New England Fishery Management Council
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MEMORANDUM

DATE: March 20, 2026
TO: Climate and Ecosystem Steering Committee
FROM: John Pappalardo, Steering Committee Chair and Michelle Bachman, Steering Committee Coordinator

SUBJECT: Charge to Steering Committee for March 27, 2026 meeting

The fourth meeting of the Climate and Ecosystem Steering Committee will be held on March 27 via webinar. We will begin at 9:00 am and aim to conclude the meeting by approximately 1:30 pm. See here to register: https://nefmc-org.zoom.us/meeting/register/p8VdVDnKS9KnNTkpeJkSRw.

Joint Species Distribution Models and Applications to Management

As part of the recent Northeast Regional Fish Habitat Assessment (2022), Essential Fish Habitat Technical Review (2025), and series of 2025-2027 EFH frameworks, the Council has partnered with the Mid-Atlantic Council and a contractor, Dr. Chris Haak at Monmouth University, to develop a suite of joint species distribution models (SDMs). SDMs are useful for understanding the distribution and predicted relative abundance of individual species in relation to environmental variables such as depth, temperature, salinity, rugosity, tidal velocity, sediment grain size, etc. Joint SDMs also allow us to understand the covariance relationships between species and between juvenile and adults of the same species. While these models were developed with essential fish habitat designation in mind, the Council intends to apply the results to other projects, including Ecosystem Component Species (ECS) evaluation and Portfolio Analysis. Dr. Haak will provide an overview of the recent work with a focus on anticipated applications, touching on possible future directions as well. This work has previously been shared with the Habitat Committee and Council, but not with the Steering Committee. **The Steering Committee is encouraged to ask questions and suggest other uses for these modeling products.**

Ecosystem Component Species Evaluation

One of the Council's Inflation Reduction Act (IRA)-funded projects is to develop an evaluation framework via which the appropriateness of Ecosystem Component Species designation could be assessed and then run a handful of species through the framework to test its robustness and utility as a decision support tool. With the framework and pilot evaluation results in hand, the Council can then decide whether to move forward in the near-term with developing a management action or actions to consider designation of one or more species. At the September meeting, Angelia Miller introduced this work, and the Steering Committee discussed which species to evaluate. Since then, the project team has made progress on identifying a list of factors to consider including the data sources and information to use for factor scoring. Ms. Miller will share a progress update and solicit **feedback from the Steering Committee on factors and factor scoring**. The next phase of the project will determine **how the**

factors can be combined to support an overall assessment of whether the Council should identify a species as a candidate for ECS designation. **Feedback is welcomed on this phase of the work.**

Climate and Ecosystem On Ramps

At the September meeting, the Steering Committee directed the Process Mapping Subcommittee to continue work on climate and ecosystem on-ramp identification, working with partners at environmental non-governmental organizations (ENGOs) as appropriate. "On ramps", in this context, is taken to mean both a climate or ecosystem information product and the mechanism for use of that product in the Council's management process. Since September, some progress has been made towards identifying promising on ramps for climate and ecosystem information into management and towards diagramming Council workflows to more clearly communicate where in the management process this information might be used. In September, December, and January, Council staff met with climate on-ramps project team members at the Ocean Conservancy and Environmental Defense Fund to discuss their efforts and consider how their work might be applied to the CESC's task. The full Process Mapping Subcommittee met in October to learn about the tools being developed by these ENGO partners and to consider how to organize our own on-ramps catalog. In addition, staff met with selected Process Mapping Subcommittee members in October 2025 and March 2026 to advance this work in an informal setting.

The ENGO team has invested substantial time and resources towards cataloguing information products and applications and towards mapping Council action processes. They have been generous in sharing their work with staff and by extension with the Process Mapping Subcommittee. During 2025, staff at Ocean Conservancy and Environmental Defense Fund conducted focus groups with fishery managers across the United States to discuss the use of climate and ecosystem information in current and future management decisions. They have also been developing detailed flowcharts of Council action processes in Microsoft Visio and are working to directly integrate tables of climate and ecosystem information with these flowcharts given linking tools available in Visio. Based on their experience, Council staff agreed that Visio is a useful tool for on-ramp identification, obtained a license for the software, and made some edits to the NEFMC-specific flowcharts given knowledge of Council processes. The flowcharts have not been extensively vetted but are largely complete and could be used to illustrate steps in the specifications, framework, or amendment processes where climate and ecosystem information is currently being used or could be used in the future.

Deciding how to organize, evaluate, and document on ramps to management in tables has proven to be a more complex exercise than creating the process flowcharts, given the complex one-to-many relationships between information resources and process steps. One the one hand, it makes sense to consider things from the perspective of where you are in the process of developing a management action and then listing the information products that might be used. One the other hand, it seems reasonable to organize the information by climate or ecosystem information product name or type, but there are likely multiple steps in the action development process where this information could be considered. Regardless of whether you are using a process-oriented framing or an information source-oriented framing, the subcommittee thought that it would be important to catalog attributes related to the intersection of a process step and an information product, such as frequency, participating groups, challenges or barriers, changes needed to improve use of information, expected benefits, and examples. The subcommittee generally agreed to take a process-oriented view of on-ramps, and staff drafted a table to match that approach. However, it proved challenging to maintain momentum around filling out the table, and little progress was made beyond establishing the table structure.

More recently (February 2026) and at the request of Council staff, the ENGO team provided a list of the examples they had identified during their focus groups, so that we could see if any of those avenues

might seem promising as focus areas for the CESC. This list was organized by information product. Staff will review this list with subset of subcommittee members prior to our meeting and highlight opportunities that seem worth exploring further.

At our meeting, staff will share the flowcharts, process-oriented table template discussed by the subcommittee, and the information-source oriented table of opportunities compiled by the ENGO team. Staff are looking for the CESC's reaction to these draft products and for some direction on where to focus efforts going forward. It seems important to avoid duplicating work underway via the Risk Policy Working Group and the Council staff's process mapping efforts (updates on each of these activities are provided below). In addition, there are multiple IRA projects developing new tools and information sources, and we should perhaps avoid getting too far ahead of those projects (although discussing potential uses for these products seems important).

2026 State of the Ecosystem Report

The 2026 New England State of the Ecosystem (SOE) Report will be available in mid-March, and the Council's Scientific and Statistical Committee will review it on March 30. The Council's CESC and SSC staff coordinators have worked with the New England SOE report editor, Dr. Joe Caracappa, to determine feedback that is best provided by each of the groups. The intent is to avoid giving the same presentation and requesting similar feedback from the CESC and SSC. Staff have planned a more extensive presentation and review at the SSC meeting, preceded by a shorter update at our meeting. Dr. Caracappa's update to the CESC will focus on the report card, a description of the climate forecast products in the report, and a discussion of the report highlights section. The report card provides a brief assessment of trends and indicators relative to a series of objectives for each of two sub-regions, the Gulf of Maine and Georges Bank. The highlights section shares on-the-water observations of ocean and species conditions provided throughout the past year. **Inclusion of a template for sharing climate forecast information is new this year and is a product that the Steering Committee discussed at prior meetings. CESC members are encouraged to provide feedback on the forecasts section of the report.**

The **on-the-water highlights** section was expanded this year, and NEFSC will continue to consider opportunities for enhancing this aspect of the report at their upcoming cooperative research summit, which was postponed until April 2 given winter weather preceding the originally scheduled date of February 26. **It would be helpful for the CESC to provide feedback on this section at our summer meeting, after the cooperative research summit occurs.**

The March 30 SSC review materials including specific terms of reference will be provided here. If you are looking for a more comprehensive presentation of the report you are encouraged to listen to the SSC meeting. The Council will receive a presentation on the SOE at their April meeting including a summary of SSC feedback.

Other Items of Interest

These updates are provided for Steering Committee information but slide presentations on these topics will not be provided. A short agenda item will allow time for any questions on these topics.

Risk Policy Development and Communication Support

On September 25, 2024, the New England Fishery Management Council (Council) voted to adopt a revised Risk Policy Statement and new Risk Policy concept. The statement and concept took effect on January 1, 2025. Since then, the Council has been applying the statement qualitatively, referring to this

application as "Alpha phase" implementation. The Council is also working towards quantitative "Beta phase" implementation and plans to approve revisions to the Risk Policy concept at the June 2026 meeting. The quantitative elements of the Risk Policy concept include risk factor identification, scoring, and weighting, and a mathematical approach to combining factor scores and weights into an overall quantitative estimate of the level of risk or precaution to apply to decisions (the Z score). The end goal of the revised Risk Policy Statement and concept is to provide a rigorous, transparent, repeatable, and multi-faceted assessment of risk so that the Council can have a clear rationale for applying precaution or flexibility in decision making.

Proposed revisions to the Risk Policy Concept build on results of a demonstration and evaluation conducted by Dr. Lisa Kerr and Dr. Roger Brothers at the University of Maine. This evaluation is part of an IRA-funded project that is simulation testing Acceptable Biological Catch (ABC) control rules for Northeast Multispecies (groundfish) stocks. The results of the project will directly inform planned updates to groundfish acceptable biological catch control rules. The simulation testing is considering how the Risk Policy will interact with ABC control rules. Most recently, staff and contractors have been preparing factor scoring guidelines for eventual use by Council staff and Plan Development Teams.

It will be essential to communicate the details of the policy inputs and outputs to members of the Councils and its advisory bodies as well as Council staff and others providing technical advice. The Climate and Ecosystem Steering Committee has been identified as a group that can support development of communication products. RPWG and CESC staff will meet to discuss the best time to engage the Steering Committee following updates to the SSC on March 30, 2026 and the full Council on April 15, 2026. It has made sense to hold off on engaging the CESC given the ongoing adjustments to the Risk Policy Concept. As the timeline for approving the revising to the Risk Policy becomes clearer, staff will work to identify communication products that support use of the Risk Policy by the Council and stakeholders.

Recent information prepared for the March 9 Risk Policy Working Group webinar describes current activities and next steps in further detail (link). Risk Policy materials prepared for the March 30 SSC meeting are available at this link.

Holistic Strategic Plan Update

The Council is currently developing a holistic strategic plan (IRA Initiative 5). The Council's contractor on this project, The Parnin Group, organized an early January workshop for all New England Council members and selected Council, MAFMC, ASMFC, and NOAA staff. During the workshop, participants clarified the Council's mission statement, developed a two-part vision statement for the Council, identified four goals, and began to identify strategies and performance indicators. A short report summarizing workshop outcomes was presented to the Council in January and is available here.

Leading up to the April Council meeting, the contractor, informed by the Project Oversight Team (POT) and in collaboration with Council staff, have been drafting the strategic plan document which will include the vision, mission, goals, strategies, and indicators. The contractor will also prepare a final report describing the process of preparing the strategic plan. Another product of this project that was provided to the Council in December is a discovery phase and gap analysis report, which identifies challenges faced by the Council and potential opportunities to address them. This discovery and gap analysis report is organized around four themes: governance and efficiency, trust and engagement, workforce and resources, and adaptation and resilience.

The contracted portion of plan development will conclude this spring, and the contractor will handoff the draft plan to the Council. Council staff will work with the POT and Executive Committee to finalize the plan for approval at the September Council meeting. The strategic plan will be accompanied by an implementation and outreach plan which will be developed between the April and September Council meetings. The implementation plan will identify a workplan and timeline for undertaking specific actions that contribute to the various strategies and assessment of performance indicators. The intent is for the implementation plan to be updated regularly and for it to support annual work planning at the Council.

Portfolio Analysis Project (IRA Initiative 4.4)

In September 2025, the Steering Committee received updates on this project from the Council's contractors at the University of Massachusetts Dartmouth, including a discussion of which species to include in the analysis. The CESC recommended that both NEFMC- and MAFMC-managed species be included in the evaluation and UMass is moving forward with that approach. The analysis includes commercial catches only; the CESC suggested including recreational catch as well, however, the focus of this project is federally managed commercial species under the jurisdiction of NEFMC and MAFMC. Recent work has focused on portfolio model development and dynamic factor analysis. Dynamic factor analysis is a technique used to discern patterns in time series data, in this case time series of landings and price. The overall goal for decomposing revenue into supply (landings) and demand (price) components is to try to isolate the reason for a certain species' portfolio risk (whether driven by biological or market factors, for example, by including covariates to remove known trends). Additional near-term work will consider integration of ecological information from joint species distribution models into the portfolio analysis models.

Once the analytical approach is further developed and results are available and have been reviewed with the project oversight team, the project team will consider how to conduct outreach to permit holders. The goals for outreach are likely to include: 1) helping project contractors understand what conditions in the fishery and ecosystem may have been driving patterns in harvest identified through the dynamic factor analysis (e.g., number of processors, species substitution, impacts from Covid in 2020, etc.) and 2) understanding opportunities and challenges with current permit structures (e.g., if there is a need or desire to split suites of permits or to create a permit suite to allow for greater flexibility and harvesting opportunity). The timing and approach to conducting this outreach is to be determined. The Steering Committee could support this work in a few different ways, for example the Communications Subcommittee might be helpful in designing permit holder outreach, and the full Steering Committee could review results of the analysis, either before or after permit holder outreach is conducted, depending on alignment with Steering Committee meetings.

Dynamic Reference Points Workshop (IRA Initiative 3.2)

The Council is working with three contract personnel and an expert steering committee to plan a workshop on dynamic reference points for the SSC. One of the Council's contractors, Willy Goldsmith at Pelagic Strategies, will present the outcomes of the workshop to the CESC at our summer meeting. The SSC will receive a short presentation from the Council's project coordinator, Dr. Jamie Cournane, at their meeting on March 30. The SSC meeting materials will include a copy of the presentation as well as a short document that defines dynamic reference points and describes the workshop goal and desired outcomes. These items will be available here.

Process Mapping / Unified Technical Report Preparation

During Risk Policy development and guided by other efforts such as an automation needs assessment (IRA Initiative 6), staff identified that it would be broadly useful to develop consistent information products and data streams across fishery management plans and to meet multiple needs. Referred to as "Process Mapping", this multi-year effort will eventually involve staff working across all the Council's fishery management plans and lead to consistent, streamlined, and multi-purpose information products. The Council was introduced to this work as a cross-FMP activity during the IRA update at the January 2026 meeting (link), but product development will be informed by recent work including automation of the Whiting Annual Monitoring and Fishery Performance Report, presented in December 2025 (link). This work will proceed in phases, with discovery and prototyping occurring in 2025, system development, planning, and testing in 2026, and implementation beginning in 2027. Currently, staff have begun cataloging information that is consistently presented within Council documents, such as the Affected Environment section of NEPA documents, across FMPs, including the data sources needed to generate that information. Active software development will begin in the latter half of 2026. Input will be sought from various bodies on an as-needed basis during product development.

Other Inflation Reduction-Act Funded Projects

IRA 1, the ABC Control Rule Simulation Testing project with the University of Maine, is nearing completion and is being used to support both Risk Policy implementation and 2026 Groundfish Committee work to revise ABC Control Rules for groundfish stocks. Final Council action on revised control rules is currently anticipated for September 2026. Final products and results will be provided by the contractor by the end of the year but may be delivered sooner.

IRA 2 will seek industry input on opportunities to modernize the Northeast Multispecies FMP. Planning for this initiative is on hold pending approval of Amendment 25.

IRA 3.1 includes Risk Policy implementation, improved and automated information flows into specifications and other processes, and identifying opportunities for use of climate and ecosystem information under a single umbrella. This work is ongoing and coordinated with the process mapping / unified technical report preparation efforts described above.

IRA 4.1, 4.2, and 4.3 are evaluating and considering changes to committee use, joint management, and the Council's operating agreement with NOAA Fisheries.

IRA 6 includes an evaluation of possible applications for artificial intelligence and automation technologies to Council work (IRA 6.1) and public communications updates (IRA 6.2). This work is being done largely at the staff level. Planning and development of ideas began in 2025 and is ongoing. Rollout of website updates, a social media plan, and any uses of AI and automation will occur during 2026 and beyond as time permits given other Council work.

Future Communications Subcommittee Opportunities

Opportunities for Communications Subcommittee work will likely include developing or reviewing products and communications strategies related to Risk Policy rollout, Portfolio Analysis, the participatory processes IRA initiative, and to the goal to grow and strengthen partnerships under the Council's forthcoming Holistic Strategic Plan. The timing and specific needs for Communications Subcommittee engagement are to be determined.

Climate Vulnerability Assessment 2.0

The Northeast Fisheries Science Center is collaborating with NOAA headquarters staff to develop an update to the Northeast Fish and Shellfish Climate Vulnerability Assessment (CVA), first published in 2026. The updated assessment includes spatially explicit climate exposure information, based on MOM6 model hindcasts and forecasts, and an updated expert review of climate sensitivity by species and stock area. Dr. Katherine Gallagher, who is leading the assessment, will present an overview of methods and products at our summer meeting. Climate vulnerability is one of the factors included in the composite risk score under the Council's new Risk Policy.

Other Business

If you have any other business to discuss, please contact me or Ms. Bachman.

Meeting Materials

The documents listed below will be posted to https://www.nefmc.org/calendar/mar-27-2026-climate-and-ecosystem-steering-committee-webinar. If you have any questions about the materials, please contact Ms. Bachman (mbachman@nefmc.org; 978-465-0492 x120).

1. Tasking and information memo (this document)
2. Presentations
    a. Joint SDMs – Dr. Chris Haak
    b. Ecosystem Component Species – Angelia Miller
    c. Climate and Ecosystem On Ramps Identification – Michelle Bachman
    d. 2026 State of the Ecosystem Report – Dr. Joe Caracappa
3. September 2, 2025 meeting summary
4. Ecosystem Component Species Evaluation
    a. Stock evaluation factors and worked example
    b. Candidate Ecosystem Component Species included in pilot evaluation
5. 2026 State of the Ecosystem Report
6. Inflation Reduction Act briefs that describe scope of work, staffing, and timeline for each NEFMC initiative, updated March 2026