

Gulf of Mexico Fishery Management Council
Ecosystem Technical Committee
Meeting Summary
April 19-20, 2023

The meeting of the Gulf of Mexico (Gulf) Fishery Management Council's (Council) Ecosystem Technical Committee (ETC) was convened at 8:30 AM EDT on April 19 and 20, 2023. The agenda for this meeting and the summary from the December 14 – 15, 2021 meeting were approved as written.

Status Update on Gulf Fishery Ecosystem Plan (FEP)

Council staff outlined the goals of the meeting based on the Council's tasks to move forward the with development of the Fishery Ecosystem Plan (FEP) for the Gulf. The Council charged the ETC with developing goals and measurable objectives for the FEP and select up to four Fishery Ecosystem Issues (FEIs) on which to begin work. The ETC should also create criteria for prioritizing FEIs and use those criteria to recommend the top four FEIs.

Mr. Kevin Anson, Council representative, spoke about his participation on the Council Member Ongoing Development workshop that took place in November 2022. A takeaway from the various Councils that participated was that Ecosystem-Based Fisheries Management (EBFM) was most successful when there is stakeholder involvement early on in the process. There was a recognition that EBFM may be better understood by stakeholders by focusing on specific regional issues, rather than broad scale. There were also concerns about the capacity of NMFS and Council staff time, as well as Council meeting agenda space, and that taking a slow approach might be the best way of handling the issue of limited resources. Developing a streamlined EBFM process takes time, but it may open opportunities to increase collaboration with stakeholders and other government entities who may not otherwise be as included in the Council process.

Discussion of Next Steps to Operationalize Gulf FEP

Council staff reviewed the general goals of the FEP, and differentiated the FEP loop and Fishery Ecosystem Issue (FEI) loop with regard to how these could affect proposed Council actions. The final FEP could take many forms, and staff encouraged consideration for including information while ensuring that content is easy to understand by stakeholders. Staff noted that the Council does not have the regulatory authority to address all ecosystem concerns, but can certainly work within its mandate to consider supporting rationale when making management decisions. The Council can also provide guidance to other agencies with the authority to address concerns that are outside the Council's jurisdiction.

Next, Dr. Brendan Turley (CIMAS, University of Miami) presented a case study about red tide as a potential FEI. Dr. Turley began by describing the FEP loop in the Gulf as an iterative process for operationalizing EBFM. The FEP loop is intended to generate flexible guidance, and

not a ready-made cookbook for making decisions. The FEP loop allows for continual learning and adjustments to new data and knowledge to continually improve the functionality of the FEP process. The FEI loop differs from the FEP loop, in that the FEI Loop is a structured, action-oriented planning process that addresses specific fisheries issues (e.g., red tide), while also accommodating continual adaptive learning. Dr Turley detailed the history of red tide's consideration in fishery management decisions over the last 17 years, during which multiple red tide events have occurred and recently, been considered in stock assessments (red grouper, gag grouper).

With respect to red tide, the FEI scoping process begins with a key question: how do red tides affect managed stocks? This problem is then addressed through data analyses by interdisciplinary planning teams, stock assessment efforts, and academic research, combined with stakeholder participatory modeling. Dr. Turley noted that direct stakeholder engagement is key to understanding the effects of red tide on fishing and fisher behavior, and for understanding the scope and severity of red tide in situ. Unfortunately, the Council cannot stop red tides; however, it can manage fishing mortality. To this end and to implement FEI guidance, inclusion of red tide episodic mortality in stock assessments (SEDAR 61¹ and SEDAR 72²), has been utilized to inform future catch limits with deference to past red tide events. Where data gaps persist, research can be recommended and collaborative research performed with stakeholders to fill gaps in knowledge. External partnerships across jurisdictions would be expected to improve the efficiency of data collection with respect to red tide, along with information sharing and advising between agencies to mitigate factors known to exacerbate red tide. When evaluating inclusion of this FEI, Dr. Turley noted that stock assessment outputs are now better fit to observed data and indices of relative abundance. He recommended consideration of a management strategy evaluation approach (MSE) to consider the effects of management decisions on a stock, considerate of the data available to predict effects. MSEs can evaluate different management strategies before they are implemented to identify the path forward with the greatest probability of success based on the goals of the management action. Dr. Turley recommended active stakeholder engagement, reviewing potential FEIs to identify common solutions that satisfy multiple issues, clearly defining FEIs and the performance metrics for their evaluation, and a SEDAR-like data review process for considering data as consistent with the best scientific information available.

A Committee member who was involved with the stakeholder collaborative research effort for red tide monitoring remarked on the value of that collaboration, and supported continued efforts in that regard. Another Committee member described efforts to generate an oral history of red tide events with respect to their severity and extent, and the social and economic effects associated with red tide episodic mortality events. The ETC identified a number of areas where improvements to recreational and commercial resiliency to red tide could be considered by the Council. A Committee member agreed that management considerations need to be included early on in the FEI loop, because if the Council cannot actually address an issue within its existing authority, resource dedication at the Council level may need to be appropriately calibrated.

¹ <https://sedarweb.org/documents/sedar-61-gulf-of-mexico-red-grouper-final-stock-assessment-report/>

² <https://sedarweb.org/documents/sedar-72-gulf-of-mexico-gag-grouper-operational-assessment-report-amendment-state-reef-fish-survey-srfs-run/>

A Committee member thought it important to be very explicit about defining the goals and objectives for the consideration of FEIs within the FEP, along with the overarching goals of the FEP itself, to provide clarity and navigability to the process. Dr. Turley agreed, and thought that there were opportunities for providing clarity to FEP goals with respect to specific FEIs. Mr. Kevin Anson advised not discounting potential FEI actions for which the Council does not have the authority to directly affect, but that may affect other statutory responsibilities. The Council could still engage with other agencies to collaboratively advise on such issues.

When looking at the various components of the FEI loop, members of the ETC recommended rearranging some of the boxes and expanding the information needed.

- Box 1: Must have strong stakeholder involvement. Must consider if the Council has authority to address the issue. Must have clear guiding principles.
- Box 3: Change “recommend management actions” to “provide management options”
- The loop should include exit routes that lead to recommendations, if it becomes clear that the initial objectives are not likely to be achieved.
- Box 5: Should be focused on achievements and other performance metrics, recognizing that some issues will not be fully resolved.
- The loop should explicitly identify the portions that need stakeholder involvement and the kind of information needed from the user groups.

Discussion on Potential Fishery Ecosystem Issues (FEI) for the Gulf FEP

The ETC chair provided some background regarding the creation of ten potential FEIs identified by SEFSC staff. The FEIs were described in a one-page review, following the steps and information needed suggested by LGL’s draft FEP. In addition to these preliminary proposed FEIs compiled by SEFSC staff, the ETC was encouraged to add other potential FEIs for consideration.

This exercise was facilitated using a Google Jamboard web application, which allowed ETC members to anonymously add other potential FEIs and review what other ETC members had contributed. After compiling the various FEIs, the group began categorizing FEIs by common themes to generate and identify overarching concepts to describe the groups of FEIs. In total, the group agreed upon six overarching descriptions which included issues related to: reducing discards, offshore wind energy, red tide, finfish depredation, impacts of climate change on fish and communities, achieving Optimum Yield (OY) for the reef fish complex. The ETC also recognized that categorizing issues may be interpreted differently by user groups. Some FEIs might be too big, so the scope of the FEI needs to be evaluated.

Discussion on Prioritization Metrics for FEIs

Building on the morning’s work and using the Jamboard, staff invited ETC members to add yellow notes identifying the important criteria in determining how to prioritize FEIs. Staff began

removing duplicate notes and aggregating similar notes under the themes (Figure 1, blue notes), requesting support with the grouping and eliminating decisions. ETC members continued to discuss the placement and groupings in terms of the meaning and scope of each criteria. For example, a Council priority could reflect the need to meet a legal mandate or an issue deemed a priority by stakeholders. Through discussion, the important criteria to move forward were identified (Figure 1, orange notes). The list of important criteria identified for scoring are:

- Number and status of affected species/resources
- Geographic scope
- Impacts to stakeholders
- Pathway to actionability within a reasonable timeframe



Figure 1. Screenshot of group exercise using Jamboard to develop a prioritization matrix for selecting Fishery Ecosystem Issues.

With the most important criteria identified (orange notes), the ETC turned to developing the method for assigning scores in order to rank the criteria. ETC members discussed factors that could be used to rank the criteria including number and status of what is affected, as well as urgency and scope. Through discussion, it was noted that a member's scoring of the criteria would depend on the angle or scale at which the FEI is framed; in turn, the angle or scale could be framed in a way that supports action within the Council's jurisdiction. As ETC members discussed the factors for scoring criteria, it became apparent that the provided format of scoring two factors set up along an x and y axis would be too limiting. The ETC agreed that using a spreadsheet would be a better approach than Jamboard.

The ETC decided to tackle scoring the potential FEIs based on the identified criteria using a draft spreadsheet on the second day of the meeting.

-----End of Day 1, at 4:11 pm EDT-----

Ranking and Selection of Top Four FEIs

The ETC worked through ranking the FEIs based on the previously identified metrics and realized that additional input is needed to properly rank the FEIs. For example, the Gulf Council's Outreach and Education (O&E) Technical Committee may be better suited to assess and score the impact to stakeholders. Additionally, Council input is needed regarding its priorities and how to properly weigh each one of the prioritization metrics (i.e., should they all have equal weight or do certain metrics need to have higher weight than the others). The ETC also recognized that the goals of the FEIs must be properly described, as the scoring process may be influenced if the evaluators are not envisioning the same issue and goals.

Continued Discussion on Next Steps for FEIs in the Gulf FEP or Management Process

Staff will present the recommendations from this meeting during the June 2023 Council meeting in Mobile, AL. The ETC recognizes that there is still work to do and requested time to work independently on: 1) fine-tuning the FEP and FEI loops, 2) further developing the prioritization metrics, and 3) discuss the outcomes via a publicly-noticed webinar after the June 2023 Council meeting. The ETC also suggested an annual discussion of ecosystem issues at the Council and ETC level. Topics could include a revision of the FEI list, as well as an update on Ecosystem indicators. This process could be outlined in the Council's FEP.

Stakeholder Engagement Update

Staff explained that the O&E Technical Committee—a group of Sea Grant agents, state marine resource management communication personnel, media, and fishermen—recognized that they might be the most appropriate body to formulate and execute stakeholder engagement strategies for the FEP.

The ETC began with a discussion of how stakeholder input could be used to influence the identification of, and prioritization of, potential FEI topics. The ETC reiterated that stakeholder engagement would be a fundamental part of the FEP and FEI process. It also emphasized that stakeholders include a broad range of constituents, not just fishermen.

NOAA's SEFSC used very involved stakeholder workshops to identify and conceptualize FEI topics. However, those workshops were a finite effort only conducted in Florida from 2018 - 2019. The ETC wanted to expand data gathering efforts Gulf-wide and on a continuing basis. Staff committed to working with the O&E, in conjunction with SEFSC staff, to find a modified plan to gather broader stakeholder input to inform the list of potential FEI's and the whitepapers developed on each issue.

The ETC discussed the importance of creating and publishing a living list of ranked FEIs and defining a regular process for engaging stakeholders to gather new FEI ideas and re-ranking existing FEI's.

Next, the ETC discussed the role of stakeholders once an FEI issue enters the FEI loop. It was noted that the O&E Technical Committee would be instrumental in curating a list of priority stakeholder groups to engage with that would be useful across all potential FEIs. Additionally, the O&E Technical Committee would be able to identify when there is a diversity of opinions within a stakeholder group and, when appropriate, ensure that multiple opinions were represented across each sector or stakeholder type. It was also noted that the O&E Technical Committee would play an integral role in determining which stakeholders may be appropriate for inclusion in the taskforces that are formulated for each FEI.

The ETC noted that deep stakeholder engagement would be required as FEI's move through the loop but, the FEI loop process may not yet be fleshed out enough for the ETC to define the appropriate times and objects for engagement in that process. It was noted that stakeholders would play an integral role in identifying how to address objectives of each FEI and evaluating whether the Council was successful in addressing each FEI. The ETC also emphasized the importance of communicating progress as the Council works through each FEI.

Discussion on Updating the 2017 Ecosystem Status Report (ESR) for the Gulf of Mexico

During the October 2022 meeting, the Council requested an update to the Ecosystem Status Report. Considering the various ecosystem efforts underway, the Council requested a presentation to the ETC in hopes of having the ESR feed information into the FEP framework. Thus, the ETC chair provided a presentation outlining the structure of the ESR and SEFSC plans to streamline the data gathering and publication process. Development of the ESR will continue to be a collaborative and transparent process. The ETC provided a number of recommendations on the ESR and discussed how ESRs would relate to the FEP process.

An ETC member asked about any readily attainable operationalization of the ESRs that had been considered. The ETC chair responded that some data inputs could be automated which would allow timely updates for survey data. These data could be used to help provide context for single index interim assessments. Additionally, these easily updated data sources could be used to monitor environmental trends, and allow for consideration of potential future events that may affect fish populations. In the past, environmental variables directly input in stock assessment models have not contributed substantial explanatory power; however, these data could inform projection analyses which assume static environment conditions, and this could contribute to robust management decisions. Environmental variables collected using remote sensing techniques could be feasibly updated at an annual scale but human dimension information is more time consuming to collect and may not be as quickly updated.

An ETC member recommended there be some standardization between ESR iterations to better interpret long-term trends in indicators. They continued that improved documentation of available data sources be published so users would better understand the proper uses of data included in the ESR. Another ETC member requested that future ESRs include indicators that better represent effects on Highly Migratory Species. An ETC member inquired about SEFSC workload and the ability to more regularly update the ESRs. The ETC chair indicated that more frequent updating of the ESRs could be accomplished if the ESRs focus on a few (n=10) indicators in a webtool format rather than a 80 – 100-page published document.

For the FEP process, the ETC recommended that the ESRs be used to help inform the continued evaluation of FEIs that feed into the FEI and FEP loops. As data are updated in ESRs, trends may be revealed that could spur further consideration of other FEIs or provide information on developing FEIs.

Public Comment – Summary from all days

Chad Hanson (PEW Charitable Trust):

- Mr. Hanson shared a [prioritization matrix](#) that PEW developed to help with the FEI raking process.
- He reminded the Committee that their role was to define what the prioritization process looks like in the FEP.
- He suggested setting an annual cycle defining, in chapter 4 of the FEP, when each part of the process should occur.
- For each FEI, it will be important to define goals and objectives that frame the issues. This will inform the strategies for the Council.
- PEW commissioned [a paper \(Dell’Apa 2020\)](#) that may be helpful in constructing the process.
- He also suggested that ranking FEIs become an iterative process with the Outreach and Education Technical Committee or a subgroup of members used to gather information from stakeholders.

- PEW has been following this process since 2012, and he is glad to see the reports they've produced are informing this process.
- He suggested that the criteria used for prioritization should be defined in Chapter 4 of the FEP, in the FEI itself.
- The one-pagers on each issue are excellent and should include specific objectives that tie in the objectives that the group is attempting to accomplish.
- He suggests that conceptual models could be developed issue-by-issue. [The Stakeholder Assessment and Concept Mapping paper](#) in the briefing materials should be used to build the plan.
- He cautioned the group not to be too rigid or prescriptive. The basic structure is going to be generic but as the FEI loops are developed, they're going to be a bit different.
- A Sub-Committee or a nimble group should be used to put the stakeholder pieces together. The NOAA Science Center doesn't need to take the lead; it's a Council process. A contractor could also help.

Jay Mullins (commercial fisherman):

- He expressed surprise that the group came up with their own definition of substantial stakeholder impact, as a substantial stakeholder is defined as the folks that are on the water, the ones that see the issues and are experiencing them.
- The conceptual modeling is genius. It prioritized things and put them in their own perspective.
- He said that there needs to be more outreach and more definition for a substantial stakeholder.
- He is concerned that OY bubbled to the top of the list because nutrient runoff and discards are more appropriate issues that both feed into OY.

Meeting adjourned at 2:20 pm EDT.

Participants:

Ecosystem Technical Committee

Mandy Karnauskas, Ph.D., *Chair*

Casey Streeter, *Vice Chair*

Eric Brazer

Jennifer Cudney, Ph.D.

Michael Drexler, Ph.D.

Nick Farmer, Ph.D.

Joshua Kilborn, Ph.D.

Matt McPherson, Ph.D.

Stephen Scyphers, Ph.D.

O&E Technical Committee

Dylan Hubbard, *Chair*

Eric Weather, *Vice Chair*

Council Representative

Kevin Anson

Council Staff

Bernadine Roy

Camilla Shireman

Charlotte Schiaffo

Natasha Méndez-Ferrer, Ph.D.

Carrie Simmons, Ph.D.

John Froeschke, Ph.D.

Lisa Hollensead, Ph.D.

Emily Muehlstein

Ryan Rindone

Ava Lasseter, Ph.D.

Mat Freeman, Ph.D.