



Request for Proposals

Evaluation of F-Based Management for the Recreational Summer Flounder Fishery

Summary: The Mid-Atlantic Fishery Management Council (Council) seeks a highly-qualified contractor to evaluate the feasibility of developing a fishing mortality (F) based management approach for the recreational summer flounder fishery that is consistent with and meets the Council's requirements to implement Annual Catch Limits (ACLs) and Accountability Measures (AMs) as mandated under the Magnuson-Stevens Act (MSA).

Proposal Submission Deadline: June 19, 2017

Term of Contract: 1 year

Background

The summer flounder recreational fishery is currently managed under a set of landings and catch limits, consistent with the requirements of the MSA and the Council's Risk Policy.¹ Each year, the Scientific and Statistical Committee (SSC) recommends an Acceptable Biological Catch (ABC), using the best available scientific information and accounting for scientific uncertainty. The ABC is then divided into a commercial Annual Catch Limit (ACL) and a Recreational ACL. The Council also sets an Annual Catch Target (ACT), which is either set equal to or reduced from the ACL to account for management uncertainty. Projected discards are subtracted from the Recreational ACT to derive the Recreational Harvest Limit, or RHL, which is a landings-only limit. Recreational management measures (possession limits, size limits, and seasons) are adjusted each year at a state or coastwide level in order to achieve this landings limit.

Catch and landings limits may be set for up to three years at a time, with SSC and Council review in interim years to ensure that limits remain appropriate. For summer flounder, multi-year specifications are not typically held constant but instead reflect projected biomass and changing annual overfishing limits.

For the recreational fishery, the Council and Board determine in December each year whether to manage the fishery under conservation equivalency or coastwide measures in the following fishing year. Under coastwide measures, all states (North Carolina through Massachusetts) have identical size, possession, and seasonal limits in both state and federal waters. Under conservation equivalency, individual states or multi-state regions set measures that collectively are designed to constrain landings to the coastwide harvest limit. Federal regulations are waived and all anglers are subject to the summer flounder regulations of the state in which they land. Conservation equivalency has been adopted each year from 2001 through 2017.

The fishing year, and thus the implementation of the RHL, starts January 1. The Council and Board make recreational recommendations late in the year in order to use the most complete current year Marine Recreational Information Program (MRIP) data available. MRIP data becomes available in two month waves. Typically, the Council and Board use estimates through

¹ See <http://www.mafmc.org/s/Mid-Atlantic-ABC2016.pdf>.

Wave 4 (through August of the current year) and projected landings from waves 5 and 6 (based on prior year performance). Given this timing, final recreational measures are typically not implemented until the spring.

When determining whether and how to adjust recreational size limits, seasons, and possession limits, the Council and Board have typically used the current year's projected harvest as a starting point for adjusting measures, assuming similar availability and angler effort in the following year. Current year projected landings are compared to the following year's RHL to determine a necessary percentage adjustment in landings. The assumptions regarding similar availability and angler effort are often problematic; there is no reliable way to predict the direction and magnitude of changes in each, since both depend on a wide variety of factors. Demand for angler fishing trips and changes in angler behavior are complex variables that are difficult to predict, and may cause assumptions associated with specific adjustments to be violated. Year-class effects, in terms of fish availability, can influence the expected impacts of management measures and should be considered. However, projected changes in stock abundance and year class size do not necessarily correlate to changes in availability or angler success, and certainly not on a one-to-one relationship.

The Summer Flounder Fishery Management Plan requires the Monitoring Committee (MC) to conduct an annual review of all relevant information to recommend management measures that will constrain landings to the established RHL. Because the current specification regulations mandate that harvest be constrained to the exact RHL, management measures are continually adjusted, even when the adjustment needed is only a few percentage points. Constraining landings to the RHL is required regardless of stock condition or fishing mortality rate. This results in ever-changing and unstable recreational measures and often leads to negative business implications for the for-hire sector, angler dissatisfaction, and increased non-compliance. Given all the factors that can determine recreational harvest within any given year, there is limited ability to accurately predict harvest under a particular set of measures; therefore, there is a generally poor relationship, particularly at finer scales (state level), between the implemented management measures and their performance relative to the RHL.

The ability to predict the influence of management measures on recreational harvest is made even more complicated due to the uncertainty and variability in the MRIP harvest estimates. For example, under nearly identical recreational management measures from 2014-2016, summer flounder harvest estimates varied by approximately 50% at the coastwide level (2.5 – 1.6 million fish) and are even more variable at the state specific level. The point estimate generated by MRIP is the sole estimate compared to the RHL even though there is a calculated measure of precision associated with the estimate. Changes to the MRIP survey methodology over time have introduced additional challenges in evaluating the effectiveness of management measures in controlling harvest since the survey is considered a single time series for management purposes.

An F-based recreational management approach similar to that implemented by the Atlantic States Marine Fisheries Commission's Fishery Management Plan (FMP) for Atlantic Striped Bass could be explored or used for comparison. The FMP for striped bass establishes recreational management regulatory standards, as well as commercial quotas and standards, that will achieve the target fishing mortality and spawning stock biomass reference points. These recreational regulatory measures are generally consistent from one year to the next and allow for changes (increases/decreases) in recreational catch and harvest as the population and availability changes. Benchmark or update stock assessments monitor fishing mortality and spawning stock biomass trends and the relationship to the established reference points. Depending upon the stock assessment results, if warranted, regulatory changes are then made to reduce fishing mortality and promote stock rebuilding.

The Council wishes to explore the feasibility of tying some or all of the criteria for recreational adjustments to the summer flounder fishing mortality rate. This has the potential to increase stability in the fishery and the regulations, and mitigate some of the negative consequences associated with annual fine-scale adjustments to measures based on uncertain MRIP estimate. The goal of this management change would be to meet the requirements of the MSA while minimizing fishery instability caused by frequent changes in management measures driven by uncertain estimates and flawed assumptions.

Scope of Work

The contractor, supported by a Council-led technical team, will explore specific approaches to manage the recreational summer flounder fishery under an F-based management approach. This approach would serve as an alternative to, or in conjunction with, the current management framework of evaluating recreational harvest estimates to the RHL for any necessary regulatory adjustments. The contractor will provide a detailed analysis of the feasibility of an F-based management approach including, but not limited to:

- Example recreational management measures at the coastwide, regional or state specific level that could be implemented within an F-based management framework, based on current stock status information;
- Evaluation of how alternatives meet Council's current ACL and AM mandates under the Magnuson-Stevens Act;
- Recommend changes to be incorporated into the Summer Flounder Fishery Management Plan and/or the Council's Risk Policy to utilize this approach;
- Identify processes, data needs and criteria necessary for adjusting management measures in subsequent years based on the F-based;
 - If appropriate, provide any models and/or analytical tools that can be used by Council staff or technical experts for continued use.

The specific work under this proposal will focus on summer flounder, but the Council may be interested in applying a similar approach to other recreational fisheries, so the contractor should consider the utility of analysis across other recreational fisheries managed by the Council. The contractor will present interim progress reports to Council staff and a subgroup of the SSC in late 2017 to provide guidance and feedback. The contractor will present a final report to the Council in mid-2018.

Contractor Qualifications

Applicants should have familiarity with stock assessment modeling approaches and a good understanding of the Council's requirements under the MSA to implement ACLs and AMs. Experience working with fisheries management agencies and familiarity with the recreational summer flounder fishery (or other Council-managed recreational fisheries) is preferred.

How to Apply

Applicants should submit a proposal to Dr. Chris Moore, Executive Director, by email (cmoore@mamfc.org) by 11:59 pm on Monday, June 19, 2017. Proposals should include the following elements:

- *Executive Summary*: A summary of the proposed scope of work as well as brief summary of the applicant's qualifications.
- *Proposed Scope of Work*: A detailed plan for addressing the scope of work described above. This should include a summary of potential analysis approaches, a project schedule, a brief

summary of how the project will be managed, and a list of all personnel who may work on the project.

- *Qualifications of Applicant:* A summary of the qualifications of the applicant and other team members, if applicable.
- *Proposed Budget:* A detailed budget, including the basis for the charges (e.g. hourly rates, fixed fees).
- *References:* Names, full addresses, and phone numbers for three clients for whom the applicant has provided similar services to those requested.

Proposal Evaluation Criteria

Proposals will be evaluated based on methodology, prior experience, references, qualifications, and budget. The Council may request additional information as deemed necessary or negotiate modifications to an accepted proposal.

Requests for Further Information

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Disclaimer

1. All costs associated with the preparation and presentation of the proposal will be borne by applicants.
2. Proposals and their accompanying documentation will not be returned.
3. Respondents must disclose any relevant conflicts of interest and/or pending civil/criminal legal actions.
4. The Council reserves the right to accept or reject any or all applications received, negotiate with all qualified applicants, cancel or modify this request for proposals in part or in its entirety, or change the application guidelines, when it is in its best interests.