



Bering Sea Fishery Ecosystem Plan Team

REPORT

May 24-25, 2021, [Webconference](#)¹

Plan Team Members in attendance²:

Kerim Aydin, co-Chair (AFSC REEM)
Mike Dalton (AFSC ESSR)
Anne Marie Eich (NMFS AKR)
Diana Evans, co-Chair (NPFMC)
Davin Holen (Sea Grant)

Jim Ianelli (AFSC SSMA)
Jo-Ann Mellish (NPRB)
Heather Renner (USFWS)
Elizabeth Siddon (AFSC ABL)
Stephani Zador (AFSC REFM)

Members absent: Brad Harris (APU), Ian Stewart (IPHC)³, Phyllis Stabeno (NOAA PMEL)

Others in attendance included (list is not exhaustive):

Agency: Sara Cleaver (NPFMC), Martin Dorn (AFSC SSMA), Baine Etherton (ADFG), Bridget Ferris (AFSC REEM), Kate Haapala (NPFMC), Kirstin Holsman (AFSC REEM), Joe Krieger (NMFS AKR), Megan Mackey (NMFS AKR), Steve MacLean (NPFMC), Ivonne Ortiz (University of Washington), Diana Stram (NPFMC), Andy Whitehouse (University of Washington), Sarah Wise (AFSC ESSR)

Public: Jason Anderson, Rose Fosdick, Mellisa Johnson, Stephanie Madsen, Steve Marx, Corey Niles, Mateo Paz-Soldan, Brendan Raymond-Yakoubian, Megan Williams, Brooke Woods

The co-Chairs opened the meeting with introductions and a review of the agenda. Opportunities for public comment were provided informally throughout the meeting, and Megan Williams and Stephanie Madsen provided comments. 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. This report is organized around the four purposes for the BS FEP Team: providing strategic guidance for monitoring Bering Sea ecosystem status, managing FEP action modules, maintaining the core FEP, and outreach and communication

Communication

Council request for clarity regarding various ecosystem products

In February 2021, the Council [requested](#) the BS FEP Team work with the BS FEP Climate Change Taskforce (CCTF) to clarify the multiple existing and proposed products to assess the ecosystem and

¹ Bering Sea Fishery Ecosystem Plan Team meeting eAgenda: <https://meetings.npfmc.org/Meeting/Details/2024>

² 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

³ Attended the 5/3/2021 FEP Team workshop

impacts of climate change. The CCTF, in their report, has refined a graphic to map how their climate work interacts with the existing processes. The BS FEP Team also discussed the need for clarity with respect to the various existing products, and agreed upon the following simplified graphic to illustrate how existing ecosystem reports and products relate to each other (Figure 1 and Figure 2).

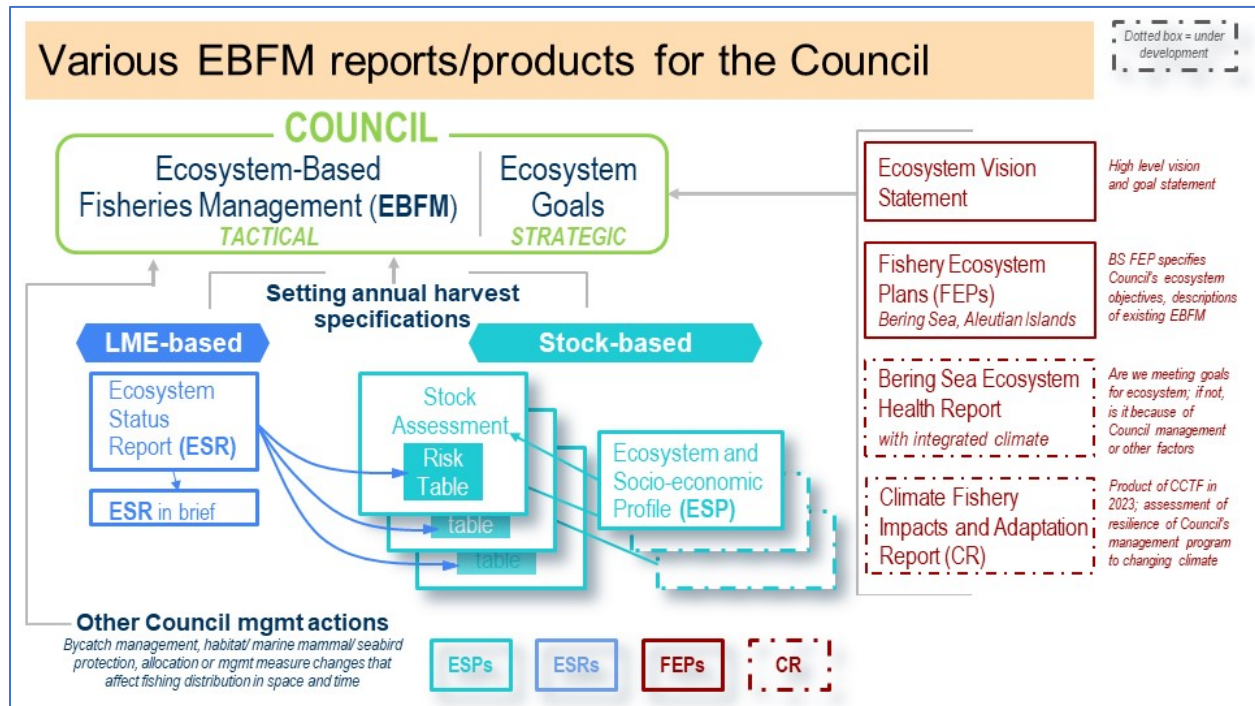


Figure 1 Existing and proposed ecosystem-based fishery management reports and products for the Council

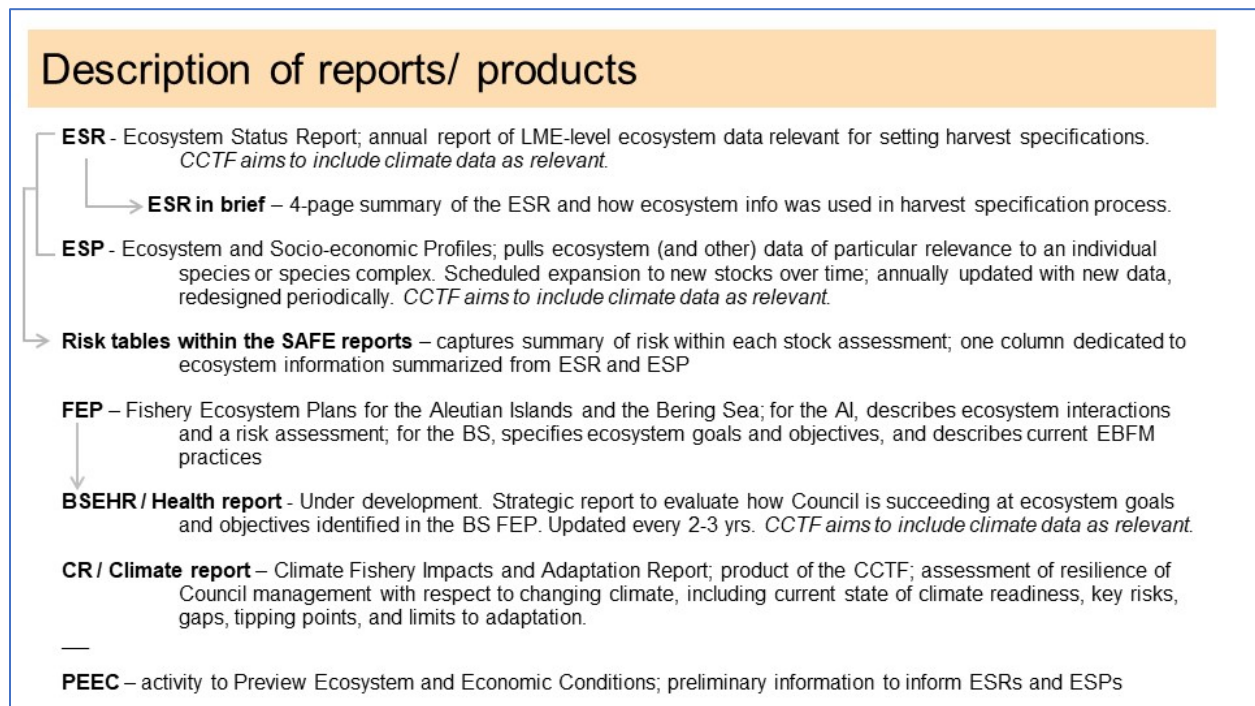


Figure 2 Description of existing and proposed ecosystem reports and products

Since the mid-1990s, the Council has reviewed an Ecosystem Considerations Report as an appendix to the Groundfish SAFE reports, which captured all available ecosystem data relevant for the Council. Over many years of iterative interactions with the Council process, the nature of that report has shifted, such that in recent years it has been reconceived as the regional Ecosystem Status Reports (ESRs) with content tailored specifically to support the tactical activity of setting annual harvest specifications for Council fisheries. With this change in focus for the ESR, the FEP Team recognized the opportunity to continue to track ecosystem trends that reflect longer-term indicators of change in the ecosystem in a separate report. Over the past two years, the Team has been working on the design of a bi- or triennial report that would allow the Council to track longer-term indicators and which would specifically tailor to the established ecosystem goals and objectives set forth in the Bering Sea FEP. During the same time period, the Council has also seen the emergence of stock-specific Ecosystem and Socioeconomic Profile (ESP) documents within the stock assessments, and risk tables as a way to summarize stock-specific risks for consideration as part of the harvest specifications process. The advent of these three separate ecosystem reports provides the opportunity to tailor each product to a specific objective, be it tactical and stock-specific (the ESP); tactical and regionally-based (ESR), or strategic and regionally-based (the Team’s proposed Bering Sea Ecosystem Health Report) (Figure 3). The CCTF aims to provide climate information to inform each of these existing and proposed products, in addition to creating a climate report that aids the Council in understanding the risks associated with changing climate and environmental conditions, and the tools available to address those risks in the future.

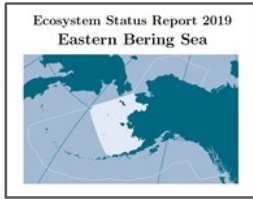
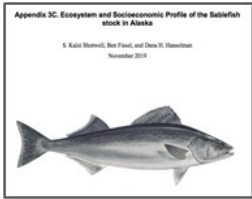






Distinguishing ESR, ESP, BSEHR			
			
	Ecosystem Status Report	Ecosystem and Socio-economic Profile	Bering Sea Ecosystem Health Report
Purpose 	Tactical - harvest specs* <i>* in past, this was the single catch-all report for all ecosystem considerations data</i>	Tactical - harvest specs	Strategic – is Council achieving ecosystem goals
When issued 	Oct-Dec	Oct-Dec (partial or full)	April (bi- or triennially)
Scope 	Aggregated - Indicators that pertain to many stocks at once	Species/Stock-specific – indicators that have an impact on this specific stock	Aggregated - Synthesizing across ecosystem area /activities
Spatial 	Large Marine Ecosystem (EBS, GOA, AI)	Large Marine Ecosystem/ FMP (EBS, GOA, AI)	LME -- Basin-scale
Temporal 	Annual trend updates	Mixed	Longer term trends

Figure 3 Comparison of the Council’s existing and proposed ecosystem reports

The Team also had a brief discussion of its role and the role of the FEP Taskforces with respect to the Council. The Team is fully cognizant that the FEP is intended to be action informing and not action forcing, and that information provided through the FEP process is advisory to the Council, but any action to change management would continue to occur outside of the FEP and through the established Council process. Therefore, as an advisory group, the FEP Team and the FEP action module Taskforces may provide advice to the Council, but it is up to the Council to decide what to do about that advice, including initiating consideration of traditional management actions through discussion papers or amendment analyses. There appears to be a perception that some members of the Council, the Ecosystem Committee,

or stakeholders are concerned that the FEP process may overstep this boundary with the use of terms such as ‘recommend’ or through activities such as identifying indicator thresholds that should raise flags of awareness for the Council. At the same time, the FEP Team is also appreciative of the Council’s injunction that it is the intent of the FEP to add value to the Council process and not just to be a static resource. Any feedback on the best way to navigate this delicate balance is appreciated.

Website and communications products

Sara Cleaver updated the Team that design work for a data dashboard tool is still underway with AKFIN. The goal is to provide visualizations of fishing activity information for the Bering Sea (and other Alaska ecosystems). As recommended by the Team last year, she and the working group are also coordinating with similar, ongoing initiatives, including the AFSC community profiles dashboard.

Strategic guidance for monitoring Bering Sea ecosystem status

Bering Sea Ecosystem Health Report

The FEP Team continued development of the proposed new ecosystem report which has been proposed and discussed at the last two Team meetings. The report, previously referred to as the Ecosystem Health Report Card, is intended to complement the existing Bering Sea Ecosystem Status Report, which now focuses on providing guidance relative to the Council’s harvest specifications actions. The Team held a workshop on May 3, in advance of the meeting, to begin work on designing and developing this new report, and planning continued during the annual meeting.

After discussion, the Team gravitated to a report that is refreshed on a 2-3 year timeframe, the purpose of which is to evaluate how the Council stands relative to its ecosystem goals and objectives as identified in the BS FEP, and also the extent to which that status is attributable to Council management versus external factors. Tangibly, the Team is aiming for the workproduct to be a fairly short synthesis of a few pages, although recognizing that there is a lot of nuance that may need to be captured. Particularly for the first iteration, there will likely need to be an accompanying appendix or background document that describes the process the Team underwent to arrive at the pilot report. For the synthesis, the Team discussed the concept of structuring the report around trying to rephrase either the 6 ecosystem goals or the 17 ecosystem objectives as questions – is the Council meeting that goal or objective, either as a yes/no answer, yes/no as a proportion (e.g. yes for 75% of managed species), or as a letter grade to indicate gradients. It will likely be too simplistic to keep to a high-level yes/no response for each objective, but keeping this intent in mind during the development of the report may help to keep in line with the FEP objective to inform but not overwhelm. The Team also discussed the importance of indicating gradient both on the positive as well as the negative spectrums, for example, distinguishing between stability and improvement with respect to a particular objective.

The Team discussed what the name of the report should be, and considered many possibilities. The discussion took into account not wanting to create confusion with other existing reports, and to provide a name that provides an accessible sense of the report’s purpose. While the Team has heard concerns about the imprecision of the terms ‘ecosystem health’ from SSC and Ecosystem Committee members during previous presentations, it became clear in discussing alternatives that including the word health provides a more intuitive sense of the intent of the report. Although health will still mean different things to different people, it clearly puts the report in a different realm than a status or trend report. The Team did veer away from the choice of “Report Card” however, opting for a more neutral term.

In this first instance, the Team members are committed to pulling together the report, although once the first iteration is designed and developed, a further evaluation will determine whether this work continues to rest with the FEP Team or whether there are other resources that can assist with its maintenance. During the workshop, the Team split into subgroups to tackle the 6 ecosystem goals and their associated ecosystem objectives, and brainstorm possible indicators for each objective. Rough notes on this

discussion are posted to the meeting [eAgenda](#). These subgroups will continue to meet offline and develop components of the report.

The Team intends to prepare a pilot Bering Sea Ecosystem Health Report for spring 2022, and during the workshop and the meeting developed a workplan to achieve this goal. The Team developed the following tentative timeline for preparing the report:

- May 2021: discussion of format for report, first cut at identifying available indicators
- June 2021: feedback on current design from the Ecosystem Committee/Council/SSC/AP.
- June - August 2021: FEP team works in subgroups to describe its interpretation of each ecosystem goal and suite of ecosystem objectives, and how it intends to match existing indicators to monitor each ecosystem objective, why those indicators were chosen. Develop spreadsheet of available data streams with respect to each objective. May also include identification of ideal indicators that are not currently available.
- Late August/early September 2021: FEP team virtual workshop to review work to date, get public input, answer outstanding questions, and ensure consistency in approach among subgroups
- September – December 2021: ongoing work as possible; liaise with other Council advisory groups (Ecosystem Committee, Groundfish and Crab Plan Teams, Social Science Planning Team, FEP Taskforces)
- January – February 2022: FEP Team efforts to synthesize data and draft report
- March 2022: FEP Team annual meeting, review and finalize report
- April 2022: present pilot report to Ecosystem Committee/Council/SSC/AP

BS FEP Action Modules

Local Knowledge/Traditional Knowledge/ Subsistence Taskforce

Dr. Kate Haapala and Dr. Sarah Wise, co-Chairs of the LKTKS action module Taskforce, provided a report on the progress of the Taskforce over the past year. Despite COVID delays, the Taskforce has begun to make progress with respect to its workplan (which was reviewed by the Team last year), and has since added a new onramp to consider how to provide input to annual processes such as the ESR, as suggested by the Team last year.

Discussion by the Team focused on understanding the degree to which local knowledge is being considered in the workplan, and how protocols might be applied in practice. The Team also requested that the Taskforce communicate early-on with the ESR team about opportunities for including additional information. There was also discussion about how the LKTKS Taskforce might interact with the Team with respect to Bering Sea Ecosystem Health Report; the Taskforce co-Chairs noted that the Team is not meeting until the fall, but could potentially review and provide input to the development of the report on that timeframe.

Overall, the Team appreciated the presentation, and looks forward to interacting more with the Taskforce as it develops its workproducts.

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 an overview of the workplan that was approved by the Council in February 2021. The workplan has three objectives – to collate available climate information, synthesize it to identify how it might inform fishery management, and to communicate information about climate change impacts in a systematic way to the Council. The CCTF has developed a figure to overlay their process and potential deliverables on to the existing Council process for harvest specifications and other reports. A primary workproduct will be a Climate Fishery Impacts and Adaptation Report. The first

section of that is targeted for fall of 2021, to describe the Council's current state of climate readiness; the remainder of the report will be prepared for 2023, and will assess adaptation tools, key risks, gaps, tipping points, and limits to adaptation.

The Team appreciated the presentation and is excited about the work. Members asked questions about the workplan, its timing, and future directions for the Taskforce. The figure provides helpful clarity about the different tactical and strategic scales of the CCTF output. The Team noted that there is some discrepancy in how the term onramp is used among the two Taskforces and the FEP, and it will be important to keep that in mind to maintain clarity. In the FEP, the term is used to describe the different products or groups where information should enter the process; for the CCTF, onramps 1 and 2 instead distinguish the different type of information that is developed. Also, the Taskforce co-Chairs acknowledged that they intend to discuss how information developed through the CCTF might be maintained once the Taskforce disbands.

The Team discussed with the Taskforce co-Chairs the degree to which the CCTF's Climate Report might or might not integrate with the BS Ecosystem Health Report. After discussion, it seems likely that the Climate Report will develop as a stand-alone document given its many components, but that the products that are specific to indicators and monitoring may appropriately be folded into the Health Report in the future. The CCTF timeline is unlikely to be compatible with integrating climate information into the Team's pilot report for spring 2022, but that would be the goal for future iterations.

FEP Team interactions with the Taskforces

The Team discussed their role with respect to the Taskforces and oversight of the action modules. While it is not the role of the Team to be a gatekeeper for the Taskforces, the Team has a charge to ensure the action modules are achieving the overall direction intended within the umbrella of the FEP, and adhering to the FEP principles including to add value to the Council process, inform but not overwhelm, be action informing rather than action forcing, and operate in an inclusive and accessible manner.

The Team identified that there is opportunity to enhance their communication with the Taskforces, in order to avoid Team or Taskforce members being caught off guard about what others are doing. It was noted that some of the mismatch over the past year is likely due to disruptions resulting from the pandemic, and also from the fact that these action modules are piloting an abstract concept that was laid out in the FEP but not heretofore field tested. The following are recommendations going forward:

- Recognizing that the Taskforces meet more frequently than the FEP Team, align the meeting schedule to the extent possible so that the Taskforces can have a meaningful interaction on their progress with the FEP Team at the Team's annual meeting, and that all groups can report out to the Ecosystem Committee/Council/SSC/AP annually on a coordinated basis.
- Enhance communication efforts between the Team and the Taskforces, especially when the Taskforces are presenting to the Ecosystem Committee or the Council
 - Establish regular check-in meetings of the FEP Team and Taskforce co-Chairs, who can then disseminate information to among group members
 - When presentations do not align with the annual FEP Team meeting, provide an advance opportunity for email feedback from the FEP Team of workproducts
- For future action modules, plan to have the Taskforce review workplans and substantial workproducts with the FEP Team before presenting to the Council.

Maintaining the Core FEP

Research priorities

The Team reviewed the SSC's guidance for developing Council research priorities from April 2021, and how the Team should support that process. The FEP Team will schedule a discussion of research

priorities at the 2023 meeting in preparation for SSC and Council action on the triennial cycle, and will coordinate research priorities from the two FEP taskforces.

Next steps

The Team held a wide-ranging discussion about what the next directions for the FEP should be. While the two initiated action modules are only just getting underway, it was recognized that the spin-up for any new action module takes time, and therefore it is useful to think about future directions early on.

At this point, the Team does not have specific recommendations for new Bering Sea action modules. The Team reviewed the three action modules approved but not yet initiated in the FEP document (conceptual model to include local and traditional knowledge; EBFM gap analysis; research priorities alignment), and agreed that they are still of interest and of value, but are not ripe for moving forward at this time.

The Team also discussed the value of shifting limited resources to consider EBFM projects in other regions, such as the Aleutian Islands or the GOA. The Team has heard interest from the SSC in the past about transitioning the BS FEP Team to a more general FEP team covering all Alaska regions; there have been questions about developing a GOA FEP (as the remaining Council region in which active fisheries are occurring); and the Ecosystem Committee has been considering future actions for the GOA as part of their planning. The Team received a presentation from Dr. Martin Dorn on ongoing work on updating the AFSC Regional Climate Action Plans, and the initial phases of a 3-year GOA climate integrated modeling project (GOA-CLIM) similar to the Bering Sea ACLIM project.

The Team's discussion about next steps discussed the various benefits of several different future directions, without coming to a firm recommendation. The Team does see potential value in the idea of having an all-regions FEP team in the future, perhaps with some core members and regional experts, especially compared to the alternative of multiple region-specific FEP teams. There was concern about limited resources, and the difficulty of adding even more groups and meetings to coordinate among. At the strategic level, there is overlap among the different regions with respect to EBFM processes, however the different ecological and human community characteristics also keep the regions very distinctive. The Team discussed different options, such as rotating Council focus among the different regions, or being less prescriptive to allow the Team to be adaptable to emerging concerns. There was discussion that given the status of ongoing science work including GOA-CLIM, if the Council is interested in pursuing a GOA FEP, it might consider timing coincident with the end of that project, which also correlates approximately with the conclusion of the two existing Bering Sea action modules. The Team highlighted that if the Council is considering development of a GOA FEP, even if it is supported by an all-regions FEP team, it would be important to bring in GOA experts for a broad scoping and development process.

Finally, the Team also noted that consistent with the FEP, there should be public scoping and input about next steps and action modules once the Council is ready to move in that direction. The Team received a brief update from Council staff Steve MacLean about the early stages of planning for a second Council ecosystem workshop. The Team recommends that the workshop could be a good venue for soliciting input about next directions for the Council with respect to EBFM.

Other business and scheduling

The FEP team tentatively scheduled their next annual meeting for March 2022, to coordinate with a Council presentation in April. The Team will also hold a virtual FEP Team meeting in late August or September to review progress with the developing the pilot BS Ecosystem Health Report. Subgroups of the Team will work on various components of the report over the summer and in preparation for the March meeting.