



## Mid-Atlantic Fishery Management Council

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# MEMORANDUM

**Date:** December 1, 2020  
**To:** Council  
**From:** Brandon Muffley, staff  
**Subject:** SSC Economic Work Group: Case Study Proposals

## Background:

At the August 2020 meeting, the Mid-Atlantic Fishery Management Council (Council) supported the formation of an Economic Work Group of its Scientific and Statistical Committee (SSC) in an effort to provide timely economic direction and information to the Council. While supporting the SSC Economic Work Group, the Council requested additional details on the types of topics and potential products that could be developed by the Work Group.

At the October 2020 joint Council-SSC meeting, the Economic Work Group presented a proposal on how best to utilize the expertise on the Work Group to provide meaningful input to Council actions and deliberations. The Work Group outlined an approach to develop 2-3 proposals, one of which could be developed over the course of 2021 as a case study. The case study would be designed to illustrate the value of focused economic analyses for future actions by the Council. In addition, the case study approach would begin a process(es) for continued future engagement and communication between the Council and the SSC on important economic topics.

The Economic Work Group used the draft 2021 Implementation Plan to identify possible case study proposals to ensure they provide relevant information that aligns with Council priorities and needs. The Work Group reviewed all 59 proposed actions and deliverables (Actions under “Possible Additions” were not considered) and used a number of different metrics to rank the proposed actions/deliverables in order to identify case studies for further development. The Work Group considered the utility and relevance of Work Group engagement to the Council, the value added to the action by Work Group engagement, the overall feasibility for the Work Group to commit and carry out any identified work, and the anticipated timetable for action/deliverable completion.

Once the 2021 proposed actions and deliverables were ranked, the Work Group discussed the merits and considerations of the top 6-7 priorities. After extensive discussion, the Work Group agreed to develop four case studies, three of which the Work Group ultimately agreed to provide for Council consideration. Details on each case study proposal are provided behind Tab 3 of the

December Briefing Book and a short overview of each case study can be found in the tables below. The three case study proposals are as follows:

1. Research Set Aside Program Review and Redevelopment Workshop (Table 1)
2. River Herring/Shad Catch Cap Performance Review (Table 2)
3. White Paper on the Economic Impacts of Changing the Federal Spiny Dogfish Trip Limits (Table 3)

The Work Group also strongly considered the Recreational Reform Initiative with a focus on the sector separation issue. Ultimately, however, the Work Group felt this action has greater potential for collaboration and advice from several scientific disciplines of SSC membership. This topic will be on the March 2021 SSC meeting agenda for discussion and feedback. Recommendations will be provided to the Council at a future meeting.

At this meeting, the Council will receive an overview from the Economic Work Group on each of the three case study proposals. The Council will then select one of the three case studies for development and implementation by the Work Group in 2021. Periodic updates on the status of the case study will be provided to the full SSC and Council throughout 2021.

*Table 1. Case study overview of expected benefits from and feasibility of work outlined for the Research Set Aside Program Review and Redevelopment Workshop.*

<b>Council Relevance</b>	<b>Value-added by SSC Economic Work Group</b>	<b>Feasibility</b>	<b>Completion</b>
	<b>High</b>	<b>Moderate - High</b>	<b>End of 2021</b>
RSA program has not been active since 2014. However, this could be an effective way to facilitate regional research.	Noncompliance in RSA quota usage reporting led to the suspension of this program. Research projects were not historically well aligned with assessment and management needs. Economic incentives underlying participation and compliance drive these issues.	1. Both optimal market design and unintended management incentives can be addressed theoretically.  2. Value of information (i.e. which fisheries to implement the RSA in) could be explicitly assessed through appropriate design – (e.g., marginal willingness to pay for commercial/recreational sectors), while maximizing revenues for research.	Workshop will be completed in 2021; however, unclear whether Council will move further than a workshop at this point.

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Table 2. Case study overview of expected benefits from and feasibility of work outlined for the River Herring/Shad Catch Cap Performance Review.

<b>Council Relevance</b>	<b>Value-added by SSC Economic Work Group</b>	<b>Feasibility</b>	<b>Completion</b>
	<b><u>High</u></b>	<b><u>Moderate - High</u></b>	<b><u>October 2021</u></b>
1. Recent fishery closures triggered by binding catch caps.	1. Annual catch cap unlikely to fully incentivize bycatch avoidance. 2. Low observer coverage generates questions regarding estimated bycatch rates.	1. Comparison of alternate management strategies employed in similar circumstances should be valuable. 2. Comparison of observer vs. port sampling (and Port Agents vs. At-sea Observers) benefits & costs possible.	Intermediate product, and additional work could be needed to implement recommendations, if the Council decided to pursue.
2. Atlantic Mackerel is overfished, and subject to overfishing.	3. Mixed fishery between Atlantic Mackerel and Atlantic Herring, creating potential for unintended consequences due to interplay between management actions.	3. Behavioral response to recent cap/quota changes and closures can be assessed for potential unintended consequences of management.	

Table 3. Case study overview of expected benefits from and feasibility of work outlined for the Development of a White Paper on the Economic Impacts of Changing the Federal Spiny Dogfish Trip Limits.

<b>Council Relevance</b>	<b>Value-added by SSC Economic Work Group</b>	<b>Feasibility</b>	<b>Completion</b>
	<b><u>Medium</u></b>	<b><u>Moderate</u></b>	<b><u>October 2021</u></b>
Addresses E.O. 13921 and a topic the Council(s) and ASMFC have discussed and received input on in the past.	Economic distributional concerns driving the discussion, with some stakeholders arguing for an industrial fishery to be allowed, while others wary of the potential impact on prices which might occur due to trip limit increases. MSC Certification could impact trade-offs across limits.	1. Theoretical assessment of trade-offs relatively straightforward. 2. Some variability in historical federal and state trip limits exists, which should help empirically assess the price impact of shifting trip limits.	Intermediate product with completion of white paper in 2021. Additional work could be needed to implement recommendations, if the Council decided to pursue.

## **Scientific and Statistical Committee Economic Work Group**

### **Proposed 2021 Priority:**

#### *Research Set Aside Program Review and Redevelopment*

#### **Priority Description**

The Mid-Atlantic Council's Research Steering Committee is planning to conduct a workshop to discuss re-development of the Mid-Atlantic Research Set-Aside (RSA) program. The workshop is anticipated to take place sometime in 2021. This pre-proposal describes how the Economic Work Group (WG) may contribute to this effort. The end purpose is to bring concrete recommendations and points of discussion to the workshop to make the RSA program more effective and efficient.

#### **Background**

The Mid-Atlantic Council created the RSA program through Framework Adjustment 1 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP), Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, and Tilefish FMP. The first research projects funded under this program began in 2002 and the program continued annually until 2014. Over the course of its history, the RSA Program funded 41 research projects at a total cost of \$16,321,643. Noncompliance with RSA quota usage reporting requirements, limited benefit and application of RSA research projects, and lack of faith in the auctions conducted by the National Fisheries Institute (NFI) to allocate RSA quota ultimately led to the stoppage of the program. Indeed, evidence from the RSA criminal investigation revealed that significant quantities of fish, particularly summer flounder, were taken illegally under the cover of RSA quota. As an example, an enforcement briefing to the Council in June 2014 on enforcement activities in the State of New York, noted that the known illegal harvest of summer flounder exceeded 50% of the state's annual quota allocation. Thus, one of the key conclusions of the evaluation of the program was that monitoring and enforcement capacity in both state and federal agencies was inadequate to verify all RSA landings and ensure full accountability and transparency.

As for the RSA quota auction process, it was complex to administer. From 2002-2014 the RSA quota was allocated in lots of different sizes through sequential English auctions conducted by NFI over a single day. In each of these sequential auctions the price started low and was progressively increased as buyers bid for the item until one buyer was left willing to pay a certain amount and a higher bid wasn't received during the given time period. The initial price per pound was set at a rough guess of the quota profitability. Two different sets of auctions were conducted, one set for the commercial sector and one for the for-hire sector. A requisite for vessels to participate in the auctions was for them to join NFI at an annual cost of \$500 per vessel (reduced to \$250 in 2014). Additionally, NFI charged 12% of the proceeds of the auctions to run and administer the program. Each vessel owner could submit a single bid in each auction, though there were cases in which a single bidder could represent up to two vessels. Notably, after the RSA quota was allocated through the series of auctions, vessels were able to trade that quota with other vessels later in the season.

Each of the vessels awarded quota through the auctions received a special permit to harvest the quota under the exemptions specified by the NMFS Regional Administrator. NFI was in charge of administering the permitting of the RSA vessels. Importantly, the exemptions associated with the RSA quota focused primarily on effort controls and season extensions, e.g., the ability to harvest after the season had closed,

and the ability to continue harvesting after trip possession limits had been reached. These exemptions were critical in determining the value to fishermen of the RSA quota (why pay for that quota otherwise?).

### **Benefit of Economic Work Group Engagement**

The benefits of the Economic Work Group engagement would come from a better understanding of the incentives that drive the success of each of the key components of the RSA program, as detailed next:

#### *1. Selecting candidate fisheries and research projects to be funded*

A previous review of the RSA program identified the need to increase the input of the SSC in the development of research priorities, review of individual project proposals, and the peer review process of projects completed under the RSA Program. This recommendation is certainly as relevant for the redevelopment of the program as it was in 2014 when the program was suspended. However, there are other important considerations regarding the choice of both the fisheries in which research projects will be undertaken and the way the fundraising to support those projects is to be conducted.

For example, what fisheries should be given priority in implementing research projects? How do factors such as stock assessment model uncertainty (i.e., larger OFL CV) and the likelihood of a constraining ABC help to identify fisheries where the biggest economic gains from investment in science are expected? Likewise, the original RSA program tended to decouple the harvest of the RSA quota from the actual research that resulted from the NFI auction process. In other words, vessels that were awarded RSA quota through the auctions were typically not involved in conducting the research projects funded with the revenue from those auctions (unlike, for example, the scallop RSA program, which actively engages industry in the data collection efforts). To what extent is this decoupling efficient from a revenue generating standpoint? What are the possible drawbacks of this decoupling, in terms of compliance incentives? Is the number of vessels in the fishery (i.e., a proxy for the number of potential bidders) relevant when choosing what RSA quota to sell?

#### *2. Maximizing Funding available for the Research Projects*

As indicated in the background section above, the original RSA auction process was complex, as it involved many quota lots, different species, different fishing sectors, multiple participants (over 100 vessels in 2014), issuance of new permits, quota trading post-auction, etc. Importantly, there are alternative approaches to this type of auction for allocating the RSA quota which might raise more money for research. The Economic Work Group will explore these alternatives by addressing questions such as: Is collusion a real concern with the open English auctions originally used, as was indicated by participants? Would a seal-bid multiple-lot auction raise more funds than those sequential open auctions? Should the RSA quota be allocated between commercial and for-hire sectors prior to running separate auctions, or should all vessels be allowed to bid in each auction regardless of sector? How should the reserve (minimum) price be determined? Are there better alternatives than a fee per vessel to pay for administration of the program (i.e., competitive auctions generate higher revenue and therefore participation should be encouraged rather than discourage with entry fees)? What would be the benefits (if any) of adopting to a posted-price offer per quota lot rather than an auction? What are the exemptions that (achieving the same conservation objectives) would maximize revenue for the RSA program?

Moreover, beyond revenue generation, there may be other considerations when deciding how to sell the quota. For example, the information generated by fishermen's bidding behavior in an auction reflect their willingness to pay for the quota, which in turn is given by the vessels' profitability. Thus, a time series of auction bids may allow the Council to learn about how well the industry is pursuing a given fishery. However, the usefulness of that information will depend on the auction format used.

### *3. Enforcing and monitoring the RSA quota*

Compliance with RSA quota reporting requirements is critical for the success of the program. The Economic Work Group will study the incentives for noncompliance associated with the different exemptions attached to RSA quota, and explore alternative measures to ensure compliance (e.g., hail-in and hail-out, observers, VTR). Moreover, the Work Group will look at the trade-offs between measures that improve enforcement and monitoring and the costs of the program for participants (with the ensuing reduction in revenues generated by the program).

#### **Work Group Engagement Process**

The MAFMC is currently planning a workshop with different stakeholders to explore the redevelopment of the RSA program. This Economic Work Group proposal would look to provide workshop participants with recommendations to consider when redesigning the program, such as those mentioned above. As such, the Work-group work would coordinate with Council Staff to ensure that the economic considerations on revenue maximization and compliance with the RSA program requirements are provided to stakeholders in a timely fashion.

The interaction of the Economic Work Group and the MAFMC will follow the currently scheduled workflow between technical staff and MAFMC, as outlined below (note: the timing and tasks are draft and may change):



**Anticipated Products**

The main product will be a report with recommendations to be submitted to the stakeholders that will participate in the 2021 workshop for the redevelopment of the program. This report will focus on the three main components of the program: i) selection of fishery and research projects, ii) allocation of RSA quota and revenue generation, and iii) enforcement and monitoring. Importantly, the report will highlight the link across these three components, as driven by researchers’ objectives and fishermen’s incentives.

Although the scope of work outlined above seems great, in reality economic theory can guide much of this work without substantial empirical analysis, as auctions are extremely well studied markets.

**Case Study Performance Metrics:**

Ultimately, the most valuable measure of success for this case study would be the adoption of scientific advice forthcoming and continued engagement of the SSC Economic Work Group by the MAFMC. However, we envision some other performance metrics would be useful in understanding the value of the RSA case study, if selected. In particular, if the Council decides to redevelop/redesign the program as a result of the upcoming workshop, we anticipate the following metrics of performance.

First, the program will track the number of research projects funded annually, the number of those projects that are carried out to completion, and whether the results of those projects are used to inform concrete policy. Second, the program design will make sure to track average revenue per pound of RSA quota allocated through the program, as well as total revenue from the program available to fund research projects. Third, the redeveloped program will track RSA quota usage, number and volume of quota trades, number of violations, etc. The end objective is to guarantee an effective, efficient, and responsive RSA program.



## **Scientific and Statistical Committee Economic Work Group**

### **Proposed 2021 Priority:**

*Review River Herring/Shad cap performance and River Herring/Shad update*

#### **Background**

The River Herring/Shad (RH/S) catch cap in the Atlantic Mackerel fishery was adopted as 129 MT for 2021-2022. This is based off historical catch rates and scaled to the current quota. Unlike the Atlantic Herring fishery's constant cap for River Herring, the intent of a catch cap linked to quota changes is to incentivize the minimization of bycatch at all levels of Mackerel quota. Between 2005 – 2018, 50% of all RH/S was caught by midwater trawl, with 40% coming from small-mesh bottom trawl, and the remainder from other bottom trawlers or gillnets. The RH/S bycatch rate is estimated off of NEFOP observed trips, with the previous year's bycatch rate used at least partly until > 5 observed trips in the current year are available to estimate a more relevant rate. Given low historic NEFOP coverage in the midwater trawl fisheries, there has been discussion of using portside monitoring to estimate bycatch rates, with the primary obstacle of this alternative being non-representativeness of portside monitoring for the mackerel fleet more broadly.

#### **Benefit of Economic Work Group Engagement**

The major question with respect to the catch cap is how best to incentivize bycatch minimization. The American Economic Association defines economics as "...the study of how people use resources and respond to incentives<sup>1</sup>." As such, the issues surrounding a catch cap can benefit from additional economic insight and analysis. There are three main areas in which the economic work group could contribute to understanding the RH/S cap performance.

First is the general question as to whether an annual catch cap adequately incentivizes bycatch avoidance when compared to other management tools available. The Bering Sea pollock fishery parallels the Mackerel/RH/S complex somewhat, with culturally important Chinook and Chum salmon representing low ratio bycatch for pollock. Managers employ incentive plan agreements, which couples rolling hot spot closures with rewards for individual operators who decrease bycatch and penalties for those who do not, to develop individual accountability with respect to bycatch reductions (Fisheries of the Exclusive Economic Zone Off Alaska; Bycatch Management in the Bering Sea Pollock Fishery, 81 Fed. Reg. 37534 (June 10, 2016).). Other management entities face similar challenges, and a review of the performance of alternative management measures, and the expected differences in individual incentives to avoid RH/S under these alternate measures, would be beneficial.

Second, given the low observer coverage on mackerel trips, there are lingering concerns regarding the use of this data for estimating the RH/S bycatch rate. Although portside sampling data exists and could be used, current portside sampling protocols do not adequately represent the spatial/temporal heterogeneity of the Mackerel fishery. An economic assessment of the relative benefits and costs of alternate data streams with respect to the Mackerel fishery could provide value. Specifically, what would an incremental investment in portside monitoring or at-sea observer cost, and how much additional benefit regarding actionable information for management would be provided?

Third, given that the RH/S cap in the Atlantic Herring developed by the New England Fishery Management Council interplays with the RH/S cap developed by the Mid-Atlantic Fishery Management Council for Atlantic Mackerel, an assessment of potential unintended consequences that could be induced by this interplay would be of interest. The midwater trawl fishery is often a mixed fishery for Mackerel and Herring. The setting of the cap recognizes this mix, with the outcome being a single trip can contribute towards both catch caps simultaneously. This mixing suggests that there is potential that fishermen's behavioral responses to these management measures differ from what was originally envisioned. As a concrete example, the 2019 Fishery Performance Report for Mackerel indicates that the low RH/S catch cap in the Mackerel fishery interplayed with the low Atlantic Herring quota in Area 2 to induce a race to fish. This race to fish increased fishing over the January – February period in which river herring/shad bycatch was

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<sup>1</sup> <https://www.aeaweb.org/resources/students/what-is-economics>

high, leading to River Herring/Shad cap overages in both the Atlantic Herring Southern New England and Atlantic Mackerel components of the fishery. An analysis of how fishermen responded to the incentives induced by the catch caps, as well as to closures of the Atlantic Mackerel fishery in recent years could elucidate the potential for these types of unintended consequences, and should inform the understanding of catch cap performance.

### **Work Group Engagement Process**

The MAFMC is currently developing white papers on the alignment of mackerel & herring shad caps, a spatial analysis of Mackerel fishing and RH/S bycatch, and how to consider survey indices instead of only historical catches and the Mackerel quota. This Economic Work Group proposal would look to bolster, and not replace, these ongoing initiatives. As such, the Work Group work would coordinate with Council Staff to ensure that the economic implications of changes which might be informed by the white papers currently in development could clearly be detailed. Further, the findings of the white papers will be integrated into the envisioned discussion of incentives, costs and benefits, and unintended consequences which would be core to the Economic Work Group’s proposed case study.

The interaction of the Economic Work Group and the MAFMC will follow the currently scheduled workflow between technical staff and Council, as outlined below.



### **Anticipated Products**

The following specific deliverables are anticipated as part of the RH/S case study:

1. A review of management measures currently utilized to incentivize bycatch avoidance both nationally and internationally, and a theoretical comparison of best practices with the current RH/S catch cap methodology.
2. An assessment of relative cost and benefits of portside monitoring vs. observer data streams for use in catch cap accounting.
3. A study of the trigger for and fishermen's response to the Mackerel fishery closure due to the RH/S catch cap, with an eye specifically towards unintended consequences of management.
4. An integrated interpretation of catch cap performance given deliverables 1 – 3, other standard analyses historically developed as part of the review, and the three white papers under development. Of particular interest will be the interplay between monitoring and incentivization of bycatch avoidance, and the outline of a process by which any meaningful findings could be fully integrated into management.

The specified process by which findings could be adopted by the Council will necessarily depend on the findings themselves. If only small tweaks to the current catch cap approach are proposed, then a framework adjustment or specifications package might suffice. However, if more substantial changes to accountability measures and/or management instruments are proposed the action may necessitate an Amendment to the FMP. In this light, the case study can be viewed as an intermediate product, along the lines of a white paper, and additional work could be needed to fully implement any recommendations, if the Council decided to pursue a novel course of action.

### **Case Study Performance Metrics**

Ultimately, the most valuable measure of success for this case study would be the adoption of scientific advice forthcoming and continued engagement of the SSC Economic Work Group by the MAFMC. However, we envision some other performance metrics would be useful in understanding the value of the RH/S case study, if selected.

This is meant to be a transparent and collaborative process. Accordingly, we propose that at least one discussion each with the Mackerel, Squid, Butterfish and River Herring and Shad APs and Committees, and at least one discussion with the full Council prior to the delivery of the final report to the Committees and Councils as relevant metrics of transparency and collaboration.

Second, given the product is not only a synthesis of relevant analyses but also a plan for ultimate implementation of recommendations, a meaningful metric would be the feasibility of the proposed work. As such, an indication from Council Staff and relevant administrative bodies (e.g. GARFO) that the proposed plan is practicable if pursued would also measure the success of the work in a meaningful manner.

## **Scientific and Statistical Committee Economic Work Group**

### **Proposed 2021 Priority:**

*Develop a white paper analyzing the potential economic impacts of changing the federal trip limit for spiny dogfish.*

### **Background**

The Spiny Dogfish fishery currently has a federal trip limit of 6,000 lbs. Some fishery interests have advocated for the trip limit to be increased to allow for full utilization of the quota and development of a larger-scale fishery. Some participants have advocated that increasing the federal trip limit would have adverse economic and social impacts and lead to management complications if the quota is reduced in future years. Additional analysis could help the Council better understand the potential social and economic impacts and management concerns associated with possible adjustments to, or elimination of, the federal trip limit. In the Council's 2021 Implementation Plan, staff already plans to develop a white paper on the potential impacts of changing the federal spiny dogfish trip limit, and the SSC's Economic Work Group could play a role in the development of the paper.

### **Benefits of Economic Work Group Engagement**

Since the current plan is for Council staff to write the white paper, a useful role of the SSC would be to prepare and identify background information and analyses as a framework for writing the paper and to provide critiques of drafts. The issues here appear mostly distributional, which means that economic analysis cannot provide an answer as to which distribution is superior. However, economic analysis can, if used carefully, elucidate the arguments put forth by the different participants as to why a policy which favors them should be chosen. Economic analysis may also be able to quantify the distribution effects, as well as highlight any potential inefficiencies induced by various management approaches.

As we think about doing this, a first question that comes to mind is: What is the purpose of the federal trip limits? Are they necessary to keep the total harvest within the quota? Preliminary discussions with staff and review of Monitoring Committee summaries indicate that the answer is no. While trip limits have shaped the characteristics of the fishery from the start of management (2000), the limits were initially employed when rebuilding began to eliminate directed fishing and spread the allowable catch over the relevant seasons. More recently, the purpose seems to have become more focused on controlling how much dogfish hits the market at one time so as to keep prices stable, as well as preserve the demand for dogfish from different regions at different times of the year when smaller vessels typically target them (e.g. summer in MA, fall in NJ, and winter in VA).

Related to these distribution issues, several points made in recent fishery performance reports include:

1. Some stakeholders state that the federal and state trip limits prevent a larger-scale industrial fishery, which would need trip limits of around 30,000 lbs to be viable, from developing. One possible suggestion from AP members was separate quotas for food-fish versus industrial uses.
2. Other stakeholders are concerned that increasing the trip limit within the time frame of the 2019-2021 fishing years, with existing limited markets, would cause the bottom to fall out of prices, early closures, and/or small boats being driven out of the fishery as large boats could fill the quota quickly. Since 2012, Spiny Dogfish has also been certified as sustainable by the Marine Stewardship Council. Although no immediate impacts on certification would be expected by changing trip limits, it is an issue to be aware of and track.

So far there has not been widespread support within the MAFMC AP for the idea to eliminate the federal trip limit and rely on the states to set trip limits to manage their state or regional quota, due to concerns regarding price effects and differences in timing during which Spiny Dogfish is available to the fishery across states. Further, some state regulations preclude landing spiny dogfish in states other than which the permitted vessel is home ported, which disadvantages certain fleet segments.

As background for writing this white paper, it will be necessary to better understand the specific suggestions for change and which groups would gain and which would lose from each of the proposals for change. Obtaining information on the range of potential increases and decreases in trip limits, and the arguments for each against the current trip limits, from all current and potential industry participants and from Council and ASMFC staff is a necessary first step. It will also be useful to ask more general open-ended questions to solicit suggestions to generally improve management of the fishery.

### **Anticipated Products**

The products will be the responses to the specific questions including critiques of the specific arguments put forth, as follows.

1. A theoretical analysis of trade-offs associated with the range of trip limits which are of interest to stakeholders.
2. An inventory/gap analysis of data available to support modeling.
3. Outlines of empirical analysis which could assess the impacts of trip limit (and/or quota) changes on vessels, with a particular focus on distributional changes across fleet segments.

### **Process for Engagement**

The Economic Work Group will arrange discussions with industry participants, and Council and ASMFC staff to obtain detailed answers to the relevant questions. The Work Group will coordinate with staff to identify the most appropriate avenue to collect this information and feedback but may include a stakeholder survey, interviews with AP members, a webinar, or

other appropriate options. It will be important to get specific responses on potential outcomes and implications on various trip limit modifications. This refers to both the suggested percentage changes in the trip limits and to the logic of what they anticipate will happen if changes are made. This will make it easier for the work-group to know exactly what is being requested and will provide a framework for responding.

### **Case Study Performance Metrics**

The ultimate performance metric will be the improvements in industry operation that result from suggestions in the white paper. Intermediate metrics will be the timing and amount of interaction with industry, staff, and the authors of the white paper.