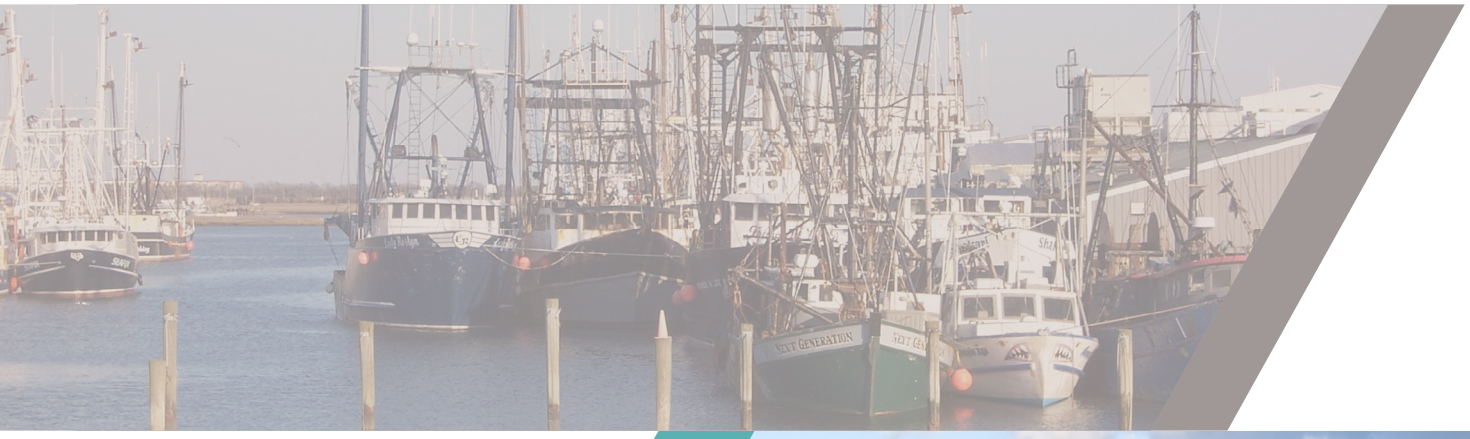
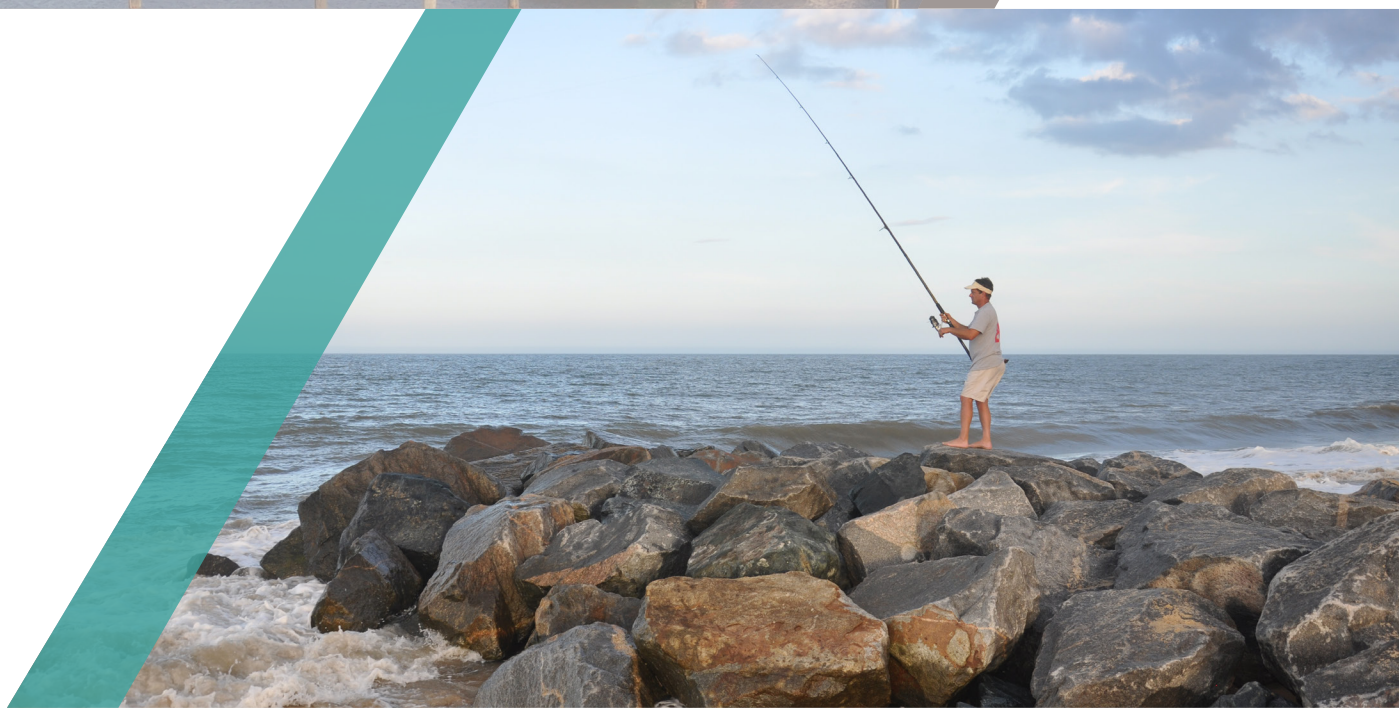
Mid-Atlantic Fishery Management Council Program Review





JULY 2024

THE PARNIN GROUP

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We would like to thank all participants for their time and insightful, positive engagement with our Team. The responses and feedback provided by participants in our interviews and questionnaire allowed us to conduct a comprehensive review of the efficiency and adaptability at the Mid-Atlantic Fishery Management Council.

We would especially like to thank MAFMC staff Jessica Coakley, Kiley Dancy, Brandon Muffley, and NOAA Fisheries staff Marianne Randall, Emily Keiley, Sarah Gaichas, Anthony Wood, and Chad Demarest for their thoughtful feedback and guidance in this endeavor. All pictures provided in the document are courtesy of the MAFMC staff.

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Executive Summary

The Mid-Atlantic Fishery Management Council (Council) is one of eight regional fishery management councils established by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to manage fishery resources in U.S. federal waters.

The Council contracted with The Parnin Group (Team) to evaluate its federal procedures mandated by the MSA to develop fishery management actions. The purpose of this evaluation was to identify opportunities to improve the process of creating these actions. The primary objective was to discover innovative and efficient methods for the Council to remain agile and responsive to new and evolving management challenges, particularly those related to climate change.

Several notable opportunities for improvement and growth in the regulatory process and organizational operations of the Council were identified in our *Key Findings* section. This analysis was developed through research, interviews with key staff and participants in the fishery management process, and an online questionnaire. Notably, the Team found the Council has already made significant progress towards creating a flexible and adaptive management system, including climate change considerations. Participants often noted that the Council operates in a relatively efficient manner within the broader fishery management process prescribed by the MSA; however, there are challenges to understanding the complexity and effectively engaging in the fishery management process, as highlighted in the *Regulatory Process Documentation and Illustration* section. While participants often said that the Council demonstrates leadership in climate change preparedness, many also believed there is a need for clearer goals and objectives regarding climate change response, improved data collection and modeling, and addressing uncertainty, as discussed in sections *Data Acquisition and Modeling and Climate Change Response*. The Team highlights some areas of success regarding overall collaboration communication between the Council and partner organizations, but we also emphasize areas for improvement in the *Coordination and Communication* section. Our *Key Findings* were utilized to develop and inform the Team's recommendations.

In our *Recommend Phase Overview* the Team identified several areas where the Council can improve operations to streamline its management and regulatory processes and offers several specific and actionable recommendations for the Council's consideration (See Tables 5 and 6). Some areas for improvement include further documenting the regulatory process for the public and its partner agencies, enhancing data acquisition and modeling, and improving communication with partner organizations. Suggested solutions are generally non-prescriptive, allowing the Council to identify and prioritize potential changes that may provide the most benefit in terms of efficiency, adaptability, or a more deliberate management approach. The Team also sought to provide some insight into anticipated timelines and complexity for the proposed recommendations.

Finally, in the *Additional Findings and Recommendations* section we provide an overview of other concerns that we believe warranted consideration and further assessment. Even though these findings are not directly related to the goals and objectives of this project to enhance the efficiency and adaptability of the Council's processes, we believe these items corroborate current issues the Council is working through or identify new issues that the Council may want to further consider. We tie these findings to our list of suggested recommendations.

Ultimately, the Council should consider new approaches to its status quo, especially as fishery stocks shift and economic yields of fisheries change. The Council is building on a forward-looking foundation and should continue striving to become as responsive and nimble as possible. Ensuring flexibility and adaptability in the fishery management process will put the Council in the best position to address current and future concerns efficiently and effectively.

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Key Acronyms

ASMFC	Atlantic States Marine Fisheries Commission
COUNCIL or **MAFMC**	Mid-Atlantic Fishery Management Council
E3CG	East Coast Climate Coordinating Group
EA	Environmental Assessment
EIS	Environmental Impact Statement
FMAT	Fishery Management Action Teams
FMP	Fishery Management Plan
GARFO	Greater Atlantic Regional Fisheries Office
IEA	Integrated Ecosystem Assessment
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NOAA FISHERIES	National Oceanic and Atmospheric Administration/ National Marine Fisheries Service
SAFMC	South Atlantic Fishery Management Council
SIR	Supplemental Information Reports
SSC	Science and Statistical Committee
Team	The Parnin Group

Introduction

OBJECTIVES OF PROJECT

The Mid-Atlantic Fishery Management Council (Council) is one of eight regional fishery management councils responsible for marine fisheries management in the United States Exclusive Economic Zone (zone between 3 to 200 nautical miles offshore). As part of its ongoing commitment to continuous improvement, the Council contracted with The Parnin Group (Team) to conduct a thorough evaluation of its federal fishery management procedures. The purpose of this evaluation was to identify opportunities for improving the development process of federal fishery management actions. The primary objective of this review was to find innovative and efficient methods for the Council to remain agile and responsive to new and evolving management challenges, including those related to climate change.

Climate change is driving fishery management agencies and organizations worldwide to focus on ensuring adaptability and efficiency in their regulatory development processes. Despite uncertainty surrounding the spatially-explicit impacts of a changing climate, managers must be able to quickly respond to unpredicted and unprecedented changes in biological and ecosystem conditions, including:

1. Changes in the abundance of key fishery species
2. Changes in distributions of target, non-target, and protected resources species
3. Variations in established life history parameters for federally-managed species

Our Team focused on **identifying opportunities to enhance the efficiency and adaptability of the Council's processes, from early consideration of fishery management issues up to the initiation of federal rulemaking**, as the Council's goal is to enable swift management responses when unanticipated fishery or environmental conditions change. In addition, the Council sought ways to incorporate climate change responsiveness into the management system.

This report:

1. Describes the Council's current fishery management process
2. Identifies aspects of the Council's programs, policies, and practices that guide this process and influence decision-making
3. Identifies relevant bottlenecks or inefficiencies within the Council's process
4. Provides actionable recommendations for improving the Council's fishery management process

Methodology for Our Program Review

QUALITATIVE AND TECHNICAL ANALYSES

Our Team employed a robust program-and-process analytical technique to engage key staff, managers and active participants that regularly contribute to the fishery management process (participants) to assist our Team in identifying issues and creating effective solutions. For this review, we used several comprehensive data collection and analysis techniques, including targeted focus group and individual interviews, an online questionnaire, and benchmarking the Council's action process timelines to gather insights to inform our recommendations.

The Team regularly solicited feedback and recommendations for Council process improvement as part of our standard questions during focus group and individual interviews and our questionnaire approach. In addition, we asked participants to identify potential solutions and interventions that had been successful for other organizations or Councils. As part of our standard closing of the focus group interviews, we asked each participant to identify their highest priority solution or change regardless of feasibility.

An essential element of this evaluation was the inclusion of a Project Oversight Team, comprised of representatives from the Council, Greater Atlantic Regional Fisheries Office (GARFO), and Northeast Fisheries Science Center (NEFSC) staff. The Project Oversight Team's purpose was to provide guidance and feedback during our program review process, brainstorm and refine proposed recommendations, and editorial support during the development of the summary themes report and final report drafting.

This project consisted of three phases: Discover, Assess, and Recommend (Figure 1) and each phase will be discussed in greater detail later in the report.

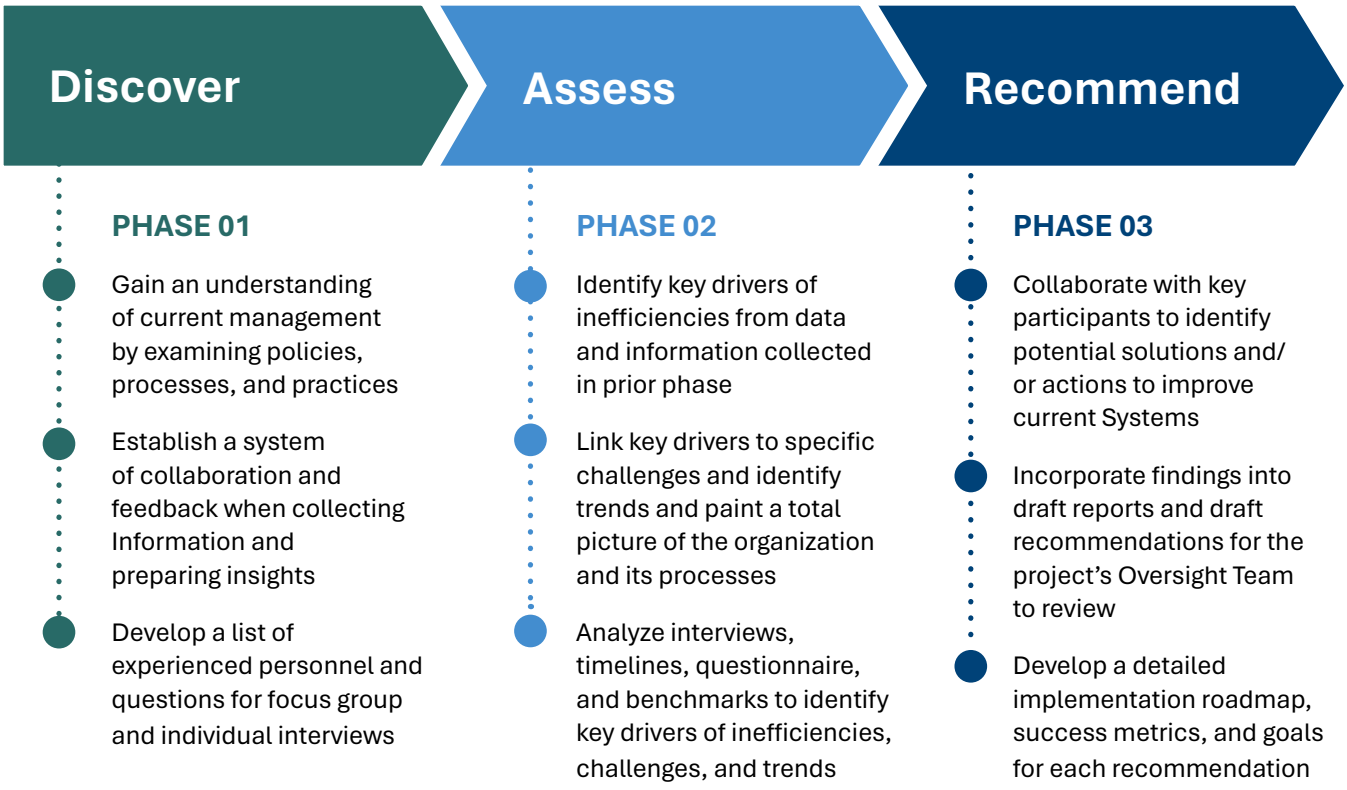

Figure 1. The Parnin Group's analytical approach.

ASSUMPTIONS AND CONSTRAINTS

The information that underpinned our evaluation was primarily qualitative, acquired through focus group interviews, individual interviews, and questionnaire comments. Given the nature of this review, quantitative indicators of flexibility, adaptability, and preparation for climate change impacts were limited. Our primary source of quantitative data was from our online questionnaire and our timeline analysis. This information allowed our Team to:

1. Gauge how participants ranked statements and expressed concerns identified during the *Assess Phase*
2. Identify bottlenecks in the Council's regulatory process and benchmark the Council's timelines against the neighboring New England Fishery Management Council (NEFMC) and South Atlantic Fishery Management Council (SAFMC)

Since this program review is focused on management processes and organizational concerns, the findings and recommendations are informed by the insights of those most engaged in the process and are representative of participants concerns. However, we highlight two limitations to our analysis as outlined below.

Analysis Limitations

1. **Data presented relies on input from a specific subset of individuals who responded to our interview request, rather than a randomized sample of Council-process participants.** We measured the potential impact of selection bias in our interview process in a basic way, by comparing the questionnaire responses of interviewees and non-interviewees (see Appendix A for data analysis). Scores were generally aligned, with significant differences between the two groups in three topics: the Council's flexibility, influence of political concerns, and preparation for climate change. The quantitative differences for these questions could be due to a combination of social desirability bias and a greater familiarity with concerns expressed in the interviews. Significantly, non-interview participants were far more negative about how prepared the Council is for climate change. The Team believes the program review methodology contributed to the split in the responses on climate change preparedness, as this program review process is a concrete example of the steps the Council is taking to prepare for climate change; therefore, participants in the online questionnaire that also participated in the interviews may see the Council's efforts in a positive view.
2. **The program review was limited to participants highly engaged with the Council process, providing informed qualitative data but precluding input from isolated or less involved participants.** The Team addressed this constraint by trying to include participants from every group invested in the Council process and regularly discussed engagement as part of our standard interview questions. Participants were sorted into affinity groups based on their affiliation as Council members (voting and non-voting), Council staff, Scientific and Statistical Committee (SSC) members, Advisory Panel (AP) members, Atlantic States Marine Fisheries Commission (ASMFC) members, GARFO staff and management, NEFSC staff and management, and other representatives engaged in the fishery management process. By consistently asking key participants to identify further groups that were not as well incorporated into the regulatory process, we identified several groups of concern. We addressed this by creating follow-up panels with additional stakeholder groups, such as economists, population dynamic/stock assessors, and state fishery representatives.

Overview of Mid-Atlantic Fishery Management Council Process

BACKGROUND

The fishery management process is guided by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and its National Standards. The National Standards are principles that must be adhered to in any fishery management plan to ensure sustainability and responsibility in fishery management. As mandated by the MSA, NOAA Fisheries developed specific guidelines for each National Standard and the Secretary of Commerce is responsible for ensuring that fishery management plans, amendments, and regulations align with these National Standard guidelines and other applicable environmental laws such as the National Environmental Policy Act (NEPA), the Endangered Species Act, and the Marine Mammal Protection Act.

Eight regional fishery management councils were established by the MSA to manage fishery resources in federal waters of the United States and are composed of Council members, committees, panels, teams, and working groups that all contribute to that council's mission to implement the MSA. The Mid-Atlantic Council is composed of voting and non-voting Council members that represent the respective member states' fish and wildlife agencies, the ASMFC, NOAA Fisheries, US Fish and Wildlife Service, US Department of State, US Coast Guard. Voting members that are not state designees are private citizens knowledgeable about recreational or commercial fishing or marine conservation. Council staff prepare various information and analytical documents, and work with technical and advisory groups, including NOAA Fisheries, and other agency staff. The Council advisory groups consist of numerous committees, advisory panels, the Science and Statistical Committee (SSC), monitoring committees, and fishery management action teams (FMATs). All have specific roles and responsibilities to provide input into the fishery management process and develop management actions. In addition, the ASMFC and the New England Fishery Management Council (NEFMC) either cooperatively or jointly manage some species with the Council.

OVERVIEW OF COUNCIL PROCESS AND TIMEFRAMES

The process and timeframe to develop a fishery management action depends on its complexity. As part of our *Discover Phase*, we reviewed the Council's general process and timeframe to develop actions. We provide a general overview of the process for typical actions, such as an FMP amendment or framework action, to highlight the steps taken and identify potential steps that may slow down the process. This information was used to target specific participants with questions, analyze timeframes, and develop recommendations over the course of our project.

> "Quite often it takes between two to three years (or beyond) to develop a major Council action. However, the process may take longer if an issue is not well defined, controversial or complex."

The Team developed a visual overview (Figure 2) to illustrate the general process when developing an FMP or major FMP amendment. Please note that the process example in Figure 2 assumes an EIS is being developed and does not necessarily mean that all major FMP amendments require an EIS, an EA could also be used to develop an FMP amendment.

The general steps in the fishery management process are:

1. Identify the issue and scope the potential action (Steps A – E)
2. Develop management options and draft analysis (Steps F – I)
3. Conduct a review of the analysis and management options (Steps J – M)
4. Select preferred management option(s), finalize analysis and transmit recommendation(s) to NOAA Fisheries (Steps N – O)
5. NOAA Fisheries Rulemaking (Step P)

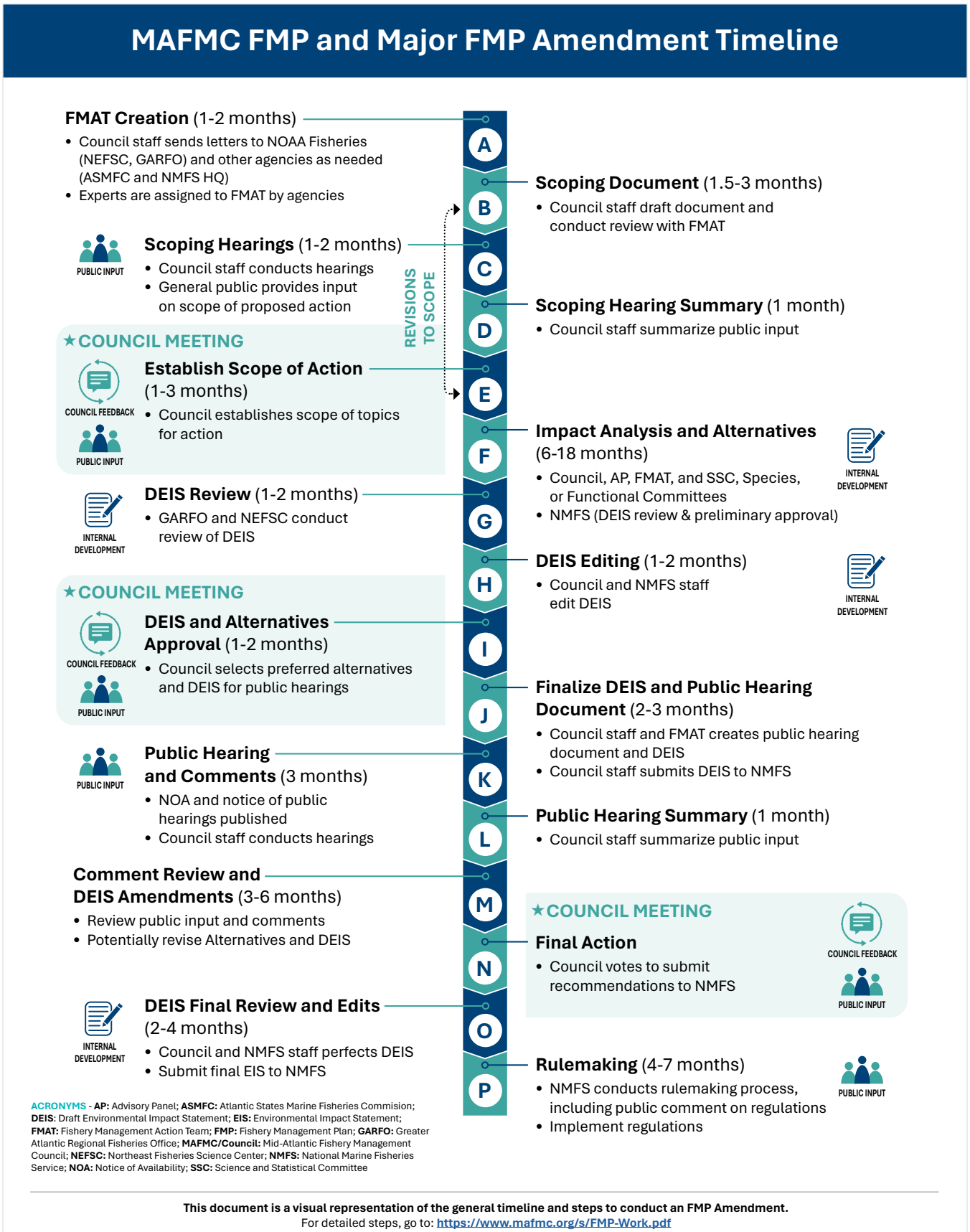

Figure 2. Schematic of timeline and steps taken in the development of an FMP or major FMP amendment.
Note: This example assumes an EIS is being developed; however, an EA could be used in each of the steps.

We based our schematic on information gathered from the Council's policies and procedures, the Council's general description and detailed description of an FMP and major amendment timeline (as seen in steps A through P) on its website and the ASMFC website. Our graphic describes the general timeline and the stages to develop an action, from the development of FMATs (step A) to the final rulemaking and implementation of the regulations (step P). We also provide a short description of the general steps to show the iterative process for development that includes a feedback loop for the scoping process, internal development of documents, Council feedback loops and specific actions, and the various stages for public meetings and public input. We examined various stages of the process (excluding step P - NOAA Fisheries Rulemaking Process) and interviewed participants to pinpoint what issues or stages in the processes may hinder efficient development of an action and look for ways to improve the overall timeframe or streamline action development at certain stages.

Quite often it takes between two to three years (or beyond) to develop a major Council action. However, the process may take longer if an issue is not well defined, controversial or complex. It may also take longer if the issue becomes a lower tier priority in light of a new or more pressing issue(s). The timeline can be shorter if the action is simple, developed quickly or previously analyzed in other actions. After an action is fully developed, the Council sends its recommendation to NOAA Fisheries and the Secretary of Commerce for approval, to develop a proposed and final rulemaking with public input, and if approved implements the regulations (step P, Figure 2). The rulemaking stage can add another six to over twelve months for development and implementation of regulations, depending on complexity of the action or other issues.

While an amendment may take several years to fully implement, and may address one or several issues, framework actions are a more efficient tool for making changes to Council FMPs due to the expedited process for public input (Figure 3). Framework actions which typically require an EA, are less complex and can modify existing measures and/or those that have been previously considered in an FMP or FMP amendment. These actions can generally be completed in six to eight months, but the types of measures that can be changed via framework are limited in scope to a list of previously analyzed and contemplated actions within the FMP. In the past ten years the Council has used framework actions quite often to address several types of issues in a more expedient manner (See Council Actions webpage). This type of action development seems to have increased the efficiency of the Council process over the past decade. We examined this mechanism further and compared it to other Councils (*See* Table 3. *MAFMC Timeline Analysis Details and Appendix B: Timeline and Benchmark Data)*.

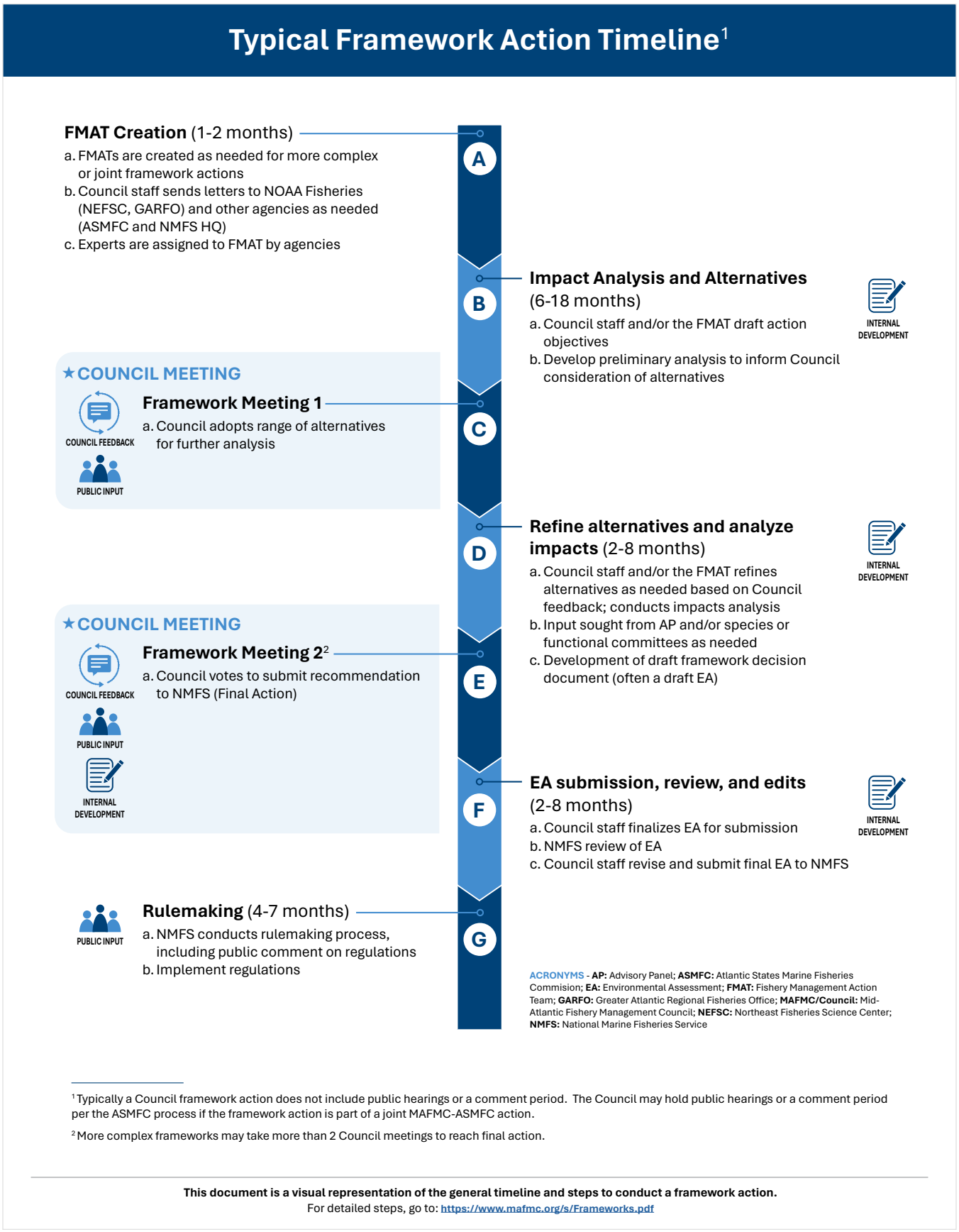

Figure 3. Schematic of timeline and steps taken in the development of framework action.

As outlined in Figure 4, the shortest probable timeline for developing a major FMP amendment is roughly 29 months (about 2 and a half years). Generally, the scoping process (items A through E) takes 6 to 8 months to complete; however, it can take a significant amount of time in certain circumstances *(See* Table 3. *MAFMC Timeline Analysis Details and Appendix B: Timeline and Benchmark Data)*.

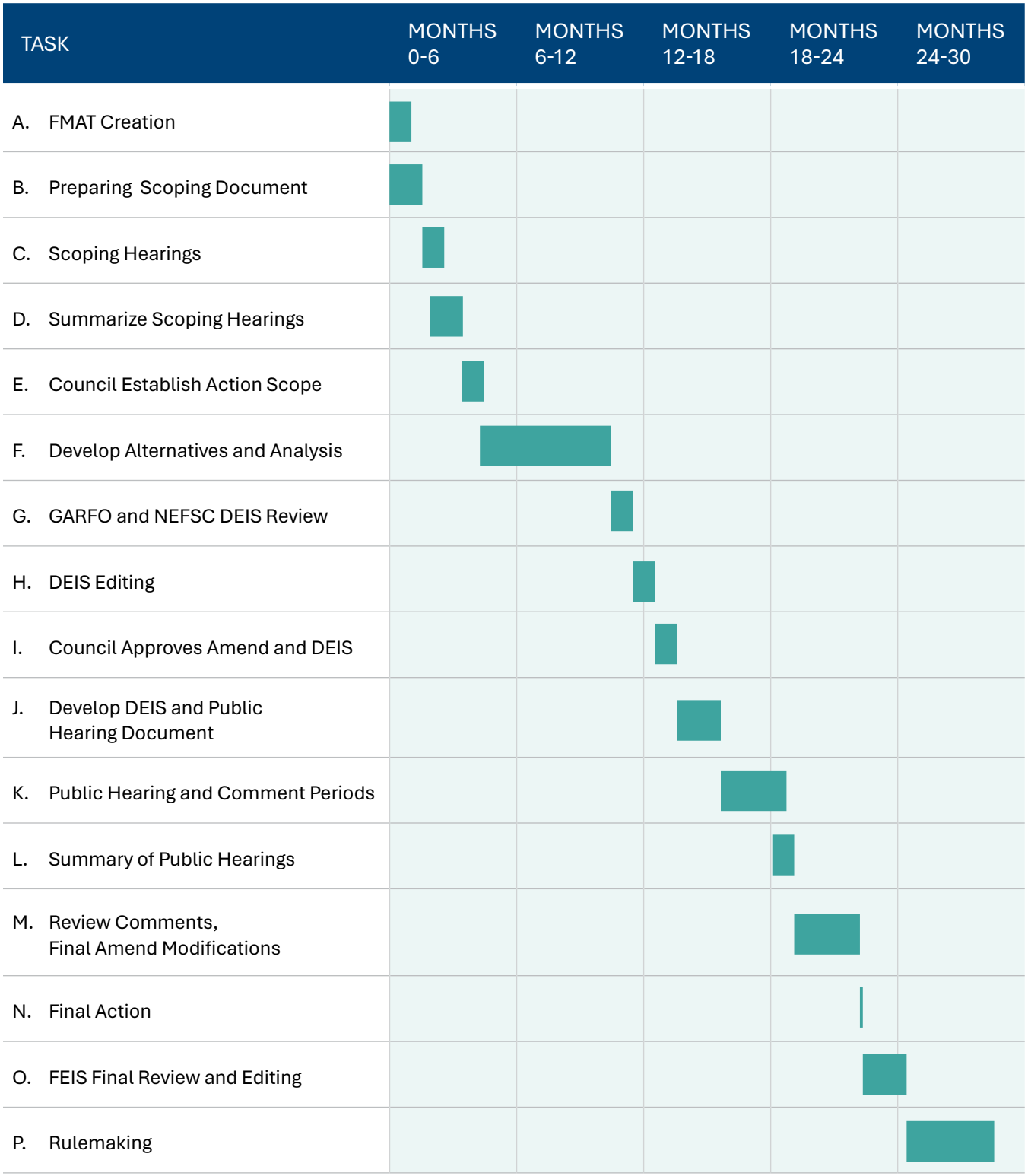

Figure 4. MAFMC shortest probable amendment development timeline *(figure assumes an EIS development timeline)*.

An analysis for actions must include all the required elements under the MSA and NEPA (and demonstrate compliance with other applicable laws) to ensure the action is fully analyzed for the Council, the public and NOAA Fisheries to make an informed decision. The complexity and potential environmental effects of contemplated actions will affect how it is analyzed and the timeframe to develop and finalize the action[1]. For example, if the action is simple and there's no expected significant effect on the human environment, then action could be developed and finalized quickly via a Categorical Exclusion (e.g. minor, administrative change to a policy or regulation that doesn't require analysis). An Environmental Assessment (EA) requires some level of detail within the analysis to help determine if the federal action has the potential to cause significant environmental effects; it may require a robust analysis dependent on the complexity of the issue and the number of alternatives that are being analyzed. Most of the actions developed in the MAFMC Council process are EAs and can be completed within two years. An EIS or Programmatic EIS (PEIS) include actions that are complex and determined to significantly affect the quality of the human environment. They also require a more detailed and rigorous analysis than an EA and require a longer public comment timeline for people to fully understand the complexities, outcomes, and impacts; it also provides sufficient time to for the public to comment on the analysis as well as any proposed regulations. Major FMP changes that require an EIS can take significantly more time to develop than an EA, greater 3 years.

Finally, the structure of Council analytical documents may take different forms, either separate MSA and NEPA analysis documents or an integrated document that contains the required elements from both. Usually, one integrated document is developed whereby both Council and NOAA Fisheries staff work collaboratively to decide on the structure, examine feasible alternatives or management options to solve the subject issue, and analyze the environmental impacts of those alternatives (biological, human and environmental impacts). Typically, development of an action requires many iterations of internal and external review between Council staff, its agency partners and advisory bodies, the public and the Council. The timeline for development of an analytical document can be extensive, especially if the issues are not well defined at the start and multiple iterations, alternatives or options must be developed (See *Key Findings* section)

An integral part of the Council's fishery management process, and the development of certain actions, includes the ASMFC. Many fisheries span both state and federal waters, such as black sea bass, bluefish, scup, summer flounder, spiny dogfish, Atlantic herring, and winter flounder. These fisheries are managed through either joint or complementary FMPs[2] with the Mid-Atlantic and/or NEFMC.

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1 See NEPA Requirements for a general overview of analytical requirements.

2 Per the ASMFC website, *Joint FMPs* are developed together between the relevant Council(s) and the Commission; the two bodies must approve the same actions to implement new management measures. *Complementary FMPs* are developed in coordination with the relevant Council(s), but do not require like actions for approval of management measures.

This management approach ensures close coordination to maintain consistency in management measures between state and federal waters to the extent possible. However, the implementation of measures separately by individual states and in federal waters, or development and implementation of an amendment to a plan may not occur simultaneously or on the same timeline for both management groups. When our Team attempted to describe the management process and responsible parties for how joint and complimentary FMPs are managed or revised by the Council and the ASMFC, it became apparent that there is little written information on the historical development of this relationship, "rules of engagement," definitions or terms used (i.e., to joint, complementary, cooperative management, etc.), nor Council operating procedures on how the Council and the ASMFC officially interact, vote or transmit recommended actions. Therefor, we only generally describe the management relationship between the Council and the ASMFC. This issue is discussed further in the *Recommend Phase Overview*.

Within the Northeast region there are also two joint FMPs (spiny dogfish and monkfish) that are managed jointly between the New England and Mid Atlantic Councils. These plans require that both Councils make motions on management measures required for these fisheries or to amend the FMP (i.e., true co-management); however, in cases where both bodies disagree on measures, NOAA Fisheries ultimately must consider both and choose which approach to implement.

FMPs require a lot of coordination and public input to develop actions when they are amended, especially when conducting the public hearings that provide both Councils and ASMFC, as appropriate, with information to make informed decisions (Figure 2; steps C, E, I K and N). When a management analysis, such as a draft FMP amendment, is released for public comment, public hearings are typically conducted in multiple states. These meetings provide a forum for fishers, environmental groups, and other participants to learn about the proposed changes and offer their input on the best solutions to address the issues. These are time-consuming but necessary steps in the process.

Discover Phase Overview

During the *Discover Phase*, the Team conducted background research and other data collection to establish the foundation for this reports' findings and recommendations. Key steps included:

1. Reviewing current Council processes and its organizational structure, including mapping the Council's regulatory process and partner organization relationships. This information is presented in the previous section "Overview of Mid-Atlantic Fishery Management Council Process."
2. Identifying potential fishery management participants for interviews, organizing focus groups by area of expertise and individual interviews.
3. Developing interview questions based on background research and project requirements; conducting initial focus group interviews with broad and consistent questions, then conducting follow-up focus groups with tailored questions.

- » Gain an understanding of current management by examining policies, processes, and practices
- » Establish a system of collaboration and feedback when collecting Information and preparing insights
- » Develop a list of experienced personnel and questions for focus group and individual interviews

The external research we conducted early in the project heavily informed the development of our focus group composition and interview questions. To create our focus groups, we worked with Council staff to develop a list of experienced individuals with historical and working knowledge of the Council process (over one hundred names were provided). Many individuals had over 20 years of experience working within the Council process, and some had held positions in multiple organizations or participated in multiple roles within the Council process. Some individuals had less than 5 years of experience which provided a "new-to-the-system" perspective. We intentionally developed this approach in order to provide us with a wide range of insights and multiple perspectives on the Council's organizational efficiency and effectiveness. Individuals included voting and non-voting members of the Council, Council technical staff, SSC members, advisory panel members, monitoring committee members, and representatives from ASMFC, GARFO (sustainable fisheries division, protected resources, and NEPA), and the NEFSC (economists, stock assessors, population dynamics, ecosystem division).

We structured these experts across ten groups by specific organization or functional contribution to the management processes (Council staff, Advisory Panel members, NOAA population dynamic/stock assessment staff, ASMFC staff, etc.). We selected a nearly equal number of representatives for each group to ensure we did not create a bias (Table 1).

Table 1. Types of Council representatives interviewed.

GROUP	NUMBER OF REPRESENTATIVES
Council Member (voting)	6
Council Member (non-voting)	4
Council Staff	7
SSC	6
Advisory Panel Members	7
ASMFC Members	4
GARFO Members	7
NEFSC	6
TOTAL	**47**

We also used our external research to inform our approach when developing our interviews. We created interview questions to address the four main categories around our objective of finding opportunities for improving the efficiency and adaptability of fishery management processes. They are:

- *General Fishery Management and Regulatory Response*
- *Efficiency of Fishery Management Processes*
- *Climate Change and Nimble Response*
- *Communication Between Organizations, Participants, and Managers*

Our goal for each meeting was to gather information to understand the Council's fishery management process, successes and challenges, and prioritize potentially resolvable issues in the policy development process. We maintained a set of questions and categories to benchmark all interview responses against feedback from other focus group sessions, but also tailored some interview questions to each group to gather insights about key areas of concern relevant to the specific expertise of participants. For example, we asked specific questions regarding economic data usage and needs, questions regarding specific roles of different management bodies and communication concerns, questions regarding processing analytical documents for preparation in decision making/rulemaking and asked follow-up questions during the interviews to examine potential solutions. Finally, we asked participants for feedback on what other questions we should ask in future interviews or if questions should be rephrased to provide more context.

Interviews were documented both by a notetaker and meeting recording (all participants agreed to being recorded and recordings were not made publicly available). We provided our draft notes to each interview group to ensure the Team captured the sentiment or details of the participants responses. All focus groups and interview discussions were not for attribution, giving an opportunity for participants to provide feedback without concerns of being identified. We did not share participant names, perspectives, or comments between focus groups.

For the focus group interviews, we grouped participants based on their organizational roles or activities (Council staff, Advisory Panel members, NOAA population dynamic/stock assessment staff, ASMFC staff, etc.) and ensured that management and staff were placed in separate focus groups. We used focus group feedback to inform additional interviews and interview questions. Table 2 provides general statistics regarding our overviews.

Table 2. Statistics for focus group and individual interviews.

INTERVIEW ITEM	VALUE
Interview length	90 minutes
Focus group size	3-7 people
Number of focus group interviews	10
Number of individual interviews	6
TOTAL NUMBER OF UNIQUE PARTICIPANTS INTERVIEWED	**47**

In preparation for the *Assess Phase*, the Team selected and summarized initial findings by conducting a thorough, cross-comparative review of focus group interviews to identify frequently discussed themes. We summarized topic areas that were repeated in at least two focus groups. The findings also included contradictory topic areas, reflecting that participants were not always in agreement on whether certain topics were areas that needed improvement or a proven success. The themes and challenges we discovered were provided to our Project Oversight Team for review, discussion, and feedback.

This information was then provided to the Council for their review and discussion at their April 2024 meeting (initial summary report)[3]. The report provided a project update and showed common themes across our external research and across the first set of focus group interviews.

These themes included:

- Constraints to developing adequate regulatory responses (such as limited staff resources) for the Council and key partner organizations
- Balancing commercial and recreational fishery management concerns
- Challenges to considering and balancing short and long-term objectives when prioritizing issues
- Maintaining a balance between efficiency and comprehensiveness in approach
- Appropriately timing fishery performance reports and analyses to prevent bottlenecks and avoid delays in the fishery management process

These themes formed the base of our work during the subsequent Assess Phase, where we conducted benchmarking and analysis of our research and interviews to conduct additional focus groups, created an online questionnaire, identified key findings, and developed recommendations.

3 See page 12-13 in Executive Director's Report (Tab 13).

Assess Phase Overview

During the *Discover Phase*, the Team found relevant and broad initial findings that warranted further investigation during the *Assess Phase*. Therefore, we conducted several follow-up focus groups and individual interviews to collect additional perspectives from those we had not yet interviewed. For our follow-up interviews we developed new questions based on the themes in our initial summary report and conducted an online questionnaire. We also targeted participants that could possibly provide further insight and potential solutions for us to develop draft recommendations.

- Identify key drivers of inefficiencies from data and information collected in prior phase
- Link key drivers to specific challenges and identify trends and paint a total picture of the organization and its processes
- Analyze interviews, timelines, questionnaire, and benchmarks to identify key drivers of inefficiencies, challenges, and trends

ONLINE QUESTIONNAIRE

The Team developed and deployed an online questionnaire during the *Assess Phase*, which was sent to all individuals on the list of participants (including both interviewees and non-interviewees; see *Appendix A: Questionnaire Data)*. The goal of the questionnaire was to ground-truth information collected thus far through non-interviewees responses and perspectives. By ground-truthing, the Team sought to confirm if the comments and conclusions presented by some focus groups were also held across the broader population of experienced stakeholders. Additionally, we wanted to gather further information from previous interviewees that we were not able to add to our follow up focus groups.

All questions were multiple choice (either yes/no or a Likert-type scale response range from 1 to 5, with 1 = *Strongly Disagree* to 5 = *Strongly Agree* or 1 = *Much Less Efficient* to 5 = *Much More Efficient)*. Participants could also provide short open-ended comments to add context to their rating for each question. We evaluated responses and comments, separating data from interviewees and non-interviewees to discern discrepancies between the groups and conduct statistical analyses. The questionnaire included some of our broad questions from initial interviews and included specific questions that were used in our follow-up focus groups.

We conducted a quantitative analysis of the response scores to assess whether themes identified in the *Assess Phase* were supported by a broader group of participants. The analysis offered quantitative insight into the overall perception of participants and either confirmed or refuted our initial findings report.

Table 3 provides some questionnaire details. We sent 102 emails to potential participants and received 55 responses (a response rate of 54 percent). Of those that responded 34 were those we previously interviewed. A complete list of the questions and response statistics (mean response, standard deviation of response, difference between interview and non-interview responses) are in *Appendix A*.

Table 3. Details for online questionnaire.

QUESTIONNAIRE ITEM	VALUE
Number of Questionnaires Emailed	102
Number of Participants -Interview Participants -Non-Interview Participants	55 34 21
Response Rate	54%
Number of Questions	15
Question Structure[4]	Likert Scale (1=Strongly Disagree, 5=Strongly Agree)

COUNCIL AMENDMENT TIMELINE ANALYSIS

The Team also conducted a timeline analysis of the Council's most recent actions and the stages of their development (Table 4). The timeline analysis looked at ten FMP amendments and framework actions completed within the past four years by the Council. The actions selected varied in complexity and type to include a wide variety of timeframes. The timeline and benchmark data were used to find bottlenecks in the regulatory process and corroborate participant concerns.

Table 4. MAFMC action timeline analysis details (for 10 actions).

STAGE[5]	AMENDMENT MEDIAN TIME	AMENDMENT TIME RANGE	FRAMEWORK MEDIAN TIME	FRAMEWORK TIME RANGE
1. Initial (Scoping, Alternative development)	24 months	5-32 months	12 months	10-12 months
2. Engagement and Review	5 months	4-7 months	4 months	4 months
3. Council Transmittal	10 months	3-32 months	9 months	6-13 months
4. NOAA final rule development	3 months	2-5 months	2.5 months	1-4 months
5. Time from Council's final action to NOAA final rule	14 months	5-35 months	11.5 months	9-15 months
Total time taken	**41.5 months**	**18-64 months**	**24.5 months**	**23-25 months**

4 Question 1 was a yes/no question on whether the individual was interviewed.
5 See Appendix B for detailed discussion of composition and constraints of each stage. There were 4 framework items and 6 amendments within the timeline review period.

We stratified the regulatory development process into four overarching stages:

1. **Initial:** the approximate time it takes to initiate, scope, and develop alternatives for an action.
2. **Engagement and Review:** Public hearings and Council review. The approximate time it takes for public hearings and comments, review of public comment periods, and Council review of an action prior to final approval.
3. **Council Transmittal:** Approximate time between Council's final action and publication of NOAA's proposed rule.
4. **NOAA Final Rule Development:** How long it takes between publication of NOAA's proposed rule and NOAA's final rule.
5. **Total Time:** The full timeline and total NOAA timelines have also been included for comparison.

We understand that these stages do not align perfectly with the MAFMC's internal processes for action item development. This is because our timeline analysis was constrained to documentation posted on the Council's website, which restricted us from breaking out more discrete steps in the regulatory process, especially in terms of the initial stage. The Council process timeline seems to be most affected by the initial stages of initiating, scoping, and developing alternatives for an action (stage 1). Although assessment of the NOAA Fisheries process to approve and implement regulations (stages 3 and 4) was not part of our original charge for this efficiency analysis, this additional timeline analysis revealed a slow-down regarding the time between the Council's transmittal of its final recommendation until final approval and the publication of NOAA's proposed rule stage.

As mentioned above, the initial stage represents several concurrent activities that were difficult to break out into discrete timelines based on information provided on the MAFMC website. While the initial stage is generally a long (as evidenced in Table 4 above) and unpredictable process, having to revisit scoping or alternatives is the largest known contributor in delaying action item timelines. Identifying issues that may force the Council to revisit scoping or alternatives early in the development process could save significant time.

These timelines were benchmarked against the timelines for recent amendment and framework actions at the SAFMC and NEFMC to assess whether there were major differences in approach between the Atlantic Coast councils. On average, the Council's amendment actions took less time and were more consistent than similar amendment actions at the SAFMC and NEFMC. The Council's amendments took notably less time on average in the initial scoping and alternatives stage. Although the Council's framework items were very similar to other East Coast framework actions in overall time taken, they took a few months longer on average to clear the initial scoping and alternatives stage. Further details of the timeline analysis are provided in *Appendix B: Timeline and Benchmark Data*.

Key Findings

In this section, we identify noteworthy drivers of inefficiencies from the data and information collected during our Discover and Assess phases. We present the major discoveries from our analyses, which are based on common themes that participants discussed during interviews, questionnaire responses and comments, and follow-up conversations with our Oversight Team. We provide an overview of specific challenges and identify trends to paint a complete picture of the Council's organization and processes. We present 12 key findings, grouped into five categories associated with their potential for improvement.

The categories of our key findings are:

- **Key Finding Category 1: Efficient and Flexible Management**
- **Key Finding Category 2: Regulatory Process Documentation**
- **Key Finding Category 3: Data Acquisition and Modeling**
- **Key Finding Category 4: Climate Change Response**
- **Key Finding Category 5: Coordination and Communication**

Our discussions revealed both positive and negative perspectives and conclusions, as seen in our *Efficient and Flexible Management* section. Participants often noted that the Council operates in a relatively efficient manner within the broader fishery management process prescribed by the MSA; however, there are challenges to understanding the complexity and effectively engaging in the fishery management process, as highlighted in the *Regulatory Process Documentation and Illustration* section. While participants often said that the Council demonstrates leadership in climate change preparedness, many also believed there is a need for clearer goals and objectives regarding climate change response, improved data collection and modeling, and addressing uncertainty, as discussed in sections *Data Acquisition and Modeling and Climate Change Response.* The Team highlights some areas of success regarding overall collaboration communication between the Council and partner organizations, but we also emphasize areas for improvement in the *Coordination and Communication* section.

Separately from this *Key Findings* section, we provide an *Additional Findings and Recommendations* section that offers findings that are not directly tied to creating efficiencies in the Council process. They include some specific topics from a limited number of participants that may be of interest to the Council and its participants. We tie those findings back to specific recommendations in the *Recommend Phase Overview*.

Key Finding Category 1: EFFICIENT AND FLEXIBLE MANAGEMENT

K1. **The Council's regulatory process is already noticeably efficient and flexible.**

The Team's most significant finding, derived from both participant engagement and our benchmarking assessments, is that participants generally reported the Council operates efficiently within the confines of the fishery management structure promulgated by the MSA and NOAA Fisheries. Participants repeatedly commended the Council for striving for inclusive participation and for being proactive in anticipating and addressing climate change impacts on fisheries (see the Council's Climate Resilience webpage). Participants also noted that the Council is already making efforts to improve efficiency and incorporating climate change considerations, such as identifying specific, climate-focused priorities and projects through its strategic planning process and research priorities, developing a scenario planning analysis, and securing funds to conduct this program efficiency analysis.

While participants identified several concerns and bottlenecks in the following sections, questionnaire responses strongly indicated that the Council maintains a good balance of efficiency versus comprehensiveness when developing regulatory actions through the Council process (Figure 5). Participants were neutral or generally agreed that the Council process is flexible, meaning that the Council can respond to new problems with sufficient speed when developing a regulatory action through the Council process (Figure 6).

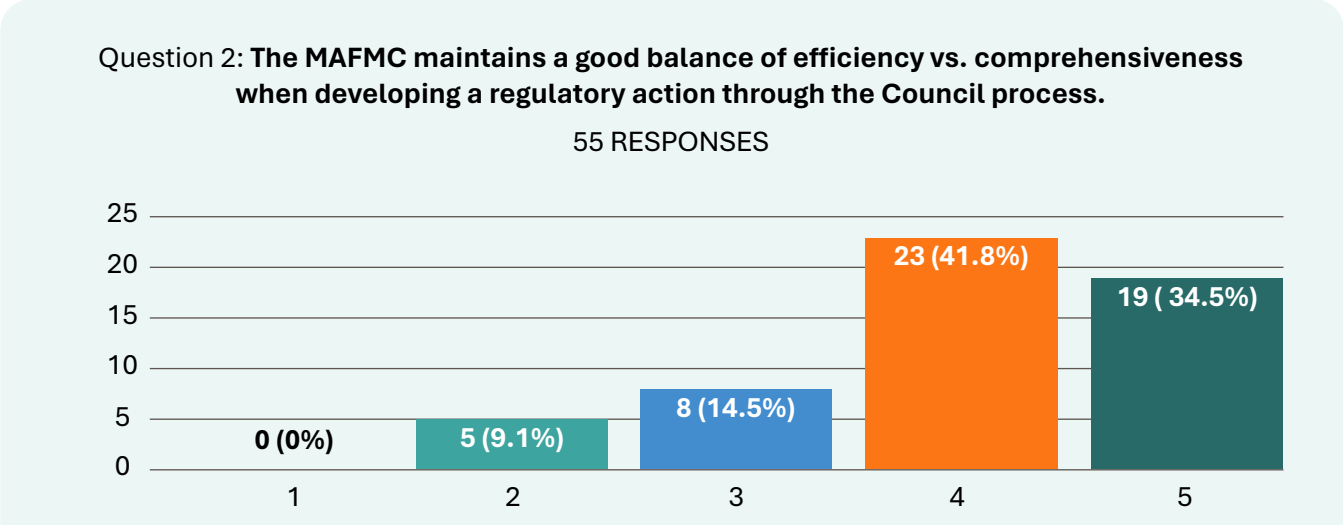

Figure 5. Frequency of participant responses for question 2.
Note: Our questionnaire utilized a Likert scale (with 1 indicating "Strongly Disagree" to 5 indicating "Strongly Agree").

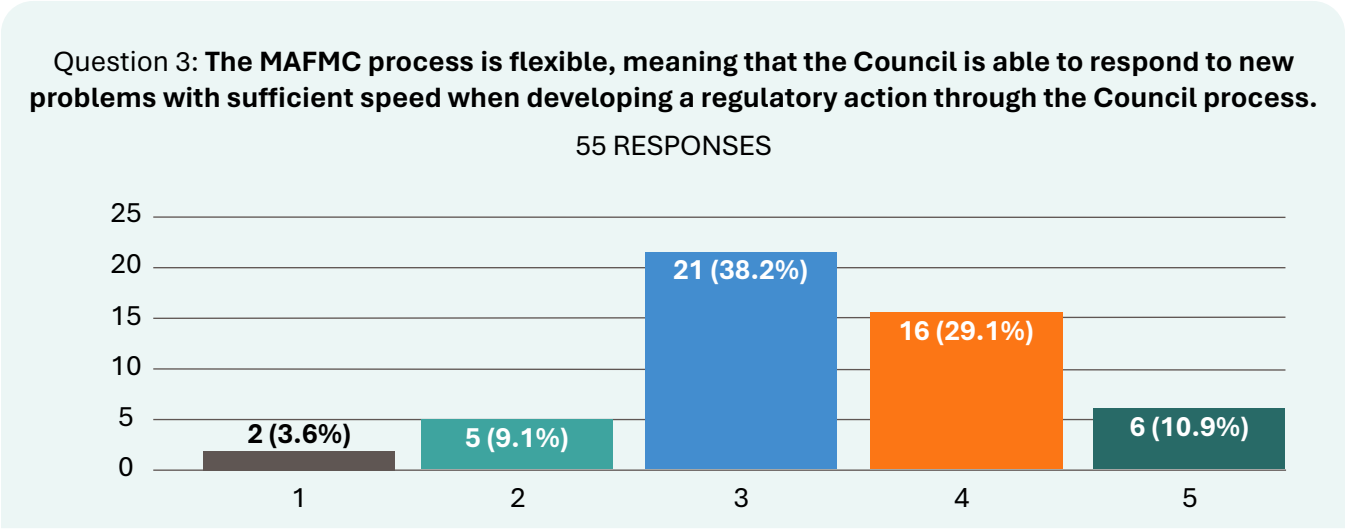

Figure 6. Frequency of participant responses for question 3.
Note: Our questionnaire utilized a Likert scale (with 1 indicating "Strongly Disagree" to 5 indicating "Strongly Agree").

The highest scoring response to the questionnaire indicated agreement that the Council strikes a good balance between efficiency and comprehensiveness. For example, while the Council may take a relatively long time to develop actions, it responds quickly to issues and is more proactive about initiating actions.[6]

Our benchmark analysis, which compares the Council's action item timelines to those of the SAFMC and NEFMC, supports these responses (See Table 4. *MAFMC action timeline analysis details (for 10 actions)*. While the Council may encounter delays during alternative development, scoping, or the federal rulemaking process, the Council is often able to progress from the initial scoping and framework stage and release its final actions for NOAA approval more quickly than its neighboring councils.

Participants understood the broader constraints of the federal management process (e.g., as prescribed by the MSA, NEPA, and rulemaking procedures) and its associated timelines; however, they commended the Council for its willingness to consider new and/or innovative approaches to expedite the process (e.g., the framework process). Participants also lauded the Council for its prompt process, for example, in responding to stock assessments by quickly recommending updated harvest specifications. Although there may be delays to aspects of the management process and review timelines, as well as staffing constraints and an ever-increasing workload for Council staff, GARFO, and the NEFSC, our assessment concludes that the Council maintains a foundation of flexibility and general expedience upon which its management approaches are built and operate.

> "Many participants we engaged with indicated that collaboration and communication between the various organizations, committees, and advisory bodies in the broader Council regulatory process is done well but could be improved upon."

6 Questionnaire Comment

K2. **Scoping process and development of alternatives or management options may be potential bottlenecks.**

Defining or bringing forth a management concern is the first stage of the scoping process (Figure 2, Steps A - E). Confusion about the problem being solved or new information that alters the perspective of the original management concern can add unnecessary time to the management process.

Participants noted that there can be confusion about defining the problem when there is a lack of specific guidance from the Council during the development of a purpose and need statement. This can slow the process and adds difficulties when developing appropriate solutions. In addition, expansion of the scope of an action, where stakeholders append additional issues to original concerns for management actions out of convenience (scope creep), leads to continuous reconsiderations or rescoping of issues that can slow progress. This key finding overlaps with other areas of improvement we identify in the *Coordination and Communication* section.

K3. **Late-breaking information poses challenges.**

The Council strives to balance efficiency with comprehensive impact analyses that include complete and up to date information, requiring efforts to appropriately incorporate new data and perspectives without delaying the decision-making process. However, focus group interviewees raised concerns about timelines for incorporating considerations from Advisory Panel reports and reviews of management unit species data (e.g., monitoring catches against annual catch limits or quotas). Although questionnaire responses generally did not agree that the timelines for reports and reviews result in bottlenecks, the data indicate that participants were more likely to view annual species catch limit and data reviews as a potential slowdown. Framework actions, often developed using EAs, may not always rely on previously established assumptions, requiring separate analyses or supplemental information reports (SIRs). Managers use SIRs to document new information while affirming that the original analysis still applies, but concerns exist about relying too heavily on them or that incorporating new or more information slows down the process to finalize a decision. In addition, a breakdown in the communication of critical information needed for management decision-making can disrupt the process (*See* section *Key Finding Category 5: Coordination and Communication*).

Key Finding Category 2: REGULATORY PROCESS DOCUMENTATION

K4. **Consolidated and clear documentation of internal Council processes is important.**

The lack of consolidated and clear documentation of Council processes may negatively impact Council operations and reduce opportunities for external participants to meaningfully contribute to the Council process. Participants noted difficulties in accessing written, consolidated, or centralized information. For instance, some policies and procedures exist mainly in the knowledge of senior staff, which causes variance in approach among staff. There are "minimal written internal policies guiding how [the Council] approach[es] actions," resulting in staff having to verbally explain to each other how to go through different procedures.[7] While this approach enhances communications among staff, it can result in inconsistencies across procedures. Additionally, the lack of internal documentation and centralization of information complicates the onboarding process, as "[newer staff] don't know what questions to ask. If [we] don't anticipate their needs, they might miss something, so documentation for a new staff member would be a good initial resource."[8]

Key Finding Category 3: DATA ACQUISITION AND MODELING

Climate change presents unique challenges for data acquisition and modeling, such as unpredictable shifts in stock distribution and fishery stability, which can affect available biological resources and reliable understanding of the implications for coastal communities and present and future fishery participants. Participants acknowledge that the Council is being proactive in anticipating and adapting to climate change; however, concerns persist about comprehensive data considerations, integration of economic data into impact analyses, and addressing uncertainty in certain data streams to support the Council's efforts.

K5. **There is a need for improved coordination and incorporation of scientific data and viewpoints into the decision-making process.**

During interviews, economists and biologists highlighted the need for improved coordination and incorporation of scientific data and perspectives into the decision-making process. They expressed concerns that the Council does not fully utilize their expertise and would greatly benefit from involving biologists and economists earlier in the management and decision-making process. Focus group interviews and questionnaire participants noted that the Council improved how it utilizes and incorporates advice from scientists, but hesitancy remains regarding longer-term fishery management questions, how the Council prioritizes its research needs, and commitments to considering additional data sources beyond those the Council traditionally uses.

> "Climate change presents unique challenges for data acquisition and modeling..."

K6. **The Council lacks robust and reliable economic data for modeling and management.**

Participants noted a desire for improved modeling of fishery value estimates and realistic estimates for economic impacts when analytical documents are created and discussed. They stated that managers often discuss economic impacts in terms of general trends rather than explicit numerical values.

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7 Focus Group Interview, December 2023.
8 Focus Group Interview, December 2023.

Participants emphasized that the lack of economic data hinders the Council's ability to make fully informed decisions and slows down the process. As stated in the 2020-2024 Research Priorities, the Council prioritizes the collection and integration of socio-economic information. Our findings align with participants' ongoing demand for further utilization of this information. The Team received specific feedback on economic data collection, indicating that the lack of and limited incorporation of economic information has hindered the improvement and understanding of social, economic and community sustainability.

The paucity of economic cost data increases uncertainty and decreases commercial and recreational stakeholders' confidence in the Council's actions and recommendations. Participants noted that, unlike other regions, the Mid-Atlantic region generally does not have a policy that *requires* reporting of economic cost data because commercial data come from a voluntary, socioeconomic survey for which participation is declining.[9] "This approach may hinder the amount and quality of data that is being collected."[10] It is unclear if the lack of reliable economic cost estimates delays Council action but we believe at times it may.

K7. **There is a need to better understand utilization of economic data.**

Participants desire a better understanding of what information is currently available and how best to utilize it. Participants noted uncertainty around how estimates are developed and a desire to understand how this information is collected, summarized, and utilized in the regulatory process (i.e., how does the information affect or influence management decisions).

K8. **There is a desire to share knowledge of modeling efforts.**

Several participants noted that at times heavy workload, competing priorities, and a high demand for certain model outputs (mainly during stock assessment cycles) can cause the development of analytical documents to suffer or slow down. Participants also noted a strong desire to collaboratively develop information to meet deadlines, but at times, information requests amongst staff are too numerous or there is limited time to develop the desired amount of information for Council discussion and decision-making. Participants also suggested there is a lack of technical or background knowledge in the data fields used or the outputs of economic, stock projection or stock assessment models.

Key Finding Category 4: CLIMATE CHANGE RESPONSE

Climate change poses significant challenges, affecting fisheries through changes in stock distribution, cross-jurisdictional management issues, and allocation complexities. The Council often takes a more pragmatic and incremental approach to incorporating climate-related changes into fisheries management, avoiding drastic changes to measures and management processes. These efforts include climate scenario planning, development of specific climate change data/planning efforts in the Council's Research Priorities and working to incorporate information via NOAA Fisheries Northeast Regional Action Plan (NRAP), and utilizing the Integrated Ecosystem Assessment (IEA) processes. However, participants stressed the need to differentiate between theoretical future impacts of climate change and the practical realities experienced

9 Focus Group Interview J, April 2, 2024.
10 Questionnaire Comment.

on the water. While the Data Acquisition and Modeling findings addressed concerns about climate change anticipation and preparation, this section highlights concerns regarding the Council's responses to climate change and its monitoring efforts.

K9. **Governance structures need to be nimbler and ensure fairness.**

The existing East Coast council structure and the ASMFC process (for cooperatively managed species) both play roles in addressing these challenges, especially when considering allocation issues. Ensuring fairness and equity in decision-making processes at both federal and state levels will be an ongoing challenge, especially with the complexity of shifts and expansions in fisheries due to climate change. The scientific community and the three councils on the East Coast may not be fully equipped yet to manage the challenges posed by climate change. The existing range-wide assessments, while covering a broad geographic area, create challenges when there are changes in the distribution of fish stocks, leading to conflicts over decision-making between different regions and councils. For example, the Council has received many observations that the scallop fishery and black sea bass fisheries are moving and expanding north, and these shifts will have real and lasting effects on management. These tensions play into stakeholder concerns about how the Council may approach future climate change responses effectively and efficiently.

K10. **The Council manages a healthy balance between immediate issues and long-term concerns.**

Questionnaire analysis on whether the Council was overly focused on short-term decision making to the detriment of long-term issues like climate change showed that most participants disagreed with that conclusion. This result indicates that participants broadly perceived the Council as striking a good balance between short-term and long-term considerations. This view was corroborated by participants who noted the Council is demonstrating leadership with respect to longer term thinking and integration of climate change into their processes[11] and statements like "The Mid [Council] manages with common sense. They look at both [short-term and long-term] but in a commonsense way."[12] Our interview responses also provided similar feedback, as many focus groups indicated that, while there was room for improvement, the Council made efforts to consider long-term impacts and issues, and was not operating in a reactive, short-term management cycle. The Council's current success in balancing short-term impacts with long-term needs is a promising foundation for addressing climate change preparedness.

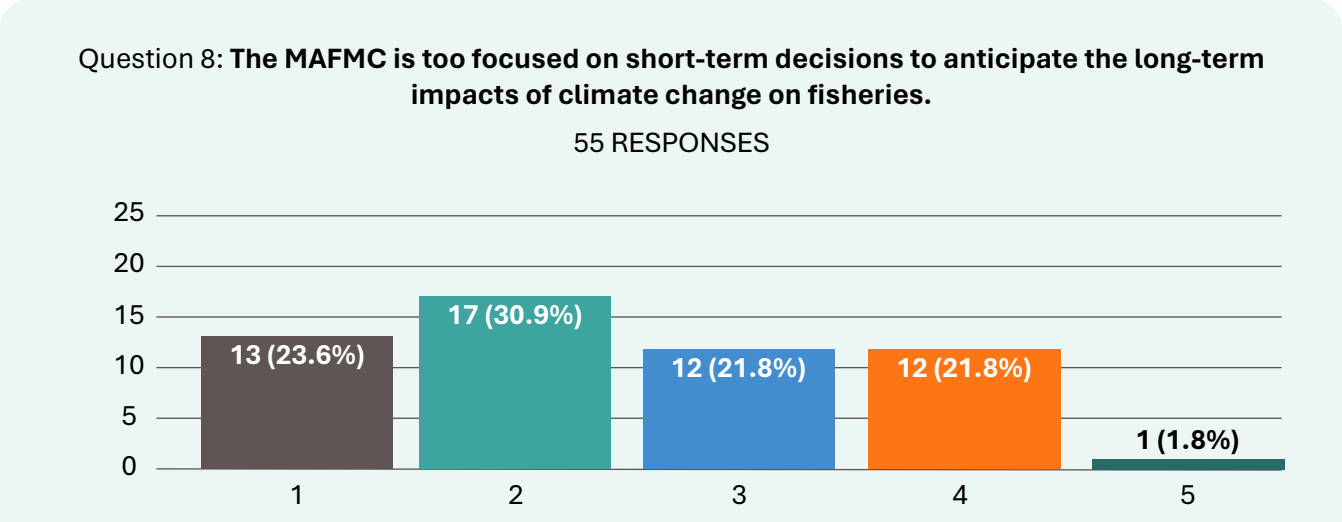

Figure 7. Frequency of participant responses for question 8.
Note: Our questionnaire utilized a Likert scale (with 1 indicating "Strongly Disagree" to 5 indicating "Strongly Agree").

11 Questionnaire Comments and Statistics, Question 8.
12 Questionnaire Comment for Question 8.

The Council will need to continue striking the right balance between long-term strategy and projections with short-term impacts and reactions. There is a noted desire for practicality and common sense among fishers and scientists that are concerned about short-term impacts of any climate change response from the Council. Any proposed action will need to include an enhanced dialogue and active involvement of fishers and scientists to identify genuine climate-driven issues and beneficial solutions to build trust. The Council will need to conduct proactive scoping to best inform fishers regarding potential measures and their anticipate impacts, consistently and clearly communicate with all participants to minimize concern and develop effective actions efficiently with long-term gains in mind.

Key Finding Category 5: COORDINATION AND COMMUNICATION

K11. **The Council process would benefit from better collaboration between the Council and its partner organizations.**

The Team recognizes that the Council management process extends beyond the Council and involves input from and collaboration with organizations like ASMFC, GARFO, NEFSC, NOAA Fisheries headquarters, NEFMC and SAFMC. One of the common topics of discussion in our focus group interviews was how to best approach a regulatory process that includes so many separate participants and organizational considerations, including those within the Council process (e.g., the Council's APs, FMATs, SSC, etc.) and continue to be efficient. Many participants we engaged with indicated that collaboration and communication between the various organizations, committees, and advisory bodies in the broader Council regulatory process is done well but could be improved upon. This sentiment was corroborated in our online questionnaire when we asked participants if the Council process suffers from poor collaboration between different organizations, many participants disagreed or strongly disagreed with the statement (Figure 8).

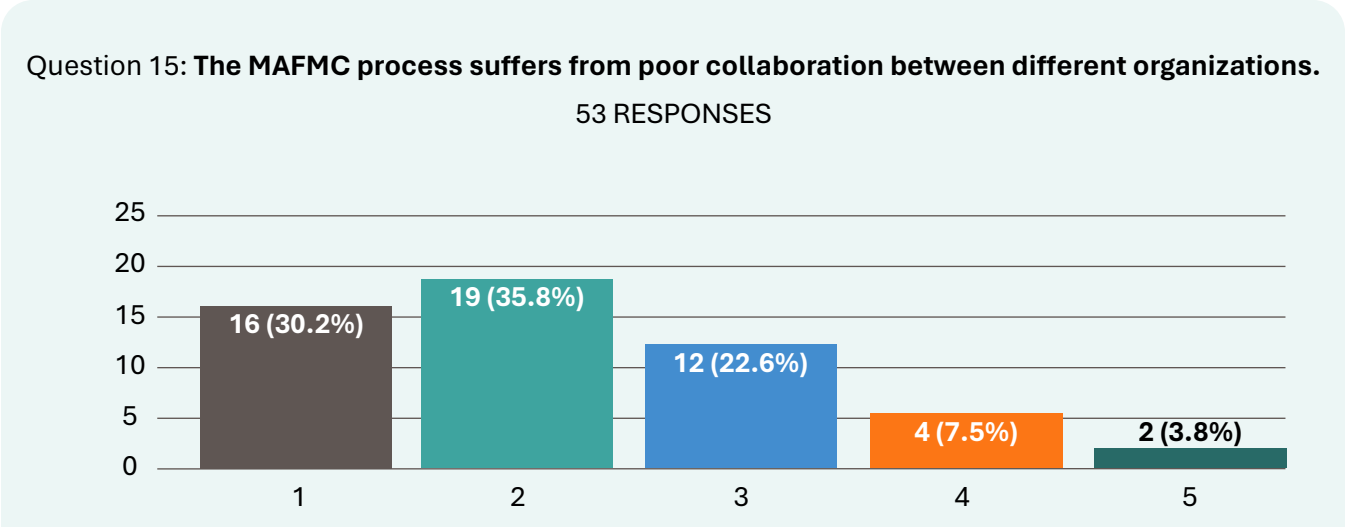

Figure 8. Frequency of participant responses for question 15.
Note: Our questionnaire utilized a Likert scale (with 1 indicating "Strongly Disagree" to 5 indicating "Strongly Agree").

However, several comments run counter to the response values, with many indicating specific areas of tension or breakdown. Many participants identified the need for better coordination and communication between management partners at the leadership level (i.e., NOAA Fisheries, ASMFC, and Council leadership). Addressing internal operations of partner organizations within the broader Council process is outside the scope of this efficiency review; however, participants we spoke with believe there are steps the Council could take to streamline collaboration and communication with its partners.

In general, most participants believe that the Council could increase and improve collaboration and communication between the different groups that support the management process (AP, SSC, FMAT, Monitoring Committee, etc.).[13] Some biologists and economists noted the desire for more engagement in the decision-making process so they could provide their expertise at the time of discussion and decision-making, thereby answering questions "on-the-spot" or heading off issues to make the process and information sharing more efficient. A specific aspect of collaboration that was highlighted involves ensuring staff are familiar with the assessment and stock projection models, as discussed in the *Data Acquisition and Modeling* finding. The NEFSC is working with new non-assessment models that could expedite translating science into management if Council staff and staff of partner agencies are appropriately trained in utilizing them to create outputs and impact analyses for discussions at meetings.

Finally, communication between the Councils was identified as a key concern in the process of identifying and addressing issues with jointly or collaboratively managed species and their related fisheries. The Council has made significant strides with the formation of the East Coast Climate Coordination Group (E3CG). Many participants we spoke with emphasized the need for the Council to continue collaborating with the NEFMC and the SAFMC as shifts in species distributions and migrations continue to cause issues for the specification of allocations and to learn from one another when managing or implementing changes. As mentioned in the *Climate Change Response* finding, participants feel that the Council has shown leadership in preparing for climate change and should continue to make efforts to address known areas of concern, like changing species distributions. The Council will need to ensure that it is collaborating effectively with its neighboring Councils.

> "Participants we spoke with believe there are steps the Council could take to streamline collaboration and communication with its partners."

K12. **Poor communication occasionally leads to "surprises" that cause delays in the regulatory process.**

The Team also noted several concerns regarding the need to examine how information is passed through the fishery management system. The most frequently identified point of communication and collaboration breakdown was regarding "surprises" late in the management process. Several participants in both our focus group interviews and questionnaire responses indicated that unanticipated problems could arise during or just prior to meetings as some organizations take unexpected positions on proposed regulations or management provisions.[14] As noted by one stakeholder, these last-minute changes require sudden adjustments and result in notable uncertainties at the Council table, which can harm collaboration.[15] These comments indicate that the Council does not always identify or are informed of controversial issues and concerns from its partner organizations prior to Council meetings, which can occasionally add discord into the process. In addition, it was noted that frustrations arise from the misalignment of timelines, for example, between protected species regulatory action development and impending Council actions, creating challenges in managing expectations and providing timely information to participants (i.e., Biological Opinion development). This, in turn, can cause confusion among constituents regarding final implementation of an action. There is a strong desire for early communication during the regulation development process to better prepare participants for implementation.

13 Focus Group D Interview, February 15, 2024.
14 Questionnaire Comment for Question 15.
15 Focus Group F Interview, February 1, 2024.

Recommend Phase Overview

The Team identified several areas where the Council can improve operations to streamline its management and regulatory processes. The Council would benefit from addressing concerns identified in our findings in the following key categories:

- **Recommendations Category 1: Efficient and Flexible Management**
- **Recommendations Category 2: Regulatory Process Documentation and Illustration**
- **Recommendations Category 3: Examine Data Acquisition and Modeling Efforts**
- **Recommendations Category 4: Climate Change Response – Climate Ready Fisheries**
- **Recommendations Category 5: Coordination and Communication**

- Collaborate with key participants to identify potential solutions and/or actions to improve current Systems
- Incorporate findings into draft reports and draft recommendations for the project's Oversight Team to review
- Develop a detailed implementation roadmap, success metrics, and goals for each recommendation

Based on data collected during the *Discover Phase* and the analyses conducted during the *Assess Phase* of this review, the Team developed several specific and actionable recommendations to address each key category of improvement for the Council's consideration. The goal of these recommendations is to enable the Council to address each area with measurable and specific interventions. These recommendations may include initial steps to consider when addressing these concerns or implementing solutions. Suggested solutions are generally non-prescriptive and designed to allow the Council to identify and address problems as they see fit. The suggested actions should enable the Council to be more adaptive or deliberate in its management approach or for the Council to move as quickly as possible towards implementation of management actions. We worked with our Oversight Team to verify that potential solutions are actionable, practical and not duplicative of other efforts. The following sections provide detailed descriptions of all recommendations and for ease of reference, we provide a summary of recommendations in Table 5. It includes the anticipated time frame, complexity of the task(s), and possible impact on the Council process. We also provide Table 6 that connects the *Key Findings* (K1-K12) with recommendations that could be implemented to address these findings. Some key findings may contain several recommendations to fully address the issues identified in the finding.

In Table 5, the stated categories utilize the following definitions:

- **Anticipated Time Frame** - Long-term: greater than 5 years; Medium-term: 2 to 5 years; Short-term: less than 2 years.
- **Anticipated Task Complexity** - High: high degree of complexity with many considerations and complications, challenging to implement; Medium: somewhat complex, dependent on range of solutions, may be challenging to implement; Low: low degree of complexity, likely easy to implement.
- **Anticipated Impact on Process** - Increases flexibility (F); efficiency (E); and anticipation of climate change (C). High: could address all 3 criteria, Medium: meets 2 out of 3 criteria; Low: meets 1 of 3 criteria.

Table 5. Summary of Team Recommendations.

Recommendations Category 1: EFFICIENT AND FLEXIBLE MANAGEMENT

RECOMMENDATION	ANTICIPATED TIMEFRAME	ANTICIPATED TASK COMPLEXITY	ANTICIPATED IMPACT ON PROCESS
R1. Limit Timeline for Scoping Actions/Development of Alternatives	Short-term	Low	Low (E)
R2. Develop Programmatic Environmental Impact Statement (PEIS) to Aid in the Development of Future Analyses	Long-term	High	High
R3. Reconsider Timelines and Frequency of Reviews	Medium-term	Low	Medium (F, E)
R4. Conduct a Framework Action Efficiency Analysis	Medium-term	Medium	Medium (F, E)

Recommendations Category 2: REGULATORY PROCESS DOCUMENTATION AND ILLUSTRATION

RECOMMENDATION	ANTICIPATED TIMEFRAME	ANTICIPATED TASK COMPLEXITY	ANTICIPATED IMPACT ON PROCESS
R5. Develop a Repository for Critical Council Procedural Documents	Short-term	Low	Low (E)
R6. Simplify Summary Language	Short-term	Low	Low (E)
R7. Refine Council Staff Onboarding Process	Short-term	Low	Low (E)

Recommendations Category 3: EXAMINE DATA ACQUISITION AND MODELING EFFORTS

RECOMMENDATION	ANTICIPATED TIMEFRAME	ANTICIPATED TASK COMPLEXITY	ANTICIPATED IMPACT ON PROCESS
R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models	Long-term	High	High
R9. Continue to Incorporate and Enhance Collections of Economic Information (Recreational and Commercial)	Long-term	High	High
R10. Support Efficient Development of Annual Catch Limits and Acceptable Biological Catch Considerations	Short-term	Medium	Medium (F, E)

Recommendations Category 4: CLIMATE CHANGE RESPONSE – CLIMATE READY FISHERIES

RECOMMENDATION	ANTICIPATED TIMEFRAME	ANTICIPATED TASK COMPLEXITY	ANTICIPATED IMPACT ON PROCESS
R11. Consider Reallocation and New Management Tools (Within or Between Councils)[16]	Long-term	High	High
R12. Increase Communication with Participants About Climate Change Preparation	Medium-term	Low	Medium (E, C)
R13. Improve Cross-council Cooperation Across All East Coast Councils (through E3CG)	Long-term	High	High

Recommendations Category 5: COORDINATION AND COMMUNICATION

RECOMMENDATION	ANTICIPATED TIMEFRAME	ANTICIPATED TASK COMPLEXITY	ANTICIPATED IMPACT ON PROCESS
R14. Standardize/Schedule Pre- and Post Council Briefings	Short-term	Low	Low (E)
R15. Improve Communication & Coordination After Final Action	Short-term	Low	Medium (F, E)
R16. Conduct Outreach and Engagement through Economic Discussions with Fishing Industry	Short-term	Low	High
R17. Fully Utilize Advisory Bodies	Medium-term	Low	Low (C)

16 Timeframe and complexity are dependent on breadth of action taken

Table 6. Summary of Key Findings and Potential Recommendations.

Key Findings Category 1: EFFICIENT AND FLEXIBLE MANAGEMENT

KEY FINDING	RECOMMENDATION
K1. The Council's regulatory process is already noticeably efficient and flexible.	See Recommendations Below
K2. Scoping process and development of alternatives or management options may be potential bottlenecks.	R1. Limit Timeline for Scoping Actions/Development of Alternatives R2. Develop Programmatic Environmental Impact Statement (PEIS) to Aid in the Development of Future Analyses R4. Conduct a Framework Action Efficiency Analysis
K3. Late-breaking information poses challenges.	R3. Reconsider Timelines and Frequency of Reviews R14. Standardize/Schedule Pre- and Post Council Briefings

Key Findings Category 2: REGULATORY PROCESS DOCUMENTATION

KEY FINDING	RECOMMENDATION
K4. Consolidated and clear documentation of internal Council processes is important.	R5. Develop a Repository for Critical Council Procedural Documents R7. Refine Council Staff Onboarding Process

Key Findings Category 3: DATA ACQUISITION AND MODELING

KEY FINDING	RECOMMENDATION
K5. There is a need for improved coordination and incorporation of scientific data and viewpoints into the decision-making process.	R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models
K6. The Council lacks robust and reliable economic data for modeling and management.	R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models
K7. There is a need to better understand utilization of economic data.	R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models
K8. There is a desire to share knowledge of modeling efforts.	R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models R10. Support Efficient Development of Annual Catch Limits and Acceptable Biological Catch Considerations

Key Findings Category 4: CLIMATE CHANGE RESPONSE

KEY FINDING	RECOMMENDATION
K9. Governance structures need to be nimbler and ensure fairness.	R2. Develop Programmatic Environmental Impact Statement (PEIS) to Aid in the Development of Future Analyses R11. Consider Reallocation and New Management Tools (Within or Between Councils)
K10. The Council manages a healthy balance between immediate issues and long-term concerns.	R13. Improve Cross-council Cooperation Across All East Coast Councils (through E3CG)

Key Findings Category 5: COORDINATION AND COMMUNICATION

KEY FINDING	RECOMMENDATION
K11. The Council process would benefit from better collaboration between the Council and its partner organizations.	R13. Improve Cross-council Cooperation Across All East Coast Councils (through E3CG) R14. Standardize/Schedule Pre- and Post Council Briefings R15. Improve Communication & Coordination After Final Action R17. Fully Utilize Advisory Bodies
K12. Poor communication occasionally leads to “surprises” that cause delays in the regulatory process.	R14. Standardize/Schedule Pre- and Post Council Briefings R15. Improve Communication & Coordination After Final Action

Recommendations Category 1: EFFICIENT AND FLEXIBLE MANAGEMENT

R1. **Limit Timeline for Scoping Actions/Development of Alternatives**

The Team recommends the Council develop a process or mechanism to prevent 'scope creep' or scope expansion (i.e., where additional issues are added to original concerns for management actions out of convenience, leading to continuous reconsiderations or rescoping of issues). We recommend establishing status updates to ensure actions do not languish, become outdated, or need to be reconsidered as information may become obsolete. This can reduce the number of iterations or revisions to a purpose and need statement and limit the addition of unrelated measures or alternatives.

In addition, comprehensive reviews by NOAA Fisheries can be challenging when additional considerations are added during the scoping process for an action and/or coupled with other actions that may only be loosely related, requiring reconsideration of an action(s). This can cause delays when conducting NEPA analyses, especially when examining multiple actions that may involve protected species or habitat impacts.

One approach would be to conduct check-ins at Council meetings or between organizations at specific time intervals outside Council meetings (e.g., annually, semi-annually, quarterly, or during joint Council/ASMFC meetings) to:

1. Confirm the purpose and need statements for management actions
2. Ensure an issue is still relevant
3. Communicate the status of information gathered (e.g., what information is needed to further consider an action, timelines to complete an action, potential repackaging of certain issues to save time)

After a clear purpose and need statement is developed, alternatives can be developed, which is the standard process for most Councils. However, specific guidance and early engagement from Council members will need to be provided at Council meetings or in coordination meetings to clearly articulate the intent of an action when a purpose and need statement is adopted by the Council. This will assist staff in maintaining the scope as well as the purpose and need of an action, prevent confusion amongst staff by effectively steering and supporting subgroups, committees or FMATs when developing reasonable alternatives, and support efficient development of preliminary analyses for Council, NOAA Fisheries, and NOAA General Counsel consideration.

The Team also suggests Council and GARFO staff conduct a comprehensive timeline analysis to examine the length of time it historically takes to conduct scoping (similar to the Team's analysis conducted within this document). These action items could be split to be subject specific or routine actions to examine the scoping process and the development of alternatives. This may provide insight into successes and bottlenecks in the process. The analysis should examine if the current use of FMATs is still appropriate; it is possible that another method could be used in lieu of or in addition to FMATs to shorten the scoping timeframe, depending on the subject matter. It may be prudent to examine the feedback mechanisms or processes within individual management/advisory bodies or committees to develop an action that involves multiple organizations.

R2. **Develop Programmatic Environmental Impact Statement (PEIS) to Aid in the Development of Future Analyses**

The Team recommends the Council consider utilizing a Programmatic Environmental Impact Statement (PEIS) to manage programs holistically, streamline actions, address workload challenges, and incorporate more climate scenario/impact modeling information. It could also address potential actions that involve or affect neighboring Council's (i.e., jointly managed FMP with the NEFMC). The intent of a PEIS is to reduce workload over time when conducting routine actions. Utilizing a PEIS may reduce repetitive analyses, discussions and provide a broader range of considerations for actions that are routine or conducted at specific intervals. Programmatic actions may encompass several project-specific actions sharing common geographic scope, project elements, or timing. It can establish baseline analysis to "tier" from when analyzing a new action and its impacts within the scope of the original impact analysis.

The Team suggests the Council explore the utility of this analytical method for its programs and FMPs to consider the tradeoffs and efficiencies gained, including climate change considerations. At the outset, the workload to develop a PEIS can be considerable, and the timeframe may be long (i.e., several years), but the effort would allow the Council to be comprehensive and forward-looking in providing opportunities to act quickly if changes are needed with less analytical work over the long term. Some PEIS documents may be utilized for extended periods of time (beyond 10 years) if the baseline of information does not change dramatically. The Team suggests the Council create a PEIS implementation team that includes partner agency staff from GARFO, NEFSC, the Council, and Council advisory bodies to explore the scope, timeline, and resources needed to develop such an approach (e.g., staffing, cost, contractors, development of an RFP to support work). The team could explore which fishery program, Council FMP, or jointly managed FMP would be best suited for a PEIS, and suggest an appropriate scope of issues for the PEIS.

There may be two approaches to examine how to effectively utilize a PEIS.

1. Examine past and future actions that have affected or will affect multiple FMPs (e.g. habitat actions such as establishing, modifying or potentially impacting essential fish habitat). Gauge whether actions could become routine in the future. Gauge if there will be a need to analyze multiple actions across FMPs that would require a holistic, long-term outlook to develop actions without further analysis.

2. Examine if actions, such as allocation changes, would benefit from a new long-term planning process to include potential management changes on a more frequent basis. Examine if it's feasible to develop a robust enough analysis that would include multiple options and impact scenarios for potential changes over a long period of time.

As an example of a PEIS endeavor for multiple fisheries that considers climate change information, the North Pacific Fishery Management Council initiated a discussion and developed a report in October 2022 to scope the development of a new PEIS. In June 2023, their Ecosystem Committee recommended NOAA Fisheries initiate development of a PEIS and provided, as a starting point, a draft purpose and need statement with alternatives. They identified that there is "a need for fishery management policies and procedures to be more adaptable in light of the rapidly escalating effects of climate change on marine ecosystems." Therefore, they recommended amending "the management objectives, policies, and procedures in all federal fisheries managed under the Magnuson-Stevens Act and the Halibut Act for fisheries in the Gulf of Alaska, the Bering Sea, and Aleutian Islands."

R3. **Reconsider Timelines and Frequency of Reviews**

Based on our timeline and benchmark analyses, there are several broad periods of the regulatory process where the Council could save time and avoid delays. The Team recommends the Council encourage more timely feedback and interactions by having more frequent and/or concurrent meetings of its SSC or the FMATs immediately preceding or during a Council meeting. While the Council's current approach allows for more reflective communication, it may hinder immediate responses or problem-solving.

Participants also noted that the timing of reports could complicate actions, as the Council may rely on obsolete data or must wait for additional data during the development process. Overlapping reporting timelines require staff and partner organizations to work on multiple items at once, which limits flexibility and ability to respond to management needs or critical data requests as they arise. Using this information, the Council should determine the appropriate frequency of reports to guarantee efficiency while incorporating supporting information.

The Team recommends the Council create an annotated timeline and analysis of specific actionable items or management group functions, focusing on:

a. **When reports and supporting information are provided or needed in the process.**
   i) Examples include annual species catch limit data review and fishery performance reports (or supporting fishery information documents.
   ii) Examine frequency of information needed: Are reports needed annually, semi-annually or every 2 to 3 years? Look for opportunities to save staff time. Match timelines for when information is not necessary and when it is critical for decision-making.
   iii) Adjust timelines to lesson workload or create an efficient flow of information.

b. **Reviewing when management body meetings occur.**
   i) Map out timing or timeframes for when management bodies meet.
   ii) Examine if concurrent sessions with Council meetings would be beneficial and save time through more real-time information/feedback/ sidebar conversations that could streamline decision-making and information flow (akin to the more recent concurrent sessions of the SSC and the Council). An example of this can be found via the Pacific Fishery Management Council whereby SSC, technical teams and advisory panels meet concurrently or collaboratively (in one room jointly) to share information or develop alternatives (i.e., ABC/ACLS).

> “Overall public and industry stakeholder engagement has declined over the years and the Council would benefit from a broader, more varied set of viewpoints.”

c. **Reviewing management bodies' specific process for gathering and providing data to make decisions.**
   i) Examine process for management bodies (e.g., FMAT, monitoring committee) methods to gather information (i.e., scoping process, alternative development, ad hoc requests), the process to receive feedback for refinement.
   ii) Analyze if the current method is efficient. Discuss if new methods/ processes are warranted to streamline information flow communication.

R4. **Conduct a Framework Action Efficiency Analysis**

Participants noted that the Council has yet to thoroughly review the Council's framework approach and whether it has improved the efficiency of the management action development process since its implementation (last updated 5/6/2014). The Team provided a timeline analysis for the four most recently completed framework actions as part of this report. This analysis is only a foundation for a more in-depth evaluation. Our initial timeline review suggests that the Council may be able to shorten the process by management action development process 1-4 months.[17]

The Team recommends the Council develop a document detailing the history of framework actions. A comprehensive framework action analysis would allow the Council to better understand the timeline and

17 See Appendix B; the sum of median times for framework actions suggests a time of 21-22 months is possible, but all framework items took between 23-25 months (Table B-3).

efficiencies (or lack thereof) for these efforts, including the time from completion to the appearance of final rules in the *Federal Register*. This evaluation would provide insight into the implementation timeline for various framework actions, allow comparison of the Council's approaches to other existing development pathways, and assist in managing expectations for similar actions in the future. Based on the preliminary framework analysis conducted in this report, the Council may be able to expedite framework actions by 3-5 months if approaches to the scoping, framework development, and rulemaking processes are streamlined to avoid unanticipated delays.

Recommendations Category 2: REGULATORY PROCESS DOCUMENTATION AND ILLUSTRATION

R5. **Develop a Repository for Critical Council Procedural Documents**

The Team acknowledges that the Council currently takes notable steps to communicate the Council's management structure, internal Council processes, and rules of engagement for Council members and the ASMFC to interested participants, for example, via its various online documents, action item updates and training/workshops for new Council members. However, an improved repository of documents describing these topics, including improved graphics and clear and concise language, on its website could prove helpful.

The Team recommends the Council develop a centralized document repository or accessible intranet folder for Council members, staff, and in certain instances, partner organizations and the public. This repository would support transparency and coordination, allowing the Council to efficiently communicate how it conducts its work. Examples of documents to create and publish include:

- Simplified summaries of frequently asked questions
- Easy-to-read graphics and diagrams of process flows
- The Council's Standard Operating Procedures
- Regional Operating Agreement(s)
- Process for the development of an FMP, FMP amendment, or FMP framework action
- Overviews of timelines, data collection, and species review periods for each FMP
- The ASMFC management process – document information on the historical development of this relationship, rules of engagement, definitions or terms used. Consider developing a Council operating procedure on how the Council and the ASMFC officially interact, vote or transmit recommended actions.
- Descriptions/definitions of joint and complementary FMP processes between partners

This can expedite the onboarding of staff and Council members (synergizing with Recommendation 7) and ease cross-organizational understanding of a complex process with multiple partners. By working to create or update these types of documents, the Council could also identify areas of disconnect, ambiguity, or needed/missing documentation.

R6. **Simplify Summary Language**

The Team recommends simplification of regulatory language in public facing documents to make them more user-friendly. The Council should provide short fact sheets, with information in layman's terms, to help participants understand key points of a regulatory action or proposed management provision without needing to delve into lengthy documents. For example, the Council currently provides summaries of each Council meeting in Meeting Report documents, which offer simplified summary language on the front page in a "Highlights" section. The Council should also provide these top-level highlights directly on the Council's webpage describing the current status of an action item. Amendment 20 to the Atlantic Surfclam and Ocean Quahog FMP provides a good example of simple summary language. While the Team feels the Council does well providing overviews, timelines, and documentation for each action item (e.g., specifications, amendments, frameworks), these items are not always consistent in presenting a high-level brief of action's changes or impacts.

> "Very few stakeholders understand the details of how measures are set. This can lead to frustration and a limited willingness to participate in the process."
>
> - *Questionnaire Respondent*

Similarly, the Team recommends that visual aids, such as flow charts, be used to enhance understanding of the Council's processes, making them more accessible to individuals with varying levels of familiarity. Visual aids would strengthen the already existing summary language and process overviews provided on the Council's website to direct users to an action item or historical information.

R7. **Refine Council Staff Onboarding Process**

The Team recommends that the Council identify and/or develop necessary resources to train staff quickly and effectively and standardize processes where appropriate. Standard process documents and other onboarding resources will benefit both new staff and staff members tasked to address new tasks, such as staffing a new or unfamiliar FMP. These resources could include:

- **Developing templates or forms with consistent formats for:**
  - FMP amendments (i.e., templates addressing both MSA and new NEPA requirements with staff collaborating to vet and execute modifications to existing templates)
  - Fishery performance reports
  - Council SSC, Monitoring Committee, and AP briefing documents
- **Developing a Council intranet that contains links to:**
  - Templates and forms
  - Regional operating agreement(s)
  - Detailed explanations of terms and Council activities
  - Guidance and internal policy documents
  - Other training materials.

Recommendations Category 3: **EXAMINE DATA ACQUISITION AND MODELING EFFORTS**

We highlighted the need to improve data utilization and better understand modeling efforts for both stock assessment and ecosystems. As such, there is a need to develop intentional, long-term management approaches that do not cause operational disruptions in the near term. Key areas for improvement include incorporating additional economic data, overcoming jurisdictional barriers in evaluating and determining stock status, and ensuring reliability in stock assessments considering current and future climate change impacts.

R8. **Evaluate Data Utilized/Update Data Fields to Enhance Operating Models**

The Team recommends exploring ways to improve data utilization for decision making and encourages a collective understanding of what information is available and how it can be used effectively.

The Council should consider prioritizing what information is needed to improve its decision-making process and confidence in the data provided. For example, current assessment approaches may lack spatial specificity and encounter issues associated with data reliability, potentially making them inadequate to address challenges posed by climate change. By examining short-comings, prioritizing what information is needed, then incorporating more comprehensive and reliable data fields into the system the Council may be able to more efficiently solve some short-term (e.g., annual catch limit (ACL)/acceptable biological catch (ABC) setting), medium-term (e.g., allocation), and long-term issues (e.g., climate-ready fisheries/new emerging fisheries, adjustment of fishing portfolios).

In addition, the Council should examine how to evaluate economic impacts, including what information is currently available and how best to utilize it. One potential solution is to provide opportunities for discussions and training regarding available data sources and the use of them by scientists. This could ensure consistent use of terms, highlight robust or limited data evaluations and how to appropriately use the information for impact analysis. Many participants indicated that the Council would generally benefit from expanding standardized economic data collection and reporting for both commercial and recreational Mid-Atlantic fisheries. Participants generally indicated that both recreational and commercial economic data incorporation has room for improvement; “data for the commercial fisheries is (sic) more robust than for the recreational fishery, but we still don’t have all the information that we need.” These participants also stated that the Council process would benefit from expanding the quantity and quality of economic data that it considers.

Focus group participants highlighted the potential for the Council to enhance its effectiveness by setting aside time during Council meetings, advisory/committee meetings, or by other means to allow scientists to introduce or explain new modeling techniques, explain refinements of current models to incorporate climate scenarios, or provide an overview of existing models (assessment or stock projection modeling). Participants familiar with GARFO, NEFSC, and the SSC indicated that there are ongoing efforts within these organizations to develop and introduce new assessment models for data analysis and stock status determination; however, there is an increased need for modeling scientists to explain inputs/outputs to fishery managers and process

participants due to lack of technical familiarity. Several participants recommended improved coordination and training (for Council staff and Council members) with respect to stock projection model outputs to facilitate additional flexibility, manager understanding and empowerment, and streamlining the data interpretation necessary to advance the regulatory processes.

The Council could work with its partners to develop specific workshops to educate and train staff and Council members regarding the NEFSC data use procedures and its operating models, potentially including NEFSC economists and social scientists and SSC members. This may ensure a higher degree of confidence in long-term projections and enhance the Council's ability to make informed decisions in the face of uncertainty. This training may also provide opportunities for input from people that normally do not engage in development of data sources/collections or an understanding of their use.

Additionally, it will remain critical to incorporate information from the industry, so it is important to utilize fishers' observations, even if traditionally labeled as anecdotal. Efforts to include fishers in ground truthing models and findings can create a real-time understanding of data gaps and reliability. These improvements could inform future fisheries management and provide fishers the ability to plan accordingly with fishery managers over the long term to either diversify their fishing portfolio, phase out a fishery or target species, or develop an emerging fishery. Incorporating additional economic information could create a more flexible management system that can quickly adjust to changes, especially if the data creates more certainty in the potential outcomes when examining proposed management actions.

If the Council is to appropriately respond to impacts associated with climate change, both NOAA Fisheries and the Council must work together to assess the data that is needed to make management decisions now and in the future. It must work together to evaluate its current data collection procedures and operating models to ensure they are aligned or adjusted to anticipate management needs.

R9. **Continue to Incorporate and Enhance Collections of Economic Information (Recreational and Commercial)**

The Team recommends the Council continue development and incorporation of ecosystem and socioeconomic profiles and the consideration of economic impacts as has been done with recreational summer flounder and risk policy management strategy evaluations. In addition, we recommend the Council work with its partners to explore other methods for collecting, consolidating, and storing accessible economic fisheries information. As noted, the Council currently relies on the voluntary submission of economic data, and response rates have been declining. The Council may be able to work with its partners to improve data collection through concerted promotion and engagement with fishers to encourage voluntary submission, or by requiring the reporting of some economic data. This could be one aspect of the recommendation to *Evaluate Data Collection Programs/Data Fields to Enhance Operating Models*.

The Council should consider development of a program to consolidate and store fisheries information collected coastwide then make it accessible to users of the data. An example of this would be the Pacific States Marine Fisheries Commission's Fisheries Economic Data Program that consolidates survey data, datasets of interest to fisheries economists, resources and publications, fishing community profiles and other information.

R10. **Support Efficient Development of Annual Catch Limits and Acceptable Biological Catch Considerations**

The Team recommends the Council conduct basic, non-assessment model training for MAFMC staff to reduce dependence on NEFSC staff when developing ABC/ACL ranges (based on suggestions from the NEFSC). Some models are "plug-and-chug" with an easy-to-read output. As discussed in the *Communication and Coordination* finding, the Council could gain some efficiencies when developing alternatives and impact scenarios/analysis for stock projections. This could improve efficiency in the development of a range of alternatives for the Council's consideration as well as reduce the burden on NEFSC staff, allowing them to address other efforts to fill data requests and conduct more extensive modeling efforts (e.g., stock assessments). In addition, it's been suggested that the NEFSC, Council staff, and SSC work to find efficiency and standardization in the process to make the work less onerous and predictable for NEFSC.

Recommendations Category 4: CLIMATE CHANGE RESPONSE – CLIMATE READY FISHERIES

R11. **Consider Reallocation and New Management Tools (Within or Between Councils)**

Confirming or reestablishing recreational and commercial fishery goals, objectives, and new quota allocations are long-term but necessary actions to prepare for future changes. The Council has already established an allocation review policy per NOAA Policy Directive 01-119 that outlines "periodic re-evaluation and, if necessary, reconsideration of fisheries allocations." Several fisheries are slated for review on shorter timelines but as stated in the policy, "For all other allocations, the Council will use a combination of time-based and public interest criteria. Each relevant allocation will be reviewed at least every 10 years; however, the Council may choose to conduct reviews more frequently based on substantial public interest in allocation review or other factors." We suggest the Council lay out specific timelines for these reviews now and begin to schedule reviews in preparation for future changes as needed.

> If the Council is to appropriately respond to impacts associated with climate change, both NOAA Fisheries and the Council must work together to assess the data that is needed to make management decisions now and in the future.

Addressing allocation issues is essential, and participants suggested that regular reviews, rather than decades-long allocations, may be necessary. However, the process is time-consuming and potentially controversial, considering the resistance to change with long-standing allocations. Fishers need to plan for actions, and any action being considered needs to show necessity and effectiveness in order to gain support. A similar effort regarding alignment of catch allocations with the redistribution of fishery resources has also been identified as a high priority issue of concern for the NEFMC in the E3CGs report in November 2023.

Fishers and scientists are already observing shifting species availability throughout the region, thus the process that originally set up the allocations likely needs to be revisited to consider opportunities for increased availability of certain existing stocks and potentially new stocks. Participants expressed a desire for additional tools beyond traditional allocation methods to address the impact of shifting species distribution due to climate change and encouraged approaching the changes positively and slowly.

R12. **Increase Communication with Participants About Climate Change Preparation**

The Team recommends the Council continue to utilize the Council website to communicate actions related to climate change and make a concerted effort to direct participants toward the website to find current issues and information. The website could be a conduit to integrate all things related to climate change preparation, connecting strategic planning, NEFSC activities, implementation of NERAP/IEA related actions, and forthcoming actions and recommendations. This can provide direct messaging to the public and orient them with how to connect with their management bodies and community (especially for those that are new to the management system); it can also build trust, transparency, and understanding between leadership and communities that are not fully connected to the fishery management process.

R13. **Improve Cross-council Cooperation Across All East Coast Councils (through E3CG)**

Since various organizations involved in the Council regulatory process have separate missions and organizational objectives, priorities will not always align. The Council therefore must ensure that extra effort and precautions are taken to consistently communicate with partner organizations to minimize confusion and increase the efficiency of the management process. By communication, we refer to the frequency and quality of discussions across the various organizations. The E3CG provides a clear and established avenue for the Council to regularly discuss climate change monitoring and response with NOAA Fisheries, the SAFMC and NEFMC and is likely the best structure for coordinating cross-council actions.

The Team recommends the Council continue to support the efforts of the East Coast Climate Coordination Group (E3CG). As questions continue to arise around shifting species, allocation, and joint stock management, the Council will benefit greatly from encouraging such efforts as:

- Increase meetings from twice annually to four times annually
- Dedicate more staff time for representatives to support this effort so that the E3CG is more effective as a forum for updates and discussion
- A standardized process and real-time database for cross-council monitoring of action items
- Share any development of new NOAA Fisheries, regional council polices or data sharing agreements
- Consider development of standardized databases for coordinated access of data (Similar to a recommendation to set up a database through the ASMFC in *R9. Continue to Incorporate and Enhance Collections of Economic Information (Recreational and Commercial)*.

The E3CG provides an opportunity to standardize how joint species management is handled across the East Coast, could streamline and simplify management efforts for those species and ease future joint management that could occur as species continue to shift.

Recommendations Category 5: COORDINATION AND COMMUNICATION

The Team recommends the Council review communication avenues and any built-in checkpoints between itself and partner organizations, including those between standing advisory bodies and the staff that support them (MAFMC and GARFO/NEFSC). As noted in the *Collaboration and Communication* finding, there are steps that the Council can take to streamline cross-organizational communication. Specifically, the occurrence of late-breaking "surprises" in the regulatory process is an area of particular concern for key participants. The following four recommendations provide actionable interventions that may help address communication concerns.

R14. **Standardize/Schedule Pre- and Post Council Briefings**

We recommend that the Council develop specific dates/times for leadership-to-leadership communication during the build-up to Council meetings to best inform partner organizations of agenda items, potential regulatory proposals, and to identify potential problems as early as possible. Leadership and Staff pre-brief meetings are often conducted for joint Council-ASMFC meeting topics, which has helped ensure meeting discussions go smoothly. Pre- and post-Council briefings could be held online for key leadership and staff to ensure communication is open, issues are understood, and actions are ultimately taken. In addition, pre-Council meetings with management bodies and key staff could be conducted as needed for complex issues. These could be informative, open sessions for the public as a listen-only session without recommendations or decisions being made by management bodies. Pre-recorded video messaging for complex actions could also be considered to reach multiple viewers.

R15. **Improve Communication & Coordination After Final Action**

A similar, but separate process for improved feedback and updates regarding NOAA Fisheries is also suggested. The Council would greatly benefit from a better understanding of NOAA Fisheries timelines for regulatory actions and may be able to expedite NOAA Fisheries review and approval by coordinating with the Council leadership and key staff to identify concerns and roadblocks prior to submission of a recommendation to NOAA Fisheries.

We recommend the Council coordinate and create monthly or bi-monthly checkpoints between NOAA Fisheries and MAFMC leadership with key staff. For example, schedule specific days to meet before and after Council meetings to ensure all necessary information is provided for action, adequate support for analysis is available before and after an action is taken, and opportunities to adjust priorities to expedite

implementation of regulations after final action is taken. We recognize that multiple actions within the "pipeline" can cause delays when analyzing a recommended action and preparing for implementation. Therefore, action-specific check-ins and accountability measures should be included after final action to ensure an item does not languish, causing backlog and potential reconsiderations.

R16. **Conduct Outreach and Engagement through Economic Discussions with Fishing Industry**

The Team recommends the Council engage the fishing industry regarding the information that they should be collected to enhance the Council's ability to adjust to fishery management changes, especially in the face of a changing climate and fishery availability/conditions. Overall public and industry stakeholder engagement has declined over the years and the Council would benefit from a broader, more varied set of viewpoints. The Council could develop specific agenda items regarding data collection and utilize certain management bodies such as the SSC or Monitoring Committee to engage in the discussions in-person (fishing ports) and online. By NEFSC engaging with industry on data collection preferences and trying to meet industry where they are (i.e., more direct outreach at points of landfall) the Council may be able to encourage broader participation and develop trust.

R17. **Fully Utilize Advisory Bodies**

Participants noted that the Council could benefit from more engagement with SSC members and NEFSC staff to assess long-term management issues and provide opportunities for these groups to examine consequences or implications of a management action such as setting ABCs and the selection of data sources. This recommendation necessitates the Council consider expanding some responsibilities or analytical capabilities of its advisory bodies, such as the SSC, monitoring committees, and other standing advisory groups, to help in the design and analyses supporting climate ready fisheries and streamlined decision-making. Specifically, the Council should consider utilizing the SSC's social science expertise and empower its SSC to gather information and guidance regarding climate change challenges. The Council should consider engaging with the SSC proactively before initiating or during action planning processes with social science or climate change implications, in lieu of primarily relying on the SSC for specification recommendations.

Additional Findings and Recommendations

During the review process we discovered other concerns that warranted consideration and further assessment. Even though these findings are not directly related to the goals and objectives of this project to enhance the efficiency and adaptability of the Council's processes, we believe these items corroborate current issues or may identify new issues that the Council may want to further consider.

These findings were discussed in several focus group interviews or shared via our online survey. We tied these additional findings to our original recommendations.

Table 7. Summary of additional findings and recommendations for Council consideration.

KEY FINDING	RECOMMENDATION
AF1. The Council's regulatory process lacks clear, consolidated documentation and is not effectively communicated to management partners and participants.	R5. Develop a Repository for Critical Council Procedural Documents
AF2. The Council often relies mainly on multiple sources of written text to describe inter-organizational collaboration and a complex management process.	R6. Simplify Summary Language
AF3. There is a need for improved stock assessment models.	R8. Evaluate Data Utilized/Update Data Fields to Enhance Operating Models
AF4. The Council should seek stakeholder input and communicate potential regulatory shifts to minimize fisher's concerns.	R12. Increase Communication with Participants About Climate Change Preparation
AF5. Diversity of stakeholder input and stakeholder engagement has declined.	R12. Increase Communication with Participants About Climate Change Preparation R16. Conduct Outreach and Engagement through Economic Discussions with Fishing Industry

AF1. **The Council's regulatory process lacks clear, consolidated documentation and is not effectively communicated to management partners and participants.**

In general, participants believe that the Council staff could better articulate and document the Council's management structure, internal processes, and rules of engagement for Council members and the ASMFC. The most frequent concerns pertained to the complexity and confusion of the federal fisheries regulatory process, even among those who follow it regularly, and interactions between federal and state regulatory bodies. The challenge of sifting through extensive regulatory documents, sometimes "multiple hundred-page documents with a month to read,"[18] can be overwhelming, especially for fishers who have a day job – fishing. For example, misunderstandings arise for species jointly or cooperatively managed under multiple FMPs, as well as State or other jurisdictional laws (e.g., understanding the management process and interchange between the Council and the ASMFC). Through engagement with our Oversight Team and Council staff, it is evident that confusion exists regarding fishery management responsibilities and how public facing documents and webpages currently describe federal and state fisheries management (i.e.,

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the terms jointly, collaboratively, coordinated or complementary managed species or FMPs are being interpreted differently amongst agencies and staff).

Many participants indicated that the confusion and regulatory complexity facing the Council stems from fishery management requirements and the interplay of multi-layered governance structures rather than the Council's decision-making. Even for participants familiar with the federal fishery management process, discerning recreational and commercial fishery regulations can be confusing.[19] The state-federal-council dynamics (i.e., ASMFC-NOAA Fisheries-MAFMC) emerged as a core source of uncertainty, often resulting in partner organizations and Council participants feeling inadequately prepared to provide meaningful or fully informed input for an action or policy.

> Overall, participants desired a more intentional approach to climate-related challenges, with appropriate input from industry participants to avoid drastic regulatory shifts that may harm businesses.

AF2. **The Council often relies mainly on multiple sources of written text to describe inter-organizational collaboration and a complex management process.**

Participants noted a lack of short, easy-to-read summaries, graphics, and/or diagrams to describe federal fishery management systems. Participants stated that the Council's utilization of multiple sources (e.g., webpages and documents) of technical language and detailed written accounts is often difficult to parse for less engaged stakeholders and the public.

AF3. **There is a need for improved stock assessment models.**

Participants suggested that stock assessment models lack comprehensive spatial delineation and struggle with data reliability. Some participants consider them inadequate for addressing the challenges posed by climate change. However, we acknowledge that the Council supports the development of new assessment models through the New England and Mid-Atlantic stock assessment process, and we note that these concerns are identified in the Council's research priorities for certain stocks.

Several participants expressed concerns regarding the Council's ability to utilize models to make decisions

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pertaining to long-term impacts in the face of uncertainty, as the Council may hesitate to act if presented with unclear data or may act based on inaccurate data. Participants believe the Council supports models that forecast long-term impacts; however, several participants agreed with a comment that "most of the information and data points at this point are hypothesis and conjecture, without peer reviewed confirmation of those hypotheses."[20]

AF4. **The Council should seek stakeholder input and communicate potential regulatory shifts to minimize fisher's concerns.**

Overall, participants desired a more intentional approach to climate-related challenges, with appropriate input from industry participants to avoid drastic regulatory shifts that may harm businesses. Instead, participants familiar with industry concerns want the Council to pursue a measured response of small, iterative steps that are transparently communicated to fishers.[21] The commercial industry requires stability, and reactive management driven by political or environmental pressures in response to climate change concern commercial industry members. Stakeholders tend to see incremental adjustments, grounded in science with common sense, as more effective in addressing the impact of climate change on fisheries.

There are sentiments against disrupting existing systems for the sake of adopting new policies without proper consideration of their short and long-term impacts. Participants expressed concerns about the Council's approach to climate change, with several noting the impact of regulations on fishers' livelihood and the economic health of the commercial and recreational industries. However, regardless of how the Council acts with respect to responses to the effects of climate change, "some participants do not wish to see any outcomes that may affect fishing in the near future,"[22] and the Council must be cognizant of participant reactions to shifts in management.

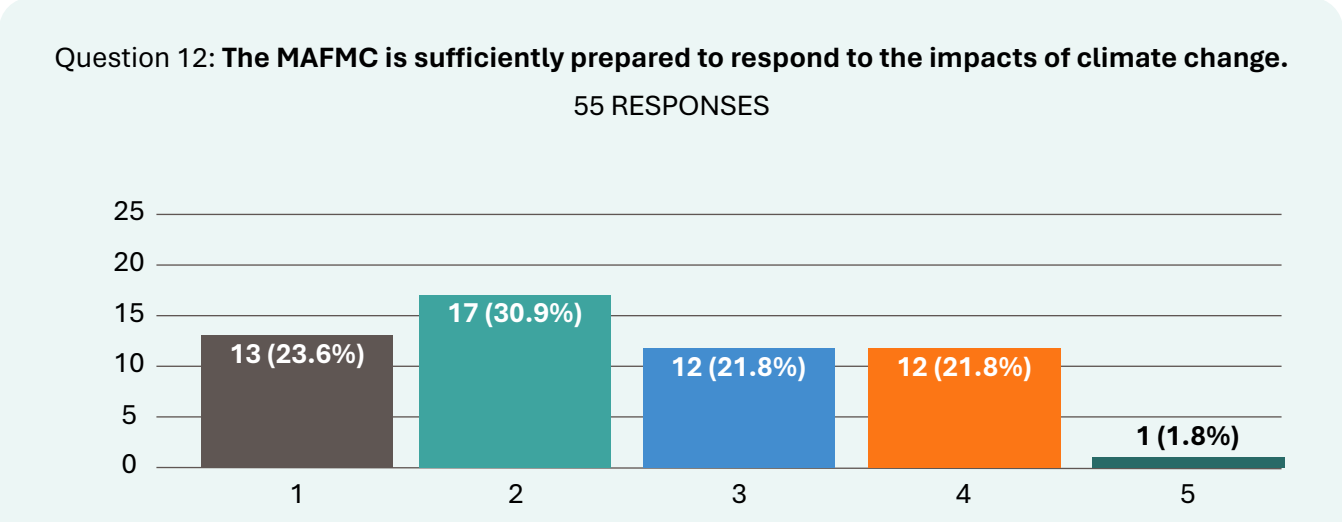

Figure 9. Frequency of participant responses for question 12.
Note: Our questionnaire utilized a Likert scale (with 1 indicating "Strongly Disagree" to 5 indicating "Strongly Agree").

The questionnaire asked if the Council is prepared to respond to impacts from climate change. The questionnaire responses reveal a large gap in the average score between interviewee and non-interviewee groups.[23] The difference between the responses could be due to the influence of discussions with the Team

20 Questionnaire Comment, Question 12.
21 Focus Group E Interview, January 23, 2024.
22 Questionnaire Comment, Question 12.
23 See Appendix A.

on how interviewees view the Council's climate change preparation. Interviewees viewed the Council's preparedness in a significantly more positive manner, as the interview process (as well as this program efficiency review) is a demonstration that the Council is attempting to anticipate climate change. Some scientists believe there is a lack of attention on the questions of flexible diversification/participation in fisheries, permitting structures in the fisheries, and that the current management structures (policy and statute-driven) may not be suitable for the substantial changes that scientists expect in the next 20 to 50 years.

Participants familiar with science and economic concerns emphasize the importance of the Council focusing on ensuring it possesses broad, reliable, and thoroughly tested data models for monitoring and projecting impacts in the short-term even if the oceanographic changes may experience a longer-term cycle of change. Historical and contemporary data suggest "winners" and "losers" among species, with certain fisheries expected to become more robust due to climate-related distribution and productivity changes.

AF5. **Diversity of stakeholder input and stakeholder engagement has declined.**

While the Council's engagement with its constituents was generally commended, several participants indicated that overall engagement (numbers of representatives) and diversity of representatives (i.e., same representatives with same opinions) has declined over the years, especially during Council and SSC meetings. Participants indicated that the Council needs to facilitate the collection of a broader, more varied set of viewpoints from participants and from meeting the fishers where they are located instead of relying on them to come to distant Council meetings or attend online meetings. However, we also heard that Council staff and other organizations are engaging with constituents as much as possible within their allowed budget (i.e., time and money).

Conclusion

The Team found that the Council has already taken significant steps towards a flexible and adaptive management system. However, several notable opportunities for growth in the regulatory process and organizational operation of the Council remain.

First, the Council should clearly document and illustrate its regulatory process, as the complex interplay of federal, regional, and state regulations can confuse even those with extensive familiarity with the fishery management process.

Second, the Council should examine and improve its data acquisition and data modeling processes, as accurate data and its use is a clear area of concern for both internal and external participants that will be increasingly important as climate change impacts become more apparent. Third, the Council needs to improve communication to ensure a high level of collaboration with partner organizations as identifying issues earlier and communicating frequently may expedite the regulatory process in the face of uncertainties associated with climate change.

Finally, and relatedly, while participants commended the Council for its efforts in preparing for climate change, the Council should engage and communicate more closely with external partners and organizations to position itself to identify and respond to species shifts and allocations that may impact multiple East Coast regions.

Ultimately, the Council should consider new approaches to its *status quo* as stocks shift to ensure the process remains dynamic and inclusive. Ensuring flexibility and adaptability in the fishery management process will put the Council in the best position to address the concerns of today and in the future. The Council is building from a forward-looking foundation and should continue to strive towards becoming as responsive and nimble as possible.

Appendix A: Questionnaire Data

Table A-1: Questions provided via email to master list of fishery participants.
Note: Questions 2 - 15 were multiple choice with either yes/no or a Likert Scale response range from 1 to 5 with 1 = Strongly Disagree to 5 = Strongly Agree; or 1 = Much Less Efficient to 5 = Much More Efficient

QUESTION NUMBER	QUESTION
1	Were you interviewed? [yes/no question]
2	The MAFMC maintains a good balance of efficiency versus comprehensiveness when developing a regulatory action through the Council process.
3	The MAFMC process is flexible, meaning that the Council is able to respond to new problems with sufficient speed when developing a regulatory action through the Council process.
4	If you have worked at, participated in, or engaged in another Fishery Management Council, NOAA Regional Office or Science Center, do you think the MAFMC fishery management process is less efficient, similar, or more efficient than in that region? (3 = similar)
5	Decision making at the MAFMC is overly cautious.
6	The MAFMC's priorities are NOT overly influenced by political concerns.
7	The complexity of the MAFMC regulatory process creates confusion for MAFMC's participants (includes partner organizations and the public).
8	The MAFMC is too focused on short-term decisions to anticipate the long-term impacts of climate change on fisheries.
9	My organization has sufficient staff resources to meet the workload required by the current MAFMC decision-making process.
10	The timing of Advisory Panel fishery performance reports creates bottlenecks in the MAFMC process.
11	The timing of annual species catch limit/data reviews creates bottlenecks in the MAFMC process.
12	The MAFMC is sufficiently prepared to respond to the impacts of climate change.
13	The recreational economic data that currently feed into the MAFMC process is adequate to properly under-stand the potential impacts of climate change on fishing communities (includes fishers, all supporting industries of fisheries, etc.).
14	The commercial economic data that currently feed into the MAFMC process is adequate to properly under-stand the potential impacts of climate change on fishing communities (includes vessel owners, permit holders, crew, processors, supporting industries of fisheries, etc.).
15	The MAFMC process suffers from poor collaboration between different organizations.

Table A-2: Questionnaire response analysis.

QUESTION NUMBER	INTERVIEW MEAN	NON-INTERVIEW MEAN	MEAN DIFFERENCE	INTERVIEW DEVIATION	NON-INTERVIEW DEVIATION	DURATION DIFFERENCE
2	4.16	3.95	0.21	0.806	1.024	0.218
3	3.41	3.1	0.31	0.798	1.261	0.463
4	3.7	3.53	0.17	0.765	0.8	0.035
5	2.81	2.76	0.05	0.821	1.044	0.223
6	3.42	3.05	0.37	0.672	1.244	0.572
7	2.94	3.14	0.2	1.063	1.276	0.213
8	2.38	2.57	0.19	1.185	1.076	0.109
9	3.15	3.26	0.11	1.231	1.37	0.139
10	2.37	2.15	0.22	0.839	1.015	0.176
11	2.93	2.8	0.13	1.163	1.152	0.011
12	3.28	2.62	0.66	0.924	1.071	0.147
13	2.38	2.25	0.13	0.942	1.41	0.468
14	2.73	2.9	0.17	1.015	1.334	0.319
15	2.1	2.24	0.14	0.96	1.261	0.301

Appendix B: Timeline and Benchmark Data

Table B-1: MAFMC Timeline Items

ACTION ITEM	FINAL RULE PUBLISHED
Recreational Harvest Control Rule Framework	March 2023
Atlantic Surf clam and Ocean Quahog Excessive Shares Amendment	November 2022
Summer Flounder, Scup, and Black Sea Bass Commercial/ Recreational Allocation Amendment	November 2022
Atlantic Mackerel Rebuilding 2.0 Amendment with Specifications (Amendment 23)	January 2023
Golden Tilefish Multi-Year Specifications Framework (Framework 7)	November 2022
Bluefish Allocation and Rebuilding Amendment	November 2021
Summer Flounder Commercial Issues Amendment	December 2020
Omnibus Risk Policy Framework	December 2020
Omnibus Commercial Electronic Vessel Trip Report (eVTR) Framework	November 2020
Chub Mackerel Amendment (MSB Amendment 21)	August 2020

Table B-2: MAFMC Amendment Analysis (Six Items)[24]

STAGE	MEDIAN	RANGE	COMMENT
1. Initial (Scoping and Alternative Development)	24 months	5-32 months	5 months is the outlier, Amendments spend a significant amount of time in this stage.
2. Engagement and Review	5 months	4-7 months	4 months is an achievable target.
3. Council Transmittal	10 months	3-32 months	32 months is a large outlier. Typical time-line seems to be 3-12 months.
4. NOAA Final Rule Development	3 months	2-5 months	Similar to framework timeline.
5. Total NOAA Rulemaking	14 months	5-35 months	Range includes the overall fastest and slowest items, hard to predict.
Entire Timeframe	**41.5 months**	**18-64 months**	**Amendments take significantly longer than framework actions, largely due to a longer initial stage.**

24 Key for Council process stages in Tables B-2 through B-5: Initial: the approximate time it takes to initiate, scope, and develop alternatives for an action. Engagement and Review: Public hearings and Council review. The approximate time it takes for public hearings and comments, review of public comment periods, and Council review of an action prior to final approval. Council Transmittal: Approximate time between Council's final action and publication of NOAA's proposed rule. NOAA final rule development: How long it takes between publication of NOAA's proposed rule and NOAA's final rule. Total Time: The full timeline and total NOAA timelines have also been included for comparison.

Table B-3: MAFMC Framework Analysis (Four Items)[25]

STAGE	MEDIAN	RANGE	COMMENT
1. Initial (Scoping and Alternative Development)	12 months	10-12 months	Framework actions reliably took about a year to get to final decision.
2. Engagement and Review	4 months	4 months	Only one framework analyzed had a dedicated public hearing period.
3. Council Transmittal	9 months	6-13 months	Similar to amendment timeframe, but without large outliers.
4. NOAA Final Rule Development	2.5 months	1-4 months	Slightly faster than amendment time-line.
5. Total NOAA Rulemaking	11.5 months	9-15 months	Narrower range than amendment timeline, with a lower median. Duration of NOAA rulemaking are not due to type of action.
Entire Timeframe	**24.5 months**	**23-25 months**	**All values in a tight two-month range. The sum of medians time for each stage (22.5) is lower than the bottom of the range, suggesting that frame-works run into problems at different stages.**

25 Key for Council process stages in Tables B-2 through B-5: Initial: the approximate time it takes to initiate, scope, and develop alternatives for an action. Engagement and Review: Public hearings and Council review. The approximate time it takes for public hearings and comments, review of public comment periods, and Council review of an action prior to final approval. Council Transmittal: Approximate time between Council's final action and publication of NOAA's proposed rule. NOAA final rule development: How long it takes between publication of NOAA's proposed rule and NOAA's final rule. Total Time: The full timeline and total NOAA timelines have also been included for comparison.

SAFMC AND NEFMC BENCHMARK CHARTS:

Table B-4: Benchmark Amendment Analysis (Eleven Items)[26]

STAGE	MEDIAN	RANGE	COMMENT
1. Initial (Scoping and Alternative Development)	34 months	12-66 months	MAFMC Amendments take substantially less time on scoping and alternative development on average.
2. Engagement and Review	5 months	2-7 months	Similar to MAFMC timeline.
3. Council Transmittal	13 months	7-18 months	MAFMC amendments result in a proposed rule slightly quicker than SAFMC and NEFMC actions.
4. NOAA Final Rule Development	3 months	2-22 months	Most items took 2-4 months, with three outliers taking significantly longer.
5. Total NOAA Rulemaking	15 months	11-38 months	Roughly equivalent across all three councils.
Entire Timeframe	**58 months**	**29-85 months**	**MAFMC's amendment process is quicker on average and has a more favorable range of times taken.**

26 Key for Council process stages in Tables B-2 through B-5: Initial: the approximate time it takes to initiate, scope, and develop alternatives for an action. Engagement and Review: Public hearings and Council review. The approximate time it takes for public hearings and comments, review of public comment periods, and Council review of an action prior to final approval. Council Transmittal: Approximate time between Council's final action and publication of NOAA's proposed rule. NOAA final rule development: How long it takes between publication of NOAA's proposed rule and NOAA's final rule. Total Time: The full timeline and total NOAA timelines have also been included for comparison.

Table B-5: Benchmark Framework Analysis (Six Items)[27,28]

STAGE	MEDIAN	RANGE	COMMENT
1. Initial (Scoping and Alternative Development)	8.5 months	4-18 months	Takes notably less time for the NEFMC and SAFMC to develop a framework action on aver-age.
2. Engagement and Review	N/A	N/A	No framework items held dedicated public hearing periods.
3. Council Transmittal	6 months	3-15 months	NEFMC and SAFMC frameworks take less time to get to a proposed rule, on average.
4. NOAA Final Rule Development	5 months	3-9 months	Takes more time than MAFMC framework process on average.
5. Total NOAA Rulemaking	13 months	7-21 months	Takes more time than the MAFMC framework process on average.
Entire Timeframe	**24.5 months**	**13-29 months**	**Roughly the same as the overall MAFMC time-line, but not nearly as consistent.**

27 Most framework items analyzed were from the NEFMC, given the greater usage of framework actions by that council.

28 Key for Council process stages in Tables B-2 through B-5: Initial: the approximate time it takes to initiate, scope, and develop alternatives for an action. Engagement and Review: Public hearings and Council review. The approximate time it takes for public hearings and comments, review of public comment periods, and Council review of an action prior to final approval. Council Transmittal: Approximate time between Council's final action and publication of NOAA's proposed rule. NOAA final rule development: How long it takes between publication of NOAA's proposed rule and NOAA's final rule. Total Time: The full timeline and total NOAA timelines have also been included for comparison.