



## New England Fishery Management Council

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Eric Reid, *Acting Chairman* | Thomas A. Nies, *Executive Director*

## MEETING SUMMARY

### Ecosystem Based Fishery Management (EBFM) Committee

Via Conference Call  
September 3, 2021

The EBFM Committee held a remote webinar meeting on September 3, 2021, beginning at 9:00 am. The meeting ended at approximately 12:30 pm.

This meeting focused on four issues:

- Progress on public information workshops
- Discussions with NOAA Fisheries leadership about potential approvability of the ceilings and floors approach in the example Fishery Ecosystem Plan
- Potential development of a beta Management Strategy Evaluation of EBFM
- Recommendations for 2022 management priorities

Presentations and background documents are available on the Council's EBFM [web page](#).

#### ***MEETING ATTENDANCE:***

**Committee:** John Pappalardo (Chairman), Mr. Eric Reid, Mr. Peter Aarrestad, Dr. Michael Sissenwine, Mrs. Michelle Duval (MAFMC), Kate Wilke (MAFMC), and Melissa Smith (ME designee) and Mr. Jerome Hermsen (GARFO).

**Other Council Members:** Mr. Mark Alexander, Mr. Alan Tracy, and Mr. Michael Pierdinock.

**Plan Development Team (PDT):** Andrew Applegate (NEFMC staff, PDT chair), Emily Keiley, (GARFO), Drs. Sean Lucey and Geret DePiper (NEFSC), Dr. Gavin Fay (UMASS-Dartmouth), Dr. Peter Auster (U. CT), Dr. Rich Bell (The Nature Conservancy), and Dr. Wendy Morrison (NOAA Fisheries).

**Council and NOAA Fisheries staff:** Mitch McDonald (GCNE), Sharon Benjamin (GARFO), Tom Nies, Janice Plante, Chris Kellogg, and Sam Ascii (NEFMC staff)

**Public:** George LaPointe (Fishery Survival Fund), Kelly Whitmore (MA DMF), Drew Minkiewicz, Dr. Michael Fogarty, Erica Fuller (Conservation Law Foundation), and Jocelyn Runnenbaum (The Nature Conservancy), Katie Almeida (The Town Dock), Irene

Andrushchenko and Yanjun Wang (DFO Canada), Raymond Kane, Zack Klyver, Stephanie Sykes, Molly Masterson, and Dr. Lisa Kerr (NEFMC SSC)

***KEY OUTCOMES:***

- The committee received an update from staff about progress to hire a facilitator and begin holding public information workshops.
- The committee understood that follow-up talks with NOAA Fisheries leadership are planned to discuss how the ceilings and floors approach is consistent with potential approval under National Standard 1.
- The committee discussed the merits of developing a beta MSE for EBFM in the Georges Bank Ecosystem Production Unit.
- The committee agreed to support and recommend the priority list that staff presented, but combining the two MSE priorities into a single multi-year, two step priority.

**Motions:**

The Committee made no motions during the meeting, but agreed by consensus to support the tentative 2022 management priority list as presented, but combining the proposed beta/example MSE to be followed with a full, public engaged MSE as a multiyear priority.

**Introduction**

Mr. Pappalardo summarized the purpose of the meeting and the agenda. He said that this was the first EBFM Committee meeting that has been held since the MSE Steering Committee gave its guidance to the Council on EBFM workshop planning. The committee was to receive a summary of the MSE process by Dr. Lisa Kerr from the Council's Scientific and Statistical Committee, followed by a discussion about whether the Council should pursue a beta MSE to compliment the planned workshops. During the meeting, the committee was expected to:

- Receive an update on EBFM public information workshop plans, possibly meeting with a contractor chosen to facilitate the workshops.
- Discuss potential National Standard 1 concerns about managing catches by stock complex, without specification of MSY for individual stocks.
- Discuss and develop a plan for a beta/example EBFM Management Strategy Evaluation exercise.
- Discuss and develop recommendations for 2022 management priorities

***AGENDA ITEM 1– UPDATE ON PREPARATIONS FOR EBFM PUBLIC INFORMATION WORKSHOPS***

**Presentation**

Mr. Applegate reported that progress was being made to develop a Request for Proposals (RFP) and a Statement of Work (SOW) for hiring a facilitator for the initial workshops. The draft RFP and SOW were based on the guidance from the MSE Steering Committee, but through one RFP for stakeholder engagement and the initial one-day workshops and an RFP to come later for multi-day deep-dive workshops and analysis of public input.

He expected the RFP to be issued soon and that it would take 6-8 weeks to accept applications, review the proposals, and negotiate a contract. He expected that we might start the workshops at the end of the year or early in 2022, depending on when covid-related events would allow for in person meetings, when the Council received further guidance on the eFEP ceilings and floors approach from NOAA Fisheries leadership (see below) and other events such as the climate scenario initiative.

### Discussion

In response to a question, Mr. Applegate replied that the initial workshops would not be a full day, but a few hours scheduled at convenient times in the afternoon or early evening near various ports.

## ***AGENDA ITEM 2– NATIONAL STANDARD 1 EVALUATION***

### Presentation

Mr. Applegate reported that the Council was initiating follow up discussions with NOAA Fisheries leadership about whether the Example Fishery Ecosystem Plan's (eFEP) ceilings and floors approach might be approvable and consistent with National Standard 1. He said that a meeting had been scheduled for Sep 17 and that there would be 18 invited participants, including Mr. Pappalardo, Dr. Sissenwine, and Mr. Aarrestad from the EBFM Committee, plus Dr. Bell from the EBFM PDT.

The purpose of this initial meeting was to exchange questions related to the eFEP ceilings and floors approach, as a follow up to the guidance that the Council received in April 2017. The Council thought that it would be best to clear up issues before taking the eFEP out to the public. A subsequent meeting between the two groups would be scheduled after Sep 17 at a date to be determined.

### Discussion

Mrs. DuVal and Dr. Sissenwine said that they thought that the previous guidance was contradictory and not very helpful. Dr. Sissenwine asked whether the PDT intended for the biomass floors for stocks to be based on MSY or whether that was only an example that was used in the worked example. He said that the floor used in the example was based on 20% of  $B_0$ , or the average biomass when there is no fishing, which is about the same as  $\frac{1}{2} B_{msy}$  which we currently use for single-stock management. Dr. Fay explained that it was not meant to be a fixed value, but rather it would be a decision point to apply to an MSE framework. Dr. Fogarty added that the intention of the limits in the eFEP is that the floors would be determined to maintain the functional roles in the ecosystem. For illustration 20% of  $B_0$  was used for most stocks, but for more vulnerable stocks like sharks a higher threshold (40%  $B_0$ ) had been used for illustration.

Mrs. Runnenbaum suggested that the Council should compare the approach to the Bering Sea FEP limits, which have been approved. Dr. Sissenwine replied that the eFEP ceilings and floors concept is fundamentally different in that there would be no individual single species ceilings

whereas the Bering Sea FEP places a cap on each species. He explained that in the Bering Sea FEP, individual stocks have reference points and that the catch cap restrained catch further, providing an additional conservation measure that is below MSY. Because of this, the Bering Sea FEP patently met National Standard 1 requirements. In contrast, the rationale for the eFEP catch cap is different, to provide an overall limit on removals that is tied to the overall system productivity. In addition, catch caps for stock complexes are proposed to recognize and account for the trophic interrelationships that bear on estimates of MSY and also address the technical interactions which make it difficult to achieve MSY for stocks independently.

### ***AGENDA ITEM 3– 2022 MANAGEMENT PRIORITIES***

#### **Presentation**

Dr. Lisa Kerr was scheduled to first give a presentation on Management Strategy Evaluation (MSE), but was delayed due to a prior meeting. Mr. Pappalardo decided to go through the tentative priorities which include the potential for a developing a beta MSE and then later discuss the details of how a beta MSE might be conducted.

Mr. Applegate summarized a list of four draft management priorities, two that were carried over from 2021. The first was conducting information and educational workshops on EBFM, carrying over and continuing the work begun in 2020. Last year the Council developed science communication tools via a contract with Green Fin Studios and then sought more detailed guidance from the MSE Steering Committee during 2021. Work is ongoing to hire a facilitator, initiate stakeholder engagement, and plan the initial workshop phase (see Agenda Item 1). The planned workshops would conclude during 2022.

A second priority to conduct stakeholder-engaged management strategy evaluation (MSE) workshops was also a hold over from those considered for 2021, but the Council deferred the priority until after the public information workshops have been held.

Staff drafted a third priority based on prior suggestions that the Council conduct an MSE involving just the Council or EBFM Committee, possibly with a few invited stakeholders as advisors. He said that it would allow the Council, working with the PDT and others, to build the supporting operating model and science, hone the MSE process before it was used in a more inclusive setting, help to clarify potential objectives, demonstrate how an MSE would work (which could be presented during the public information deep-dive workshops, and improve methods for summarizing and explaining complex MSE results in a simplified, understandable way.

A tentative fourth priority was also presented to the committee to revise the NEFMC risk policy to use more ecosystem information in setting ABCs and decision-making. There is a lot of information coming through the annual State of the Ecosystem (SOE) reports that are generally used only as background information, but are rarely formally used through an established policy. Mr. Applegate said that this idea came about from participation in the national Ecosystem Status Report conference during August, where the North Pacific Council gave a presentation on how their Council and SSC was incorporating ecosystem information into the process for setting

ABCs. The Mid-Atlantic Council has also formed a working group and has begun having meetings about establishing such a process, using the NE region's SOE reports.

Revising the NEFMC risk policy would require consideration about how the ecosystem information is used by the Council and SSC. He thought that the EBFM Committee itself may or may not be the right group to do this work but it could raise it as a priority at the September Council meeting. He suggested that a workgroup might be formed including members of assessment working groups, PDTs, and SSC members.

### Discussion

Mrs. Smith asked if a change in priorities would be considered based on the outcome of the National Standard 1 evaluation that was just beginning. Mr. Applegate replied that he thought that the results of that evaluation should be known by the time that the Council approves the 2022 management priorities in December, but this would not be known when the Council identified a list of potential priorities in September. Mr. Pappalardo also pointed out that the covid impact on our ability to hold meetings and conduct exercise could delay progress.

Mr. Pappalardo supported developing a beta MSE process, to work up and test an MSE prototype to see if it holds up in the 'simulated' real world. He feared that if we proceed too far with public participation and fail, that we would risk losing interest in proceeding with EBFM at all. Dr. Sissenwine also agreed that a beta MSE should be a priority and is necessary before taking the next step in further development of EBFM. He thought that the current state of an ecosystem MSE is not ready for a general public setting and thought that using the Council for this would be a better forum for technical discussion and development.

Dr. Fay agreed that a beta MSE could have value, using it to test whether what we are actually planning would work. The purpose would not be to duplicate work by doing two MSEs, but to narrow down what could and could not be accomplished in a full MSE process. He thought ideally it could be used as a demonstration during the public information workshops and identify issues for it to address. Although it could be used as a learning and development process, it shouldn't limit the future development of a full MSE that involves a broader group of stakeholders. Dr. Lucey also thought that an MSE is not currently ready for engagement with a broad stakeholder group and supported doing one within the Committee or Council.

Mr. Pappalardo also favored revisiting the Council's risk policy, thinking it was time for a general revision and refresh, although we need to think about the resources needed to plow through a risk policy revision. He felt that the SOE could be more than a report that people use to filter their thoughts, but more as an actionable document. He supported recommending priorities 1, 3, and 4. Mrs. Smith also supported doing a beta MSE, as a learning process, but thought that we should recognize that it may take more than a year to complete it. Dr. Sissenwine said that we are invested in the public information workshops, which should continue. He thought that the general risk policy should be revisited and updated as needed. He favored combining the MSE process, starting with a beta MSE and combining the two MSE priorities into one multiyear priority. Dr. Lucey also agreed that revising the NEFMC risk policy could establish a process to operationalize the SOE and procedures for using the information.

Mr. Nies asked if revisiting the risk policy to incorporate ecosystem information for setting ABC and making other management decisions amounted to pursuing an Ecosystem Approach (EAFM) instead of EBFM. Dr. Sissenwine saw it as not detracting from our effort to develop EBFM, but using the opportunity to increase ecosystem knowledge and consideration in current decision-making. Dr. Bell agreed that this priority would not undermine our commitment to EBFM, but at present there is a large amount of ecosystem information being generated that rarely has a 'place' to be used in our current process. He also supported combining the two MSE priorities into one, a multiyear process starting with developing a beta MSE.

#### ***AGENDA ITEM 4– POTENTIAL BETA/EXAMPLE MANAGEMENT STRATEGY EVALUATION (MSE) EXERCISE***

##### Presentation

To orient the committee on this issue, the Council's SSC member Dr. Lisa Kerr gave a presentation on the MSE process. The presentation was given as part of the Multispecies MSE project to stakeholder to describe the components and process used for MSE. She gave an overview of the key aspects of an MSE process and its components as well as described how stakeholders can effectively participate to inform management of their preferences and test harvest control rules (HCR) to achieve desirable objectives. The types of questions that an MSE could answer include the short-term impacts of HCR choices on allowable catch, long-term impacts on sustainability and risk of overfishing, accuracy and potential biases in stock assessments used to estimate performance.

The testing framework includes an operating model that simulates the biology and population dynamics of fish as well as how the fisheries operate, with 'known' characteristics. A management procedure runs in parallel to apply an HCR to be tested. 'Measurements' are taken through a survey of fish abundance and catch data from the 'fishery'. These data are used iteratively to conduct a stock assessment, estimating mortality and stock biomass which can then be compared to the 'known' data in the operating model. The management procedure also includes the HCRs to be tested and evaluated. Many times, the metric that determines the limit on fishing mortality and catch to be applied is based on the assessed biomass in the previous step.

Dr. Kerr gave several general examples of HCRs that could be applied and tested. She followed up with some examples of how the results can be summarized and evaluated, including time series charts, Kobe plots, and radar plots.

##### Discussion

Mrs. Duval asked if an MSE could apply all the ecosystem information to carry out a realistic and understandable analysis. She thought that it would make it difficult to define reference points and thought that stakeholder input to fill in knowledge gaps would be crucial.

Mr. Applegate asked about the range of states that could be incorporated in an operating model (OM). He asked whether the OM could simulate a depleted state or one resembling current or

historical conditions, something that the EBFM Committee had asked for previously. Dr. Kerr indicated that the operating model could be used in a variety of ways to simulate and begin with sustainably fished or heavily fished conditions, that there can be flexibility to set initial conditions and scope (range of species included in the model, etc.). Dr. Lucey didn't think that recreating the past within the context of an MSE was a good idea. He thought that we should start with where we are at, not trying to recreate the past.

Mr. Pierdinock asked about setting the values for minimum biomass and maximum mortality thresholds, how they would be defined and used. He felt that stakeholder input in these decisions would also be crucial. Dr. Kerr replied that choosing the form of HCRs to be tested was done first, then a range of change points (i.e. thresholds) could be evaluated.

This led Dr. Sissenwine to suggest that we think more broadly about the problem and what MSE is about. He thought that how MSE was used for the herring plan was a trap that we know the production function that applies to stocks to establish a threshold, but in reality we don't really know what the MSY value is in truth. Dr. Sissenwine pointed out that many MSEs more commonly use an empirical approach to establishing reference points, citing western and south Pacific bluefin tuna management. He thought that it will take time to develop the operating model, incorporating the effect of trophic interactions and climate and environmental change, starting with defining the production functions.

#### ***AGENDA ITEM 5– OTHER BUSINESS***

##### Discussion

Mr. Tracy said that EBFM and the eFEP are complex issues and that it will be important how we bring people along, that we need to demonstrate the value of EBFM to them. Mr. Pierdinock added that it would be helpful to grasp the scope or big picture about what we are trying to accomplish with EBFM. Mr. Applegate offered to answer questions that they had about EBFM at a later time. He said that he would forward a presentation that he has given before about the planned steps for developing EBFM through a fishery ecosystem plan.