



## Mid-Atlantic Fishery Management Council

### Ecosystem Approach to Fisheries Management

*Overview of the Council's EAFM Structured Decision Framework*

September 2020

The Mid-Atlantic Fishery Management Council's (Council) Ecosystem Approach to Fisheries Management (EAFM) Guidance Document, approved in 2016 and revised in 2019, established a structured framework process to incorporate ecosystem considerations into the evaluation of policy choices and trade-offs as they affect Council-managed species and the broader ecosystem (Figure 1).

More information on the Council's EAFM Guidance Document and all the steps addressed by the Council through the structured decision framework can be found at:

<https://www.mafmc.org/eafm>.

**Step 1: Prioritize** – The first step in this structured framework process includes identifying and prioritizing ecosystem interactions and risks through a comprehensive risk assessment. The Council completed a risk assessment in 2017 to help decide where to focus limited resources to address priority ecosystem considerations in its science and management programs. The risk assessment is updated annually and provides a snapshot of the current risks to meeting the Council's biological, socioeconomic, and management objectives across a variety of factors.

**Step 2: Refine** – Developing conceptual models is the second step in the Council's EAFM structured framework process. The Council decided to focus resources on further evaluating summer flounder given the high amount of risk identified from the risk assessment. In 2019, the Council completed the development of a conceptual model that considered 16 different high-risk factors affecting summer flounder and its fisheries. The conceptual model and interactive visualization tool identified the key ecosystem elements and their associated linkages, documented available and missing data sources, and scoped out priority summer flounder management questions and objectives on which to focus limited resources.



**Figure 1.** The Mid-Atlantic Fishery Management Council's EAFM structured decision framework to incorporate ecosystem considerations into management (from Gaichas et al. 2016).

The extensive and strategic conceptual model scoping process allowed the Council to consider a variety of management questions and identify one priority area for continued evaluation through the development of a management strategy evaluation (MSE). The Council selected the following management question for further development and analysis:

*Evaluate the biological and economic benefits of minimizing discards and converting discards into landings in the recreational sector. Identify management strategies to effectively realize these benefits.*

When selecting this question, the Council discussed the various management challenges in addressing and reducing regulatory discards, particularly within the recreational sector of the summer flounder fishery. The Council noted this question has the potential to align efforts and outcomes within the EAFM process and the Council's typical recreational review and management process. In addition, the Council felt this question provided the most tangible benefits to addressing a Council priority and was best fit for an MSE by evaluating the performance of different management options within an ecosystem context.

**Step 3: Analyze** – Building off the information developed during the conceptual model process, the Council will conduct an MSE to address the recreational summer flounder discards question and management objectives. MSE is the next, and third, step in the EAFM structured framework process. An MSE will use a simulation model(s) to evaluate different management approaches within an ecosystem context to determine if the outcomes associated with the different approaches achieve management goals and objectives. Clearly identified and defined objectives, performance metrics, and management strategies will be specified by the Council with input and guidance from an extensive stakeholder process.

#### **Kick-Off Webinar and Mock MSE Workshop:**

While MSE's are a widely used and have been conducted by other councils, the MSE process is relatively new to the Mid-Atlantic Council, its managers, and stakeholders. One of the lessons learned from other councils was the need to inform all interested participants about the process, application, and potential benefits of conducting an MSE. This approach brings everyone to the table with some familiarity of MSE goals and expectations to help provide for more productive stakeholder workshops in the future.

This kick-off webinar will introduce AP members to the MSE process and will simulate a mock MSE workshop using an example fishery (see mock workshop document included in the background material). The goal of the workshop is to give participants a greater understanding of MSEs, see how the MSE approach is integrated in the EAFM process, and provide expectations for the Council's summer flounder MSE that will start later in 2020.