



**Mid-Atlantic Fishery Management Council**  
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Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman  
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## MEMORANDUM

**Date:** June 4, 2020  
**To:** Council and Board  
**From:** Kiley Dancy, Karson Coutre, and Julia Beaty, Staff  
**Subject:** Refining Draft Alternatives for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment

On Tuesday, June 16, the Council and Board will discuss draft alternatives and Fishery Management Action Team (FMAT) recommendations for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment. The purpose of this discussion is for the Council and Board to further refine draft management approaches that could achieve the amendment objective, including reviewing additional detail and considerations for each option and identifying which approaches to include in a complete draft range of alternatives for approval at the August 2020 joint meeting.

### Meeting Materials

- 1) Draft Alternatives and FMAT Recommendations from May 21 and May 26, 2020
- 2) Amendment Action Plan as of April 24, 2020

### *Supplemental:*

- 1) Final Scoping Comment Summary, April 2020
- 2) Advisory Panel Meeting Summary from April 2, 2020

### Discussion Questions

- Which approaches should be used to further develop a concrete range of draft alternatives for consideration in August? Do the Council and Board agree with the FMAT's recommendations for removing certain approaches?
- Among the approaches that the Council and Board would like to see further developed, how should the FMAT narrow the range of sub-alternatives to reduce redundant options and simplify decision making and analysis?
  - Do the Council and Board support narrowing sub-options based on similar outcomes within a given approach (for example, narrowing the 5-year, 10-year, and 15-year options for recent base years, based on similarities in results)?

- As per the FMAT's suggestion, do the Council and Board support adding an approach based on the average outcomes from other approaches (see Appendix D in the FMAT summary)?
- Should the FMAT re-structure the alternatives into species-specific groups of alternatives, and if so, are there options that should be further pursued only for one or two species?
- Do the Council and Board support including landings-based and catch-based sub-alternatives for each approach where possible (note FMAT caveats about the ability to generate catch-based options for the existing base years)?
- Do the Council and Board have any concerns with the data or methods used for a particular draft option? Are there suggested modifications to the approaches used in this document?

**Summer Flounder, Scup, Black Sea Bass  
Commercial/Recreational Allocation Amendment**

**FMAT Meeting Summary**

**May 21, 2020, 9AM-12PM, and  
May 26, 2020, 1PM-4PM**

**Attendees**

*FMAT members:* Greg Ardini, Julia Beaty, Dustin Colson-Leaning, Karson Coutre, Kiley Dancy, Marianne Ferguson, Emily Keiley, Gary Shepherd (day 1 only), Caitlin Starks, Mark Terceiro (day 1 only)

*Others:* Tony Wood, Bonnie Brady, Steve Cannizzo, Joe Cimino (day 1 only), Greg DiDomenico, Dewey Hemilright, Meghan Lapp (day 1 only), Adam Nowalsky, Mike Waine, Kate Wilke (day 2 only)

**Meeting objective**

The objective of this meeting was for the Fishery Management Action Team (FMAT) to further refine draft alternatives for the Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment.

**Recommendation Summary**

<b>Category</b>	<b>Approach</b>	<b>Summary of FMAT recommendation</b>
1. No action/status quo	1. No action/status quo	Must include in amendment.
2. Revised percentages based on different data or time series	2.1 Existing base years with revised data	Keep for further development. May not be appropriate for catch-based options for summer flounder and black sea bass due to lack of discard estimates.
	2.2 Revised base years based on recent landings/catch	Keep for further development; however, should be evaluated for bias toward recreational sector for some species given recent sector performance.
	2.3 Revised base years based on post-rebuilding years	Recommend removal. No strong justification for using these years and similar in outcome to recent base years.
	2.4 Based on socioeconomic analyses	Recommend removal for scup and black sea bass. Conditionally support for summer flounder based on the summer flounder economic model results if appropriate.
	2.5 Allocate in numbers instead of pounds	Recommend removal.

3. Allocations attempting to maintain roughly status quo harvest by sector from the most recent year prior to last assessment update		Keep for further development. Additional analysis needed.
4. Recreational sector separation	4.1 Separate allocations to for-hire vs. private sectors	Keep for further development.
	4.2 Separate management measures for for-hire vs. private sectors	Recommend removal. If separate measures are desired without separate allocations, Council and Board can develop a policy outside of this amendment process.
5. Harvest control rule based approaches		Recommend removal from this amendment and consider similar concepts through a separate action (e.g., the recreational reform initiative).
6. Recreational accountability alternatives	More frequent overage paybacks or in-season closures.	Recommend removal as an alternative and recommend AM modifications be considered as they relate to other alternatives.
7. Recreational catch accounting alternatives	Mandatory private angler reporting, issuing tags, mandatory tournament reporting, requiring VTRs for state for-hire vessels, reinstating did not fish reports.	Recommend removal from this action but continued exploration through other avenues.
8. Dynamic allocation approaches and options for future revisions	8.1 Moving average approach	Recommend removal. Concerns about rewarding overages. Potentially consider in the future as a tool to evaluate allocation changes.
	8.2 Allocation changes through frameworks/addenda	Keep for further development.
	8.3 Trigger approach	Keep for further development.
9. Allocation transfers between sectors		Keep for further development.
10. Allocation percentages based on an average of multiple approaches.		Recommend adding for consideration.

### **Meeting summary**

For each category of alternatives below, background information discussed by the FMAT is provided along with FMAT comments and recommendations.

## 1. No action/status quo alternative

The no action/status quo alternative would keep the existing allocations as specified in Table 1.

**Table 1:** Current allocations and base years for summer flounder, scup, and black sea bass.

Species & Basis	Allocation	
	Com	Rec
Summer flounder: 1980-1989 (landings-based allocation) <sup>a</sup>	60%	40%
Scup: 1988-1992 (catch-based allocation) <sup>b</sup>	78%	22%
Black sea bass: 1983-1992 (landings-based allocation) <sup>c</sup>	49%	51%

<sup>a</sup> The source of commercial landings used in Amendment 2 was "NMFS General Canvas Data," and recreational data used was "unpublished NMFS Marine Recreational Fisheries Statistics Survey (MRFSS) Data." MRFSS was a precursor to MRIP.

<sup>b</sup> Data sources used in Amendment 8 include NMFS commercial fish dealer weighout data, MRFSS, and Northeast Fisheries Science Center data.

<sup>c</sup> The data sources identified in Amendment 9 include MRFSS and NMFS general canvass data.

Due to revised MRIP estimates that are much higher than those used to calculate the current allocations, status quo allocations are expected to pose challenges for constraining the recreational fisheries to their recreational harvest limits (RHLs). Catch limits from recent assessments did not increase to the degree necessary to account for increased recreational catch for all species.

For summer flounder, recreational measures were able to stay mostly status quo between 2018-2020, as the 2019-2020 revised RHLs have been close to projected recreational harvest in the new MRIP currency. For scup and black sea bass, the recreational fisheries faced potential large harvest reductions when recreational measures were considered in December 2019. Due to the ongoing development of this amendment to address allocation-related impacts of the revised MRIP data, the Council and Board were able to adopt status quo recreational measures for 2020. For 2021 and beyond, this is not likely to be possible based on the current constraints of the FMP.

For example, final 2019 MRIP scup harvest was estimated at 14.12 million pounds, or 54% higher than the 2020 RHL of 6.51 million pounds. In 2021, the scup RHL decreases to 5.34 million pounds. For black sea bass, final 2019 MRIP harvest was estimated at 8.61 million pounds, or 48% higher than the 2020-2021 RHL of 5.82 million pounds. Under the current allocations, these fisheries could face large restrictions in recreational management measures in future fishing years.

### ***FMAT Comments and Recommendations:***

One FMAT member expressed a number of concerns with continued use of 1980s-1990s data in these allocations given recent data revisions and trends in the fisheries over time. The large differences between the old MRIP numbers and the recalibrated estimates are more pronounced in recent years, which results in different ratios of commercial and recreational catch. While there is a lack of acceptance of the MRIP data among some stakeholders, it is peer reviewed and accepted, and has been used in the assessments. Unless there is a decision to decouple regulations and specifications from the assessment and catch data, there needs to be consistency across the

management system in the data used. As previously stated, the way the current allocations are set up, the recreational fisheries are expected to exceed their catch limits.

## **2. Modified percentage allocations based on different data or time series**

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The following approaches would revise the percentage allocations based on modified base years or different data sets. Both catch-based and landings-based allocation options are included within these categories and could be developed into sub-alternatives where appropriate (see additional discussion of the implications of catch vs. landings-based allocations in **APPENDIX A**).

### **2.1 Update existing base years with the most recent recreational and commercial data.**

This method would maintain the existing base years and re-calculate the percentage allocations using the best available data for each species, including the revised MRIP data as well as any changes in the commercial data that have occurred since the original allocations were set. Data considerations for the base years for each species are summarized below. In some cases, data may need to be pulled from multiple sources given the varying time series available for different data streams, as described below and in Table 2.

#### **Summer Flounder (1980-1989 base years):**

- Catch-based allocations cannot be calculated for summer flounder for the existing base years without additional work to estimate dead discards for the early base years. While the current stock assessment time series of catch components goes back to 1982, dead discard estimates are not provided until 1989. Observer data cannot be used to develop summer flounder discard estimates for years prior to 1989. Discard were assumed to be very low relative to landings during 1982-1988 (due to lack of minimum sizes and gear restrictions in the EEZ) but to have increased since 1989 with the implementation of fishery regulations in the EEZ.
- MRIP data are only available starting in 1981, so the full 1980-1989 base years cannot be re-calculated for the recreational fishery in catch or harvest.
- Commercial landings data for 1980-1981 are not used in the current stock assessment, but were provided by NEFSC staff and match the estimates used in Amendment 2.

#### **Scup (1988-1992 base years):**

- The stock assessment time series covers 1984-2018, and data provided in the 2019 operational assessment provides catch component time series starting in 1981. The base years for scup can be updated for both catch and landings.
- Because scup uses a catch-based allocation, it is important to consider revised dead discard data. Dead discard estimates have been revised through various stock assessments, including recently through the 2015 stock assessment<sup>1</sup> to address the Standardized Bycatch

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<sup>1</sup> Northeast Fisheries Science Center. 2015. 60<sup>th</sup> Northeast Regional Stock Assessment (60<sup>th</sup> SAW) assessment report. Northeast Fisheries Science Center Reference Document 15-08. Available at: <http://www.nefsc.noaa.gov/publications/>

Reporting Methodology (SBRM) requirements.<sup>2</sup> On average over the base years, current scup total commercial catch estimates are 8% lower than the estimates used in Amendment 8.

**Black sea bass (1983-1992 base years):**

- The stock assessment time series covers 1989-2018. The time series starts in 1989 for several reasons:
  - The observer program began in 1989, so empirical estimates of discards began then. Discards prior to 1989 would have had to be hind-cast based on some relation to landings or survey data. The stock assessment workgroup felt this not appropriate for black sea bass.
  - Biological data from commercial landings is limited before 1989.
  - There were problems presented by extremely high recreational landings in 1982 and 1986 that were considered outliers.
- Revised MRIP data are available from 1981, and commercial landings data prior to 1989 are available through ACCSP. Neither of these time series includes discard estimates in weight.

The allocation outcomes of updating existing base years with recent data are described in **Table 2**.

Given recent recreational harvest levels under the revised MRIP estimates, these changes may not be enough to prevent future recreational sector restrictions in the near term for scup and black sea bass. As described above, harvest estimates from the revised MRIP data are substantially above 2020-2021 RHLs for these species. Summer flounder recreational measures were able to stay status quo in 2019 and 2020, but future adjustments will be evaluated based on recent recreational data so it is not possible to predict whether near-term restrictions will be needed for summer flounder.

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<sup>2</sup> The Standardized Bycatch Reporting Methodology (SBRM) Omnibus Amendment to the fishery management plans of the Northeast region was implemented in February 2008 to address the requirements of the Magnuson-Stevens Fishery Conservation and Management Act to include standardized bycatch reporting methodology in all FMPs of the New England Fishery Management Council and Mid- Atlantic Fishery Management Council.

**Table 2:** Allocation outcomes based on using existing base years updated with recent data, with comparison to current allocations.

		Catch-based		Landings-based	
		Current	Revised	Current	Revised
<b>Summer flounder: 1981-1989<sup>a</sup></b>	<b>Com</b>	N/A	<sup>b</sup>	60%	55%
	<b>Rec</b>	N/A	<sup>b</sup>	40%	45%
<b>Scup: 1988-1992</b>	<b>Com</b>	78%	65%	N/A	57%
	<b>Rec</b>	22%	35%	N/A	43%
<b>Black sea bass: 1983-1992</b>	<b>Com</b>	N/A	<sup>b</sup>	49%	45%
	<b>Rec</b>	N/A	<sup>b</sup>	51%	55%

<sup>a</sup> Summer flounder base years are 1980-1989; however, MRIP data is only available back to 1981, so these calculations are based on 1981-1989.

<sup>b</sup> Estimates of discards in weight are not available over the full range of base years, thus, catch-based allocations cannot be calculated.

Data sources: Summer flounder data are from the most recent benchmark stock assessment (2018). Scup data are from the most recent stock assessment update (2019). For black sea bass, the recreational data are from MRIP and the commercial data are from the ACCSP as the black sea bass assessment does not include all of the allocation base years.

***FMAT Comments and Recommendations:***

**The FMAT recommends further development of alternatives using this approach.**

One FMAT member commented that while discard estimates for summer flounder are not currently available prior to 1989 when the observer program started, it would be possible to estimate discards based on nearby years. However; it is assumed that for summer flounder that commercial discards were negligible before 1989, so they are assumed to be zero. A catch-based allocation for summer flounder could be developed if that assumption is made.

The FMAT discussed data differences for black sea bass between ACCSP and NEFSC data and determined that the two data sets should have identical landings values.

**Expected Future Analysis:**

- Further explore how the fisheries and the data quality (including reporting and monitoring requirements) have changed since the 1980s and 1990s and the implications for maintaining the existing base years in allocations.
- For the allocation base years for each species, identify and describe all differences between the commercial data used to set the current allocations and the current commercial data sets.



## 2.2 Revised base years, based on recent catch or landings averages

This concept uses more recent base years, for example, the last 5, 10, or 15 years of catch or landings as shown in **Table 3**. These examples were all suggested through scoping.

**Table 3:** Example allocations based on revised base years of catch or landings from the last 5 years, 10 years, and 15 years, with comparison to current allocations.

		Catch-based				Landings-based			
		Current	5 Years: 2014-2018	10 years: 2009-2018	15 years: 2004-2018	Current	5 Years: 2014-2018	10 years: 2009-2018	15 years: 2004-2018
<b>Summer flounder</b>	<b>Com</b>	N/A	40%	43%	44%	60%	41%	45%	45%
	<b>Rec</b>	N/A	60%	57%	56%	40%	59%	55%	55%
<b>Scup</b>	<b>Com</b>	78%	62%	61%	60%	N/A	57%	57%	56%
	<b>Rec</b>	22%	38%	39%	40%	N/A	43%	43%	44%
<b>Black sea bass</b>	<b>Com</b>	N/A	25%	24%	28%	49%	22%	22%	27%
	<b>Rec</b>	N/A	75%	76%	72%	51%	78%	78%	73%

Data from most recent assessment updates with data through 2018 (final 2019 data is not yet available).

The FMAT previously noted that these changes would represent fairly substantial shifts in allocation for all three species.

Using recent years to define allocations is confounded by the fact that these are all years when the fisheries were theoretically constrained by the current allocations. However, the FMAT previously noted that the commercial fisheries have been closer to their allocation in each of these years than the recreational fishery. Species specific recreational performance and management in recent years is discussed below. Note that **all recreational fishery performance evaluations described here use the prior MRIP estimates** before the 2018 revisions, given that revised MRIP estimates cannot be compared to limits set using the past data.

### Summer Flounder

Since 2004, summer flounder commercial landings have been relatively close to the commercial quota in most years with minor overages/underages. Recreational harvest has been more variable relative to the RHLs, with years of more substantial overages/underages. Recreational overages occurred from 2006-2008, and in 2014 and 2016. On average, recreational underages since 2004 have been greater in magnitude than overages (see APPENDIX B).

### Scup

Both the recreational and commercial scup fisheries have under-harvested since catch limits were substantially increased in 2011. Prior to 2011, there were some years with RHL overages, but the commercial fishery was generally at or under their quota (see APPENDIX B). For scup, it should be considered whether using pre-2011 years makes sense given that quotas from that time do not reflect current biomass and catch limit conditions. Prior to 2011, the fisheries were constrained, whereas they have not been truly constrained in recent years. On the other hand, looking at performance from the last time the fisheries were constrained could be informative.

## **Black Sea Bass**

A constant catch approach was used to set commercial black sea bass quotas from 2010-2015 due to lack of an accepted stock assessment. Commercial landings have generally been well constrained to the quotas since they were implemented, with very minor overages occurring in a few years (see APPENDIX B). In recent years, recreational harvest and catch have not been constrained to recreational limits, despite restrictions in recreational management measures; recreational harvest has exceeded the RHL in every year since 2007. It seems that high availability has driven recreational catch in recent years more so than the recreational measures.

For all three species, considering these significant differences in the performance of the fisheries relative to their catch limits, it may not be considered fair and equitable to use landings in recent years as the basis for future allocations, because the ability of the commercial fishery to constrain landings to their limits would essentially prevent it from receiving an increased share of the catch, while the recreational fishery would receive a larger share as a result of its high overages. However, it may be worth evaluating the overall benefit to the nation that would result from changing the allocations to the commercial and recreational fisheries. Additional evaluation of trends in recreational effort and trips targeting each species could be explored to see how it has changed and how it should be factored into allocation changes.

### ***FMAT Comments and Recommendations:***

**The FMAT supports further consideration of this approach.** The same comments made in section 1 above (no action/status quo) regarding the use of 1980s-1990s data also apply here.

When considering the use of more recent base years, the FMAT noted several tradeoffs. Using more recent data likely reflects the current needs of the fisheries better, and is responsive to changes that have occurred in the fisheries and stocks. However, the FMAT has concerns about reallocating based on time periods when the recreational fishery was effectively less constrained to their limits than the commercial fishery. These issues need to be carefully balanced. A major intent of this action is to address recreational data changes that update our understanding of the magnitude of recreational catch, but we should also be careful to avoid rewarding large past overages. Species-specific considerations may come into play when considering using recent years as the basis for allocations.

The FMAT noted that in addition to landings limit performance, it will be important to further evaluate catch limit performance and discard trends in each sector. In addition, the FMAT could further explore ways to use recent base years that take into account metrics other than just catch, for example, combining multiple data sources or scaling allocation changes to changes in other metrics such as effort. Any of these approaches would need to have a solid rationale on which to base a percentage allocation. However, the FMAT also pointed out that there is not necessarily a clear, objective scientific basis for a single best way to approach these allocations, and that this a policy and judgement call between a number of defensible options. One way to consider narrowing the focus of the range of alternatives in this action could be to analyze the similarities in outcomes and group together alternatives with multiple elements of supporting rationale for the same outcome.

The FMAT supported continuing to analyze all of the current recent years options (5 years, 10 year, and 15 years), in part so the Council and Board can consider the similarities of the outcomes and discuss whether it makes sense to narrow or combine alternatives.

If major changes are proposed, the Council and Board could consider an incremental phased-in change, as has been done with other management issues by management bodies such as ICES.

**Expected Future Analysis:**

- Describe sector-specific performance of catch against the ACLs over these time frames for all three species. For commercial catch data, consideration will need to be given to whether to use GARFO discard estimates, NEFSC estimates, or both, as these estimates can vary.

**2.3 Revised base years based on time period after rebuilding**

A concept suggested during scoping was developing revised base years using the 5 years following the rebuilt declaration for each species (**Table 4**).

**Table 4:** Example allocations based on the 5-year time period following rebuilding for each species, with comparison to current allocations.

		Catch-based		Landings-based	
		Current	Revised	Current	Revised
<b>Summer flounder: 2012-2016</b>	<b>Com</b>	N/A	39%	60%	42%
	<b>Rec</b>	N/A	61%	40%	58%
<b>Scup: 2010-2014</b>	<b>Com</b>	78%	60%	N/A	58%
	<b>Rec</b>	22%	40%	N/A	42%
<b>Black sea bass: 2010-2014</b>	<b>Com</b>	N/A	24%	49%	24%
	<b>Rec</b>	N/A	76%	51%	76%

Data from most recent assessment updates with data through 2018 (final 2019 data is not yet available).

The FMAT previously noted that these changes would represent fairly substantial shifts for all three species, shifting 18% of landings to the recreational fishery for summer flounder, 18% of catch to the recreational fishery for scup, and 25% of landings to the recreational fishery for black sea bass.

The FMAT previously recommended further exploration of biomass trends, availability, and fishery performance over these years. Some information is provided below. Note that **all recreational fishery performance evaluations described here use the prior MRIP estimates** before the 2018 revisions, given that revised MRIP estimates cannot be compared to limits set using the past data.

**Summer Flounder**

During the 5-year post-rebuilding time frame of 2012-2016, the commercial fishery was generally close to its commercial quota (on average 2% over the commercial quota). The recreational fishery over this time frame had more variable performance, from 36% under the RHL in 2015 to 14% over in 2016, averaging 9% under from 2012-2016 (see APPENDIX B). Catch performance relative to ACLs should be further evaluated if this option remains in consideration.

While the summer flounder stock was declared rebuilt in 2011, later assessments revised both the biomass estimates and the spawning stock biomass reference point. The current assessment indicates that summer flounder biomass has not been above its target since 2012. The current assessment indicates that estimated summer flounder biomass steadily declined from 2012-2016, declining about 47% over the five-year period (see **Figure 10**; APPENDIX C).

### **Scup**

During the 5-year post-rebuilding time frame of 2010-2014, the scup commercial fishery was typically well under its commercial quota after quotas were raised substantially in 2011. Since 2011, market factors have prevented full utilization of the commercial quota, resulting in an average of a 25% underage of the commercial quota from 2010-2014. The recreational fishery, after a 98% overage in 2010, has similarly under-harvested after 2011, resulting in an average underage of 37% from 2011-2014 (see APPENDIX B). Catch performance relative to ACLs should be further evaluated if this option remains in consideration.

The scup stock was declared rebuilt in 2009 based on a data poor stock assessment that used data through 2007. The current assessment indicates that scup biomass was relatively stable at approximately 2.4-2.5 times the target biomass during the years 2010-2014, implying very high availability of scup (see **Figure 11**; APPENDIX C).

### **Black Sea Bass**

During the 5-year post-rebuilding time frame of 2010-2014, the black sea bass commercial fishery was typically close to the commercial quota, averaging a 2% overage during this time. The recreational fishery over-harvested relative to its RHL each year from 2010-2014, ranging from a 70% overage in 2011 to a 322% overage in 2010 based on old MRIP data (see APPENDIX B). Catch performance relative to ACLs should be further evaluated if this option remains in consideration.

The black sea bass stock was declared rebuilt in 2009 based on a data poor stock assessment that used data through 2007. The current assessment indicates that black sea bass biomass was approximately at its biomass target in 2010, and steadily increased to approximately twice the biomass target in 2014 (see **Figure 12**; APPENDIX C).

As previously noted, black sea bass was managed under a constant catch approach during these years, due to the lack of an accepted stock assessment. As such, these years may not be appropriate base years for black sea bass given that the catch limits at the time did not reflect biomass. Recreational overages during this time period occurred as the result of high availability combined with artificially low catch limits. Meanwhile, the commercial fishery was constrained by quotas that in retrospect were lower than biologically necessary.

### ***FMAT Comments and Recommendations:***

Previously, the FMAT discussed struggling with the rationale for this alternative, and at this meeting they reaffirmed that there does not seem to be a strong justification for tying allocation to post-rebuilding years. The group noted that some of the assumed rationale supporting this approach in scoping comments, such as basing allocations on years when stocks were highly

available to both fisheries and increasing in biomass, do not hold true for all three stocks when looking at the data. Biomass was not necessarily at its peak in post-rebuilding years nor was it increasing for all three species.

The allocations resulting from this approach are very similar to the range of outcomes presented under section 2.2 (revised base years based on recent catch or landings), and as such the FMAT did not see a compelling reason to consider this alternative further, and **recommended its removal from this action.**

#### **2.4 Alternatives for allocations based on socioeconomic considerations**

Alternatives could be based on socioeconomic information such as evaluating the economic efficiency of the recreational and commercial fisheries.

The Council funded an update to an economic model to evaluate the 60/40 summer flounder sector allocation. The model, developed by Dr. Kurt Schnier (University of California, Merced) and Dr. Rob Hicks (College of William & Mary), aims to determine which allocations would maximize marginal economic benefits to the commercial and recreational sectors. The original model was peer reviewed in November 2016 and presented to the Council and Board in December 2016. Because the study used MRIP data prior to the 2018 revisions, the developers are currently updating the model to reflect revised MRIP estimates. Preliminary results are expected to be available in summer 2020 and presented to the Council and Board at their June joint meeting. Following this meeting, alternatives could be developed based on the project results for consideration by the Council and Board in August. This project is only applicable to summer flounder.

For scup and black sea bass, the FMAT previously discussed that other models and data sources could possibly be used to develop socioeconomic based alternatives for these species, but that this idea needed further exploration. There is a NMFS Commercial Fishing & Seafood Industry Input/Output Model that could be used to estimate the economic impacts associated with the commercial fisheries.

#### ***FMAT Comments and Recommendations:***

The FMAT noted that analyses and options based on socioeconomic analysis are of interest conceptually, but the major concerns regarding these approaches are the timeline for this action and feasibility. These types of alternatives are also highly dependent on specific objectives, which would need to be further defined if exploring these options, since there are various ways to look at social and economic data.

At this point, given the amendment timeline, the FMAT is not in a good position to develop alternatives based on social and economic analysis with the possible exception of an alternative for summer flounder based on the results of the updated economic model by Schnier and Hicks. Results of this model update are expected this summer, but it is unclear what the model results will look like, when they could be incorporated into an alternative, and if they will offer a specific possibility for reallocation or a range of potentially appropriate allocations.

While there are other ongoing socioeconomic projects that could provide insight into this amendment process in terms of background information and evaluation of other alternatives, they are unlikely to be appropriate as the basis for alternatives. For example, the NEFSC Social Sciences Branch is working on a study of employment statistics for each sector, but it is based on FMPs and not species. These results may be available this fall/early winter, but are probably not appropriate as the sole basis for an allocation. A variety of social and economic data (prices, utilization, distributional impacts, employment, etc.) are expected to be included in the amendment document for the purposes of describing fishery conditions and the impacts of various alternatives. This information could also be used to build out the rationale for alternatives even if it does not form the basis for allocations.

For these reasons, **the FMAT did not recommend further consideration of a socioeconomic basis for scup and black sea bass allocations in this action. The FMAT conditionally supported developing alternatives for summer flounder based on the economic model results if appropriate, but could not definitively recommend using the model until seeing the study results.** The FMAT agreed that a socioeconomic basis for commercial/recreational allocations could be worth exploring in the future and could be identified as a longer-term research priority by the Council and Board.

***Public Comments:***

A member of the public commented that an external study he is involved with includes an economic analysis for summer flounder and scup that they would be willing to share. This study includes economic impact information for the commercial fishery beyond ex-vessel price, including information on shore-based support industries.

**2.5 Allocations derived from historical catch or landings in numbers of fish (as opposed to pounds)**

A few scoping comments suggested that allocation should be in numbers of fish instead of in pounds, at least for the recreational fishery. The FMAT previously noted that the perceived benefits of this approach are more related to development of recreational management measures, rather than allocation between the commercial and recreational sectors. At the May joint meeting, Council and Board members expressed interest in further discussion of this issue due to interest in managing the recreational fishery in numbers of fish.

This concept is not directly related to the issue of commercial/recreational allocation, unless the Council and Board want to specify overall catch limits and sector-specific catch limits in numbers of fish, and specify that the commercial/recreational allocation consists of a division of the number of fish to each sector.

Currently, the recreational ACL and RHLs are set in pounds, consistent with the weight basis for the ABC and the stock biomass estimates. The Technical Committee typically analyzes state recreational measures in numbers of fish, using various average weight estimates to approximate state or coastwide targets in numbers of fish. There are potential benefits and drawbacks of managing the recreational fishery entirely in numbers of fish which could be further explored, through this action or a separate action, depending on how the Council and Board define the scope

of this action. Analyzing the expected impacts of managing the recreational fishery in numbers of fish would shift some focus away from commercial/recreational allocation options and likely delay the timeline of this action.

***FMAT Comments and Recommendations:***

Managers and stakeholders have not recommended managing the commercial fishery in numbers of fish. The FMAT agreed that this issue does not appear to be related to commercial/recreational allocation and is more related to the recreational management process. One FMAT member said this issue is a red herring given that numbers and pounds are easily and regularly converted back and forth in the assessment and management process. Because of the way the assessment is structured, commercial data collected in weight and converted to numbers and recreational data is collected in numbers and converted to weight. The assessment is done in numbers and converted to weight through sample data. The only issues with toggling back and forth arise when inappropriate mean weight values are used (e.g., values different than those used in the assessment). As previously noted, the Technical Committee adjusts state management measures using analyses in numbers of fish.

The recreational ACL and RHL are currently specified in pounds. If the definition in the FMP were to change, this would likely require a management action; however, it could be further explored whether it would be possible to convert the poundage limits to numbers for the purposes of setting and evaluating management measures (without a management action).

**The FMAT recommends removing this option from further consideration** as it is outside the scope of this action. Managing the recreational fishery in numbers of fish could possibly be addressed through specifications or a separate action if needed.

**3. Allocations attempting to maintain roughly status quo harvest in each sector compared to the years before the most recent stock assessments were incorporated into management**

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The intent behind this approach is to modify the percentage allocations to allow for roughly status quo harvest in both sectors under the 2020-2021 ABCs for all three species compared to year(s) prior to the recent catch limit revisions based on the most recent stock assessments. The details described below are an example of how this approach could work.

***Rationale***

The most recent assessments incorporating the revised MRIP data took place in 2018 (for summer flounder) and 2019 (for scup and black sea bass). Revised catch and landings limits were implemented in the following years. For summer flounder, constant catch and landings limits were implemented for 2019-2021 (i.e., identical catch and landings limits across the three years). For black sea bass, constant catch and landings limits were implemented for 2020-2021. For scup, variable catch and landings limits were implemented for 2020-2021.

For summer flounder, these changes resulted in a 49% increase in the commercial quota and RHL in 2019. Despite the increase in the RHL, recreational management measures could not be liberalized because the revised MRIP data showed that the recreational fishery was already

harvesting close to the increased RHL. Commercial landings were able to increase as a result of this change in the landings limits.

The 2019 operational assessment for black sea bass resulted in a 59% increase in the black sea bass commercial quota and RHL for 2020. Status quo recreational measures for black sea bass were expected to result in an overage of the increased 2020 RHL; however, the Council, Board, and NMFS agreed to maintain status quo recreational management measures for 2020 to allow more time to consider how to best modify recreational management in light of the new MRIP data. It is expected that commercial landings will increase in response to the 59% increase in the quota, though they may not increase by the full 59% due to the mid-year increase in the quota and decreased demand due to COVID-19.

For scup, the 2019 operational stock assessment resulted in a decrease in the commercial quota (-7%) and RHL (-12%) in 2020 compared to 2019. Status quo recreational measures for scup in 2020 were maintained based on similar justifications described above for black sea bass as well as the expectation that the commercial fishery would continue to under-harvest their quota due to market reasons.

Given these circumstances, it may be possible to modify the allocations for all three species such that harvest in each sector could remain similar to pre-2019 levels for summer flounder and pre-2020 levels for scup and black sea bass (i.e., the years prior to implementation of the most recent stock assessments for all three species), at least on a short-term basis under the current ABCs. This would require lower commercial quotas than those implemented in 2019 (for summer flounder) or 2020 (for scup and black sea bass). However, given that the commercial quotas for summer flounder and black sea bass increased by 49% and 59% respectively as a result of the most recent assessments, and given that the commercial scup quota has been under-harvested for over 10 years, this may warrant consideration as an approach to allow for some stability in the fisheries (compared to pre-2019/2020 levels), at least on a temporary basis. If the ABCs for any of the three species were to change notably in the future, this approach would not guarantee that harvest in each sector could remain similar to status quo as this approach would modify the allocation percentages.

#### *Defining status quo for each species and sector*

Due to unique circumstances in each fishery, the status quo harvest target under this example was not defined the same way across all species and sectors. As previously stated, recreational harvest can vary notably from year to year, even under similar management measures. For this reason, recreational status quo for all three species was defined as average recreational harvest in pounds during the two years prior to the most recent catch limit revisions (i.e., 2017-2018 for summer flounder and 2018-2019 for scup and black sea bass). Commercial scup landings are also variable and have been below the quota since 2007 for market reasons. For this reason, status quo for the commercial scup fishery was also defined as a recent two-year average of harvest (2018-2019). For summer flounder and black sea bass, commercial status quo was defined as landings in the last year prior to revisions based on the most recent assessments (i.e., 2018 for summer flounder and 2019 for black sea bass). This was done to reflect the fact that commercial summer flounder and black sea bass landings are generally held close to the quotas.



Status quo levels of discards for each species and sector were defined using the same years described above for landings. Discard estimates in weight for 2019 are not currently available for either sector; therefore, it was assumed that 2019 discards would be equal to the 2016-2018 average for all species and sectors.

*Example method for calculating allocations to allow approximately status quo harvest*

This example methodology used the 2020 - 2021 ABCs (or, in the case of scup, the average of the 2020 and 2021 ABCs) as a baseline. Because this approach would modify the commercial/recreational allocation percentages, expected harvest and discards in each sector could not be calculated with the same methods used for setting the 2020-2021 specifications. Under this example, the initial values for expected dead discards by sector were calculated by dividing the 2020-2021 ABCs into expected total (i.e., both sectors combined) landings and total dead discards based on the average proportion of total landings and dead discards during 2017-2019 (see note above about 2019 discards). The expected total amount of dead discards was then divided into commercial and recreational discards based on the average contribution of each sector to total dead discards during 2017-2019. Initial expected harvest was defined as the status quo level of landings in each sector described above. These were the target commercial quotas and RHLs. As described below, these initial values for both harvest and dead discards were modified during subsequent steps of the analysis.

For summer flounder, total expected catch was 18% below the 2020-2021 ABC. This surplus allowable catch was split evenly among the two sectors. The resulting catch and landings limits, including expected dead discards in each sector, were modified to account for this surplus. For scup, total expected catch was 9% above the 2020-2021 average ABC. For black sea bass, total expected catch was 2% above the 2020-2021 ABC. For both scup and black sea bass, the catch reduction necessary to prevent an ABC overage was evenly split between the two sectors. Thus, true status quo was not be maintained for any of the three species under this example. For summer flounder, both sectors were able to slightly liberalize compared to the definition of status quo described above. For scup and black sea bass, both sectors had to be slightly restricted. The resulting catch and landings limits were then used to define the allocation percentages in **Table 5**. These are the allocation percentages for consideration under this approach. They may be revised in the future if the FMAT recommends changes to the methods described above.

**Table 5:** Example allocations aiming to allow approximately status quo landings in each sector under the 2020-2021 ABCs compared to recent years prior to catch limit revisions based on the most recent stock assessments.

Sector	Catch-based			Landings-based		
	Summer flounder	Scup	Black sea bass	Summer flounder	Scup	Black sea bass
Commercial	43%	59%	32%	43%	50%	29%
Recreational	57%	41%	68%	57%	50%	71%

During the previous FMAT meeting, one FMAT member asked how the outcome of this approach would differ from simply using 2018 and/or 2019 (depending on the species) as the base years to define the allocation percentages. Allocations using 2018 as the base year for summer flounder

and 2018-2019 as the base years for black sea bass are shown in **Table 6**. 2018-2019 were used for scup and black sea bass as those species had identical catch and landings limits across those two years. A single base year was used for summer flounder because the summer flounder catch and landings limits varied each year prior to 2019.

**Table 6:** Allocations using 2018 as the base year for summer flounder and 2018-2019 as the base years for black sea bass (see explanation above).

Sector	Catch-based			Landings-based		
	Summer flounder	Scup	Black sea bass	Summer flounder	Scup	Black sea bass
Commercial	46%	58%	32%	45%	50%	30%
Recreational	54%	42%	68%	55%	50%	70%

***FMAT Comments and Recommendations:***

A few FMAT members noted that the resulting percentage allocations in **Table 5** are similar to using 2018-2019 as base years (**Table 6**), which may be a simpler approach and would be easier to communicate to stakeholders. However, many **FMAT members agreed that the rationale behind this approach is important because it attempts to provide some stability under the current ABCs and supported further consideration of this approach.** The 2018-2019 base year approach does not account for the current ABCs. The FMAT liked the intent and rationale of maintaining stability or close to recent status quo; however one FMAT member said it was important to emphasize that this would not be true stability relative to current conditions because it would require reducing the commercial quotas for all three species compared to 2019 or 2020 levels (depending on the species) and bringing them closer to 2018/2019 levels.

One FMAT member pointed out that the allocation percentages resulting from this approach are similar to those under many other approaches. He suggested considering **an additional option which would average allocation percentages across multiple approaches.** The group supported consideration of this additional option. **Appendix D** includes example average allocations based on the approaches listed in this document.

***Public Comments:***

One member of the public recommended removal of this approach due to concerns about the resulting catch limits under lower ABCs. He also noted that there are currently no options to consider increasing the commercial percentage allocations. He asked if the range of alternatives could be considered “reasonable” (a National Environmental Policy Act requirement) if there are no alternatives to consider increasing the commercial allocation percentages.

One Council/Board member asked if consideration could be given to the fact that for many years catch limits were not based on an approved stock assessment and may not have been reflective of stock status at the time. He asked if an evaluation could be done to consider what the catch limits might have been if they were reflective of stock status. One FMAT member mentioned that a few stock assessment leads did an exercise prior to release of the revised MRIP data in 2019 to consider various scenarios based on different assumptions about the potential increase in recreational catch and how it would impact the assessment. The exercise suggested that the commercial allocations would have been lower, but the landings could have been higher due to a higher overall ABC.

## 4. Recreational sector separation

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Recreational sector separation can be considered through either separate allocations for the for-hire sector and private anglers, or as separate management measures for the two recreational sectors without a fully separate allocation, as summarized below.

### 4.1 Separate sub-allocation of the recreational annual catch limit or recreational harvest limit to for-hire sector and private anglers

This option would specify within the FMP a separate percentage allocation to the for-hire recreational sector of either the ABC, the recreational ACL, or the RHL. There are several potential ways in which a separate allocation could be created for the for-hire sector, described below with comparison to the current process which does not include sector separation. These potential options are illustrated in **Figure 1**. The differences between some of these options are nuanced, and the pros and cons of each approach should be further explored.

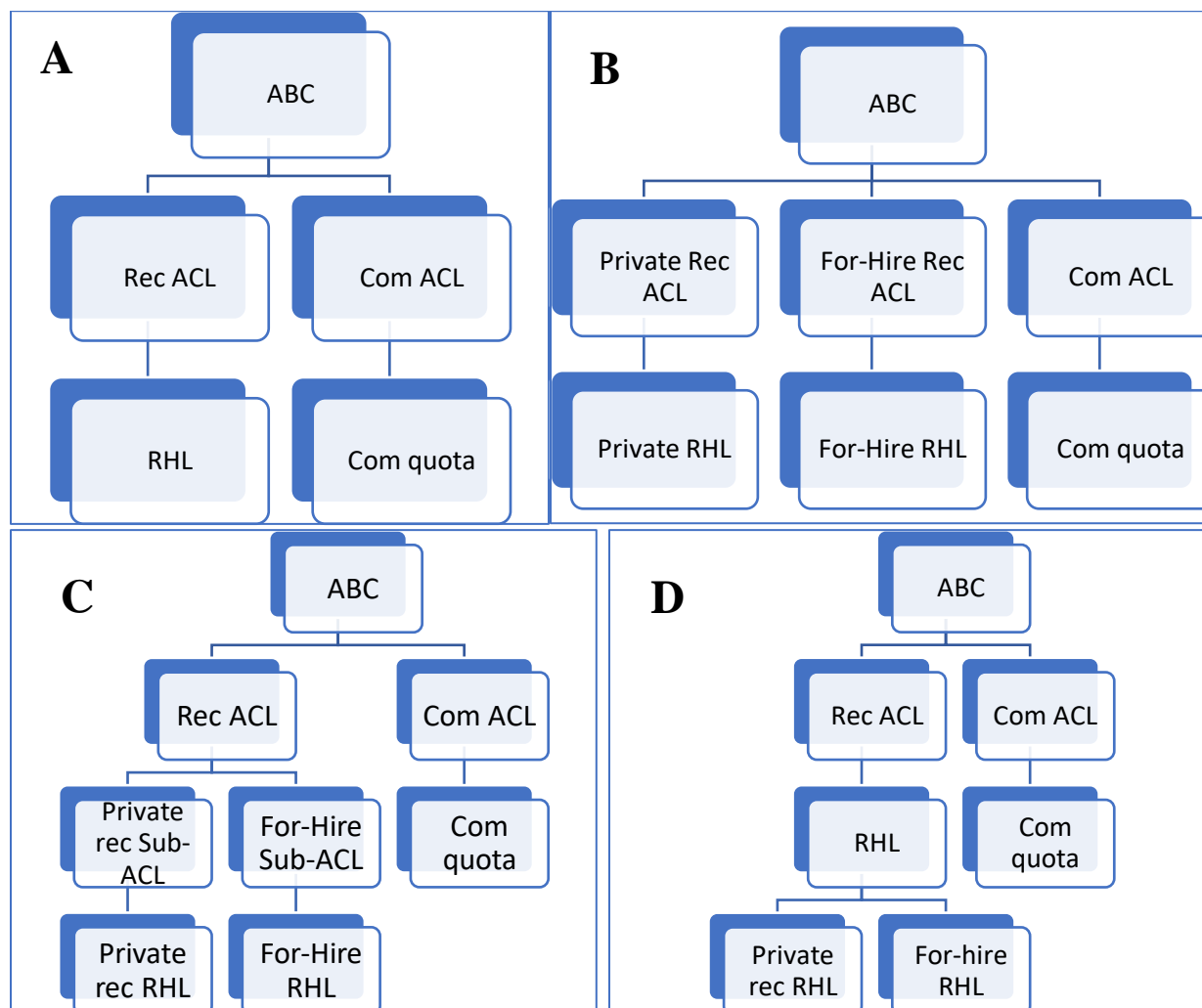
- A. Current FMP:** The ABC is divided into the recreational ACL and the commercial ACL. Projected recreational discards are removed from the recreational ACL to derive the RHL. Both the private and for-hire recreational sectors are held to a single combined ACL and RHL, and performance evaluation and AMs are applied to both fisheries together.
- B. Separate ACLs:** The ABC would be allocated three ways: into a private recreational ACL, a for-hire recreational ACL, and a commercial ACL. This method would require development of these three allocations, and development of separate AMs for the private recreational and for-hire sectors.
- C. Recreational Sub-ACLs:** The ABC would remain divided into the recreational ACL and commercial ACL based on the allocation approach selected through this action. The recreational ACL would be further allocated into private and for-hire sub-ACLs. This method would also require development of separate AMs for the private recreational and for-hire sectors.
- D. Separate RHLs:** The private recreational and for-hire recreational sectors would remain managed under a single recreational ACL. Separate RHLs could be developed for each sector for the purposes of determining management measures. Accountability under this option would likely be partially at the RHL level (in the sense that performance to the RHL would likely be evaluated for each recreational sector for the purposes of adjusting future management measures to constrain harvest to the RHL) and partially at the ACL level (in the sense that AMs must be established at the ACL level to trigger a response if the entire recreational ACL is exceeded). This approach includes separate management of harvest only; dead discards are not included in RHLs and would be accounted for at the ACL level.

Note that any approach creating separate ACLs or sub-ACLs would require the development of corresponding separate AMs.

In addition to determining where sector separation occurs, consideration should be given to which data sources and methods to use for sector allocation, including:

- How to use MRIP and/or VTR data in the allocations;

- Whether to allocate using catch or harvest (related to the question of whether to allocate at the ACL or RHL level);
- Whether to allocate in numbers of fish or pounds;
- The base years or other method of evaluating this recreational sector data.

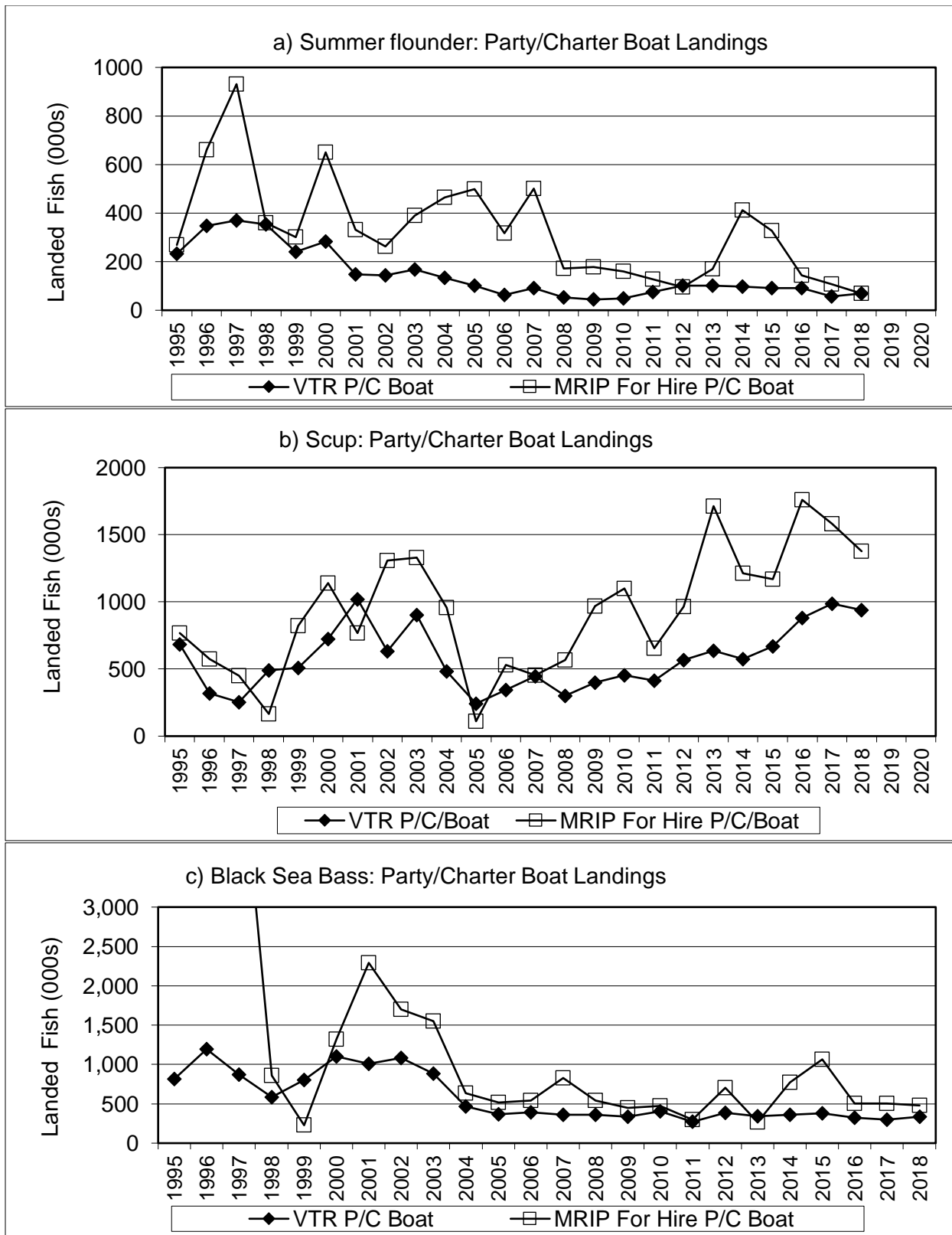


**Figure 1:** Conceptual flowcharts of potential recreational sector separation configurations including A) status quo, B) separate ACL allocations, C) Sub-ACL allocations, and D) separate RHLs.

Many scoping comments expressed an interest in sector separation to better make use of for-hire VTR data, which they perceive as being more accurate due to for-hire reporting requirements. However, there are also some concerns about the accuracy of self-reported for-hire VTR data. VTR data also includes only estimates of numbers of fish, not weight, so incorporating VTR data into allocations would require either establishing allocations based on numbers of fish, developing a method to estimate weights of harvested and discarded fish from the numbers reported on VTRs,

or adding a required data field for weight to the VTR electronic forms. The FMAT previously noted that some state-only permitted vessels are not required to submit VTRs and cautioned that data from these groups would be missing if VTRs are used to determine for-hire allocations.

Comparing for-hire harvest estimates from MRIP to for-hire VTR data for these species, on average, for-hire VTR harvest is lower than MRIP for-hire estimates since 1995 (**Figure 2**).



**Figure 2:** Comparison of federal party/charter vessel VTR estimates of landed fish vs. MRIP estimated for-hire landed fish, 1995-2018, for a) summer flounder, b) scup, and c) black sea bass.

***FMAT Comments and Recommendations:***

**The FMAT recommends further consideration of alternatives for sector separation using separate allocations.**

The FMAT noted there is currently some "borrowing" of data between the private angler and for-hire fisheries in the estimation process. There are two separate effort surveys for each recreational sector that go into MRIP. For-hire estimation by MRIP incorporates some information from VTRs. While separate estimates for each recreational sector could serve as a basis for managing them separately, the FMAT felt it was important to note that if the sectors were split completely, some improvements would likely be needed in the sampling efforts for both sectors. Currently, much of the for-hire sampling is focused on discards, which provides information on the length frequency distribution of discarded fish that contributes to the generation of discard estimates for the entire recreational fishery. For landings, many of the measurements come from private anglers, which influences the mean weight of landed fish used to generate recreational harvest estimates. Private angler and for-hire data streams may both need additional biological sampling under sector separation.

For the purposes of calculating allocation options based on past data, the FMAT noted that separate dead discard estimates in weight are not currently available by recreational sector. Technically it would be possible to generate these estimates, but it may not be entirely defensible. The FMAT agreed that calculation of options at this stage could use total dead catch in numbers of fish (for catch-based allocations for separate ACLs or sub-ACLs), or total harvest in numbers of fish or pounds (for harvest-based allocations for separate RHLs). Example allocations based on dead catch and harvest in numbers of fish are shown in **Table 7**.

For base years, the FMAT noted that using the existing commercial/recreational allocation base years from the 1980s and 1990s may not be appropriate given the changes in for-hire and private recreational effort and catch since that time. Since sector-separation has never been in place for these species, recent data is likely more appropriate to determine the allocations between these fisheries.

**Table 7:** Example approaches for calculating separate sub-allocations to private and for-hire sectors, based on a) dead catch in numbers of fish, and b) harvest in numbers of fish.

<b>a)</b>		<b>Dead catch (numbers of fish)</b>			
	<b>Approach</b>	<b>Years</b>	<b>Private %</b>	<b>For-Hire %</b>	
<b>Summer flounder</b>	Time Series	1981-2018	94%	6%	
	Base years (no data for 1980)	1980-1989	91%	9%	
	5 years post rebuilt declaration	2012-2016	96%	4%	
	5 most recent years	2014-2018	95%	5%	
	10 most recent years	2009-2018	96%	4%	
	15 most recent years	2004-2018	96%	4%	
<b>Scup</b>	Time Series	1981-2018	91%	9%	
	Base years	1988-1992	92%	8%	
	5 years post rebuilt declaration	2010-2014	88%	12%	
	5 most recent years	2014-2018	91%	9%	
	10 most recent years	2009-2018	89%	11%	
	15 most recent years	2004-2018	90%	10%	
<b>Black sea bass</b>	Time Series	1981-2018	72%	28%	
	Base years	1983-1992	65%	35%	
	5 years post rebuilt declaration	2010-2014	90%	10%	
	5 most recent years	2014-2018	89%	11%	
	10 most recent years	2009-2018	90%	10%	
	15 most recent years	2004-2018	87%	13%	
<b>b)</b>		<b>Harvest (numbers of fish)</b>			
	<b>Approach</b>	<b>Years</b>	<b>Private %</b>	<b>For-Hire %</b>	
<b>Summer flounder</b>	Time Series	1981-2018	93%	7%	
	Base years (no data for 1980)	1980-1989	91%	9%	
	5 years post rebuilt declaration	2012-2016	95%	5%	
	5 most recent years	2014-2018	94%	6%	
	10 most recent years	2009-2018	95%	5%	
	15 most recent years	2004-2018	95%	5%	
<b>Scup</b>	Time Series	1981-2018	90%	10%	
	Base years	1988-1992	92%	8%	
	5 years post rebuilt declaration	2010-2014	87%	13%	
	5 most recent years	2014-2018	89%	11%	
	10 most recent years	2009-2018	88%	12%	
	15 most recent years	2004-2018	88%	12%	
<b>Black sea bass</b>	Time Series	1981-2018	66%	34%	
	Base years	1983-1992	61%	39%	
	5 years post rebuilt declaration	2010-2014	85%	15%	
	5 most recent years	2014-2018	86%	14%	
	10 most recent years	2009-2018	87%	13%	
	15 most recent years	2004-2018	82%	18%	



The FMAT discussed the structure of sector separation in the specifications process (see **Figure 1**) and determined that the group should further discuss the pros and cons of each approach and clarify the differences between them before recommending an approach. Some considerations for sector separation structure include:

- A few FMAT members said that simplicity and fewer steps in the flowchart may be beneficial, in which case splitting the ABC into three separate ACLs may be preferable (approach B in the description above).
- There is probably not a need for the Council and Board to fully consider both separate ACLs (approach B) and separate sub-ACLs (approach C). These are functionally very similar in terms of process and accountability but would differ in how the allocations are determined. The FMAT will further clarify the differences between these two options.
- Separate sub-ACLs (approach C) offers a clearer division between recreational and commercial fisheries as a whole. It may be easier to consider future changes to the private vs. for-hire allocation under this structure, as these changes would not impact the commercial fishery.
- In addition, sub-ACLs (approach C) would be able to be adopted separately from the commercial/recreational allocation options. Separation at the ACL level (approach B) would require allocation alternatives that divide allocation three ways between the commercial, for-hire, and private angler sectors. This could complicate consideration of other options in this amendment.
- Stakeholder interest in sector separation seems focused on the ability to have separate management measures. This is something that could be done under all of the sector separation structure options; however, approach D (separate RHLs) may provide a straightforward way to have separate measures while keeping accountability at the level of the whole recreational fishery. Section 4.2 also describes how separate measures could be considered without a separate allocation, if desired.

#### **Expected Future Analysis:**

- Further elaborate on the differences and pros/cons of different sector separation structures, including how the options differ in terms of ACTs and management uncertainty.
- Re-calculate allocation options for two recreational sectors using total dead catch (for catch-based allocations) and total harvest (for landings-based allocations) using recent years.
- Further describe the uncertainties in the MRIP data by mode, as well as uncertainties in the for-hire VTR data to the extent possible.

#### **4.2 Create policy for development of separate management measures for for-hire vs. private rental (without separate allocation of ACL or RHL)**

Rather than creating a separate allocation for the for-hire sector, a degree of sector separation could be achieved by setting different management measures to account for the differing priorities of and data sets for-hire vs. private anglers.

Separate management measures by recreational sector are currently used in a limited manner in state waters for scup and black sea bass. Specifically, in the states of New York and north, there are different scup possession limits to the for-hire sector at certain times of year. For black sea bass, Connecticut has a different possession limit for for-hire vessels during a certain time of the year. Separate management measures for the for-hire sector have not been applied in federal waters for these species.

The FMAT previously discussed that it would be beneficial to develop a policy on how sector-specific measures should be developed, how accountability should be evaluated, and how adjustments are applied to both recreational sectors. Creating a framework for future sector-specific adjustments would reduce confusion when future adjustments are necessary for one or both recreational sectors, and would clarify the process for stakeholders and managers, reducing process uncertainty and increasing transparency when setting recreational measures each year.

***FMAT Comments and Recommendations:***

The FMAT discussed that creating a policy for separate measures for for-hire vs private anglers does not require an amendment. This could possibly be done through specifications, or if not, through a framework/addendum process. If separate allocations were created as described under section 4.1, describing the process for setting separate recreational measures would be an inherent part of that option. Otherwise, the FMAT felt that this type of option on its own could overload this amendment with issues that could be done outside this process. The FMAT recommends that this action remain focused on allocations, especially given the implementation target of 2022. If separate measures are desired without separate allocations, the FMAT recommends that the Council and Board develop a policy to do so outside of this amendment process. **Therefore, the FMAT recommends removal from this action.**

**5. "Harvest control rule" based approaches**

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Under this approach, proposed by six recreational organizations (see pages 147-152 of [this document](#) for the full proposal), recreational "allocation" would not be defined as a set percentage of the total catch limit but as a specific combination of bag/size/season limits preferred by recreational fishermen in each state, which would become more restrictive when estimated biomass changes declines below the target level. The restrictions would occur in a pre-determined, stepwise manner. The commercial "allocation" would be the commercial quota preferred by the commercial industry when biomass is high and it would be reduced as biomass declines below the target level in proportion with the restrictions on the recreational fishery. This approach is largely conceptual at this stage and is not yet associated with specific proposed measures.

The FMAT and Council/Board previously discussed that this approach as currently configured may be less directly related to the allocation of catch between the commercial and recreational sectors and more related to how measures are determined for each sector. The FMAT previously recommended exploring how this proposal could be tied in more directly with allocation and whether it would be feasible under our current management system and legal constraints.

### ***FMAT Comments and Recommendations:***

**The FMAT recommended removing this approach from consideration in this amendment and considering similar concepts through a separate action, likely the ongoing recreational reform initiative.** The FMAT recognized that there is interest in further pursuing this approach from members of the public as well as Council/Board members; however, the FMAT still had a number of concerns about the applicability and feasibility of this proposal. Ultimately, for the reasons described below, the FMAT determined that a) this approach would likely not be consistent with the Magnuson-Stevens Act (MSA) without substantially revising its intent and design; b) this approach as currently conceptualized still does not have a strong connection to commercial/recreational allocations, and c) concepts from this proposal seem well-suited to consideration for the recreational management process, such as the ongoing recreational reform initiative. In addition, the FMAT discussed the potential for exploring ways to apply the tiered management concept from this approach to the dynamic allocation mechanisms category.

### **Magnuson-Stevens Act Compliance**

The FMAT previously questioned whether this approach could be designed to comply with existing MSA requirements for catch limits and accountability measures. The MSA requires that ACLs be set each year in pounds or numbers of fish, and that each ACL have associated AMs to prevent exceeding the ACL and to trigger a management response if an ACL is exceeded. At this meeting, the FMAT reiterated that under the MSA, the FMP needs to define a way to measure total removals (total dead catch) and to evaluate performance relative to an ACL set in numbers of fish or pounds. This does not mean it's impossible to start with preferred measures and translate those into catch, but managers are still required to demonstrate that catch associated with the measures is not expected to exceed each sector's ACL, and collectively not expected to exceed the ABC. Ultimately, managers must demonstrate that measures are expected to prevent overfishing.

This proposal as currently described does not appear consistent with these MSA requirements, unless each set of recreational measures and commercial quotas could be clearly associated with projected catch levels and the uncertainty and variability in that process could be appropriately accounted for. A major concern with this approach is the feasibility of accurately predicting catch levels at each of the various management measure thresholds, particularly for the recreational fishery. The FMAT has previously noted that even when recreational measures have remained similar across years, the resulting MRIP estimates can vary significantly. For both fisheries, total dead catch can vary substantially with external factors such as changing total and regional availability, recruitment events, or changing effort based on factors other than measures.

In addition, there could be substantial uncertainty with projecting discards for both sectors based on the commercial quotas and recreational management measures associated with each threshold. All these factors would pose challenges for justifying how this approach could constrain catch to the ACLs and ABC without additional management uncertainty buffers.

### **Process/Analysis Considerations and Connection to Allocation**

The proposal suggests that there is a limit to how much access each sector “needs” (e.g., there is a range and maximum amount of fish that recreational anglers will want to take home, and there is

a limit to where profit will be maximized for the commercial fishery). The proposal also suggests that measures or quotas under each threshold should consider state or regional variation in fishery needs. The FMAT noted that determining the needs of each sector under various threshold levels is likely to be a very involved and potentially political process, with heavy analysis and stakeholder input needs.

While some suggestions have been made for how to analyze and determine optimal commercial and recreational access levels at each biomass threshold, expertise outside of the FMAT and Council/Board would likely be required, particularly for establishing an economic basis for the commercial quota levels. In addition, it is still unclear how the balance of access for each sector would be negotiated. The discussion of measures at each threshold for each fishery would also need to reconcile those separate levels of access to ensure that overall catch/removals are still expected to be constrained to the ABC. For some species, such as black sea bass, it is unlikely that both sectors could operate at their preferred levels of access even under positive stock conditions without exceeding the ABC and/or OFL. A process for balancing/negotiating preferred levels of access between the commercial and recreational sectors could be very time and work intensive in terms of analysis and gathering stakeholder input and would potentially delay this action.

The FMAT also discussed that the step-wise approach proposes that higher levels of biomass correspond to higher levels of access, which could allow for liberalization of recreational measures. However, the very large recreational fishery capacity means that effort and catch also typically scales with biomass and availability, in some cases even under highly restrictive recreational measures. This complicates the assumption that recreational measures can liberalize when biomass increases. In addition, changes in the recreational fishery over the years (general effort increases, species-specific effort changes, legal/policy constraints, and improved technology for targeting fish) further complicate the assumption that past recreational measures can be used to estimate expected future catch. The FMAT also noted that it could be easier to agree on measures associated with good stock biomass conditions, but setting measures for lower biomass thresholds may be much more difficult.

### **Potential Application of Ideas Through a Separate Action**

The FMAT agreed that there are several concepts in this proposal that would be worthwhile to explore in terms of application to the process of setting recreational measures. For example, the FMAT noted benefits of the transparency provided by a tiered management approach with clearly defined measures at each level. Additional exploration of the relationship between the effectiveness of recreational management measures and estimated biomass would also be worthwhile. Recreational reform is currently identified as a priority for the Council and Board, and an action to address recreational management is listed on the Council's 2020 implementation plan. The FMAT felt comfortable recommending removal of this option from this action given that there is a pre-existing process that appears to be more appropriate for its discussion.

The FMAT also suggested the possibility of creating a tiered allocation approach under "dynamic allocation approaches" (section 8). While this would not necessarily have the same basis and intent as this approach, some of the ideas discussed under this proposal could be transferable to an allocation framework where thresholds for different allocations could be created. This differs from a trigger-based allocation approach (section 8.2) given that it would not involve completely

separate allocation tiers as opposed to a baseline allocation up to a certain point with excess quota allocated differently.

***Public Comments:***

One member of the public stated that this feels like an apples to oranges conversation, and that if both sectors are not held to the same standards, the commercial sector will get penalized. She stated that the recreational sector has gone way over their limits in recent years. When this happens, stock biomass can go down which impacts both sectors. She stated that this option seems likely to negatively impact the commercial fishery.

Another member of the public stated that although this approach would require difficult in-depth analysis, he supported its further evaluation.

## **6. Recreational accountability alternatives**

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The theme of increased recreational accountability was prominent in many scoping comments. For example, some comments suggested more frequent recreational overage paybacks and bringing back recreational in-season closures. The FMAT previously noted that large scale revisions to recreational accountability may be outside the intended scope of this action as the FMAT understands it.

At the May joint meeting, the Council and Board discussed this issue and agreed to leave it in the range of alternatives until it becomes more clear what types of allocation alternatives will be considered. Some Board and Council members suggested that while the current AMs may be appropriate for the current allocations, alternatives that would drastically change the management approach may require modified or additional AMs.

### **Current Recreational Accountability Measures**

Federal regulations include proactive AMs to prevent the recreational ACL from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational accountability measures include **adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year** that are designed to prevent the RHL and ACL from being exceeded. The NMFS Regional Administrator no longer has in-season closure authority for the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, **paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage**, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational dead catch (i.e., landings and dead discards). If average catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ( $B < \frac{1}{2} B_{MSY}$ ), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded, will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ( $\frac{1}{2} B_{MSY} < B < B_{MSY}$ ), and the stock is not under a rebuilding plan:

- If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.
  - If the Acceptable Biological Catch (ABC = recreational ACL + commercial ACL) is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount in this case is: (overage amount) \*  $(B_{msy} - B) / \frac{1}{2} B_{msy}$ .
3. If biomass is above the target ( $B > B_{MSY}$ ): Adjustments to the recreational management measures (bag, size, and seasonal limits) would be considered for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.

***FMAT Comments and Recommendations:***

**The FMAT recommended removing recreational AMs as a separate alternative and felt that recreational accountability could be considered within this action as it relates to other management alternatives being considered.** For example, if the sector separation approach is pursued, different AMs may need to be developed as a part of that alternative. The current AMs were established through the Omnibus Recreational Accountability Amendment (Amendment 19 to this FMP, adopted in 2013). This amendment removed the in-season closure authority held by the NMFS regional administrator, which allowed for coastwide closures of the recreational fisheries if they were projected to exceed the RHL based on preliminary data. Amendment 19 also increased the flexibility in evaluation and response to recreational overages given the uncertainty associated with the MRIP data and tied overage responses to stock status as described above. The FMAT felt that much of the rationale for the changes made through Amendment 19 remains valid. For example, the timing of recreational data availability and the potential for revisions between preliminary and final estimates still pose challenges for in-season closures. One potential avenue for reconsideration of recreational AMs is through the recreational reform initiative.

***Public Comments:***

One member of the public commented that in-season closures or changes are tough on the for-hire industry and did not support bringing that back as an AM.

**7. Recreational catch accounting alternatives**

Examples of changes to recreational catch accounting recommended through scoping are listed below. The intent behind these recommendations is to reduce uncertainty in the recreational data. It is worth keeping in mind that MRIP is currently considered the best scientific information available for the recreational fisheries and will continue to be used for stock assessments and catch limit evaluations for the foreseeable future. MRIP is a national-level program and the Council and Commission have a very limited ability to influence changes to the MRIP estimates.

- **Mandatory private angler reporting:** Private angler reporting through smart phone apps has been explored in specific fisheries in other regions, and will soon be required in this

region for blueline tilefish. Consideration could be given to the feasibility of private angler reporting for summer flounder, scup, and black sea bass given that these fisheries take place in state and federal waters, from shore and from private and for-hire vessels, and that there are millions of directed trips per year for each species (e.g., an estimated 8.7 angler trips for which summer flounder was the primary target, 2.7 million for which scup was the primary target, and 1.4 million for which black sea bass was the primary target in 2019). Given the scale of these recreational fisheries, mandatory private angler reporting may be a challenge to implement. Thorough consideration should be given to the potential levels of non-compliance and how this may impact the resulting data.

- **Tagging programs:** A few scoping comments suggested that anglers be issued tags for a specific number of fish each year. Tagging programs are used in some recreational fisheries, but they may be more appropriate for species with much lower harvest levels than summer flounder, scup, and black sea bass. The FMAT should consider the pros and cons of moving forward with this approach compared to a traditional possession limit, especially considering the millions of participating anglers in the fisheries for these species. Ensuring that the program is fair and equitable is a challenge. For example, consideration would need to be given to who receives tags, how they are distributed, and how the program is administered.
- **Mandatory tournament reporting:** A few scoping comments recommended mandatory catch reporting for recreational fishing tournaments. During the May 2020 joint meeting, one Council/Board member questioned the value of mandatory reporting for tournaments given that tournament catch likely constitutes a very small percentage of total catch. An evaluation of summer flounder, scup, and black sea bass catch in tournaments has not been performed and may not be possible given that there does not seem to be a central list of non-HMS tournaments. Recreational catch from tournaments for summer flounder, scup, and black sea bass should be included in MRIP estimates but is not specifically designated as tournament catch.
- **Enhanced VTR requirements:** A few scoping comments recommended additional VTR requirements, such as requiring VTRs for for-hire vessels that do not have federal permits and reinstating “did not fish” reports for federal permit holders to better understand fishing effort.

#### *FMAT Comments and Recommendations:*

**The FMAT recommended removing this issue from the amendment but supported the continued exploration of improving recreational data through other avenues.** Although the FMAT felt that this alternative was outside of the scope of this allocation action, especially with implementation timeline concerns, they recognized that these recreational catch accounting and accountability topics were important issues. The FMAT also noted that recreational catch accounting is an issue that fisheries outside of this FMP are addressing so it may be more appropriate to pursue for multiple species outside of this amendment. One FMAT member asked about scoping comments related to this topic and whether the general sentiment was to address recreational catch accounting before considering changes to the allocations. Staff responded that

several scoping comments suggested this, while other scoping comments voiced a general mistrust or need to improve MRIP with no additional comments regarding allocation.

***Public Comments:***

One member of the public is currently involved in helping with private angler reporting for blueline tilefish and noted that although it is a relatively small group of anglers, the process is already a large undertaking and felt that for summer flounder, scup and black sea bass, this concept should be held off for a later time.

A Council and Board member noted that since the FMAT recommended the removal of some alternatives it would be helpful if there were time allocated to have a specific discussion with the Council and Board to understand what potential management actions would be appropriate for those issues.

One member of the public commented that he had mentioned mandatory reporting for tournaments during scoping because he believes it would be important to have more information on that. He added that less than 50% of permit holders are reporting in some cases. Because of this, he feels it is very important to either reinstate did not fish reports or attempt to determine for-hire effort in state waters. One FMAT member agreed that it would be worth exploring ways to identify or quantify tournament catch in the future, separate from this action. A Council and Board member wondered why it was important to estimate tournament catch separately from the current MRIP surveys or if there is evidence that tournament catch is not being captured adequately.

## **8. Dynamic allocation approaches and options for future modification**

Consideration could be given to moving average approaches, trigger mechanisms, and allowing for allocations to be changed via a framework/addendum process.

The Council already has an allocation review policy<sup>3</sup>, where 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.

### **8.1 Moving average approach**

This approach would base the allocations on a moving average of past years' catch or landings. This approach was recommended through scoping.

***FMAT Comments and Recommendations:***

A few FMAT members raised concerns with this approach and recommended removal. After further discussion after the meeting, **all FMAT members agreed to recommend removing this alternative from further consideration through this action**, though it may be useful in the future as a way to evaluate the impact of allocation changes. The primary concern was that this approach is difficult to design in a way that does not create a cycle of rewarding sectors for going over their allocations. In particular, this could have a negative effect on the commercial sector, which is more effectively held to their quota than the recreational sector. This effect would likely be compounded

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<sup>3</sup> [https://www.mafmc.org/s/MAFMC-Fishery-Allocation-Review-Policy\\_2019-08.pdf](https://www.mafmc.org/s/MAFMC-Fishery-Allocation-Review-Policy_2019-08.pdf)



over time under a moving average approach. Another FMAT member noted that this approach could also incentivize the commercial sector to harvest more than they otherwise would based on market conditions, just to maintain their allocation.

One FMAT member suggested revising the approach so that any overage above the landings limits would not be taken into account for allocations. Depending on its configuration, this approach may only be meaningfully different from the current allocations for fisheries where regular underages occur, in which case, that issue may be better addressed by transfers or by one of the other reallocation options.

## **8.2 Trigger approach**

Under this approach, catch up to a specified ABC level would be allocated to each sector using the current (or modified) allocations and any additional allowable catch above that level would be divided differently between the sectors. For example, if a higher percent of the surplus were allocated to the recreational sector, this could address some concerns that it is harder to constrain the recreational fishery in times of high availability.

### ***FMAT Comments and Recommendations:***

**The FMAT recommended further development of this approach.** This approach could help address concerns about major changes to the allocations because it limits the amount of change that can occur under different stock conditions. The trigger approach could also provide more flexibility in years of high abundance. Board and Council guidance on the following questions is requested prior to further evaluation of this approach: What might be an appropriate trigger threshold level? Is it appropriate to allocate a higher percentage of landings or catch to the recreational fishery when the ABC is above a certain level? If so, how much should the allocations change?

### **Expected Future Analysis:**

- An evaluation of the historical commercial/recreational share of catch and landings at different biomass levels could help inform the development of this approach.

## **8.3 Framework/addendum options**

Allowing allocation changes through frameworks/addenda would allow for a more expedient process but could also reduce public input on a very contentious issue. The federal regulations list which types of management changes can be made through frameworks. Changes to the commercial/recreational allocation are not on this list. This amendment may consider whether commercial/recreational allocation changes should be added to the list of changes that can be made through a framework. However, even if it were an option to use a framework, the Council and Board could still decide it is more appropriate to use an amendment if significant changes are proposed. Being able to use frameworks could be a helpful tool in the toolbox if for minor changes.

### ***FMAT Comments and Recommendations:***

**The FMAT recommends leaving this approach in for further analysis.** There could be instances in the future when minor changes to data or small allocation issues could be resolved

quickly through a framework/addendum instead of a more lengthy amendment process. Several FMAT members suggested developing language to clarify when future changes to allocations could be made through a framework/addendum versus an amendment.

## 9. Allocation transfers between sectors

The Council and Board recommended further consideration of alternatives which would allow for the transfer of allocation between sectors. As shown in **Appendix B**, with the exception of the commercial scup fishery, there have not been notable landings limit underages in either sector for any of the three fisheries in recent years. Therefore, transfers between sectors may not be used on a regular basis. However, it could still be a useful “tool in the toolbox” and a change to the FMP is required to allow for this as an option in future years.

For the purposes of understanding how allocation transfers between sectors would function, the following discusses the different components of the transfer process.

Key components of a transfer provision include:

- **Bidirectionality:** For the purpose of equity, the plan could allow for transfers from both sectors. However, a one-way transfer is used in the bluefish fishery (recreational to commercial).
- **Transfer cap:** A transfer cap defined as a percentage of the ABC or a fixed value in pounds could be considered.
- **Projection methodology:** The decision for the Board/Council to approve/recommend a transfer would likely take place during specifications. An average of the past three years of landings could be used to project each sector’s landings in the upcoming year to determine whether a transfer is warranted. Depending on the timing of specifications and data availability for the current year, it may be possible to use recreational and commercial landings progress in part of the year to develop projections for the remainder of the year before providing final approval of a transfer. This is done in the bluefish fishery. **Table 8** below outlines the scenarios in which transfers would occur.
- **Criteria prohibiting a transfer:** One advisory panel member voiced concern about additional fishing pressure that occurs with the introduction of sector transfers. It may be useful to develop criteria tied to stock status for when sector transfers are prohibited. For example, it may be beneficial to prohibit transfers when a stock is below its target.

**Table 8:** Scenarios in which a transfer would or would not be warranted.

Scenario	Commercial Sector	Recreational Sector	Outcome
1	projected to achieve quota	projected to achieve RHL	no transfer
2	projected to achieve quota	projected to not achieve RHL	transfer to comm
3	projected to not achieve quota	projected to achieve RHL	transfer to rec
4	projected to not achieve quota	projected to not achieve RHL	no transfer

### ***FMAT Comments and Recommendations:***

**The FMAT agreed that this approach should remain in the action for further development.**

The details concerning how the projections are calculated and the timing of the transfer process are still to be determined. One FMAT member noted that consistency is crucial when calculating projections for recreational specifications and the transfer process. All FMAT members who spoke on the issue agreed that the transfers should continue to be explored as a bi-directional option. The FMAT did express concern in the ability to project recreational harvest, in particular in situations when projections are especially uncertain, for example when significant or variable amounts of harvest occur late in the year. FMAT members noted that it would be helpful to explore in more detail how transfers work for other fisheries. Additional information will be compiled prior to the June joint meeting.

### **APPENDIX A: Catch vs landings based allocations**

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This appendix describes the potential implications of catch and landings-based allocations.

Under the current catch-based allocation for scup, the ABC is divided into a commercial and recreational ACL based on the allocation percentages defined in the FMP. Sector-specific expected discards are subtracted from the sector-specific ACLs to derive a commercial quota and a recreational harvest limit.

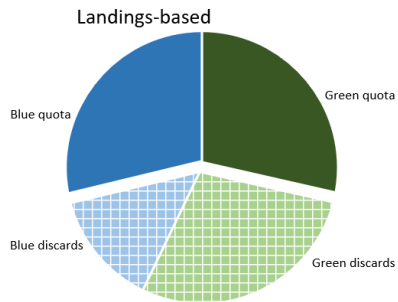
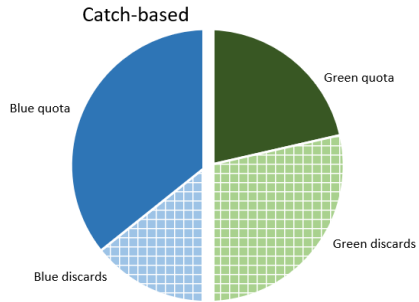
Under the current process for landings-based allocations for summer flounder and black sea bass, the ABC is first divided into expected landings and expected discards based on the advice of the Monitoring Committee. The sector allocations are applied to the landings portion of the ABC. The sector-specific ACLs are equal to the landings-based allocations plus the expected discards by sector. Under this system, higher expected discards in one sector can result in a reduced ACL in the other sector. Under a catch-based allocation (as for scup), expected discards in one sector do not impact the ACL in the other sector.

In addition, if discards are included directly in the allocation (i.e., a catch-based allocation), there may be a greater incentive for each sector to reduce discards in order to increase their allowable landings. This was part of the rationale for creating a catch-based allocation for scup. Commercial scup discards were a concern at the time of development of Amendment 8 which implemented the current allocations.

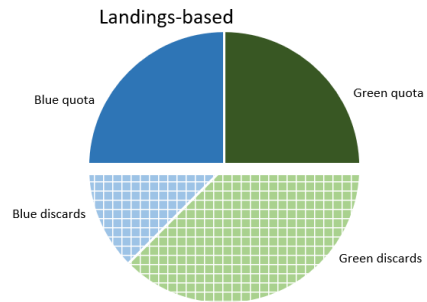
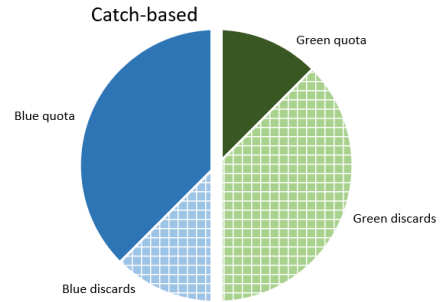
**Figure 3** below demonstrates this concept through a comparison of a hypothetical catch-based 50/50 allocation and a landings-based 50/50 allocation for the "blue" and "green" fisheries. In this example both sectors have equal expected landings but the green sector has higher expected dead discards than the blue sector. Under a landings-based 50/50 allocation, the green sector will have a higher ACL than the blue sector due to its greater expected discards. Under a catch-based 50/50 allocation, both sectors will have equal ACLs. The blue sector will have a higher quota than the green sector due to its lower expected discards.

The reliability and timeliness of discard estimates should be considered when assessing catch-versus landings-based allocations. Depending upon the methodology and data used, recreational discard estimates can be quite variable. MRIP does not provide weight estimates for recreational releases, and thus the method used for stock assessments by the Northeast Fisheries Science Center has previously been used to develop estimates of dead discards in pounds of fish. Dead discards estimates are integral to both catch- and landings-based allocations.

**Equal landings by sector, expected green discards 2x blue discards**



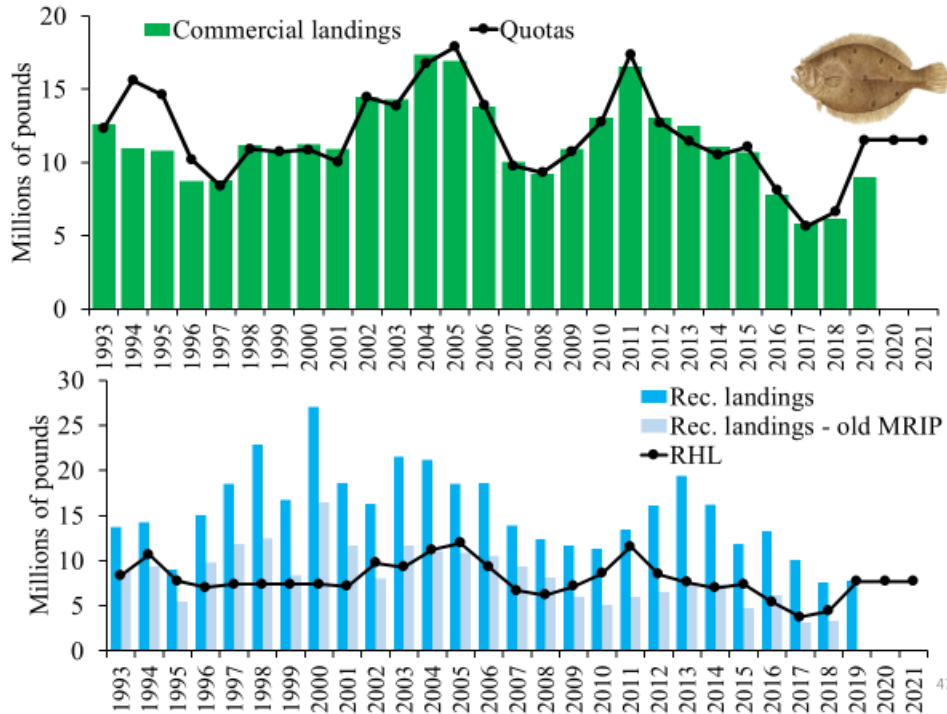
**Equal landings by sector, expected green discards 3x blue discards**



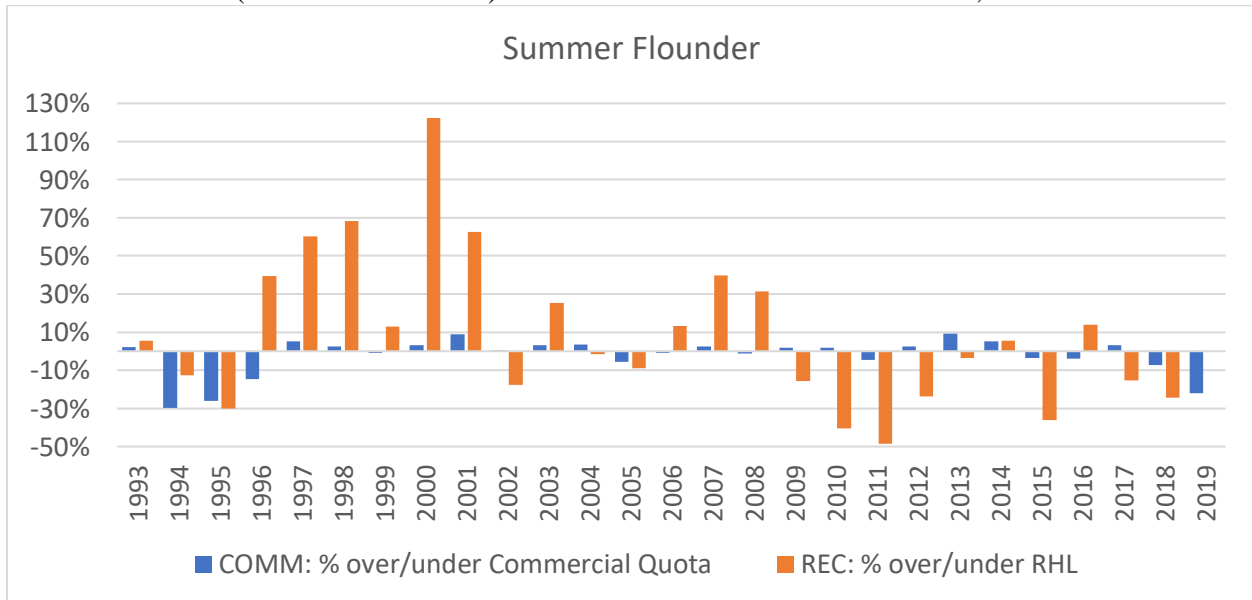
**Figure 3:** Comparison of hypothetical catch-based 50/50 allocation and landings based 50/50 allocation for the "blue" and "green" sectors under two different scenarios for expected landings and discards.

**APPENDIX B: Trends in Fishery Performance Relative to Catch and Landings Limits**

**Summer Flounder**

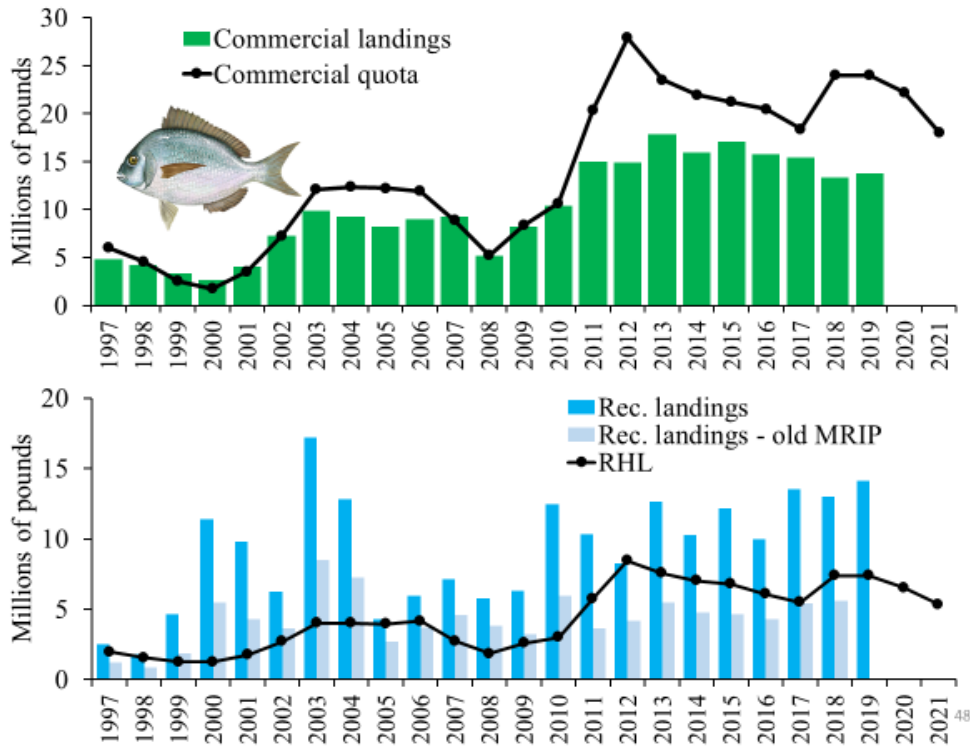


**Figure 4:** Summer flounder commercial landings relative to commercial quota, and recreational harvest estimates (old and new MRIP) relative to recreational harvest limits, 1993-2019.

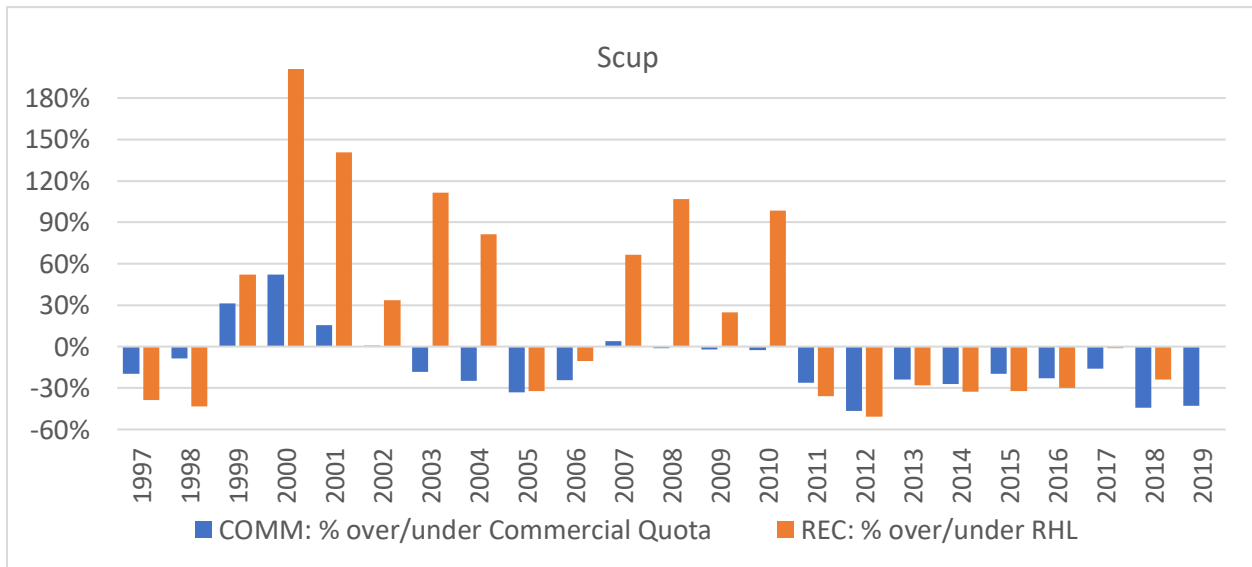


**Figure 5:** Summer flounder percent over/under the recreational harvest limit and commercial quota in pounds, 1993-2019. Recreational evaluation is based on OLD MRIP data. Note that revised MRIP data cannot be fairly used in this evaluation given that limits were set using the prior estimates of recreational catch. Back-calibrated recreational estimates are not available for 2019.

**Scup**

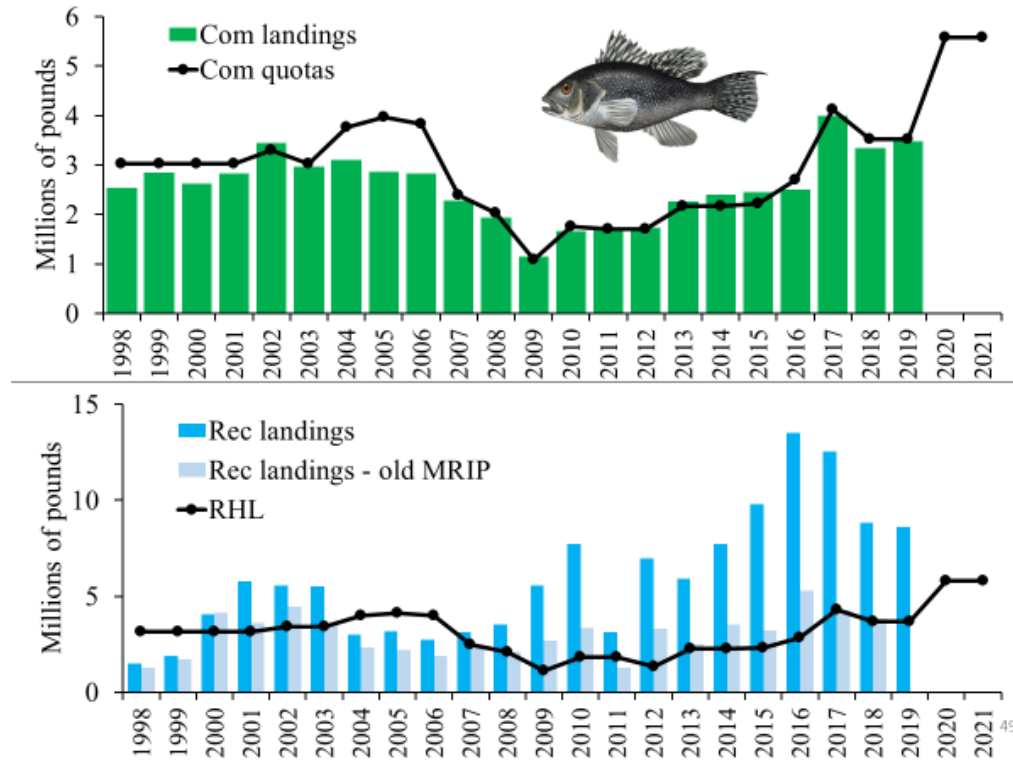


**Figure 6:** Scup commercial landings relative to commercial quota, and recreational harvest estimates (old and new MRIP) relative to recreational harvest limits, 1997-2019.

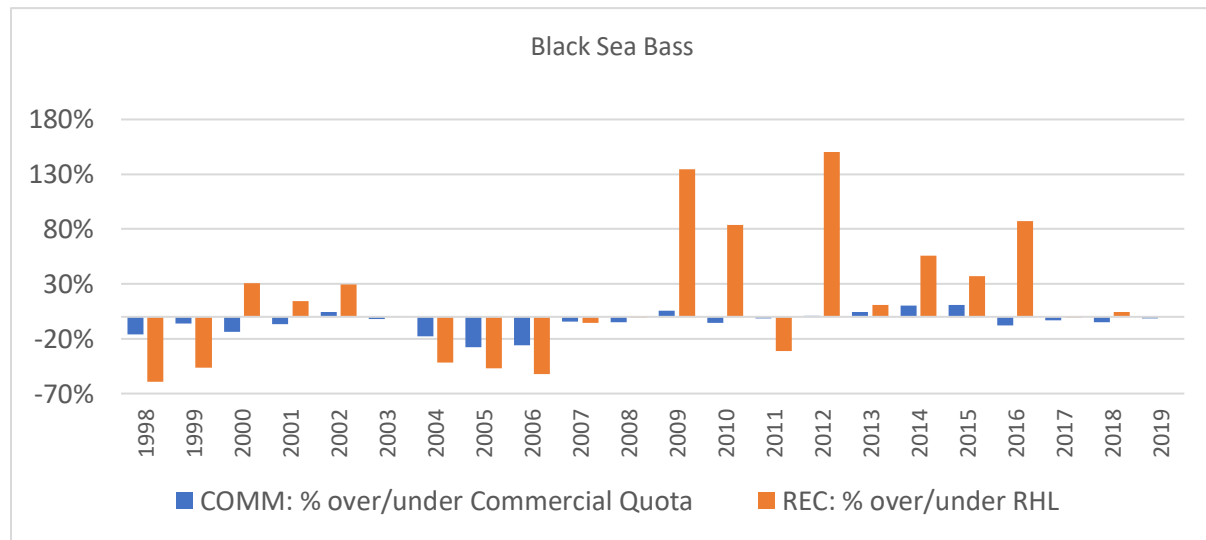


**Figure 7:** Scup percent over/under the recreational harvest limit and commercial quota in pounds, 1997-2019. Recreational evaluation is based on OLD MRIP data. Note that revised MRIP data cannot be fairly used in this evaluation given that limits were set using the prior estimates of recreational catch. Back-calibrated recreational estimates are not available for 2019. Note that the percent over the recreational harvest limit in 2000 was 330%.

**Black Sea Bass**

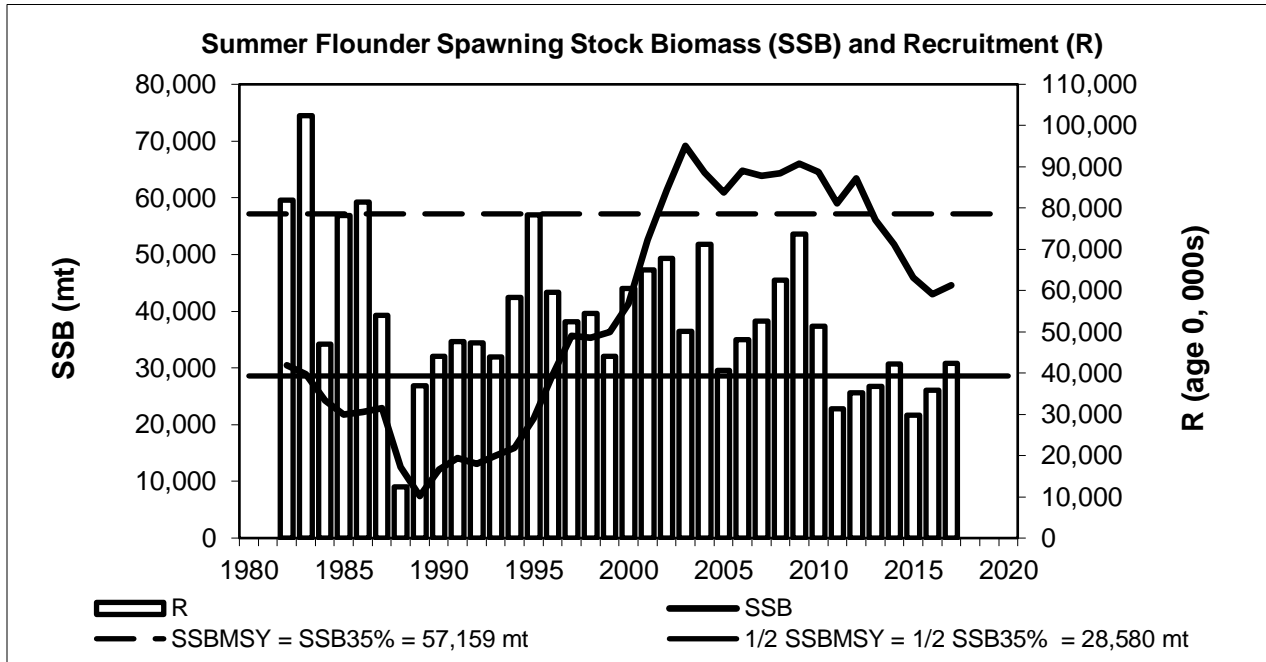


**Figure 8:** Black sea bass commercial landings relative to commercial quota, and recreational harvest estimates (old and new MRIP) relative to recreational harvest limits, 1998-2019.

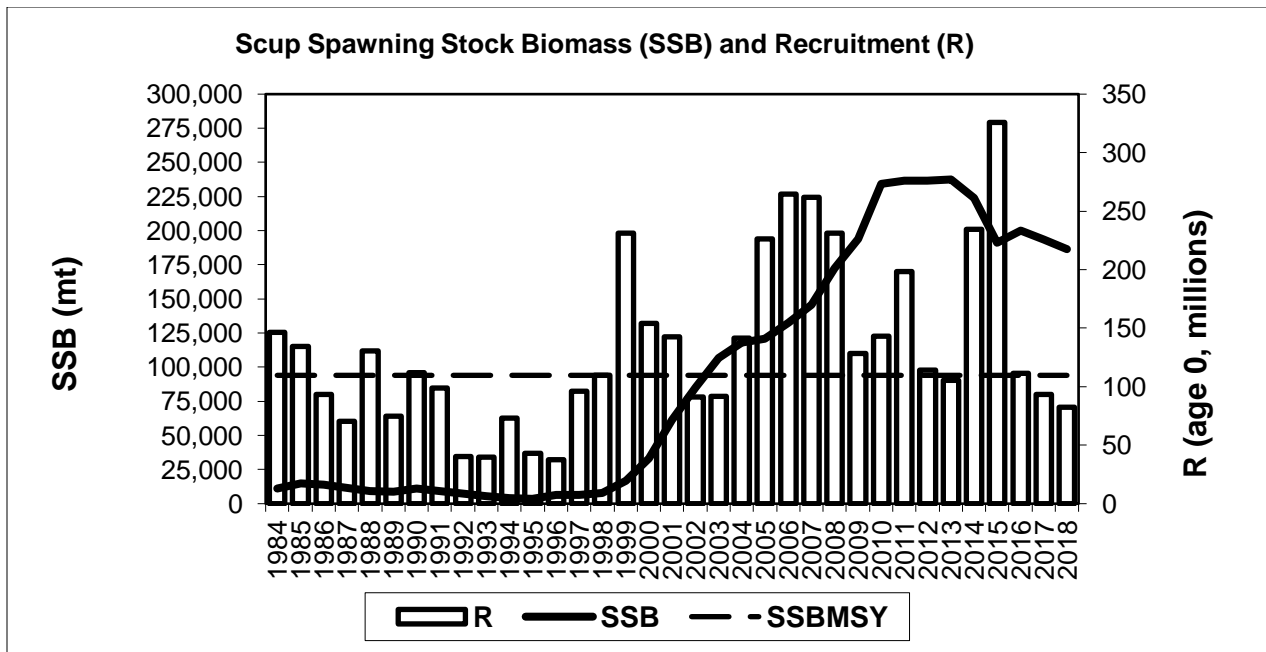


**Figure 9:** Black sea bass percent over/under the recreational harvest limit and commercial quota in pounds, 1998-2019. Recreational evaluation is based on OLD MRIP data. Note that revised MRIP data cannot be fairly used in this evaluation given that limits were set using the prior estimates of recreational catch. Back-calibrated recreational estimates are not available for 2019. Note that this figure was updated on 6/11/20 to correct a calculation error.

APPENDIX C: Biomass Trends by Species

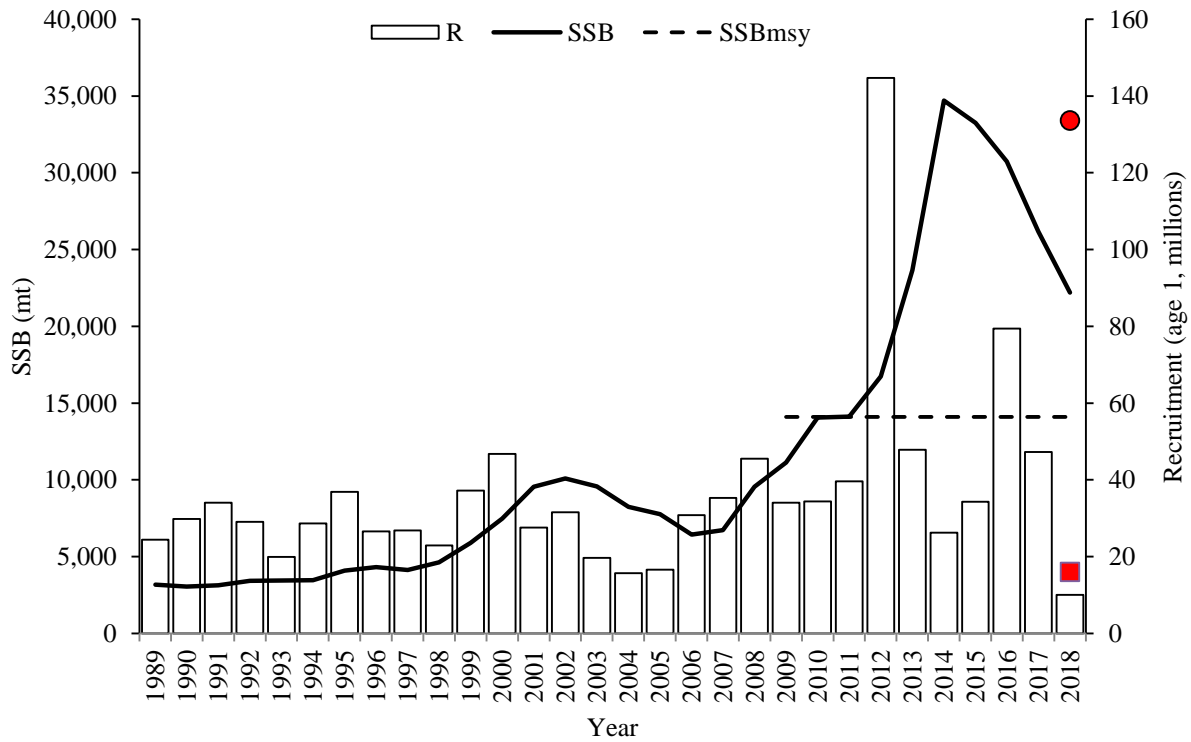


**Figure 10:** Summer flounder spawning stock biomass (SSB; solid line) and recruitment at age 0 (R; vertical bars) 1980-2017. The horizontal dashed line is the 2018 SAW66 target biomass reference point proxy,  $SSB_{MSY} = SSB_{35\%} = 57,159$  mt. The horizontal solid line is the 2018 SAW66 threshold biomass reference point proxy  $\frac{1}{2} SSB_{MSY} = \frac{1}{2} SSB_{35\%} = 28,580$  mt. Source: NEFSC 2019.



**Figure 11:** Scup SSB and recruitment at age 0, 1984-2018 from the 2019 operational stock assessment (NEFSC 2019).





**Figure 12:** Black sea bass SSB and recruitment, 1989-2018 from the 2019 operational stock assessment. The horizontal dashed line is the updated biomass reference point. (Source: NEFSC 2019).

**APPENDIX D: Allocation percentages recommended by FMAT for further consideration**

**Table 9:** Catch-based allocation percentages for summer flounder recommended by the FMAT for further consideration.

<b>Summer flounder: catch-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
N/A	N/A	No action (see section 1)
N/A	N/A	Same base years, new data (see section 2.1)
40%	60%	2014-2018 base years (see section 2.2)
43%	57%	2009-2018 base years (see section 2.2)
44%	56%	2004-2018 base years (see section 2.2)
43%	57%	Attempt to maintain close to status quo harvest in each sector (see section 3)
46%	54%	2018 base year (see section 3)
<b>43%</b>	<b>57%</b>	<b>Average of all (see section 3)</b>
<b>43%</b>	<b>57%</b>	<b>Average of all but no action alternative (see section 3)</b>

**Table 10:** Landings-based allocation percentages for summer flounder recommended by the FMAT for further consideration.

<b>Summer flounder: landings-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
60%	40%	No action (see section 1)
55%	45%	Same base years, new data (see section 2.1)
41%	59%	2014-2018 base years (see section 2.2)
45%	55%	2009-2018 base years (see section 2.2)
45%	55%	2004-2018 base years (see section 2.2)
43%	57%	Attempt to maintain close to status quo harvest in each sector (see section 3)
45%	55%	2018 base year (see section 3)
<b>48%</b>	<b>52%</b>	<b>Average of all (see section 3)</b>
<b>46%</b>	<b>54%</b>	<b>Average of all but no action alternative (see section 3)</b>

**Table 11:** Catch-based allocation percentages for scup recommended by the FMAT for further consideration.

<b>Scup: catch-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
78%	22%	No action (see section 1)
65%	35%	Same base years, new data (see section 2.1)
62%	38%	2014-2018 base years (see section 2.2)
61%	39%	2009-2018 base years (see section 2.2)
60%	40%	2004-2018 base years (see section 2.2)
59%	41%	Attempt to maintain close to status quo harvest in each sector (see section 3)
58%	42%	2018 base year (see section 3)
<b>63%</b>	<b>37%</b>	<b>Average of all (see section 3)</b>
<b>61%</b>	<b>39%</b>	<b>Average of all but no action alternative (see section 3)</b>

**Table 12:** Landings-based allocation percentages for scup recommended by the FMAT for further consideration.

<b>Scup: landings-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
N/A	N/A	No action (see section 1)
57%	43%	Same base years, new data (see section 2.1)
57%	43%	2014-2018 base years (see section 2.2)
57%	43%	2009-2018 base years (see section 2.2)
56%	44%	2004-2018 base years (see section 2.2)
50%	50%	Attempt to maintain close to status quo harvest in each sector (see section 3)
50%	50%	2018 base year (see section 3)
<b>55%</b>	<b>46%</b>	<b>Average of all (see section 3)</b>
<b>55%</b>	<b>46%</b>	<b>Average of all but no action alternative (see section 3)</b>

**Table 13:** Catch-based allocation percentages for black sea bass recommended by the FMAT for further consideration.

<b>Black sea bass: catch-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
N/A	N/A	No action (see section 1)
N/A	N/A	Same base years, new data (see section 2.1)
25%	75%	2014-2018 base years (see section 2.2)
24%	76%	2009-2018 base years (see section 2.2)
28%	72%	2004-2018 base years (see section 2.2)
32%	68%	Attempt to maintain close to status quo harvest in each sector (see section 3)
32%	68%	2018 base year (see section 3)
<b>28%</b>	<b>72%</b>	<b>Average of all (see section 3)</b>
<b>28%</b>	<b>72%</b>	<b>Average of all but no action alternative (see section 3)</b>

**Table 14:** Landings-based allocation percentages for black sea bass recommended by the FMAT for further consideration.

<b>Black sea bass: landings-based</b>		
<b>Com. allocation</b>	<b>Rec. allocation</b>	<b>Basis</b>
49%	51%	No action (see section 1)
45%	55%	Same base years, new data (see section 2.1)
22%	78%	2014-2018 base years (see section 2.2)
22%	78%	2009-2018 base years (see section 2.2)
27%	73%	2004-2018 base years (see section 2.2)
29%	71%	Attempt to maintain close to status quo harvest in each sector (see section 3)
30%	70%	2018 base year (see section 3)
<b>32%</b>	<b>68%</b>	<b>Average of all (see section 3)</b>
<b>29%</b>	<b>71%</b>	<b>Average of all but no action alternative (see section 3)</b>

## **APPENDIX E: Examples of Transfer Provisions in Other Fisheries**

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### **Bluefish**

Under Amendment 1 to the Atlantic Bluefish FMP, the Board and the Council have the ability to recommend that quota be transferred from the recreational sector to the commercial sector. The need for a sector transfer is assessed annually through the specifications process. During specifications in August, an average of the last three years of recreational landings are used to project the next year's landings. These projected recreational landings are compared to the initial proposed recreational harvest limit for the upcoming fishing year. If, based on this comparison, the recreational fishery is not anticipated to land its limit, the Council and Board can recommend that a portion of the recreational harvest limit be transferred to the commercial fishery up to a maximum commercial quota of 10.50 million lbs (4,763 mt). This 10.50 million pound threshold is equal to the average commercial landings for the period 1990-1997. However, if the recreational sector is projected to achieve the RHL for that year, then no transfer is recommended.

Following the August meeting, NOAA Fisheries implements specifications in January for the new fishing year. Once preliminary prior year MRIP estimates are available in February, NOAA Fisheries compares the estimate of recreational landings for the previous year to the RHL to make any necessary adjustments before finalizing the amount of quota transferred. The adjustment notice with final specifications is usually published in March/April.

The recreational Accountability Measures (AMs) for bluefish were updated in Omnibus Amendment 3 to the Bluefish FMP. The AMs indicate that special consideration be given when a sector transfer contributes to a fishery-level ACL (which includes recreational and commercial catch) overage. ACL overages can potentially result from too much quota being transferred away from the recreational sector. Recreational landings may exceed projected catch in a given year and thus may exceed the transfer-adjusted-RHL. In these instances, the Bluefish Monitoring Committee can recommend that the amount transferred between the recreational and commercial sectors be reduced by the ACL overage amount in a subsequent fishing year.

### **Yellowtail Flounder and Scallops**

The New England Fishery Management Council uses a transfer mechanism in the management of groundfish that allows transfer of unused quota for Georges Bank (GB) and Southern New England (SNE)/Mid-Atlantic yellowtail flounder from the Atlantic scallop fishery back to the Northeast multispecies fishery. Each year by January 15th, GARFO estimates the total amount of yellowtail flounder catch in the scallop fishery (for both the GB and SNE/Mid yellowtail stocks). GARFO also produces a projection (a range low-high estimates) of how much the scallop fishery will catch through the end of its fishing year (March 31). If GARFO determines that the scallop fishery is expected to catch less than 90 percent of its sub-ACL for each yellowtail stock, they can reduce the scallop fishery's sub-ACL by to the amount projected to be caught using the high-end estimate of catch. GARFO then increases the groundfish fishery's sub-ACL by the amount taken away from the scallop fishery. Part of the reason this works is that the fishing years are staggered; the scallop fishing year ends before the groundfish fishing year ends, so there is more time for the groundfish fishery to use the quota, and less time for which a projection is needed. Yellowtail bycatch is also

fairly well estimated, and with the rotational access program GARFO also has a good idea of when the scallop fishery is more likely to have high bycatch events. The most recent transfer action (April 2020) is described at: <https://www.federalregister.gov/d/2020-06460>.



**Action Plan for Commercial/Recreational Allocation Amendment to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan  
Draft as of 4/24/2020**

<http://www.mafmc.org/actions/sfsbsb-allocation-amendment>

**Amendment Goal:** The purpose of this amendment is to review and consider revisions to the commercial/recreational sector allocations for the summer flounder, scup, and black sea bass fisheries. This action aims to address the allocation-related impacts of the revised data on catch and landings for the recreational and commercial sectors. This is a joint amendment of the Mid-Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission.

**Type of NEPA Analysis Expected:** To be determined - Environmental Assessment (EA) or Environmental Impact Statement (EIS), depending on scope of action and alternatives considered.

**Additional Expertise Sought:** The Fisheries Management Action Team (FMAT) for this action will be composed of Council and Commission staff and management partners from the Greater Atlantic Regional Fisheries Office and Northeast Fisheries Science Center, with input from other organizations as appropriate.

<b>Agency</b>	<b>FMAT Role</b>	<b>Person(s)</b>
MAFMC	Council staff (summer flounder)	Kiley Dancy
MAFMC	Council staff (scup)	Karson Coutré
MAFMC	Council staff (black sea bass)	Julia Beaty
ASMFC	Commission staff (summer flounder and scup)	Dustin Colson Leaning
ASMFC	Commission staff (black sea bass)	Caitlin Starks
NMFS GARFO	Sustainable fisheries	Emily Keiley
NMFS GARFO	NEPA	Marianne Ferguson
NMFS NEFSC	Socioeconomics	Greg Ardini
NMFS NEFSC	Stock assessment/population dynamics (consult as needed)	Gary Shepherd
NMFS NEFSC	Stock assessment/population dynamics (consult as needed)	Mark Terceiro
NMFS GARFO	General counsel (consult as needed)	John Almeida

**Types of Measures Expected to be Considered:** The Council and Board will review and consider revisions to the commercial/recreational sector allocations for summer flounder, scup, and black sea bass. Specific possible reallocation approaches have not yet been identified. Following the scoping process, the Council and Board will confirm the issues to be addressed and the scope of the amendment. The FMAT is expected to develop a range of management options specific to commercial/recreational allocation for the Council and Board to consider, potentially including, but not limited to the following approaches:

- No action/*status quo*;
- Updating the current allocation percentages using the existing base years but with revised MRIP data;
- Using alternative base years to derive new allocation percentages;
- Using different allocation approaches which do not rely on base years;
- Considering whether each allocation should be catch based or landings based;
- Using socioeconomic data or evaluations to consider modifying the allocations based on optimization of economic efficiency and socioeconomic benefits from each fishery;
- Considering separate allocations to modes within the recreational fishery (for-hire vs. private/shore fisheries);
- Considering whether a transfer of allocation from one sector to another should be allowed through specifications or a framework action;
- Considering whether allocations should be made in pounds and/or numbers of fish;
- Considering whether future allocation changes could be made through a framework/addendum rather than an amendment;
- Considering whether allocations should be static or dynamic, including possible approaches that evaluate these allocations on a more frequent basis;
- Other approaches to be determined.

**Applicable laws/issues:**

Magnuson-Stevens Act	Yes
National Environmental Policy Act	Yes
Administrative Procedures Act	Yes
Regulatory Flexibility Act	Yes
Paperwork Reduction Act	Possibly; depends on data collection needs
Coastal Zone Management Act	Possibly; depends on effects of the action on the resources of the coastal states in the management unit
Endangered Species Act	Possibly; level of consultation, if necessary, depends on the actions taken
Marine Mammal Protection Act	Possibly; depends on actions taken
E.O. 12866 (Regulatory Planning and Review)	Yes
E.O. 12630 (Takings)	Possibly; legal review will confirm
E.O. 13123 (Federalism)	Possibly; legal review will confirm
Essential Fish Habitat	Possibly
Information Quality Act	Yes



**Expected Amendment Timeline (as of April 2020; assuming EA; subject to change):**

<b>October 2019</b>	Amendment initiated
<b>Early 2020</b>	FMAT formed
<b>December 2019</b>	Council and Board approve a scoping document for public comment
<b>February-March 2020</b>	Scoping hearings and comment period
<b>April 2020</b>	APs review scoping comments and provide input to Council and Board
<b>April 2020</b>	FMAT reviews scoping comments and provides recommendations to Council and Board on scope of action and possible approaches
<b>May 2020</b>	Council and Board review scoping comments and FMAT and AP recommendations; define scope of action
<b>May 2020</b>	FMAT begins to develop draft alternatives
<b>June 2020</b>	Summer Flounder, Scup, Black Sea Bass Committee of the Whole and Board meeting to refine draft alternatives
<b>June-July 2020</b>	Continued FMAT development and analysis of alternatives; Advisory Panel input on draft alternatives
<b>August 2020</b>	Council and Board approve a range of alternatives for inclusion in a public hearing document
<b>Fall 2020</b>	Development of public hearing document and hearing schedule
<b>December 2020</b>	Council and Board approve public hearing document
<b>Early 2021</b>	Public hearings
<b>Spring 2021</b>	Final action
<b>Summer 2021</b>	EA finalized and submitted; NMFS and other agencies review; final edits completed
<b>Summer/Fall 2021</b>	Rulemaking and comment periods (4-7 months from after EA finalized)
<b>Late 2021</b>	Final rule effective