



North Pacific Fishery Management Council

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Bering Sea Fishery Ecosystem Plan Team

REPORT

March 3-4, 2020, AFSC, Seattle, WA

Plan Team Members in attendance¹:

Kerim Aydin, co-Chair (AFSC REEM)
Mike Dalton (AFSC ESSR)
Diana Evans, co-Chair (NPFMC)
Brad Harris (APU)
Davin Holen (Sea Grant)
Jim Ianelli (AFSC SSMA)

Jo-Ann Mellish (NPRB)
Heather Renner (USFWS)
Elizabeth Siddon (AFSC ABL)
Ian Stewart (IPHC)
Stephani Zador (AFSC REFM)

Members absent: Benjamin Daly (ADFG), Anne Marie Eich (NMFS AKR), Phyllis Stabeno (NOAA PMEL)

Others in attendance:

Agency: Sara Cleaver (NPFMC), Martin Dorn (AFSC SSMA), Bridget Ferris (AFSC REEM), Kate Haapala (NPFMC), Kirstin Holsman (AFSC REEM), Steve Kasperski (AFSC ESSR), Megan Mackey (NMFS AKR), Jon Reum (University of Washington), Diana Stram (NPFMC), Andy Whitehorse (University of Washington), Sarah Wise (AFSC ESSR)

Public: Raychelle Daniel, Mellisa Johnson, Stephanie Madsen, Steve Marx, Robert Murphy, Brendan Raymond-Yakoubian, Becca Robbins-Gisclair

The co-Chairs opened the meeting with introductions, a review of the agenda, and a review of the Team's purposes, as described in the Terms of Reference approved by the Council since the last Team meeting (providing strategic guidance for monitoring Bering Sea ecosystem status, managing FEP action modules, maintaining the core FEP, and outreach and communication). The Team began with a quick roundtable of relevant ecosystem-based fishery management (EBFM) initiatives or discussions occurring in each person's agency or professional sphere.

BS FEP Action Modules

Local Knowledge/Traditional Knowledge/ Subsistence Taskforce

Dr. Sarah Wise, co-Chair of the LTKS action module Taskforce, provided a report on the work of the Taskforce. The Taskforce has formed and met, and developed a workplan that sets down definitions of LK and TK (and intends to define subsistence at a future meeting) to create a shared understanding of what is meant by those terms, and identifies goals and objectives for the Taskforce as well as associated

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

deliverables. The deliverables include a glossary of terms, a briefing statement on potential onramps in the Council process, a protocol outlining best practices, a protocol for using LKTKS in analyses/the management process, guidelines for Council staff, and a final report to the Council. The Taskforce is also considering a case study to provide a discrete, real-world opportunity to develop appropriate protocols that can then be generalized.

Overall, the Team approves the Taskforce's identification of useful, tangible workproducts that appear to be attainable within the intended span of the action module (2-3 years). As outlined, the workplan meets the intended goal of the module, and appears to add value to the management process (consistent with the premise of the FEP). The Team suggested that the Taskforce also think about procedures for providing input to existing annual processes (e.g., ecosystem observations for the Ecosystem Status Report or spring PEEC discussions).

Much of the Team discussion focused on the SSC and Council's review of the workplan at the February 2020 meeting, and the implications of the Council's action to narrow the Taskforce's objectives on subsistence. Sarah reported that the Council changed the Taskforce's goal for subsistence to remove the language of 'impacts' and 'mitigation', as well as removing an objective that intended to identify measures and opportunities to mitigate impacts to subsistence resources and users. Several members of the public provided input to the discussion, citing concerns about whether the change cuts the legs out from the Taskforce's ability to provide constructive guidance on how the Council can address subsistence in the management process, and the negative perception that by limiting the language, the Council is creating a one-way process where subsistence users are being asked to provide their valuable information but are prevented from involvement in how that information is evaluated and understood. Other public input noted that the Council discussion keyed in on action-forcing, legal implications of the removed terms, regardless of how the Taskforce intended them, and that perhaps the Council's motion was intended more to address that concern. Some members of the public specifically called for the Team to ask the Council to reconsider.

From the discussion, the Team recognized the different perspectives in interpreting the Council's action, however they did not believe it appropriate to push back on the Council's authority to choose its wording. There was, however, discussion about, and support for, what could be achieved under the goal as amended. Despite removing the explicit link to impacts, the Team noted that there is still considerable scope for the Taskforce to improve the process for routine and meaningful consideration of subsistence information in the Council process, and that a key purpose of the action module should be to identify where and how that information relates to Council fishery management decisions. By routinely providing that information in analyses, this will also create more opportunity for subsistence users and advocates to offer interpretation and dialogue about impacts and mitigation at each Council decision-making occurrence.

Climate Change Taskforce

Dr. Diana Stram and Dr. Kirstin Holsman, co-Chairs of the action module taskforce for evaluating the impacts of climate change (CCTF), provided a briefing on their progress to date. The CCTF is in the process of adjusting their workplan for approval by the Council. The main components of the workplan are to synthesize current knowledge of climate change effects on the Bering Sea ecosystem for the Council audience, and evaluate management measures and policies under future climate scenarios, including identifying potential options for climate-resilient short/medium/long-term actions that the Council may want to consider. The CCTF has begun to draft potential climate indicators and adaptation options for analysis, and to identify onramps for climate information to the Council process at tactical and strategic levels.

The Team appreciates the CCTF's wide range of ideas for improving climate consideration within the Council process, consistent with the scope of the action module's goal. Much of the Team discussion

focused on better understanding what different workproducts could result, and how they would flow into existing processes. Specific deliverables that were discussed include short topic-based briefing documents and a Council climate briefing (which would dovetail well with the FEP Team's proposed Ecosystem Health Report Card), contributing climate information to the annual specifications processes, and developing visualizations of management adaptation options in connection with ongoing climate projects at AFSC and elsewhere (e.g., ACLIM).

The Team notes that the focus on identifying specific onramps for CCTF information to affect management is consistent with the intent of FEP action modules. As the CCTF continues to refine its workplan, the Team suggests that it will be useful to specifically define and relate deliverables to the module's objectives and the Taskforce's timeframe. Also, the Team encourages early involvement of the groups that will take on the ongoing maintenance of new climate information once the work of the CCTF is complete. Understanding that the climate change information has both tactical and strategic components, it may help to differentiate them in the workplan.

Diana and Kirstin also reported on discussions about using case studies as way to make the conceptual discussion of fishery management impacts from climate change more tangible, of which the Team is very supportive in principle. Initial ideas are for a small scale, locally important species (Norton Sound red king crab); a broadscale study of a stock that is moving out of its traditional management and survey area (Bering Sea cod); and a bycatch case study focusing on changing incidental catch patterns driven by environmental conditions (Bering Sea pollock fishery and squid catch). The CCTF is interested in working with the LTKS Taskforce to find opportunities to include LK and TK, and also to ensure all perspectives are represented in evaluating tradeoffs in a climate context. The Team supports exploring the idea of a joint meeting of the Taskforces within a case study community, but notes the need for concrete objectives for such a meeting/workshop from each Taskforce, to ensure it is consistent with and complementary to their core missions.

Strategic guidance for monitoring Bering Sea ecosystem status

Ecosystem Health Report Card

The Team held a mini-workshop as part of the meeting, to work on how the Ecosystem Health Report Card (EHRC), proposed at the May 2019 meeting, might be structured. Dr. Ebett Siddon led off the discussion how the EHRC might be designed and fit with existing products. The ESR and the new ESPs support multi-species and species-specific tactical advice for annual harvest specifications, respectively; there is an opportunity for another product (the EHRC) to reflect longer-term indicators of change in the ecosystem. Some existing ESR indicators that fit better with this longer term view (for example, areas disturbed by trawl activity, or mean length of the groundfish community – indicators that change very little on an annual basis) could move to the EHRC, along with new indicators where needed to track to the FEP's 17 ecosystem objectives. Ebett also noted that the EHRC could have both hindcast and forecast components (the latter stemming from the climate change Taskforce work). In years prior, the ESR had to fulfill all Council needs; the advent of three separate ecosystem products provides the opportunity to tailor each product to a specific objective. The Team recommended creating a 1-page handout to consistently explain the three ecosystem products and how they are to be used.

The Team discussed how to frame the purpose of this report. In the past, the Ecosystem Committee and Council have identified a goal of a 'healthy ecosystem' (this is an explicit goal of the Aleutian Islands FEP, though the language used is different in the Bering Sea FEP), which is defined in objectives but not in metrics. The scoping of the FEP also highlighted a need for better communication about how the Council is doing at management. The Team, with input from the public, discussed that as a strategic document, is the purpose to monitor changes in the ecosystem to better understand their potential impact on fisheries, or to monitor metrics of fishing impacts on the ecosystem (i.e., the impact of management), or (ideally) both. To illustrate the point, the Council might be doing great at EBFM in a scenario where

there is major ecosystem change from other factors, and it would be helpful to understand both of those aspects.

Logistically, the Team identified that the EHRC does not necessarily have to be an annual product, although the Council may want to track some indicators that frequently if they are approaching a threshold of concern. The Team will try to design a product that is easy to digest – more similar to the 4-page ESR brief than a hundred-page report – but also to capture enough information that people can understand this new approach and what it means. Therefore the first report(s) will likely be longer in length until people become accustomed to the product and how it can be used. Because it is linked to the BS FEP, the initial focus would be the Bering Sea, but that could expand to the AI and GOA over time (and should be kept in mind in the design). It was also noted that this type of report will probably have more interest to the international audience, and there may be an opportunity at some point to bring in international indicators that were not appropriate for the ESR, but which would help to compare the Bering Sea to other global ecosystems. The ongoing Lenfest project on Indicators and Guidelines for Practical EBFM (which involves two FEP Team members) will be helpful here.

The Team also discussed the term ‘report card’ versus just a report, and concluded that the goal would be to identify a good/bad directionality for indicators, but whether this can be achieved would be evaluated as work progresses. It was noted that this may be especially difficult for human dimensions indicators where one’s different reference point affects the value judgement. It was also cautioned that linking a single indicator to some of the complicated ecosystem objectives could result in a simplified and misleading answers.

Ebett will continue to lead a subgroup to develop the EHRC, along with Kerim Aydin, Stephani Zador, and Jim Ianelli. In addition to coordinating with the Climate Change Taskforce, the Team also intends to work with the LKTKS Taskforce to identify how best to include that information, noting that TK especially would fit well with the longer time frame of the EHRC.

Maintaining the Core FEP

Research priorities

Kerim Aydin and Brad Harris briefed the Team on SSC interest in revising the process for developing Council research priorities, scheduled for discussion by the SSC in April 2020. The idea is to move away from the current, very detailed but lengthy and uneven database to a more holistic approach with top issues. Each Plan Team would be asked to provide its top 3-4 research priorities for SSC consideration. The Team also reviewed research priority presentations from the February 2020 SSC workshop.

Regarding the process itself, the Team notes that getting advice from each Plan Team is useful, but there is an inherent imbalance as only the Bering Sea has an FEP Team associated with it. Also, the Team sees value in organizing the top 10 list to separately acknowledge longer-term priorities as well as immediate, hot topic research needs. It was suggested in public comment that opportunities for input from tribes and community members should be provided at all levels, and the Team noted that this should be an onramp highlighted by the LKTKS Taskforce.

While the Team may want to consider an expanded process in the future, a good starting point is to ensure that the FEP priorities in the action modules are recognized. As such, the Team offers the following research priorities for April 2020:

- **LK and TK data collection.** *This research priority would support more structured and consistent sources of ecosystem information for use in annual reports (such as ESRs), specific fishery management actions, or future development of conceptual models, especially as there are some areas that are data poor. Ultimately want to build systematic onramps into the Council process, but need data to be able to populate those onramps also.*

- **Climate change: Develop predictive tools to inform management options related to resilience and adaptation.** *This research priority supports the work of the Climate Change Taskforce to identify and map out climate and environment change drivers and their likely response within fishery management, and specifically work on management options that provide a management response. Might support with groundfish specifications risk tables, and can also use these predictive tools to be able to evaluate the potential risk of different management responses related to potential scenarios.*
- **Conduct an assessment of the Council's Bering Sea management with respect to EBFM best practices.** *This research priority could be useful to help identify future needs and research.*

The Team considered identifying priorities related to other action modules or the Ecosystem Health Report Card, but ultimately determined that they were not yet ripe for inclusion.

Outreach and communication

Website and communications products

Sara Cleaver provided an update on the existing FEP storymaps, for which low-bandwidth PDF versions have been created to make them more accessible. Several members of the public contributed ideas to the discussion, including the utility of 1-pagers and short summaries that allow people to follow up in more detail on a website; facebook updates; regional newsletters; and the appeal of storymaps to draw people in. The Team recognizes the value in disseminating information through a variety of tools, and that it will also be useful to review recommendations from the Council's Community Engagement Committee once their report is finalized.

The Team had a brief discussion about topics for specific communication products that might be useful to support the BS FEP, and improve shared understanding of Bering Sea ecosystem information and ongoing research. The Team agreed to agenda this discussion at a fall FEP Team teleconference, with the aim of producing something for the next annual meeting.

Sara also reported on design work for a data dashboard tool, underway with AKFIN. The goal would be to provide visualizations of fishing activity information for the Bering Sea (and other Alaska ecosystems). The working group is still assessing how to provide the most useful product but also maintain confidentiality. The Team identified several similar, ongoing initiatives (AFSC community profiles dashboard, AOOS data sharing initiatives, efforts with the AFSC ESPs), and recommended that it will be important for the various groups to coordinate.

Tracking uptake of FEP concepts and information

The Team, with input from the public, identified areas where EBFM information is increasingly affecting the Council process.

- In harvest specifications, the development of risk tables, 4-page ESR briefs that capture how ecosystem information was used in the specifications process, early warning indicator presentations in October in 2018 and 2019.
- Council analyses increasingly address the multi-fishery portfolio of affected participants (through social and community impact assessment sections), demonstrating an EBFM component of looking at impacts across fisheries in a more systematic way.
- More references to the FEP and the FEP Team during the Ecosystem Committee and Council process, often in the context of ensuring that actions and discussions are coordinated among people working in different groups.
- Better communication between AFSC and the Council process as the AFSC director provides an agency B report to the Council and its advisory groups more frequently
- Better connections between NPPR and Council staff

Other business and scheduling

The FEP team tentatively scheduled their next annual meeting for the first week of March 2021, to coordinate with a Council presentation in April. The Team also plans to hold a fall 1-day FEP Team meeting (via teleconference) to review progress with the draft Ecosystem Health Report Card and discuss a topic for an ecosystem briefing as part of the April 2021 Council agenda item. The indicators subgroup will meet over the summer in preparation for the fall meeting.