. The workplan acknowledges three distinct components – LK, TK, and subsistence – while still recognizing that there will be a lot of synergy among them. **The Team recommends that the appointed members for the Taskforce be limited to 7-10 people, supplemented by up to 5 agency staff, so that the overall Taskforce does not exceed 15 people.** Regarding membership of the Taskforce, stakeholders have recommended that 2/3 of appointed members have TK or subsistence expertise, with the remaining 1/3 LK. The Team notes that Taskforce members should also have knowledge of the Council process as well, however, in order to consider how this information can best be integrated into existing processes.

The Team asked clarifying questions of stakeholders about why it is important to decouple LK and TK, and whether the intent is to synthesize work that has been done already, or rather to focus on the process of how analysts gather and evaluate information. The Team also provided some feedback to refine the workplan, such as considering lessons from the Alaska Salmon and People Program model.

Other modules

For the three action modules that the Council approved but did not initiate, **the Team intends to prepare draft workplans that can be presented to the Council in April 2020.**

- Gap analysis: Diana and Ivonne Ortiz noted that Dave Fluharty is looking for funding for a one-year commitment to have a graduate student help with this project.
- Conceptual models: Kerim noted that this module is intended to supplement Bering Sea biological descriptions in Chapter 6 of the FEP with a more holistic perspective, incorporating LK and TK to the extent practicable. There may be more information to work with in developing this module once the LK/TK module has had a chance to make progress.
- Research tracking: Joann reported that the primary goal is to test lines of communication among different organizations. Some pilot work has begun between NPRB and the Council, and bringing back a workplan next year is feasible.

Outreach and communication

Elizabeth provided a briefing on the initial development of the BS FEP website, which she has developed with Sara Cleaver (also on Council staff). The goals for the website are to be an engagement tool to enhance understanding of the FEP; something that is ‘living’ but also does not constantly need updating; and not primarily an archival space. As such, they have used the ESRI story map tool (which is supported by NOAA staff) to create story maps of the FEP and the two initiated action modules, as a prototype.

The Team provided some specific feedback, and those present discussed whether story maps would be effective given internet constraints in Bering Sea coastal communities. Members of the public noted that the story maps would likely consume too much data, even if they were posted as static PDFs. It was recommended that putting portions of the story map information on social media would be most effective. There are specific options to highlight pages for people within a specific geographic region. Also, distributing information through the hard copy newsletters of organizations and tribes in the region is also worth considering.

One potentially useful opportunity for using the story maps could be to share them with educational programs, as they are a very appealing way to engage a younger audience (who might be encouraged to pursue a career in science). The Team members had various ideas about educational opportunities as well as science conferences in the region, and Davin Holen agreed to lead an FEP Team workgroup with the objective of making the FEP website information (and potentially FEP Team members as speakers) available to other groups as appropriate.

Finally, Diana noted that Council staff are working on developing ways to make the content in the FEP's Chapter 7 (Assessment of EBFM in current Bering Sea fishery management) more accessible through graphics and/or short briefs.

Other business and scheduling

The Team received a short presentation from an environmental data collection initiative based out of Denmark, which is trying to collect sensor data from fishing vessels on the Bering shelf.

At the June 2019 Council meeting, the co-Chairs will report to the Ecosystem Committee, SSC, Advisory Panel and Council on the proposed Terms of Reference, the two draft workplans, and the FEP team report.

The FEP team tentatively scheduled their next annual meeting for March 3-5, 2020. Potential agenda items include progress reports on the two initiated action modules and draft workplans for the remaining three action modules, a strategic review of ecosystem products and especially red flags from the previous fall cycle, a draft Ecosystem Health Report Card, potentially invited presentations from scientists working on Bering Sea research (specific topics to be identified), discussion of uptake of FEP concepts and/or information, and progress on outreach and communication opportunities and tools.

The co-Chairs will also circulate a doodle poll for an interim one-day meeting in September 2019, with the preference being to run the meeting through online technology with local hubs where possible (e.g., in Anchorage and Seattle). For the September meeting, the preliminary intent is to meet in the morning as a full team, and devote the afternoon to workgroup progress on specific topics.

The Team also agreed to seek out meeting rooms with better audio capability for future meetings.