

**North Pacific Fishery Management Council
Ecosystem Committee Minutes
March 17-18, 2015
The Mountaineers, Seattle, WA**

The North Pacific Fishery Management Council's Ecosystem Committee met in Seattle, WA on March 17-18, 2015. The agenda for the meeting is attached as Appendix A. Committee members in attendance were Bill Tweit (Chairman), Stephanie Madsen, Jeanne Hansen, Jim Ayres, Steve Ignell. Committee member David Benton joined via teleconference. Others also attended via teleconference.

Chairman Tweit opened the meeting at 8:30 on March 17 and welcomed those in attendance. Committee members introduced themselves, followed by introductions from the public in attendance.

Chairman Tweit opened a discussion about the Council's Ecosystem Vision Statement and how to better put the vision statement into regular practice by the Council. Discussion from the Committee included notice that NOAA's webpage on Ecosystem Science includes many of the principles already put into place by the NPFMC, and that it should be made clear that the NPFMC has already made much progress in incorporating principles of Ecosystem Based Fishery Management into its regular decisions. The Committee did note that steps should be taken to make the Vision Statement more readily available and easily incorporated. After additional discussion **the Committee recommends that 1) the Council should ensure that the Ecosystem Vision Statement is more prominent on the Council website to make it easier for the public to access, recommended that, 2) during scoping for action items, staff should identify where the Vision Statement could affect the proposed action, 3) ensure that discussion of the Vision Statement is included in final deliberation for Council actions, and 4) investigate whether the Alaska Marine Ecosystem Forum should be reconstituted.**

Mr. John Olson (NOAA Habitat) provided an update on the Essential Fish Habitat 5-year review currently underway. The Committee had some discussion about research to support EFH designations, and noted that industry support to obtain Experimental Fishing Permits (EFPs) is an important part of the process and encouraged continued support for industry EFPs. After some additional discussion about the schedule for completing the 5-year review, and the fact that EFH is not designated for halibut, **the Committee acknowledged the SSC recommendations regarding methods to evaluate and define EFH, supports the SSC recommendations, and encouraged continued funding of EFH related projects.**

Mr. John Olson provided an update on the research program to identify red king crab (RKC) habitat and examine the effects of offshore marine mining activities on RKC habitat in Norton Sound. Following the presentation, the Committee inquired about the response from the U.S. Corps of Engineers to a letter sent from the Council in 2013. Other than acknowledging receipt of the letter, the Corps has apparently not responded to the Council letter. **The Committee took no action.**

Dr. Chris Rooper (NOAA RACE Div.) presented an update on the deep-sea corals projects, including camera drop surveys in the Bering Sea, the 3-year deep-sea coral Alaskan research priority, and a

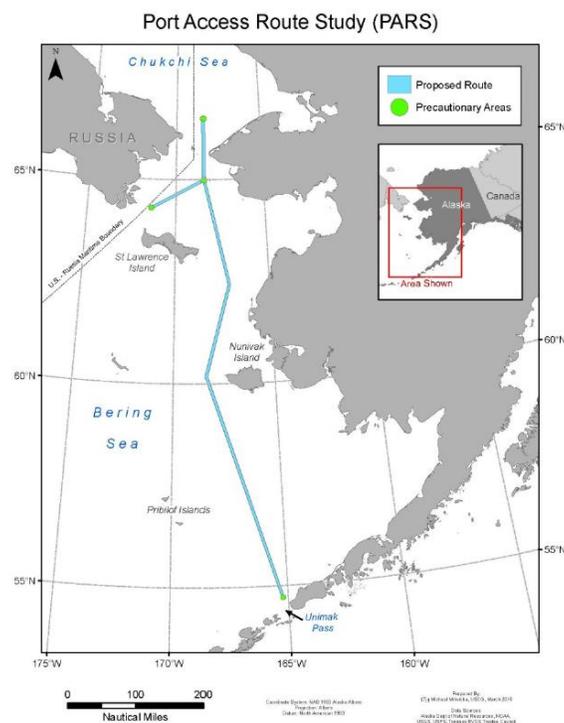
summary of a workshop investigating groundfish associations with Pacific corals. For the Bering Sea camera drop survey, Dr. Rooper reported that 250 randomly selected transects were surveyed to ground truth the accuracy of the coral model presented to the Council in June 2013. Approximately 250,000 images were collected; image analysis is completed for 177 of the 250 stations. Analysis of the full 250 sites is expected in the next few weeks. Results were similar to modeled predictions; three coral varieties were seen at 31 stations, corals were seen more commonly in Pribilof Canyon and the adjacent slope area to the north and west, and overall coral abundance was very low throughout the study area. Sponge density was also low, although sea whip density was high in some areas in less than 200 m of water. Preliminary results will be presented to the Council at the June meeting. The three-year deep-water coral project has completed the final year of funding. The project is on track to finish but the final report will be pushed back one year to allow completion of a *Primnoa* habitat survey. Data analysis is expected to be complete within the fiscal year, a final report delivered by December 2015. Preliminary results will be presented to the Council at the June meeting. Dr. Rooper also participated in a workshop to discuss relative differences in associations of juvenile rockfish with structure forming invertebrates in the Pacific. Conclusions of the workshop are being drafted; preliminary results will be presented to the Council at the June meeting. **The Committee thanked Dr. Rooper for his presentation and took no action.**

Mr. Henry Huntington (Pew Charitable Trusts), Dr. Chris Krenz (Oceana), and Mr. Brandon Ahmasuk (Kawerak) provided an overview of the Bering Strait Marine Life and Subsistence Use Data Synthesis, a joint project between Oceana and Kawerak's Ice Seal and Walrus Project. The objective of the project is to gather and synthesize local and traditional knowledge (LTK) and western science to help inform management of marine resources. Mr. Huntington spoke of subsistence harvest data from villages in the Bering Strait region, Dr. Krenz provided examples of subsistence use areas for marine resources in the area, physical processes, and migratory routes of marine resources, and Mr. Ahmasuk spoke of the changes and challenges that subsistence harvesters in the region are facing. The Committee asked questions concerning the diversity of species that are harvested in the region, and whether recent climate related changes are having differential effects on those resources. Mr. Ahmasuk stated that some species are not as plentiful or are more difficult to find, and as a result, subsistence users are shifting use to other species. Mr. Ahmasuk was concerned about the loss of knowledge that could occur if a specific subsistence resource was unavailable for multiple generations, would later generations retain the knowledge required to successfully harvest those resources? The presenters suggested that a Fishery Ecosystem Plan (FEP) was a way to help, to "get those things you care about today, into tomorrow". To accomplish that, the presenters suggested that the authors of an FEP should: 1) reflect results of LTK studies as they would any other study, cite documentation of LTK and documentation of subsistence data as sources; 2) reflect that there are well documented and well established ways of collecting and documenting LTK and subsistence data; and 3) include subsistence species and subsistence issues as part of the ecosystem. One committee member suggested that including subsistence users (and other people) in the FEP would allow for indicators that could reflect that health of subsistence species and practices. The presenters suggested that each village would likely have a different set of indicators because their patterns of subsistence use and areas of access are unique. Another committee member suggested that the FEP should clearly include communities and subsistence

ways of life that are “inextricably linked” in the Bering Strait region. **The Committee thanked the presenters and recommended that a discussion of subsistence should be expressly included in planning and completing a Bering Sea FEP.**

Ms. Diana Evans (Council staff) presented a brief update on progress from the Aleutians Islands Risk Assessment. One committee member asked whether there were plans for the US Coast Guard (USCG) to create designated traffic lanes through the Aleutians for domestic vessels, or whether the International Maritime Organization (IMO) efforts were the only efforts. Lt. Kody Stitz (USCG, via phone) commented that because the US is signatory to the IMO, all provisions of IMO are applicable to domestic vessels, but there are no specific plans for domestic traffic designations. **The Committee took no action.**

Lt. Kody Stitz (USCG, via phone) provided a presentation on the Bering Sea Port Access Route Study. The original study area consisted of the Bering Strait, south to St. Lawrence Island. After considerable public comment, the study area was enlarged to include the original study area, and the waters between St. Lawrence Island and Unimak Pass. The Proposed Route is attached below.



The USCG is accepting public comment on the Proposed Route until June 3, 2015. There was substantial discussion at the Committee after Lt. Stitz’ presentation. One committee member noted that the Proposed Route goes right through the shelf break, where most of the commercial fishing activity occurs in the Bering Sea. Lt. Stitz was asked what the criteria are that the USCG considers when developing recommended routes. Lt. Stitz responded that there are no prescriptive criteria that the USCG must follow, rather the USCG is only charged with developing safe routes. There is a trade-off that the USCG must consider to develop a safe route and one that is so far out of the way that commercial traffic

would not use it. Another committee member asked whether there are any requirements of response capabilities for vessels using the recommended routes. Lt. Stitz responded that there is very little authority that the USCG has over vessels on innocent passage to require spill response capabilities, but has more authority for vessels traveling to or from a US port. Other international regulatory actions, such as Areas to Be Avoided (ATBA) can impose restrictions on entry or passage for innocent passage vessels. Lt. Stitz was asked about vessels traveling from Bering Strait through AI passes to the west, rather than through Unimak Pass. Lt. Stitz stated that those passes and recommended routes have not been part of this study, but could be part of a study in the future. Lt. Stitz stated that the USCG is accepting comments on the Port Access Route Study until June 3, 2015 and encouraged the Council to submit comments. During discussion the Committee noted that there is a separation in developing a recommended route and regulatory issues such as spill response. Committee members were concerned that the Proposed Route runs over the shelf break where there is likelihood of vessels in the Proposed Route encountering active fishing vessels. However, **the Committee suggested that it was too early for the Committee to make recommendations on Council comments, rather the Committee requested that the Council receive the presentation provided by Lt. Stitz, read the proposed rule, then determine whether comment is necessary. The Committee thanked Lt. Stitz for his presentation and requested that staff inquire whether the USCG would be able to present the PARS study to the Council during the April Council meeting.**

Committee member Stephanie Madsen provided an update on the final report of the Alaska Arctic Policy Commission. **The Committee noted that this was informational, that the report was submitted by the AAPC, and that legislation has passed the AK State House and is now in the Senate special committee on the Arctic. The Committee requested that staff continue to monitor and report to the Committee as necessary.**

Steve MacLean informed the Committee about the Alaska Ocean Observing System symposium on ocean acidification (OA). **The Committee requested that staff inquire about AOOIS intentions to continue to monitor OA.**

Dr. Phil Levin (NOAA Fisheries) provided an update on the progress that the Lenfest task force has made to investigate how regional fisheries bodies can better incorporate ecosystem principles into management and develop Fishery Ecosystem Plans. The task force continues to meet and expects to have a final product in spring 2016. The task force is currently developing case studies, including the indigenous use of salmon and food security in Alaska. The Committee asked Dr. Levin about the appropriateness of that case study because salmon, in Alaska, are not federally managed. Dr. Levin stated that the case studies are proposed, but not final and asked whether a better case study could be suggested. The Committee responded that there may be better case studies, but was not prepared to offer an alternative at the time; rather they suggested that the task force revisit the case study for Alaska. Discussion followed that centered on the “tools” that the task force is identifying for incorporating ecosystem principles into fisheries management, and when an FEP is a useful system for incorporating ecosystem principles. Dr. Levin suggested that a FEP is useful when it changes the decision a management body would make in the absence of a FEP, because it provides an opportunity to think

about tradeoffs between ecosystem and human dimensions for different management strategies. Dr. Levin explained that a FEP provides guidance for decisions to support a vision statement that “we believe a healthy ecosystem looks like this...” **The committee requested that staff keep in contact with the Lenfest task force as their product and the prospective BS FEP are developed.**

The Chairman concluded Day 1 of the workshop by stating that opportunity for public comment would be provided after lunch on Day 2.

Day 2 opened with presentations from Dr. Kerim Aydin, Stephani Zador, Ivonne Ortiz, and Kirsten Holsman from the Alaska Fisheries Science Center. Presentations included scoping for a FEP (Aydin), developing ecosystem indicators (Zador), Evaluating status and thresholds (Aydin), Spatial modeling (Ortiz), and Risk assessments and Management Strategy Evaluations (MSE) (Holsman).

Before presentations, the Council and Dr. Aydin discussed the role of a FEP, and how it ensures that decisions are informed by science (including local knowledge), and considers how various activities, including fishing and non-fishing activities affect the ecosystem. FEPs provide opportunities for Ecosystem-based fisheries management that incorporates multiple components of the ecosystem, including humans, into resource management decisions, and provides for consideration of economic tradeoffs between competing economic activities (shipping, fishing, etc.). A FEP should recognize physical, biological, economic, and social interactions among the affected components of the ecosystem and provide guidance to manage fisheries to achieve an established set of societal goals, some of which may be in competition. This topic was raised a number of times during the day as a BS FEP was envisioned: indicators would include fishing, social, and other indicators that would necessarily be taken as a whole to inform the health of the ecosystem and the communities that depend on it. Similarly, spatial models, risk assessments, and management strategy evaluations would consider environmental, social, and other variables as they are implemented.

After the scoping presentation, committee members asked why the BSAI was considered, when the Committee is on record as supporting the Bering Sea Large Marine Ecosystem (LME) as the scope for a FEP. Dr. Aydin noted that there are areas where the BS and AI LMEs intersect, such as joint TACs, the 2 million ton cap, etc. but reassured the Committee that the BS LME remains the fundamental until for the FEP, even if modeling for the BSAI is necessary in some cases.

After the Developing Indicators presentation, Committee members questioned one of the proposed indicators of community health; K-12 enrollment. One committee member noted that school enrollment may be a function of a number of factors that may not be related to whether the community is part of a commercial fishing sector. Other committee members noted that community indicators, when taken in context of other indicators, and within the context of a FEP as a *process* rather than a product provide value to understand health of ecosystem and communities that rely on it, and stressed that subsistence should be incorporated specifically into a FEP. Presenters noted that local knowledge and community indicators are one of the central points in the conceptual model of a FEP, as envisioned by the AFSC.

During discussion of Ecosystem Status and Thresholds, one committee member asked what was meant by a threshold. Dr. Aydin stated that the concept of an indicator threshold is that “going beyond this is bad”. Thresholds are the cutting edge of Ecosystem Based Management science, and the intention, should a FEP team be put together, is to develop indicators now, and work toward identifying thresholds later. Committee members agreed that the key point is that scientists are now beginning to see how components (indicators) fit together in a system, and while the concepts are overwhelming to those not engaged in EBM science, it is better to engage early while the process is developing than to wait until a product is delivered later.

Dr. Ivonne Ortiz provided a presentation on the FEAST model, which is a stacked model incorporating several other models ranging from climate input, to upper trophic level dynamics, and feeding into fishing effort allocation models. Dr. Ortiz noted that each level of the model is independently validated, then linked to other stacks and validated again. One committee member asked about model complexity vs. forecast complexity: at what point does adding complexity to the model result in diminishing returns? Presenters responded that for simpler models the point of diminishing return happens earlier, but for more complex models, like FEAST, we are still on the “upward part of the curve”.

Dr. Kristin Holsman presented Ecosystem Risk Assessments (MRA) and Management Strategy Evaluations (MSE). A risk assessment allows managers to qualitatively or quantitatively determine the probability that an ecosystem indicator will reach or remain in an undesirable state, identify the pressures that pose the greatest risk to ecosystem components, and quickly prioritize and balance tradeoffs in management actions. Ecosystem Management Strategy Evaluations allow managers to summarize the performance of various management strategies relative to management objectives. Committee members asked whether the models can take local scale, stochastic events into account. Presenters noted that some events can be incorporated, but much variability can swamp models. This underscores the importance of scenario building, an iterative, cooperative process to build reasonable scenarios for models to test is important. Collaboration is important to get answers that are relevant for management purposes.

Diana Evans (Council staff) provided a synthesis of public comments from the February 2014 discussion paper on the development of a Bering Sea FEP, and suggested framework for the FEP as a planning document and suggested next steps. Committee members generally noted that they agreed with the approach that is described in the draft document, particularly the concept of “modules” to facilitate a step-wise approach to developing the FEP. Although the Committee took no specific action, several Committee members supported the development of a subsistence module as one of the first steps in development of a BS FEP.

The Chairman allowed public comment following all presentations. Comments were made from Lori Swanson (Groundfish Forum), Chris Krenz (Oceana), Jackie Dragon (Greenpeace), Steve Marx (Pew Charitable Trusts), Becca Robins Gisclair (YRDFA), and Heather Brandon (WWF).

During general discussion, **the Committee agreed with the conceptual approach for the FEP that was presented by Diana Evans (active process vs. static plan)**. The Committee also stated their opinion that a FEP should be carefully crafted so that the FEP and ecosystem data inform management decisions, but do not overwhelm the process, it should be a process that allows discussion of tradeoffs for management decisions. Diana Evans reminded the Committee that the Council requested a clear proposal, with a good indication of draft objectives, goals, format, etc. to provide them an understanding of the Committee's view of a FEP. Two draft summaries of goals and objectives for a FEP were presented to the Committee (Appendices C and D). The Committee discussed each, but did not endorse one or the other at this stage, rather they **requested that staff incorporate them into discussion papers to begin to develop a "straw man" FEP for discussion at a future Committee meeting**. This discussion paper would also address the value added aspects of a FEP (what does it contribute in addition to what is already being done), and identify next steps should the Council choose to move forward.

After some discussion, the Committee proposed August 6 and 7 for the next Ecosystem Committee meeting, to be held in Juneau, AK at the NOAA Ted Stevens Marine Research Institute.

Appendix A
NPFMC Ecosystem Committee Agenda
March 17-18, 2015

Ecosystem Committee Agenda
March 17-18, 2015, 8:30am-5pm, Pacific
Cascade Room, Mountaineers Club
7700 Sand Point Way NE, Seattle, WA 98115

Teleconference line: (712) 775-7031
Passcode: 403-899-011

March 17, 2015

1. **8:30 – 9:00 Introductions, objectives** B. Tweit
 - Review workshop objectives

2. **9:00 – 10:00 Ecosystem vision statement action plan** B. Tweit
 - Develop a process template for formalizing the use of the vision statement in Council decision making (e.g., checklist for final action?)

3. **10:00 – 10:15 Break**

4. **Updates**
 - **10:15 – 10:45** EFH 5-year review J. Olson
 - **10:45 – 11:00** Norton Sound red king crab research J. Olson
 - **11:00 – 11:15** Deep-Sea Corals update S. MacLean
 - **11:15 – 11:45** Bering Strait Marine Life and Subsistence Data Synthesis C. Krenz
H. Huntington
Diana Evans

 - **11:45 – 12:00** Aleutian Islands Risk Assessment

5. **12:00 – 1:30 Lunch**

6. **Updates, continued**
 - **1:30 – 2:00** Arctic and Bering Sea shipping USCG
 - **2:00 – 2:15** Alaska Arctic Policy Commission Final Report S. Madsen
 - **2:15 – 2:30** Update on AOOS Acidification Workshop S. MacLean
 - **2:30 – 3:00** Ecosystem Committee discussion on updates

7. **3:00 – 3:15 Break**

8. **Bering Sea Fishery Ecosystem Plan**
 - **3:15 – 5:00** Update on Lenfest FEP taskforce work P. Levin

March 18, 2015

9. Bering Sea Fishery Ecosystem Plan, ctd.

- 8:30 – 8:45 Questions and clarification from day 1 B. Tweit
- 8:45 – 12:00 Presentations from AFSC on ecosystem models and IEAs K. Aydin

10. 12:00 – 1:30 Lunch

11. Bering Sea Fishery Ecosystem Plan, ctd.

- 1:30 – 2:30 Summary of objectives/action items from public comment D. Evans
- 2:30 – 5:00 Discussion of FEP objectives, framework, format D. Evans
 - FEP as process vs. static document
 - Availability of resources
 - Stakeholder involvement in FEP development
 - Rough timeline for FEP development
 - Consideration of working group to assist EC and authors
 - Other

The chairman will, at his discretion and depending on available time, announce opportunities for public comment at the beginning of the meeting.