

2017-2018 Summer Flounder Specifications

**Supplemental Environmental Assessment,
Regulatory Impact Review, and
Regulatory Flexibility Act Analysis**

November 2016

**Mid-Atlantic Fishery Management Council
in cooperation with the
National Marine Fisheries Service**

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1.0 EXECUTIVE SUMMARY

This supplemental environmental assessment (SEA) updates the attached previously approved 2016-2018 Summer Flounder, Scup, and Black Sea Bass Specifications Environmental Assessment (EA; also described in this document as the “December 2015 EA” or “original EA”) that analyzed the catch limits, commercial quotas, recreational harvest limits, and management measures (called specifications) for summer flounder, scup, and black sea bass for the 2016-2018 fishing years. This document is not a stand-alone document, but rather a supplement and is intended to be utilized in conjunction with the previously approved EA (final rule December 28, 2015; 80 FR 80689). Unless otherwise noted, the original EA prepared for this action and attached to this SEA remains applicable. Therefore, sections addressed in this supplement should be considered within the context of the original EA.

Summer flounder catch and landings limits are established on an annual basis for up to three years at a time, based on stock size projections for upcoming years. In 2015, specifications were implemented for summer flounder for the 2016-2018 fishing years, as analyzed in the December 2015 EA. In July 2016, the Council received new scientific information about the status of the summer flounder stock in the form of a stock assessment update from the Northeast Fisheries Science Center (NEFSC 2016). The results of this assessment update indicate that the summer flounder stock was not overfished, but overfishing was occurring in 2015 and biomass estimates continue to trend downward.

The 2016 assessment update also provided revised biomass projections and estimates of the overfishing limit (OFL) for 2017 and 2018 (see section 6.0 of this document). Based on this new information, the previously implemented 2017 and 2018 catch and landings limits would not be reasonably expected to prevent overfishing as required by law. Thus, the previously recommended specifications for 2017 and 2018 must be revised. This SEA is necessary to analyze the additional catch and landings limit options for 2017 and 2018 (see section 5.0) that are based on the best scientific information available, are consistent with the latest advice from the Council’s Scientific and Statistical Committee (SSC), and are expected to prevent overfishing.

This SEA does not consider changes to the previously adopted scup or black sea bass catch and landings limits for 2017-2018, nor does it consider changes to any other existing management measures other than catch and landings limits for summer flounder. Specific recreational measures for 2017 and 2018 (bag limits, size limits, and seasons) will be analyzed in later actions.

The following assessment summarizes the additional alternatives considered and their expected impacts to habitat and Essential Fish Habitat (EFH), the managed resource (summer flounder), Endangered Species Act (ESA) listed and Marine Mammal Protection Act (MMPA) protected species, and the social and economic environment.

Two additional alternatives (not described in the December 2015 EA) are considered in this document: one revised preferred alternative for 2017 landings limits and one for 2018 landings limits. To avoid confusion among alternatives described in the December 2015 EA vs. this SEA, these new alternatives are labeled “2017 alternative 5 and 2018 alternative 5” in order to

continue the numbering convention used in the original EA. Throughout the analysis, these new alternatives are compared to the *status quo* alternatives described in the December 2015 EA (2017 alternative 2 and 2018 alternative 2, respectively). These *status quo* alternatives are identical across both years and consist of the landings limits implemented for summer flounder in 2015. The revised preferred and *status quo* alternatives for each year are described in section 5.0 of this document and summarized in Box ES-1 below. The revised preferred alternative for 2017 represents an approximate 29% reduction from the original preferred alternative for 2017, and the revised preferred alternative for 2018 is approximately 16% lower than the original preferred 2018 alternative (see Table 2 in section 4.2).

Box ES-1. Summary of the 2017-2018 summer flounder alternatives analyzed in this document. Commercial quotas and recreational harvest limits are in millions of pounds.			
Year	Alternative	Commercial Quota	Recreational Harvest Limit
2017	2017 Alternative 2 (Non-Preferred: <i>Status quo</i>)	11.07	7.38
	2017 Alternative 5 (Preferred)	5.66	3.77
2018	2018 Alternative 2 (Non-Preferred: <i>Status quo</i>)	11.07	7.38
	2018 Alternative 5 (Preferred)	6.63	4.42

The impacts of these alternatives are described in section 7.0 and briefly summarized below. For reference, the impacts of the full suite of alternatives across both documents (EA and SEA) are summarized in Box ES-2.

Box ES-2. Summary of the expected impacts of alternatives considered in this document and in the December 2015 EA. A minus sign (-) signifies a negative impact, a plus sign (+) signifies a positive impact, and zero (0) indicates a neutral impact. “sl” indicates a minor effect. “S” indicates short-term and “L” indicates long-term impacts.

Year	Alternative	Biological	EFH	Protected Resources	Socio-economic
2017	Alternative 1 (Previously preferred)	0/+	0/+	0/+	S-/L+
	Alternative 2 (Non-Preferred: <i>Status quo</i>)	0/-	0	0	0/L-
	Alternative 3 (Non-Preferred: Most Restrictive)	+	+	+	-
	Alternative 4 (Non-Preferred: Least Restrictive)	-	-	-	S+/L-
	Alternative 5 (Preferred)	+	+	+	-
2018	Alternative 1 (Previously preferred)	0/+	0/+	0/+	S-/L+
	Alternative 2 (Non-Preferred: <i>Status quo</i>)	0/-	0	0	0/L-
	Alternative 3 (Non-Preferred: Most Restrictive)	+	+	+	-
	Alternative 4 (Non-Preferred: Least Restrictive)	-	-	-	S+/L-
	Alternative 5 (Preferred)	+	+	+	-

2017 Quota Alternatives

2017 Alternative 2 (Status Quo)

The *status quo* alternative for 2017 is equivalent to the previously implemented 2015 specifications (79 FR 78311), and includes a commercial quota of 11.07 million pounds and a recreational harvest limit of 7.38 million pounds.

Alternative 2 would represent a higher probability of overfishing than is acceptable under the MSA and the Council’s risk policy. Given this higher risk of overfishing and considering the status of the stock (i.e., overfishing is occurring), alternative 2 is expected to have negative biological impacts to the summer flounder stock, while having neutral impacts on non-target species relative to baseline conditions (section 7.1.1).

Because the limits under alternative 2 are identical to those previously implemented for 2015, these measures would not be expected to cause substantial changes in fishing effort or behavior, and would therefore be expected to result in neutral impacts on EFH and protected resources (ESA and MMPA protected species) when compared to baseline conditions (sections 7.1.2 and 7.1.3). This means that under alternative 2, no additional takes of ESA or MMPA protected

species are expected beyond what was considered when determining the baseline (i.e., current condition) of these resources.

Alternative 2 would be expected to result in neutral to slight negative social and economic impacts when compared to baseline conditions, given that the overall level of fishing effort and landings would not be expected to change under this alternative. However, because the measures contained under the *status quo* alternative 2 for summer flounder are higher than those recommended to prevent overfishing, it is possible that long-term negative social and economic impacts could occur if overfishing occurs and the sustainability of the stocks is jeopardized.

2017 Alternative 5 (Preferred)

The preferred alternative for 2017 includes landings limits recommended by the Council and the Atlantic States Marine Fisheries Commission (ASMFC) in August 2016, based on updated stock biomass projections for summer flounder and associated revised recommendations of the Council's SSC. These measures include a commercial quota of 5.66 million pounds and a recreational harvest limit of 3.77 million pounds.

Alternative 5 would result in an approximate 49% decrease in the commercial quota and recreational harvest limit compared to the *status quo* 2015 measures. This decrease is based on the best scientific information available and is intended to prevent overfishing. As such, alternative 5 is expected to have positive biological impacts on the summer flounder stock, compared to the *status quo* alternative, which includes higher catch and landings limits and has a higher likelihood of resulting in overfishing. Alternative 5 is expected to result in a decrease in fishing effort, compared to baseline levels, and therefore a decrease in fishing mortality for non-target species. Overall, 2017 alternative 5 is expected to have positive biological impacts for target and non-target stocks when compared to the status quo alternative.

2017 Alternative 5 would likely result in positive habitat impacts given the likely reduction in fishing effort and thus fewer interactions between fishing gear and habitat. Similarly, because interactions with marine mammals and ESA protected species are influenced by the amount of fishing gear, and the duration of time gear is in the water, this alternative is expected to have positive impacts on these species compared to status quo through reduced likelihood of interactions with fishing gear.

Negative economic impacts would likely occur under alternative 5, relative to the *status quo* and baseline conditions, due to reduced opportunities to land and sell summer flounder and reduced for-hire opportunities and angler satisfaction. However, it is possible that given the potential decrease in landings, price for these species may increase if all other factors are held constant, which could mitigate some of the potential revenue reductions. Adjustments to recreational measures such as lower possession limits, greater minimum fish sizes, and/or shorter seasons may be necessary to ensure that recreational landings do not exceed the recreational harvest limits. Thus, alternative 5 may decrease recreational satisfaction in this fishery, relative to the *status quo* alternative, decrease in the demand for party/charter boat trips, and generally affect angler participation in a negative manner. However, the measures under alternative 5 are intended to prevent overfishing, thus contributing to long-term positive social and economic impacts.

2018 Quota Alternatives

2018 Alternative 2 (Status Quo)

The *status quo* alternative for 2018 is equivalent to the 2017 alternative 2, as well as the previously implemented 2015 specifications (79 FR 78311). This alternative includes a commercial quota of 11.07 million pounds and a recreational harvest limit of 7.38 million pounds.

Because this alternative is identical to the 2017 alternative 2 (*status quo*), the expected impacts to the managed resource, non-target species, EFH, ESA and MMPA protected species, and the social and economic environment are identical to those described for 2017 alternative 2 above.

2018 Alternative 5 (Preferred)

Under the preferred alternative, the Council and the ASMFC recommended revised summer flounder catch and landings limits for 2018 based on updated stock biomass projections for summer flounder and associated revised recommendations of the Council's SSC. This alternative includes a commercial quota of 6.63 million pounds and a recreational harvest limit of 4.42 million pounds.

Alternative 5 would result in an approximate 40% decrease in the commercial quota and recreational harvest limit compared to the *status quo* measures. The proposed measures are consistent with the best scientific information available and are intended to prevent overfishing. As such, alternative 5 is expected to have positive impacts on the summer flounder stock, compared to the *status quo* alternative, which includes higher catch and landings limits and has a higher likelihood of resulting in overfishing. It is expected to result in a decrease in fishing effort and therefore result in a decrease in fishing mortality for non-target species. Overall, 2018 alternative 5 is expected to have positive biological impacts for target and non-target stocks when compared to status quo.

2018 Alternative 5 would likely result in positive habitat impacts given the likely reduction in fishing effort and thus fewer interactions between fishing gear and habitat. Similarly, because interactions with marine mammals and ESA protected species are influenced by the amount of fishing gear, and the duration of time gear is in the water, this alternative is expected to have positive impacts on these species through reduced likelihood of interactions with fishing gear.

Negative economic impacts would likely occur under alternative 5, relative to the *status quo*, due to reduced opportunities to land and sell summer flounder and reduced for-hire opportunities and angler satisfaction. However, it is possible that given the potential decrease in landings, price for these species may increase if all other factors are held constant, which could mitigate some of the potential revenue reductions. Adjustments to recreational measures such as lower possession limits, greater minimum fish sizes, and/or shorter seasons may be necessary to ensure that recreational landings do not exceed the recreational harvest limits. Thus, alternative 5 may decrease recreational satisfaction in this fishery, relative to the *status quo* alternative, decrease in the demand for party/charter boat trips, and generally affect angler participation in a negative manner. However, the measures under alternative 5 are intended to prevent overfishing, thus contributing to long-term positive social and economic impacts.

Cumulative Impacts

When the proposed action in this SEA is considered in conjunction with all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, it is not expected to result in any significant impacts, positive or negative; therefore, there are no significant cumulative effects associated with the action proposed in this document (section 7.4 of the EA and 7.3 of this SEA).

Conclusions

A detailed description and discussion of the expected economic, social, and biological impacts resulting from each of the alternatives that are supplementing the EA, as well as any cumulative impacts, considered in this document are provided in section 7.0. None of the alternatives are associated with significant impacts to the biological, social or economic, or physical environment individually or in conjunction with other actions under the National Environmental Policy Act (NEPA).

2.0 LIST OF ACRONYMS AND ABBREVIATIONS

ABC	Acceptable Biological Catch
ACL	Annual Catch Limit
ACT	Annual Catch Target
ASAP	Age structured assessment program
ASMFC	Atlantic States Marine Fisheries Commission
B _{MSY}	Biomass at Maximum Sustainable Yield
CEA	Cumulative Effects Assessment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CV	Coefficient of variation
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EO	Executive Order
ESA	Endangered Species Act of 1973
F	Fishing mortality rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GARFO	Greater Atlantic Regional Fisheries Office
IRFA	Initial Regulatory Flexibility Analysis
MAFMC	Mid-Atlantic Fishery Management Council
MC	Monitoring Committee
MMPA	Marine Mammal Protection Act
MRIP	Marine Recreational Information Program
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Overfishing Limit
OY	Optimum Yield
P*	Probability of overfishing
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
SAW/SARC	Stock Assessment Workgroup/Stock Assessment Review Committee
SBA	Small Business Administration
SEA	Supplemental Environmental Assessment
SSB	Spawning stock biomass
SSC	Scientific and Statistical Committee
VEC	Valued Ecosystem Component

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SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

4.0 INTRODUCTION AND PURPOSE AND NEED

4.1 PURPOSE AND NEED FOR THE ACTION

The purpose of this action is to modify previously implemented commercial quotas and recreational harvest limits for summer flounder for 2017 and 2018. A recent stock assessment update (NEFSC 2016) indicates that the previously implemented measures may result in overfishing in these years; therefore, an action to modify those measures is needed to prevent overfishing and ensure annual catch limits (ACLs) are not exceeded.

This specifications document was developed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA)¹ and NEPA, the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ). Failure to specify management measures based on the best available scientific information to prevent overfishing for summer flounder would be inconsistent with the National Standards under the MSA. This document was also developed in accordance with the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP), which details the management regime for these fisheries. The FMP and subsequent amendments are available at: <http://www.mafmc.org>.

This SEA updates the attached previously approved 2016-2018 Summer Flounder, Scup, and Black Sea Bass Specifications EA that analyzed the catch limits, commercial quotas, recreational harvest limits, and management measures (called specifications) for summer flounder, scup, and black sea bass for the 2016-2018 fishing years. This document is not a stand-alone document, but rather a supplement and is intended to be utilized in conjunction with the approved EA (final rule December 28, 2015; 80 FR 80689). Unless otherwise noted, the initial EA prepared for this action and attached to this SEA remains applicable. Therefore, sections addressed in this supplement should be considered within the context of the attached EA.

This SEA, in conjunction with the attached EA, examines the impacts of the management alternatives on the human environment. Aspects of the human environment that are likely to be directly or indirectly affected by the actions proposed in this document are described as valued ecosystem components (VECs; Beanlands and Duinker 1984). The VECs make up the affected environment and are specifically defined as the managed resources (summer flounder) and any non-target species; habitat, including EFH for the managed resource and non-target species; protected species (i.e., ESA-listed species and species protected under the MMPA); and human communities (social and economic aspects of the environment). The impacts of the alternatives are evaluated with respect to these VECs. The expected impacts of the alternatives are described in section 7.0 of this document.

¹ MSA portions retained plus revisions made by the MSA Reauthorization Act of 2006.

4.2 THE SPECIFICATIONS PROCESS AND 2016 SUMMER FLOUNDER ASSESSMENT UPDATE

The specifications process for summer flounder is described in detail in section 4.2 of the December 2015 EA. This section summarizes and supplements that description, providing context for why additional alternatives beyond those analyzed in the December 2015 EA are necessary. This section also summarizes the basis for the new preferred alternatives.

4.2.1 Background

As described in the December 2015 EA, the MSA requires that the Council's SSC provide recommendations for acceptable biological catch (ABC), prevention of overfishing, and maximum sustainable yield (MSY). The Council's catch limit recommendations cannot exceed the ABCs recommended by the SSC. The Summer Flounder, Scup, and Black Sea Bass Monitoring Committee (MC) is responsible for developing recommendations to the Council on management measures, including annual catch targets (ACTs), to achieve the recommended catch limits for each species.

The Summer Flounder, Scup, and Black Sea Bass FMP is cooperatively managed by the Council and the ASMFC. The Council and the ASMFC's Summer Flounder, Scup, and Black Sea Bass Management Board (the Board) meet jointly each year to consider the recommendations of the SSC and the MC, as well as input from Advisory Panel members, public comments, and other information, before making recommendations for commercial quotas, recreational harvest limits, and other management measures for all three species. The Council submits these recommendations to the National Marine Fisheries Service (NMFS) Greater Atlantic Regional Administrator to consider for implementation. The Regional Administrator reviews the recommendations and may revise them, if necessary, to achieve FMP objectives and to meet statutory requirements before approving them for implementation.

Summer flounder catch and landings limits are established on an annual basis for up to three years at a time, based on estimates of current stock size and stock size projections for upcoming years. In 2015, specifications were implemented for summer flounder for the 2016-2018 fishing years, as analyzed in the December 2015 EA. In July 2016, the Council received new scientific information about the status of the summer flounder stock in the form of a stock assessment update from the Northeast Fisheries Science Center (NEFSC 2016). The results of this assessment update indicate that the summer flounder stock was not overfished, but overfishing was occurring in 2015 and biomass estimates continue to trend downward. The 2016 assessment update also provided revised biomass projections and estimates of the OFLs for 2017 and 2018 (see section 6.0 of this document for more information). Based on this new information, the previously implemented 2017 and 2018 ABCs would not be reasonably expected to prevent overfishing. Thus, the previously recommended specifications for 2017 and 2018 must be revised, necessitating the consideration of additional alternatives (section 5.0).

This action does not consider changes to the scup or black sea bass commercial quotas and recreational harvest limits for 2017 and 2018, or changes to any other existing management measures other than catch and landings limits for summer flounder.

4.2.2 Basis and Methodology for Additional Summer Flounder Alternatives

The SSC is required to recommend ABCs that address scientific uncertainty and are expected to prevent overfishing, based on the best available scientific information. The original ABCs recommended by the SSC for 2017 and 2018 were based on biomass projections from a 2015 stock assessment update (NEFSC 2015). If the Council's typical risk policy (described in section 4.2 of the December 2015 EA) had been applied to these projections, a reduction of approximately 45% would have been required between the 2015 and 2016 ABC. Because this would have caused severe negative social and economic impacts that would have been potentially destabilizing to the fishery, the Council requested at the time that the SSC deviate from the typical risk policy and apply a three-year phase in of any required reduction. The approach applied in 2015 to derive previously recommended 2016-2018 ABCs involved a reduced scientific uncertainty buffer between the OFL and ABC in years 1 and 2 (i.e., 2016 and 2017) in order to address economic and social concerns. A full description of this approach is outlined in section 4.2.1 of the December 2015 EA. The Council and Board adopted these 2016-2018 specifications at their August 2015 joint meeting.

In July 2016, the Council's SSC received an assessment update for summer flounder from the NEFSC. The SSC met July 20-21, 2016 to consider this update (NEFSC 2016) and reconsider their previous summer flounder ABC recommendations for 2017 and 2018. Upon review of the 2016 assessment update, the SSC recommended revisions to the previously adopted 2017 and 2018 ABCs. The SSC recommended abandoning the "phase-in" approach and reverting to the typical application of the Council risk policy as described below. The SSC agreed that continuing to overfish in a period of consistent poor recruitment represents substantial risk to the stock. In addition, if the stock were to become overfished, a rebuilding plan would be required under the MSA, which would result in more severe economic consequences than current proposed catch reductions.

The Council's risk policy is described in detail in section 4.2 of the December 2015 EA. In applying this risk policy in July 2016, the SSC maintained its determination that the summer flounder assessment should be considered an "SSC-modified OFL" level assessment, meaning that the SSC determines their own distribution of uncertainty around the OFL. The assessment update indicates an OFL for 2017 of 16.76 million pounds. The 2018 OFL, assuming that the level of catch in 2017 is equal to the 2017 ABC, was determined to be 18.69 million pounds. Assuming an OFL with a lognormal distribution having a 60% coefficient of variation (CV), and a stock status lower than biomass at maximum sustainable yield (B_{MSY}), the Council's policy is to use a probability of over fishing (P^*) of 0.239. This yields an ABC for 2017 of 11.30 million pounds. This represents a 30% decrease from the 2016 ABC. For 2018, following the risk policy, the SSC recommended a revised ABC of 13.23 million pounds.

The MC met shortly after the SSC meeting in July 2016 to discuss ACTs and other management measures for summer flounder for the upcoming fishing years. The MC maintained their previous recommendation of no reduction from the 2017-2018 ACLs to the ACTs to account for management uncertainty. The MC indicated that the commercial fishery monitoring and fishery closure system is timely and has typically been successful in holding the landings close to the quota, and noted that states should continue to be diligent in managing their state quotas. For the recreational fishery, the MC noted that the fishery has performed relatively well relative to the harvest limits for the past few years. However, the MC and Technical Committee will need to

carefully consider the potential effects of proposed decreases in landings limits for 2017-2018, especially given the lack of in-season closure authority for the recreational fishery. The MC noted that it would incorporate considerations of management uncertainty when recommending recreational management measures in the fall of each year. Thus, the revised preferred commercial and recreational ACTs are set equal to their respective ACLs (Table 1). The MC did not recommend changes to any other management measures for 2017-2018.

The OFLs, ABC recommendations, and the basis for deriving the commercial and recreational catch and landings limits are summarized in Table 1. The ABC is derived from the OFL using the Council's risk policy (section 4.2 of the December 2015 EA). Combined, the commercial and recreational ACLs sum to the ABC recommended by the SSC. The ABC is divided into landings and discards portions based on the assessment projections. The landings portion of the ABC is split into the commercial quota and the recreational harvest limit based on the allocation system described in the FMP (i.e., 60% of landings to the commercial fishery and 40% to the recreational fishery). Total discards are projected as part of the stock assessment update, and are then attributed to each sector based on the average proportion of discards for the past three years (in this case, 2013-2015). The commercial and recreational ACLs are the sum of the landings limit (commercial quota or recreational harvest limit) and the projected sector-specific discards. Commercial and recreational ACTs are derived based on the sector-specific ACLs, less any subtraction to account for management uncertainty, as recommended by the MC. The commercial quotas and recreational harvest limits are derived by subtracting projected discards from the ACTs.

Table 1: Basis for revised preferred summer flounder catch and landings limits for 2017-2018 (2017 alternative 5 and 2018 alternative 5). Numbers may not add precisely due to unit conversions and rounding.

Management Measure	2017		2018		Basis for 2017-2018 Recommendations
	mil lb.	mt	mil lb.	mt	
OFL	16.76	7,600	18.69	8,476	Stock assessment projections
ABC	11.30	5,125	13.23	5,999	Stock assessment projections/SSC recommendation
ABC Landings Portion	9.43	4,278	11.05	5,010	Stock assessment projections
ABC Discards Portion	1.87	847	2.18	989	Stock assessment projections
Commercial ACL	6.57	2,982	7.70	3,491	60% of ABC landings portion (per FMP allocation) + 49% of ABC discards portion
Commercial ACT	6.57	2,982	7.70	3,491	Monitoring Committee recommendation: no deduction from ACL for management uncertainty
Projected Comm. Discards	0.92	415	1.07	485	49% of ABC discards portion, based on 2013-2015 average % discards by sector
Commercial Quota	5.66	2,567	6.63	3,006	Commercial ACT, less projected commercial discards
Recreational ACL	4.72	2,143	5.53	2,508	40% of ABC landings portion (per FMP allocation) + 51% of ABC discards portion
Recreational ACT	4.72	2,143	5.53	2,508	Monitoring Committee recommendation; no deduction from ACL for management uncertainty
Projected Rec. Discards	0.95	432	1.11	504	51% of ABC discards portion, based on 2013-2015 average % discards by sector
Recreational Harvest Limit	3.77	1,711	4.42	2,004	Recreational ACT, less projected recreational discards

In August 2016, the Council and the Board met jointly to review and consider adopting these SSC and MC recommendations for 2017 and 2018 catch and landings limits. Based on the revised ABC and the methodology described above, the Council and Board recommended a commercial quota of 5.66 million pounds and a recreational harvest limit of 3.77 million pounds for 2017. For 2018, the Council and Board recommended a commercial quota of 6.63 million pounds and a recreational harvest limit of 4.42 million pounds. Measures for 2018 may be adjusted in 2017 based on changes in the fishery or new scientific information. Any future changes would be analyzed in a separate action.

The Council and Board’s August 2016 revised recommendations for quotas and harvest limits are identified in this document as the preferred alternatives or revised preferred alternatives (2017 and 2018 alternative 5). The alternatives previously identified as preferred in the December 2015 EA are now referred to as “previously preferred” (2017 and 2018 alternative 1). Table 2 shows the revised preferred 2017-2018 specifications relative to the previously alternatives in the December EA. The revised preferred alternatives in this document are compared to the *status quo* alternatives, which represent the 2015 implemented specifications.

Table 2: Original (i.e., previously preferred alternatives in December 2015 EA) and revised recommendations (i.e., revised preferred alternatives in this document) for 2017 and 2018 summer flounder catch and landings limits. Values are in millions of pounds.

Measure	2017		2018	
	<i>Previously Preferred (2017 Alt. 1)</i>	<i>Revised Preferred (2017 Alt. 5)</i>	<i>Previously Preferred (2018 Alt. 1)</i>	<i>Revised Preferred (2018 Alt. 5)</i>
Acceptable Biological Catch (ABC)	15.86	11.30	15.68	13.23
Commercial Quota	7.91	5.66	7.89	6.63
Recreational Harvest Limit	5.28	3.77	5.26	4.42

5.0 MANAGEMENT ALTERNATIVES

This section describes the alternatives considered in this SEA for management of the summer flounder fishery in 2017 and 2018 (Table 3). These preferred alternatives are treated as alternatives in addition to those considered in the December 2015 EA and are identified as “2017 alternative 5” and “2018 alternative 5” for consistency with the numbering used in the December 2015 EA. The preferred alternatives are based on the SSC’s revised ABC recommendations, as described in section 4.0.

For the purposes of impact analysis (section 7.0), the preferred alternatives are compared to the *status quo* alternatives described in the December 2015 EA, which include the measures implemented for the 2015 fishing year. The *status quo* alternatives are identified as 2017 alternative 2 and 2018 alternative 2 in this document, as they are identical to alternative 2 in the December 2015 EA.

The preferred (alternative 5) and *status quo* (alternative 2) alternatives are described in more detail in the following sections. Alternatives 1 (previously preferred), 3 (most restrictive), and 4 (least restrictive) are not described in detail below, but are summarized in Table 3 and Table 5 and described in more detail in section 5.0 of the December 2015 EA.

5.1 2017 STATUS QUO AND PREFERRED ALTERNATIVES

5.1.1 2017 Alternative 2 (Non-preferred: *Status Quo*)

The *status quo* alternatives for both 2017 and 2018 are identical to the *status quo* alternatives considered in the December 2015 EA. As described in more detail in section 5.4 of the December 2015 EA, the *status quo* alternative is not equivalent to a no action alternative. A true no action alternative is not a reasonable alternative for the summer flounder fishery. The Summer Flounder, Scup, and Black Sea Bass FMP does not allow for roll-over of ACLs, commercial quotas, and recreational harvest limits from a previous year if measures are not implemented for a given year. If the preferred alternatives identified in the December 2015 EA had not been implemented (i.e., if no action had been taken), then there would have been no ACLs, commercial quotas, or recreational harvest limits for 2016-2018, which could have resulted in overfishing and therefore would be inconsistent with the goals of the FMP and with the MSA. For this reason, a true no action alternative was not considered to be a reasonable alternative when the 2016-2018 measures were analyzed and a *status quo* alternative representing the 2015 measures was used in place of a no action alternative.

Alternative 2 includes measures that were implemented for summer flounder for the 2015 fishing year, including an ABC of 22.77 million pounds, a commercial ACL of 13.34 million pounds, and a recreational ACL of 9.44 million pounds. The commercial and recreational ACTs were set equal to their respective ACLs. After subtracting projected discards, the 2015 commercial quota was 11.07 million pounds and the recreational harvest limit was 7.38 million pounds. Under this alternative, state commercial shares (based on the allocation system specified in the FMP) range from 51 pounds to 3.04 million pounds (excluding Delaware, see Table 4).

Table 3. Summary of alternatives for management of the summer flounder fishery in 2017. Values are in millions of pounds.

Measure	2017 Alternatives				
	Alt. 1 (Previously Preferred)	Alt. 2 (<i>Status Quo</i>)	Alt. 3 (Most restrictive)	Alt. 4 (Least restrictive)	Alt. 5 (Preferred)
Commercial quota	7.91	11.07	6.30	18.18	5.66
Recreational harvest limit	5.28	7.38	4.20	12.12	3.77

Table 4. Commercial summer flounder quota allocations (in pounds), by state, under 2017 alternatives 2 (*status quo*) and 5 (preferred).

State	Percent ^a	Alternative 2 (<i>status quo</i>)	Alternative 5 (preferred)
Maine	0.04756	5,265	2,692
New Hampshire	0.00046	51	26
Massachusetts	6.82046	755,025	385,988
Rhode Island	15.68298	1,736,106	887,542
Connecticut	2.25708	249,859	127,734
New York	7.64699	846,522	432,764
New Jersey	16.72499	1,851,456	946,512
Delaware ^b	0.01779	0	1,007
Maryland	2.0391	225,728	115,398
Virginia	21.31676	2,359,765	1,206,372
North Carolina	27.44584	3,038,254	1,553,233
Total	100	11,068,032	5,659,266

^a Refers to the percent of the coastwide commercial quota that is allocated to each state, as outlined in the FMP.

^b Delaware will be allocated no quota in 2017 due to an ongoing accountability measure for a large prior-year overage.

5.1.2 2017 Alternative 5 (Preferred: Consistent with New SSC-recommended ABCs)

2017 alternative 5 includes measures based on the revised 2017 ABC recommended by the SSC in July 2016 (section 4.0). The SSC previously recommended 2017 and 2018 ABCs in 2015. They revised their recommendations based on the 2016 stock assessment update, which indicated that the summer flounder stock was not overfished but overfishing was occurring in 2015 relative to the biological reference points (NEFSC 2016; see section 6.0).

The SSC recommended a revised 2017 ABC of 11.30 million pounds. This recommendation follows the Council’s typical risk policy for setting ABCs (described in section 4.2 of the December 2015 EA and section 4.2 of this document). Measures resulting from this revised ABC include a commercial ACL and ACT of 6.57 million pounds, a recreational ACL and ACT of 4.72 million pounds, a commercial quota of 5.66 million pounds, and a recreational harvest limit of 3.77 million pounds (Table 1). Under this alternative, state commercial shares range from 26 pounds to 1.55 million pounds (excluding Delaware, see Table 4).

The commercial quotas and recreational harvest limits under this alternative are lower than any previously implemented summer flounder commercial quotas and recreational harvest limits. They are more restrictive than the previously analyzed most restrictive alternative (i.e., alternative 3 in the December 2015 EA; Table 3).

5.2 2018 STATUS QUO AND PREFERRED ALTERNATIVES

5.2.1 2018 Alternative 2 (Non-preferred: *Status Quo*)

As previously described, the *status quo* alternatives for both 2017 and 2018 are identical to the *status quo* alternatives considered in the December 2015 EA. As described in section 5.1.1 of this document, the *status quo* alternative is not equivalent to a no action alternative.

2018 alternative 2 includes measures that were implemented for summer flounder for the 2015 fishing year, including an ABC of 22.77 million pounds, a commercial ACL of 13.34 million pounds, and a recreational ACL of 9.44 million pounds. The commercial and recreational ACTs are set equal to their respective ACLs. After subtracting projected discards, the commercial quota is 11.07 million pounds and the recreational harvest limit is 7.38 million pounds (Table 5). Under this alternative, state commercial shares range from 51 pounds to 3.04 million pounds (excluding Delaware, see note in Table 6).

Table 5. Summary of alternatives for management of the summer flounder fishery in 2018. Values are in millions of pounds.

Measure	2018 Alternatives				
	Alt. 1 (Previously Preferred)	Alt. 2 (<i>Status Quo</i>)	Alt. 3 (Most restrictive)	Alt. 4 (Least restrictive)	Alt. 5 (Preferred)
Commercial quota	7.89	11.07	6.30	18.18	6.63
Recreational harvest limit	5.26	7.38	4.20	12.12	4.42

Table 6. Commercial summer flounder quota allocations (in pounds), by state, under 2018 alternatives 2 (*status quo*) and 5 (preferred).

State	Percent ^a	Alternative 2 (<i>status quo</i>)	Alternative 5 (preferred)
Maine	0.04756	5,265	3,152
New Hampshire	0.00046	51	30
Massachusetts	6.82046	755,025	451,998
Rhode Island	15.68298	1,736,106	1,039,326
Connecticut	2.25708	249,859	149,579
New York	7.64699	846,522	506,773
New Jersey	16.72499	1,851,456	1,108,381
Delaware ^b	0.01779	0	1,179
Maryland	2.0391	225,728	135,133
Virginia	21.31676	2,359,765	1,412,682
North Carolina	27.44584	3,038,254	1,818,862
Total	100	11,068,032	6,627,096

^a Refers to the percent of the coastwide commercial quota that is allocated to each state, as outlined in the FMP.

^b Delaware will be allocated no quota in 2018 due to an ongoing accountability measure for a large prior-year overage.

5.2.1 2018 Alternative 5 (Preferred: Consistent with New SSC-recommended ABCs)

2018 alternative 5 includes measures based on the revised 2018 ABC recommended by the SSC in July 2016 (section 4.0). The SSC revised their recommendations based on the 2016 stock assessment update, which indicated that the summer flounder stock was not overfished but overfishing was occurring in 2015 relative to the biological reference points (NEFSC 2016; see section 6.0).

In July 2016, the SSC recommended a 2018 ABC of 13.23 million pounds. This recommendation follows the Council’s typical risk policy for setting ABCs (described in section 4.2 of the December 2015 EA and section 4.2 of this document). The measures resulting from this revised ABC include a commercial ACL and ACT of 7.70 million pounds, a recreational ACL and ACT of 5.53 million pounds, a commercial quota of 6.63 million pounds, and a recreational harvest limit of 4.42 million pounds (Table 1). Under this alternative, state commercial shares range from 30 pounds to 1.82 million pounds in 2018 (excluding Delaware, see note in Table 6).

The commercial quotas and recreational harvest limits under this alternative are higher than the measures proposed under 2017 alternative 5 (the preferred 2017 alternative) and are slightly higher than the most restrictive alternative considered in the December 2015 EA.

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

The affected environment was described in the December 2015 EA for 2016-2018 specifications, and is incorporated here by reference. Descriptions of fishery interactions with non-target species, EFH, ESA-listed and MMPA protected resources, as well as the social and economic environment, are described in the EA's affected environment section (sections 6.2-6.4), and remain unchanged. This section supplements the description of the managed resources in Section 6.1 of the December 2015 EA with more recent information about the stock status for summer flounder.

The last peer-reviewed summer flounder benchmark stock assessment was conducted in 2013 at the 57th Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC 57; NEFSC 2013). The SAW/SARC 57 biological reference points include a fishing mortality (F) threshold of $F_{MSY} = F_{35\%} = 0.309$, and a biomass reference point of $SSB_{MSY} = SSB_{35\%} = 137.56$ million pounds. The minimum stock size threshold ($1/2 SSB_{MSY}$), is estimated to be 68.78 million pounds.

As previously described, the Council received an assessment update from the NEFSC in July 2016 (NEFSC 2016). This update incorporated data through 2015 into the model from the 2013 benchmark stock assessment, which is an age-structured assessment model called ASAP ("age-structured assessment program").

The results of the 2016 assessment update indicate that the summer flounder stock was not overfished, but overfishing was occurring in 2015 relative to the biological reference points from the 2013 assessment. The fishing mortality rate in 2015 was estimated to be 0.390, 26% above the fishing mortality threshold reference point of 0.309.

The model-estimated spawning stock biomass (SSB) was estimated to be 79.90 million pounds in 2015, 58% of the spawning stock biomass at maximum sustainable yield, ($SSB_{MSY} = 137.56$ million pounds), and 16% above the minimum stock size threshold ($1/2 SSB_{35\%} = 68.78$ million pounds). If the stock were to fall below the minimum stock size threshold, the stock would be considered overfished, which, under the MSA, would require the implementation of a rebuilding plan to reduce fishing mortality rates and rebuild stock biomass. NMFS previously declared the summer flounder stock rebuilt based on the 2011 assessment update, which included stock status determinations using data through 2010.

There are consistent, moderate internal model and historical assessment retrospective patterns that have adjusted fishing mortality rate estimates upward and SSB estimates downward since the 2011 assessment update. The retrospective patterns combined with estimation of recent (2010-2015) recruitment of below average year classes has resulted in projected F being exceeded and projected SSB not being reached, even though projected ABCs have not been substantially exceeded (NEFSC 2016).

Because this new assessment represents new best available scientific information, the SSC, Council, and Board revised their 2017 and 2018 recommendations for catch and landings limits, as presented in this document, in order to prevent overfishing of this stock.

7.0 SUPPLEMENTAL ENVIRONMENTAL IMPACTS AND REGULATORY ECONOMIC EVALUATION OF ALTERNATIVES

This SEA analyzes the impacts of the alternatives described in section 5.0. These alternatives specify commercial quotas and recreational harvest limits for summer flounder for 2017 and 2018. The Council and the Board will meet in December 2016 to adopt 2017 recreational management measures after reviewing more complete data on 2016 recreational landings, and similarly will recommend 2018 recreational management measures in late 2017. Therefore, while the impacts of recreational harvest limits are addressed in this SEA, the impacts of the specific recreational management measures implemented to achieve the harvest limits (i.e., minimum fish size, bag limits, and seasons) will be analyzed separately in early 2017 (for 2017 measures) and early 2018 (for 2018 measures).

As described in section 4.0, aspects of the human environment likely to be directly or indirectly affected by the actions proposed in this document are referred to as VECs. The aspects of the VECs that could be affected by the proposed actions are described in section 6.0 of the December 2015 EA. Specifically, the VECs include the managed resource (summer flounder) and any non-target species; habitat, including EFH for the managed resource and non-target species; ESA and MMPA protected species; and human communities. The analysis in this section focuses on impacts of the *status quo* alternatives (2017 and 2018 alternative 2, sections 5.1.1 and 5.2.1) and the preferred alternatives (2017 and 2018 alternative 5, sections 5.1.2 and 5.2.2) relative to each VEC. The impacts of the other previously analyzed alternatives are described in section 7.0 of the December 2015 EA. Those descriptions are not repeated here.

In the following sections, as in the December 2015 EA, the direction of the impacts on each of the VECs are described as negative, neutral, or positive. If the magnitude of the impact is expected to be moderate, the impact is described with only a directional indicator (i.e., “positive” and “negative” should be read as “moderate positive” and “moderate negative”). If the magnitude of the impact is expected to be minor, the impact is described as “slight”, as in slight negative or slight positive. If the magnitude of the impact is expected to be substantial, the impact is described as “high”, as in high positive or high negative. If there is some degree of uncertainty associated with the impact, it is described as “likely”. More information on how impacts to the VECs are described is shown in Table 7.

Table 7. Definition of impact and impact qualifiers.

Impact Definition			
	Directional Impact		
VEC	Positive (+)	Negative (-)	Neutral (0)
Allocated Target Species, Other Landed Species, and Protected Resources	Actions that increase stock / populations size	Actions that decrease stock / populations size	Actions that have no positive or negative impacts on stock / populations size
Physical Environment / Habitat / EFH	Actions that improve the quality or reduce disturbance of habitat	Actions that degrade the quality or increase disturbance of habitat	Actions that have no positive or negative impacts on habitat quality
Human Communities (Socioeconomic)	Actions that increase revenue and social well-being of fishermen and/or associated business	Actions that decrease revenue and social well-being of fishermen and/or associated business	Actions that have no positive or negative impacts on revenue and social well-being of fishermen and/or associated business
Impact Qualifiers			
Slight (sl), as in slight positive or slight negative)	To a lesser degree / minor		
No qualifier, as in positive or negative	To an average degree (i.e., more than “slight”, but not “high”)		
High (H), as in high positive or high negative	To a substantial degree		
Likely	Some degree of uncertainty associated with the impact		

Throughout section 7.0, the preferred alternatives are compared to the *status quo* alternatives and the current environmental baseline conditions. As described in section 4.2, the *status quo* alternatives represent the 2015 implemented specifications. The baseline conditions are the current conditions of the VECs (i.e., resource and socio/economic conditions). For the economic environment, the most recent complete economic data (2012-2014) are used as a quantitative baseline condition. More information on the baseline conditions for the VECs (i.e., affected environment) can be found in section 6.0 of the December 2015 EA.

Throughout section 7.0, to facilitate the comparison of the expected impacts of the alternatives, the changes in the proposed 2017 and 2018 commercial quotas under each alternative are compared to the 2017 and 2018 *status quo* alternatives, which are equivalent to the previously implemented 2015 commercial quota and to commercial landings in 2014. Similarly, the

recreational harvest limit under each alternative is compared to the previously implemented 2015 harvest limit and to recreational landings in 2014 (Table 8).

Commercial and recreational landings in 2015 were not available when the December 2015 EA was written; therefore, the alternatives were compared to landings in 2014 in that document. For purposes of consistency with the December 2015 EA, the same comparison is used here even though 2015 landings are now available. However, these new landings data do not change the conclusions reached regarding the impacts described in the EA. Commercial landings in 2015 were similar to those in 2014 (10.91 million pounds in 2014 and 10.59 million pounds in 2015, a difference of about 3%). Recreational landings decreased more substantially between 2014 and 2015, with about 7.40 million pounds landed in 2014 and 4.87 million pounds in 2015 (about a 44% decrease). This decrease occurred despite a decrease in recreational harvest limits of only about 5% between 2014 and 2015, and recreational measures that remained *status quo*. This indicates that a substantial decrease in availability to recreational anglers may be responsible for the decrease in landings. If this trend continues, it is possible that the reduction in harvest limits relative to *status quo* will have less severe economic impacts than described here, if measures remain closer to *status quo*.

Table 8: Commercial quotas and recreational harvest limits (in millions of pounds) under the *status quo* and preferred alternatives for 2017 and 2018, with percent difference from the 2015 commercial quotas and recreational harvest limits and the percent difference from 2014 sector-specific landings.

Measure	2017		2018	
	2017 Alt. 2 (<i>Status Quo</i>)	2017 Alt. 5 (Preferred)	2018 Alt. 2 (<i>Status Quo</i>)	2018 Alt. 5 (Preferred)
Commercial Quota	11.07	5.66	11.07	6.63
% difference from 2015 Commercial Quota (<i>status quo</i>) ^a	0.0%	-48.9%	0.0%	-40.1%
% difference from 2014 commercial landings ^a	0.0%	-48.9%	0.0%	-40.1%
Recreational Harvest Limit	7.38	3.77	7.38	4.42
% difference from 2015 recreational harvest limit (<i>status quo</i>) ^b	0.0%	-48.9%	0.0%	-40.1%
% difference from 2014 recreational landings ^b	0.0%	-49.1%	0.0%	-40.3%

^a 2014 commercial landings happened to be equal to the 2015 commercial quota (11.07 mil lb), thus, the percentage differences are the same across these rows for the commercial fishery.

^b Similarly, the 2014 recreational landings (7.40 mil lb) were very similar to the 2015 RHL (7.38 mil lb), leading to similar percentage differences between these rows.

Changes in quotas and recreational harvest limits can result in changes in fishing effort. The direction and magnitude of the change is dependent on factors such as fish abundance and availability and how the fishery responds to changes in regulations. The extent of interactions between fishing gear and habitat and other non-target species, including protected species, is related to fishing effort. The magnitude of the change in effort that results from changes in quota and availability is difficult to quantify; however, as described in the following sections, it is not expected to be highly significant for the alternatives presented here. The following section describes the general direction of impacts in response to these two factors in order to better describe the expected impacts from the alternatives (Table 9).

A decrease in effort may result in positive impacts as a result of fewer encounters with non-target, ESA and MMPA-protected species, and fewer gear impacts on habitat. Conversely, an increase in effort may result in negative impacts on these VECs. A neutral impact could result from negligible changes in effort. Implementing *status quo* measures in a future year may result in a neutral impact; however, the impacts could be different (positive or negative) if the future environmental conditions have changed. Some negative effects on non-target species resulting from increases in fishing effort in the recreational fishery could be offset by the use of ethical angler practices such as using proper catch and release techniques and use of gear which minimizes mortality on non-target species. Some negative impacts could be minimized if commercial fishermen avoid non-target species.

A general evaluation of changes in fishing effort in response to quota levels and fish availability is shown in Table 9. It is important to note that fishing effort is influenced by many factors besides quota levels and fish availability, thus future fishing effort may not respond as predicted in Table 9. Many factors influence demand for fishing trips and the behavior of fishermen, such as changes in fishing site and trip characteristics, travel costs, catch rates, available species, fishery management policies, and other characteristics. Limited data are available to address many of these factors. This makes evaluation of changes in fishing behavior difficult and complex, and makes it difficult to predict how fishing effort will change each year.

Table 9. Changes in fishing effort as a result of adjustments to quota and/or fish availability.

Change in quota	Change in fish abundance/availability		
	Decrease in availability	No change in availability	Increase in availability
Decrease in quota	A) Fishing effort (number of trips) may decrease as a result of a decrease in quota; however, because of the decrease in availability (trips catching fewer fish), fishermen may need to take additional trips to offset the lower catch per unit effort (CPUE); managers may reduce trip limits or adjust regulations that extend the fishing season and affect effort; therefore fishing effort may be the same or increase.	B) Fishing effort may decrease as a result of a decrease in quota under similar availability (trips catching similar amounts of fish); however, managers may reduce trip limits or adjust regulations that extend the fishing season and affect effort; therefore fishing effort may be the same or decrease.	C) Fishing effort may decrease as a result of a decrease in quota; likewise under increased availability (trips catching more fish), effort may decrease; however, managers may reduce trip limits or adjust regulations that extend the fishing season and affect effort; therefore fishing effort may be the same or decrease.
No change in quota	D) Fishing effort may remain the same as the quota has not changed; however, because of the decrease in availability (trips catching fewer fish), fishermen may need to take more trips to catch the same amount of fish; therefore fishing effort may be the same or increase.	E) Fishing effort may remain the same given the quota has not changed and availability is expected to be similar.	F) Fishing effort may remain the same as the quota has not changed; however, because of the increase in availability (trips catching more fish), fishermen may be able to catch the same amount of fish with fewer trips thus decreasing effort; therefore fishing effort may be the same or decrease.
Increase in quota	G) Fishing effort may increase in response to the increase in quota; because of the decrease in availability (trips catching fewer fish), fishermen may need to take more trips to catch the same amount of fish; however, managers may increase trip limits or adjust regulations in response to the higher quota allowing fewer trips to catch more fish; therefore, fishing effort may be the same or increase.	H) Fishing effort may increase in response to the increase in quota under similar fish availability due to fishermen taking more trips to catch the quota; however, managers may increase trip limits or adjust regulations in response to the higher quota allowing fewer trips to catch more fish; therefore, fishing effort may be the same or increase.	I) Fishing effort may increase in response to the increase in quota; because of the increase in availability (trips catching more fish), fishermen may be able to catch the same amount of fish with fewer trips thus decreasing effort; managers may increase trip limits or adjust regulations, but this may be offset by higher CPUE; therefore, fishing effort may be the same or decrease, depending on the combination of factors.

7.1 SUPPLEMENTAL DISCUSSION ON IMPACTS TO THE BIOLOGICAL, HABITAT, AND PROTECTED RESOURCES

7.1.1 Biological Impacts

The quota alternatives analyzed in the December 2015 EA have potential insignificant biological impacts ranging from negative to positive. The additional alternatives analyzed below (i.e., 2017 alternative 5 and 2018 alternative 5) fall within this range, with potential biological impacts ranging from negative to positive. For 2017, the preferred alternative (alternative 5) includes lower landings limits than all other 2017 alternatives analyzed both in the December 2015 EA and in this SEA (including *status quo* measures), and therefore would be expected to have the greatest potential for overall positive biological impacts due to the greatest potential to prevent overfishing. For 2018, the preferred alternative includes lower landings limits than most other alternatives analyzed in the EA and SEA. Only the “most restrictive” alternative 3 from the original EA includes lower landings limits for 2018, and both alternatives 3 and 5 would be expected to have similar positive biological impacts on the summer flounder stock.

7.1.1.1 Biological Impacts of Quota Alternatives for 2017

Biological Impacts of 2017 Alternative 2 (Status Quo)

The summer flounder commercial quota and recreational harvest limit under 2017 alternative 2 (*status quo*) are identical to those previously implemented for 2015. Given changing conditions of the summer flounder stock (NEFSC 2016), these measures are inconsistent with the SSC’s recommendation for the 2017 ABC and the Council’s risk policy on overfishing (section 4.2).

Alternative 2 is derived from an ABC of 22.77 million pounds, which is greater than the updated 2017 OFL (16.76 million pounds) and the revised 2017 ABC recommendation of 11.30 million pounds. The point estimate of the OFL from the stock assessment represents the point on the OFL distribution curve that has a 50% probability of overfishing. Allowing an ABC to exceed this would represent a probability of overfishing that is greater than 50%, which is inconsistent with the requirements of the MSA. Given this high risk of overfishing and considering the current status of the stock (i.e., the baseline conditions), alternative 2 is expected to have negative impacts to the summer flounder stock.

Because alternative 2 includes *status quo* landings limits, fishing effort would be expected to remain constant. Therefore, under alternative 2, incidental catch of non-target species would also be expected to remain the same (Table 9; cell D). Alternative 2 would thus have neutral impacts on non-target species

Overall, alternative 2 is expected to result in biological impacts that range from neutral (for non-target species) to negative (for summer flounder).

The biological impacts of alternative 2 are expected to be less positive than the impacts of alternative 5 (preferred) because alternative 2 includes a higher commercial quota and recreational harvest limit and is thus expected to result in a higher risk of overfishing for summer flounder and potentially higher rates of interactions with non-target species.

Biological Impacts of 2017 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

2017 alternative 5 is the preferred alternative for 2017. It includes a commercial quota of 5.66 million pounds and a recreational harvest limit of 3.77 million pounds. The 48.9% decrease in the commercial quota and recreational harvest limit under alternative 5 compared to the *status quo* (Table 8) is consistent with the ABC recommendations of the SSC. These measures are based on the best scientific information available and are intended to prevent overfishing. As such, alternative 5 is expected to have positive biological impacts on the summer flounder stock, compared to the *status quo* alternative, which includes higher catch and landings limits and has a higher likelihood of resulting in overfishing. Alternative 5 is expected to result in a decrease in fishing effort, compared to baseline levels (Table 8); therefore, it is expected to result in a decrease in fishing mortality for non-target species. Overall, 2017 alternative 5 is expected to have positive biological impacts for target and non-target stocks.

As described in section 6.0, the most recent assessment showed that overfishing has occurred in several recent years. The stock assessment update shows that recruitment and spawning stock biomass have been overestimated in recent years, while fishing mortality has been underestimated (known as a retrospective pattern). Similarly, the performance of three-year biomass projections was evaluated and indicated that expected increases in biomass and reductions in fishing mortality rates were not being achieved. These patterns were cited as sources of uncertainty in the SSC's catch limit recommendation, and may mean that the preferred 2017 and 2018 catch limits will end up having less positive biological impacts than expected. However, despite this uncertainty, at this point in time, the 2016 assessment update is considered the best available scientific information. Based on that information, alternative 5 is expected to have positive biological impacts.

Alternative 5 is intended to prevent overfishing and is expected to have a lower likelihood of overfishing when compared to the *status quo* alternative (2017 alternative 2). Because the commercial quota and recreational harvest limit under alternative 5 are lower than those under any of the other alternatives, they are expected to have the lowest risk of overfishing of all the 2017 alternatives. They are expected to result in the lowest fishing mortality for target and non-target species. As such, alternative 5 is expected to have the most positive biological impacts of all the 2017 alternatives considered.

7.1.1.2 Biological Impacts of Quota Alternatives for 2018

Biological Impacts of 2018 Alternative 2 (Status Quo)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to those previously implemented for 2015. Given changing conditions of the summer flounder stock (NEFSC 2016), these measures are inconsistent with the SSC's recommendation for ABC and the Council risk policy on overfishing (section 4.2).

Alternative 2 is derived from an ABC of 15.68 million pounds, which is greater than the 2018 ABC of 13.23 million pounds recommended by the SSC in July 2016. The point estimate of the OFL from the stock assessment represents the point on the OFL distribution curve that has a 50% probability of overfishing. The ABC under 2018 alternative 2 is lower than the updated 2018 OFL of 18.69 million pounds; therefore, it is expected to have less than a 50% chance of overfishing. However, because it is higher than the ABC recommended by the SSC using the

Council's risk policy, it nonetheless represents an unacceptably high risk of overfishing, given the current status of the summer flounder stock. Because alternative 2 is inconsistent with the Council's risk policy, and given the current status of the summer flounder stock, alternative 2 is expected to have negative impacts on the summer flounder stock.

Because alternative 2 includes *status quo* catch limits, fishing effort would be expected to be similar to baseline levels. Therefore, under alternative 2, incidental catch of non-target species would be expected to be similar to baseline levels (Table 9; cell D). Alternative 2 would thus have neutral impacts on non-target species.

Overall, alternative 2 is expected to result in biological impacts that range from neutral (for non-target species) to negative (for summer flounder), and would be expected to result in more negative biological impacts when compared to the revised preferred Alternative 5 for 2018.

Biological Impacts of 2018 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

2018 alternative 5 is the preferred alternative for 2018. It includes a commercial quota of 6.63 million pounds and a recreational harvest limit of 4.42 million pounds. The 40.1% decrease in the commercial quota and recreational harvest limit under alternative 5 compared to the *status quo* (Table 8) is consistent with the ABC recommendations of the SSC. These measures are based on the best scientific information available and are intended to prevent overfishing. As such, alternative 5 is expected to have positive impacts on the summer flounder stock, compared to the *status quo* alternative, which includes higher catch and landings limits and has a higher likelihood of resulting in overfishing. It is expected to result in a decrease in fishing effort, compared to baseline levels (Table 8); therefore, it is expected to result in a decrease in fishing mortality for non-target species. Overall, 2018 alternative 5 is expected to have positive biological impacts for target and non-target stocks.

As described above for the 2017 alternative 5, overfishing of summer flounder has occurred in several recent years. A retrospective pattern is evident in the assessment, and projected increases in biomass and reductions in fishing mortality rates are not being achieved. These patterns were cited as sources of uncertainty in the SSC's catch limit recommendation, and may mean that the preferred 2018 catch limits will end up having less positive biological impacts than expected. However, despite this uncertainty, at this point in time, the 2016 assessment update is considered the best available scientific information. Based on that information, alternative 5 is expected to have positive biological impacts.

Alternative 5 is intended to prevent overfishing and is expected to have a lower likelihood of overfishing when compared to the *status quo* alternative (2018 alternative 2). Overall, alternative 5 is expected to result in positive biological impacts for the managed resource and non-target species, with more positive biological impacts when compared to the *status quo* alternative 2 for 2018.

7.1.2 Habitat Impacts

7.1.2.1 Habitat Impacts of Quota Alternatives for 2017

The quota alternatives analyzed in the December 2015 EA have potential habitat impacts ranging from negative to positive. The additional alternatives analyzed below (i.e., 2017 alternative 5 and

2018 alternative 5) fall within this range, with habitat impacts ranging from neutral to positive. For 2017, the preferred alternative (alternative 5) includes lower landings limits than all other 2017 alternatives analyzed both in the December 2015 EA and in this SEA (including *status quo* measures), and therefore would be expected to have the greatest potential for overall positive habitat impacts due to the greatest reduction in fishing gear interactions with habitat. For 2018, the preferred alternative includes lower landings limits than most other alternatives analyzed in the EA and SEA. Only the “most restrictive” alternative 3 from the original EA includes lower landings limits for 2018, and both alternatives 3 and 5 would be expected to have similar positive habitat impacts on the summer flounder stock.

Habitat Impacts of 2017 Alternative 2 (Status Quo)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to those previously implemented for 2015. As described the December 2015 EA, these measures would be expected to result in neutral impacts on habitat and EFH, when compared to baseline conditions, because fishing effort would not be expected to change (see section 7.2 of the December 2015 EA). Further, once disturbed most habitat types do not fully recover unless all fishing activity is stopped. Therefore, maintaining *status quo* harvest limits would not likely further degrade or improve habitat or EFH conditions.

Habitat Impacts of 2017 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

2017 Alternative 5 includes a substantial (48.9%) decrease in the summer flounder quotas relative to *status quo* (2015) levels (Table 8). This alternative would likely result in positive habitat impacts when compared to the *status quo* and baseline conditions because decreased quotas would likely result in reduced fishing time and thus fewer interactions between fishing gear and habitat (Table 9; cell B).

7.1.2.2 Habitat Impacts of Quota Alternatives for 2018

Habitat Impacts of 2018 Alternative 2 (Status Quo)

2018 alternative 2 (*status quo*) is identical to 2017 alternative 2 (*status quo*). The habitat impacts of this alternative in 2018 are expected to be neutral, when compared to the baseline conditions (see section 7.1.2.1 of this document and section 7.2 of the EA).

Habitat Impacts of 2018 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

Given the large commercial quota decrease under alternative 5 (40.1% when compared to the *status quo*; Table 8), this alternative is expected to have impacts on habitat and EFH that are positive, when compared to the *status quo* alternative and baseline conditions (Table 9; cell B). More specifically, positive impacts can be expected because the lower quota is likely to result in less fishing time, during which gear (predominately bottom trawls) will contact the bottom and impact habitat. Alternative 5 is expected to have more positive impacts to habitat than alternative 2 for 2018 (*status quo*) due to lower fishing effort under this alternative.

7.1.3 ESA-Listed and MMPA Protected Resources

The quota alternatives analyzed in the December 2015 EA have potential impacts on ESA and MMPA protected species that range from negative to positive. The additional alternatives

analyzed below (i.e., 2017 alternative 5 and 2018 alternative 5) fall within this range, with ESA and MMPA impacts ranging from neutral to positive. For 2017, the preferred alternative (alternative 5) includes lower landings limits than all other 2017 alternatives analyzed both in the December 2015 EA and in this SEA (including *status quo* measures). As a result, alternative 5 is expected to have the greatest potential for overall positive impacts to MMPA protected and ESA listed species due to the greatest potential for reduction in interactions with fishing gear due to an expected reduction in fishing effort. For 2018, the preferred alternative includes lower landings limits than most other alternatives analyzed in the EA and SEA. Only the “most restrictive” alternative 3 from the original EA includes lower landings limits for 2018, and both alternatives 3 and 5 would be expected to have similar positive impacts on ESA listed and MMPA protected species.

Detailed information on interactions between the summer flounder fishery and protected species is included in section 6.3 of the December 2015 EA.

7.1.3.1 Impacts of 2017 Quota Alternatives on Protected Species

Impacts of 2017 Alternative 2 (Status Quo) on Protected Species

The summer flounder commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to those previously implemented for 2015 (Table 8). As described in section 7.3 of the December 2015 EA, impacts on ESA and MMPA protected species remain unchanged compared to baseline conditions because fishing effort is not expected to change (see section 7.3 of the December 2015 EA).

Impacts of 2017 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations) on Protected Species

As described in the December 2015 EA, impacts of the summer flounder fishery on marine mammals and ESA protected species under the preferred measures are uncertain because quantitative analyses have not been performed and data are limited (sections 6.3 and 7.3 of the original EA).

Alternative 5 includes a substantial decrease in the summer flounder quotas (48.9%) when compared to the *status quo* (2015) levels. Impacts from alternative 5 are expected to be similar to those described in the December 2015 EA for 2017 alternative 3 (most restrictive; see section 7.3 of the EA). Overall, under alternative 5, fishing effort is expected to decrease given the decrease in quotas relative to the *status quo*. Because interactions with marine mammals and ESA protected species are influenced by the amount of fishing gear, and the duration of time gear is in the water, decreases in fishing effort would be expected to reduce the potential for interactions, and reduce the potential for serious injury or mortality to these species (Table 9, Cell B). While interactions and takes may still occur under alternative 5, the amount of interactions with protected species is expected to be similar to or less than what is expected under alternative 2 (*status quo*). Thus, alternative 5 is expected to have impacts on marine mammals and ESA listed species that are positive when compared to the *status quo* (alternative 2) because of the expected decrease in fishing effort.

7.1.3.2 Impacts of 2018 Quota Alternatives on Protected Species

Impacts of 2018 Alternative 2 (Status Quo) on Protected Species

Impacts of the *status quo* alternative on protected species (ESA and MMPA protected species) are described in section 7.3 of the December 2015 EA and summarized in section 7.1.3.1 of this document. Impacts on protected species, when compared to baseline conditions, are expected to be unchanged.

Impacts of 2018 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations) on Protected Species

Impacts of the 2018 preferred alternative are similar to those described in section 7.1.3.1 above for the 2017 preferred alternative 5. Given the large commercial quota decrease under alternative 5 (40.1% when compared to the *status quo*; Table 8), this alternative is expected to have impacts on MMPA protected and ESA listed species that are positive, when compared to the *status quo* alternative (Table 9; cell B). More specifically, positive impacts can be expected because the lower quota is likely to result in reduced fishing time and a reduced duration of time that fishing gear is in the water, reducing the potential for interactions with MMPA protected and ESA listed species. Alternative 5 is expected to have more positive impacts to these species than alternative 2 for 2018 (*status quo*) due to lower fishing effort under this alternative.

7.2 SUPPLEMENTAL DISCUSSION OF IMPACTS TO HUMAN COMMUNITIES

The quota alternatives analyzed in the December 2015 EA have potential social and economic impacts ranging from negative to positive. Some of these alternatives would be expected to result in short-term negative, but long-term positive, economic impacts, or vice versa. The additional alternatives analyzed below (i.e., 2017 alternative 5 and 2018 alternative 5) fall within this range, with potential socioeconomic impacts ranging from negative to positive.

For 2017, the preferred alternative (alternative 5) includes lower landings limits than all other 2017 alternatives analyzed both in the December 2015 EA and in this SEA (including *status quo* measures), and therefore would be expected to have the greatest potential for negative socioeconomic impacts due to the greatest reduction in fishing opportunities. However, this alternative is also expected to prevent overfishing for summer flounder and thus result in long-term positive biological impacts that would translate into greater availability of summer flounder and therefore positive economic impacts. For 2018, the preferred alternative includes lower landings limits than most other alternatives analyzed in the EA and SEA. Only the “most restrictive” alternative 3 from the original EA includes lower landings limits for 2018, and both alternatives 3 and 5 would be expected to have similar short-term negative and long-term positive socioeconomic impacts on the summer flounder fishery.

7.2.1 Socioeconomic Impacts of Quota Alternatives for 2017

Socioeconomic Impacts of 2017 Alternative 2 (Status Quo)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to those previously implemented for 2015 (Table 8). As described in section 7.4 of the December 2015 EA, these measures would be expected to result in neutral to slight negative social and economic impacts when compared to baseline conditions, given that the overall level of fishing effort and landings would not be expected to change under this

alternative. Commercial and recreational summer flounder landings in 2014 were greater than the landings limits under this alternative (Table 8); therefore, this alternative may result in adjustments to management measures to constrain landings, which could result in slight negative economic impacts. The recreational harvest limits under this scenario will likely provide similar recreational satisfaction for summer flounder relative to 2015.

In addition, the measures contained under the *status quo* alternative 2 for summer flounder are higher than those derived from the ABCs recommended by the SSC. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of the stocks is jeopardized.

Socioeconomic Impacts of 2017 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

Alternative 5 contains the most restrictive measures for summer flounder, with reductions of approximately 50% relative to the *status quo* (2015) levels. Negative economic impacts would likely occur as the result of this reduction, relative to the *status quo* and baseline conditions, due to reduced opportunities to land and sell summer flounder and reduced for-hire opportunities and angler satisfaction. However, it is possible that given the potential decrease in landings, price for these species may increase if all other factors are held constant. An increase in price could mitigate some of the potential revenue reductions associated with lower quotas under alternative 5.

The preferred recreational harvest limit for summer flounder in 2017 alternative 5 is much lower than the 2014 recreational landings (Table 8). However, there was a decline in recreational landings between 2014 and 2015 (7.40 million pounds to 4.87 million pounds; a decline of approximately 34%). Given this decline and the information described in the stock assessment, it appears that there has been a decline in availability of summer flounder that may or may not continue into 2017. Summer flounder landings for 2016 are not yet available for the periods of highest summer flounder fishing activity. Depending on the trend of preliminary 2016 landings estimates when they are reviewed later this year, adjustments to recreational measures such as lower possession limits, greater minimum fish sizes, and/or shorter seasons may or may not be necessary to ensure that recreational landings do not exceed the recreational harvest limits. For this reason, the recreational harvest limits under 2017 alternative 5 may decrease recreational satisfaction for these fisheries, relative to the *status quo* alternative. It is anticipated that these measures, if necessary, would result in a decrease in the demand for party/charter boat trips and generally affect angler participation in a negative manner.

The measures under alternative 5 are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available. The measures under alternative 5 are intended to prevent overfishing, thus contributing to long-term positive social and economic impacts.

7.2.2 Socioeconomic Impacts of Quota Alternatives for 2018

Socioeconomic Impacts of 2018 Alternative 2 (Status Quo)

2018 alternative 2 (*status quo*) is identical to 2017 alternative 2 (*status quo*) and equivalent to the measures implemented in 2015. As described above in section 7.2.1, when compared to baseline

conditions, the socio-economic impacts under this alternative are expected to be neutral to slight negative in the short-term, with possible long-term negative impacts.

Socioeconomic Impacts of 2018 Alternative 5 (Preferred; Consistent with Revised SSC Recommendations)

The impacts for 2018 alternative 5 are similar to those described in section 7.2.1 for 2017 alternative 5. Alternative 5 for 2018 contains the most restrictive measures for summer flounder, with reductions of approximately 40% relative to the *status quo* (2015) levels. Negative economic impacts would likely occur as the result of this reduction, relative to the *status quo* and baseline conditions, due to reduced opportunities to land and sell summer flounder and reduced for-hire opportunities and angler satisfaction. However, it is possible that given the potential decrease in landings, price for these species may increase if all other factors are held constant. An increase in price could mitigate some of the potential revenue reductions associated with lower quotas under alternative 5.

The preferred recreational harvest limit for summer flounder in 2018 alternative 5 is much lower than the 2014 recreational landings (Table 8). As described in section 7.2.1, an apparent decline in availability of summer flounder may or may not continue into 2018. Adjustments to recreational measures in 2018, such as lower possession limits, greater minimum fish sizes, and/or shorter seasons may or may not be necessary to ensure that recreational landings do not exceed the recreational harvest limits, but this will not be determined until late 2017. The recreational harvest limits under 2018 alternative 5 may decrease recreational satisfaction for these fisheries, relative to the *status quo* alternative, if measures need to be constricted, and this would result in a decrease in the demand for party/charter boat trips and generally affect angler participation in a negative manner.

The measures under alternative 5 are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available. The measures under alternative 5 are intended to prevent overfishing, thus contributing to long-term positive social and economic impacts.

7.3 CUMULATIVE IMPACTS OF PREFERRED ALTERNATIVES

The information presented in section 7.5 of the December 2015 EA, which described the affected environment, geographic and temporal scope of the VECs, and past, present, and reasonably foreseeable future actions, is supplemented by the following information. The action described in the EA, when considered in conjunction with all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, was not expected to result in any significant impacts, positive or negative (section 7.5.6. of the EA).

7.3.1 Biological Cumulative Impacts

The following supplements the CEA (Cumulative Effects Assessment) managed resource discussion of the EA (section 7.5). As described in the EA, catch limits and commercial quotas for the managed resource have been specified to ensure the stock is managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The impacts of management measures established in previous years on the managed resource are largely dependent on how effective those measures were in meeting their intended

objectives (i.e., preventing overfishing, achieve OY) and the extent to which mitigating measures were effective.

As previously stated, the *status quo* alternatives described in this document are inconsistent with the goals and objectives of the FMP because they are not expected to prevent overfishing of summer flounder as required under the MSA. Continued implementation of the *status quo* management measures for summer flounder could potentially result in negative biological cumulative impacts down the line if overfishing continues to occur.

As described in section 6.0, the most recent assessment showed that overfishing has occurred in several recent years. The stock assessment update shows that recruitment and spawning stock biomass have been overestimated in recent years, while fishing mortality has been underestimated (known as a retrospective pattern). Similarly, the performance of three-year biomass projections was evaluated and indicated that expected increases in biomass and reductions in fishing mortality rates were not being achieved. If this retrospective pattern continues to introduce uncertainty into the stock assessment results, it will remain difficult for managers to appropriately set catch limits to prevent overfishing, which may lead to negative cumulative effects on the summer flounder stock.

In addition, the assessment reveals a pattern of poor recruitment over the last six years. The causes of this pattern are unknown, but may be related to environmental conditions, including climate change. As described in EA, climate change may have current and future negative impacts on the summer flounder stock, including possible impacts on recruitment, juvenile survival, reproduction, and overall summer flounder habitat quality. Physical changes related to climate change that are occurring and will continue to occur to these systems include sea-level rise, changes in sediment deposition, changes in water circulation, increased frequency, intensity and duration of extreme climate events, changing water chemistry, and warming ocean temperatures. Emerging evidence demonstrates that these physical changes are resulting in direct and indirect ecological responses within marine ecosystems which may alter the fundamental production characteristics of marine systems (Stenseth et. al. 2002). Climate change will potentially exacerbate the stresses imposed by harvesting (fishing) and other non-fishing human activities and stressors described in the December 2015 EA. Overall, climate change is expected to have negative biological impacts on many stocks. However, future mitigation and adaptation strategies to climate change may mitigate some of these impacts as the science surrounding predicting, evaluating, monitoring and categorizing these changes evolves.

Despite these trends, continuing to modify the management measures to reflect the current status of the stock and biomass projections, however, is likely to result in continued sustainability of the managed resource. The proposed action in this document are expected to prevent overfishing and would positively reinforce the past and anticipated positive cumulative effects on the summer flounder stock, by achieving the objectives specified in the FMP. Therefore, the proposed action would not have any significant effect on the managed resources individually or in conjunction with other anthropogenic activities.

7.3.2 Socioeconomic Cumulative Impacts

The following supplements the CEA socioeconomic discussion of the EA with additional information relative to the proposed action in this SEA. National Standard 8 requires that management measures consider the impact management measures have on fishing communities.

The ports and communities that are dependent on summer flounder, scup, and black sea bass are fully described in Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP (section 3.4.2 of that document), have been updated in subsequent specifications documents, and remain unchanged from the December 2015 EA. The top commercial landings ports for summer flounder, scup, and black sea bass by pounds landed and related data for the recreational fisheries are described in section 6.0 of the original EA. For recreational communities, due to the nature of the recreational database (the Marine Recreational Information Program, or MRIP), disaggregating the data to less than state levels reduces the precision of those estimates. Harvest estimates are always progressively less precise at lower levels of stratification; annual estimates are more precise than bimonthly estimates, coastal estimates are more precise than regional estimates, and regional estimates are more precise than state estimates. Because of the loss in precision described above, port-level recreational data are not provided in the original EA.

The cumulative impacts on the social and economic environment are described in section 7.5.5.5 of the December 2015 EA, and for the most part, remain unchanged. Past fishery management actions taken through the FMP and annual specification process have had both positive and negative cumulative effects by benefiting domestic fisheries through sustainable fishery management practices, while at the same time potentially reducing the availability of the resource to all participants. However, the proposed reduction in quotas between 2016 and 2017 represents the second year in a row of a substantial decrease in quotas. Between 2015 and 2017, landings levels were reduced by approximately 30%, and between 2016 and 2017, are proposed to be reduced by an additional 30%, resulting in an overall decrease of nearly 50% between 2015 and 2017. Quotas are proposed to increase slightly between 2017 and 2018. This pattern of proposed reductions on top of previous reductions is likely to result in cumulative negative social and economic impacts, as sustained periods of reductions mean that some entities are less likely to rebound after temporary cutbacks.

Sustainable management practices are, however, expected to yield long-term broad positive impacts to fishermen, their communities, businesses, and the nation as a whole. It is anticipated that the future management actions will result in long-term positive effects for human communities due to sustainable management practices, although additional indirect negative effects on the human communities could occur through management actions if they result in reduced revenues. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to human communities have had an overall positive cumulative effect. The proposed actions in this document would not change the past and anticipated cumulative effects on human communities and thus, would not have any significant effect on human communities individually, or in conjunction with other anthropogenic activities.

Long-term Cumulative Effects

Long-term effects of the preferred management alternatives are clear: the summer flounder fishery would continue to be managed sustainably as a result of the accumulated effects of the proposed management measures applied over time. Although the long-term effects of these alternatives are less clear or quantifiable from a social and economic perspective, rebuilt stocks would presumably provide fishing communities with the ability to increase catch rates, resulting in insignificant but higher overall welfare benefits to fishermen and the Nation as a whole.

Impacts Associated with Future Management Actions

It is expected that proposed management measures will contribute to resource sustainably and result in positive economic benefits to fishing communities in the long-term. There may be some effects of short-term declines in revenues, jobs, and income for individuals under management measures which are expected to reduce overall summer flounder catch. These effects could be regional (depending on how measures relate to fish availability/distributions) and could result in structural changes to the economy and physical composition of fishing communities are accompanied by delocalization, or the loss of localized community character and culture (Hall-Arber et al. 2001). Long-standing traditions and close-knit alliances that unite fishing communities and families may be altered.

The management alternatives proposed for 2017 and 2018 do not introduce measures that specifically seek to mitigate these problems of infrastructure loss and the changing culture of fishing communities. However, if the catch and landings limits established in the FMP continue to be achieved over the long-term, it is not expected that fishing opportunities for summer flounder would be significantly impacted. Reasonably foreseeable future Federal actions include additional or revised fishing regulations, both for the summer flounder fisheries and for other species that marine recreational and commercial fishermen target. For example, the ongoing Comprehensive Summer Flounder Amendment may revise the suite of management measures for summer flounder, including allocations, permit capacity, and other measures. Additional Federal actions could also have indirect impacts on recreational and commercial fishing communities reliant on these species. Federal decisions on offshore petroleum access and the placement of inshore/offshore wind farms, for example, could have either a positive or negative effect on landings and access to summer flounder stocks.

7.3.3 Conclusions

None of the proposed management measures in this SEA would have significant cumulative effects on the target species or non-target species individually or in conjunction with other anthropogenic activities.

The action described in the SEA, when considered in conjunction with the action in the EA (section 7.5.6. of the EA), and all the other pressures placed on fisheries by past, present, and reasonably foreseeable future actions, is not expected to result in any significant impacts, positive or negative.

8.0 APPLICABLE LAW

8.1 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (MSA): NATIONAL STANDARDS

Section 301 of the MSA requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The proposed actions described in this SEA are confined to processes defined within the FMP. Actions within the FMP have been deemed consistent with the National Standard; therefore, the proposed action is similarly consistent. The most recent FMP Amendments address how the management actions implemented comply with the National Standards. First and foremost, the Council continues to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving, on a continuing basis, the optimum yield

for summer flounder and the U.S. fishing industry. The Council uses the best scientific information available (National Standard 2) and manages summer flounder throughout its range (National Standard 3). These management measures do not discriminate among residents of different states, (National Standard 4) and they do not have economic allocation as their sole purpose (National Standard 5). The measures account for variations in these fisheries (National Standard 6), they avoid unnecessary duplication (National Standard 7), they take into account the fishing communities (National Standard 8), and they promote safety at sea (National Standard 10). Finally, actions taken are consistent with National Standard 9, which addresses bycatch in fisheries. The Council has implemented many regulations that have indirectly acted to reduce fishing gear impacts on EFH. By continuing to meet the National Standards requirements of the MSA through future FMP amendments, framework actions, and the annual specification setting process, the Council will insure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, the Nation as a whole, and certainly for the resources.

8.2 NEPA (FONSI)

Finding of No Significant Impact (FONSI)

National Oceanic and Atmospheric Administration (NOAA) Administrative Order (AO) 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of “context” and “intensity.” Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NOAA AO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?

The proposed action is not expected to jeopardize the sustainability of any target species affected by the action. The preferred alternatives establish catch and landing limits for summer flounder that are consistent with the FMP objectives and the recommendations of the Council's SSC. The proposed measures are not expected to result in overfishing. The proposed actions will ensure the long-term sustainability of harvests from the summer flounder stock (section 7.1).

2) Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?

The proposed action is not expected to jeopardize the sustainability of any non-target species, including ESA and MMPA protected species. The proposed measures are not expected to alter fishing methods or activities; however, they may result in a decrease in fishing effort; therefore, they may have positive impacts on non-target species (sections 7.1.1 and 7.1.3 of this document and sections 7.1 and 7.3 of the EA).

3) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs?

The proposed action is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the MSA and identified in the FMP. Bottom-tending mobile gear (primarily otter trawls) has the potential to adversely affect EFH for the species listed in section 6.2 of the EA. The proposed action is expected to result in a slight decrease in fishing effort for summer flounder, which could decrease the amount of time that fishing gear is in the water and could in turn decrease the potential for interactions between fishing gear and habitat, including EFH (section 7.1.2).

4) Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

The proposed action will not alter the manner in which the industry conducts fishing activities for the target species. Therefore, no changes in fishing behavior that would affect safety are anticipated. The overall effect of the proposed actions on these fisheries, including the communities in which they operate, will not adversely impact public health or safety.

5) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

The proposed action is not expected to alter fishing methods or activities. The proposed action is not expected to increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Therefore, this action is not expected to affect ESA and MMPA protected species or critical habitat in any manner not considered in previous consultations on the fisheries (section 7.1.3 of this document and section 7.3 of the EA).

6) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is not expected to alter fishing methods or activities. It is expected to result in a decrease in fishing effort and may reduce the spatial and/or temporal distribution of current fishing effort (section 7).

7) Are significant social or economic impacts interrelated with natural or physical environmental effects?

The proposed action is not expected to have a substantial impact on the natural or physical environment. Commercial capture of summer flounder occurs predominately in the Mid-Atlantic mixed trawl fishery. Bottom otter trawls have a potential to impact bottom habitat. In addition, a number of non-target species are taken incidentally in the prosecution of this fisheries. However, the proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort and a reduction in the spatial and/or temporal distribution of current fishing effort. Therefore, there are no social or economic impacts interrelated with significant natural or physical environmental effects (sections 7.1 and 7.2).

8) Are the effects on the quality of the human environment likely to be highly controversial?

This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is based on measures contained in the FMP, which have been in place for many years. In addition, the scientific information upon which the annual quotas are based has been peer reviewed and is the most recent information available (section 4.0). Thus, the measures contained in this action are not expected to be highly controversial.

9) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort. Other types of commercial fishing already occur in this area and although it is possible that historic or cultural resources such as shipwrecks could be present, vessels try to avoid fishing too close to wrecks due to possible loss or entanglement of fishing gear. Therefore, it is not likely that the proposed action would result in substantial impacts to unique areas.

10) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The impacts of the proposed action on the human environment are described in section 7 of this document and in section 7 of the attached EA. This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort and a reduction in the spatial and/or temporal distribution of current fishing effort. The proposed action is based on measures contained in the FMP, which have been in place for many years. In addition, the scientific information upon which the annual quotas are based has been peer reviewed and is the most recent information available (section 4.0). The measures contained in this action are not expected to have highly uncertain effects or to involve unique or unknown risks on the human environment.

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

As discussed in section 7.3, the proposed action is not expected to have individually insignificant, but cumulatively significant impacts. The proposed action, together with past, present, and reasonably foreseeable future actions, is not expected to result in significant cumulative impacts on the biological, physical, and human components of the environment.

12) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

The impacts of the proposed action on the human environment are described in section 7. This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. Although there are shipwrecks present in the area where fishing occurs, including some registered on the National Register of Historic Places, vessels typically avoid fishing too close to wrecks due to possible loss or entanglement of fishing gear. Therefore, it is not likely that the proposed action would adversely affect the historic resources listed above.

13) Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. There is no evidence or indication that the commercial summer flounder fishery has ever resulted in the introduction or spread of nonindigenous species. The proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort and a reduction in the spatial and/or temporal distribution of current fishing effort. Therefore, it is highly unlikely that the proposed action would result in the introduction or spread of a non-indigenous species.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort and a reduction in the spatial and/or temporal distribution of current fishing effort. When new stock assessments or other biological information about summer flounder become available in the future, the specifications will be adjusted consistent with the FMP and MSA. None of these specifications results in significant effects, nor do they represent a decision in principle about a future consideration. The impact of any future changes will be analyzed as to their significance in the process of developing and implementing them.

15) Can the proposed action reasonably be expected to threaten a violation of federal, State, or local law or requirements imposed for the protection of the environment?

This action merely modifies previously implemented summer flounder catch and landings limits for 2017 and 2018. The proposed action is not expected to alter fishing methods or activities such that they threaten a violation of federal, State, or local law or requirements imposed for the

protection of the environment. The proposed measures have been found to be consistent with other applicable laws (sections 8.3 - 8.10).

16) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

The impacts of the proposed action on the biological, physical, and human environment are described in section 7. The cumulative effects of the proposed action on target and non-target species, including ESA and MMPA protected species, are described in section 7.3. The proposed action is not expected to alter fishing methods or activities and it may result in a decrease in fishing effort and a reduction in the spatial and/or temporal distribution of current fishing effort. The synergistic interaction of improvements in the efficiency of the fishery through implementation of annual quotas based on the overfishing definitions contained in the FMP and consistent with scientific advice is expected to generate positive impacts overall.

DETERMINATION

In view of the information presented in this SEA and the analysis contained in the supporting EA prepared for the 2016-2018 Summer Flounder, Scup, and Black Sea Bass Specifications, it is hereby determined that the action proposed for summer flounder in this SEA will not significantly impact the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

Regional Administrator for GARFO, NMFS, NOAA

Date

8.3 ENDANGERED SPECIES ACT

Sections 6.0 and 7.0 of this SEA and of the original EA contain an assessment of the impacts of the proposed action on endangered species. The proposed action is not expected to alter fishing methods or activities. Therefore, this action is not expected to affect endangered or threatened species or critical habitat in any manner not considered in previous consultations on summer flounder fisheries.

8.4 MARINE MAMMAL PROTECTION ACT

Sections 6.0 and 7.0 of this SEA and of the original EA describe the impacts of the proposed action on marine mammals. The proposed action is not expected to alter fishing methods or activities. Therefore, this action is not expected to affect marine mammals or critical habitat in any manner not considered in previous consultations on the fisheries.

8.5 COASTAL ZONE MANAGEMENT ACT

The Coastal Zone Management Act of 1972, as amended, provides measures for ensuring stability of productive fishery habitat while striving to balance development pressures with social, economic, cultural, and other impacts on the coastal zone. Responsible management of both coastal zones and fish stocks must involve mutually supportive goals. The Council has developed this specifications document and will submit it to NMFS. NMFS must determine whether this action is consistent to the maximum extent practicable with the coastal zone management programs for each state (Maine through North Carolina).

8.6 ADMINISTRATIVE PROCEDURE ACT

This section supplements the description of the process and opportunity for public comment described in the EA under the Administrative Procedures Act (section 8.0). The public had the opportunity to review and comment specifically on the revised summer flounder specifications during the SSC meeting held on July 20-21, 2016, in Baltimore, MD; the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee meeting held on July 25, 2016, via webinar; the Advisory Panel meeting held July 29, 2016 via webinar; and during the Council meeting held on August 8-11, 2016, in Virginia Beach, VA. The public will have further opportunity to comment on this specifications document once NMFS publishes a request for comments notice in the *Federal Register*.

8.7 SECTION 515 (DATA QUALITY ACT)

Utility of Information Product

This action proposes revised catch and landings limits for the commercial and recreational summer flounder fisheries for the years 2017 and 2018. This document includes a description of the alternatives considered, the preferred action, and rationale for selection. As such, this document enables the implementing agency (NMFS) to make a decision on implementation of annual specifications (i.e., management measures) and this document serves as a supporting document for the proposed rule.

The action contained within this SEA was developed to be consistent with the FMP, MSA, and other applicable laws, through a multi-stage process that was open to review by affected members of the public. In addition to the opportunity for comment during the development of the EA and SEA, the public had the opportunity to review and comment specifically on the revised summer flounder specifications during a number of public meetings (section 8.6). The public will have further opportunity to comment on this specifications document once NMFS publishes a request for comments notice in the *Federal Register*.

Integrity of Information Product

The information product meets the standards for integrity under the following types of documents: Other/Discussion (e.g., Confidentiality of Statistics of the MSA; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the Marine Mammal Protection Act).

Objectivity of Information Product

The category of information product that applies to this SEA and the EA being supplemented is “Natural Resource Plans.” This section (section 8.0) describes how this document was developed to be consistent with any applicable laws, including MSA with any of the applicable National Standards. The analyses used to develop the alternatives (i.e., policy choices) are based upon the best scientific information available. The most up-to-date information was used to develop this SEA which evaluates the impacts of those alternatives (sections 5.0 and 7.0). The specialists who worked with these core data sets and population assessment models are familiar with the most recent analytical techniques and are familiar with the available data and information relevant to the summer flounder fishery.

The review process for this specifications document involves Council, NEFSC, Greater Atlantic Regional Fisheries Office (GARFO), and NOAA Fisheries headquarters. The NEFSC technical review is conducted by senior level scientists with specialties in fisheries ecology, population dynamics and biology, as well as economics and social anthropology. The Council review process involves public meetings at which affected stakeholders have the opportunity to comments on proposed management measures. Review by GARFO is conducted by those with expertise in fisheries management and policy, habitat conservation, protected resources, and compliance with the applicable law. Final approval of the specifications document and clearance of the rule is conducted by staff at NOAA Fisheries Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

8.8 PAPERWORK REDUCTION ACT

The Paperwork Reduction Act (PRA) concerns the collection of information. The intent of the PRA is to minimize the federal paperwork burden for individuals, small businesses, state and local governments, and other persons as well as to maximize the usefulness of information collected by the Federal government. There are no changes to the existing reporting requirements previously approved under this FMP for vessel permits, dealer reporting, or vessel logbooks. This action does not contain a collection-of-information requirement for purposes of the PRA.

8.9 IMPACTS OF THE PLAN RELATIVE TO FEDERALISM/EO 13132

This specifications document does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order (EO) 13132.

8.10 REGULATORY FLEXIBILITY ACT ANALYSIS

The Regulatory Flexibility Act (RFA), first enacted in 1980, and codified at 5 U.S.C. 600-611, was designed to place the burden on the government to review all regulations to ensure that, while accomplishing their intended purposes, they do not unduly inhibit the ability of small entities to compete. The RFA recognizes that the size of a business, unit of government, or nonprofit organization frequently has a bearing on its ability to comply with a Federal regulation. Major goals of the RFA are: 1) to increase agency awareness and understanding of the impact of their regulations on small business; 2) to require that agencies communicate and explain their findings to the public; and 3) to encourage agencies to use flexibility and to provide regulatory relief to small entities.

The RFA emphasizes predicting significant adverse impacts on small entities as a group distinct from other entities and on the consideration of alternatives that may minimize the impacts, while still achieving the stated objective of the action. When an agency publishes a proposed rule, it

must either, (1) “certify” that the action will not have a significant adverse impact on a substantial number of small entities, and support such a certification declaration with a “factual basis”, demonstrating this outcome, or, (2) if such a certification cannot be supported by a factual basis, prepare and make available for public review an Initial Regulatory Flexibility Analysis (IRFA) that describes the impact of the proposed rule on small entities.

The sections below provide the supporting analysis to assess whether the proposed regulations will have a “significant impact on a substantial number of small entities.”

8.10.1 Basis and Purpose of the Rule

This action is taken under the authority of the MSA and regulations at 50 CFR part 648. A complete description of the purpose and need and objectives of this proposed rule is found under section 4.0. The proposed action in this specifications document would modify commercial quotas and recreational harvest limits for the summer flounder fishery in 2017 and 2018. A full description of the alternatives analyzed in this section is presented in section 5.0 of this document, and additional information describing the basis of these alternatives can be found in section 4.0. A brief description of the alternatives is presented below for reference purposes.

As described in sections 4.0 and 5.0, the action proposed in this document includes establishing commercial quotas and recreational harvest limits for the summer flounder fishery for the 2017 and 2018 fishing years that are consistent with the best scientific information available and the most recent catch limit recommendations of the Council’s SSC. The proposed landings limits for 2017 include a commercial quota of 5.66 million pounds, and a recreational harvest limit of 3.77 million pounds (2017 alternative 5). For 2018, the proposed measures include a commercial quota of 6.63 million pounds and a recreational harvest limit of 4.42 million pounds (2018 alternative 5).

The other alternatives considered in this document (2017 alternative 2 and 2018 alternative 2) are *status quo* alternatives that are both identical to the summer flounder landings limits implemented in 2015 (see section 5.0). If implemented, these alternatives would have greater positive socioeconomic impacts than the preferred alternatives, as discussed in section 7.2. However, these alternatives were not selected as preferred alternatives given that they do not address the new scientific information regarding summer flounder stock status nor are they consistent with the most recent advice of the Council’s SSC. Because these alternatives are inconsistent with the purpose and need of this action, they are not considered further in this section.

8.10.2 Description of Regulated Entities

The small entities that would be affected by this action include commercial fishing operations with federal summer flounder permits, as well as recreational for-hire operations holding Federal summer flounder party/charter permits.

The Small Business Administration (SBA) defines a small business in the commercial fishing industry as a firm with total annual receipts (gross revenues) not in excess of \$11.0 million. A small business in the recreational for-hire fishery is a firm with receipts of up to \$7.5 million.

The affected entities are described in detail in section 8.11.1.6 of the December 2015 EA. Recent landing patterns among ports are presented in the December 2015 EA in section 6.4.3 and an

analysis of permit data is found in section 6.4.4. A description of the summer flounder, scup, and black sea bass fisheries is presented in section 6.0 of the EA and section 3.0 of Amendment 13 to the FMP (MAFMC 2002). A description of ports and communities that are dependent on summer flounder, scup, and black sea bass is found in section 3.4.2 of Amendment 13 to the FMP. Additional information on "Community Profiles for the Northeast US Fisheries" can be found at

<http://www.nefsc.noaa.gov/read/socialsci/communityProfiles.html>.

8.10.3 Number of Regulated Commercial Entities

For RFA purposes only, NMFS established a small business size standard for businesses, including their affiliates, whose primary industry is commercial fishing (50 CFR §200.2). A business primarily engaged in commercial fishing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of \$11 million, for all its affiliated operations worldwide.

In order to identify firms, vessel ownership data,² which have been added to the permit database, was used to identify all the individuals who own fishing vessels. With this information, vessels were grouped together according to common owners. The resulting groupings were then treated as a fishing business, for purposes of identifying small and large firms.

According to the ownership database, 553 affiliate firms landed summer flounder during the 2013-2015 period, with 547 of those business affiliates categorized as small business and six categorized as large business. The three-year average (2013-2015) combined gross receipts (all species combined) for small entities was \$193,719,095 and the average summer flounder receipts was \$24,262,437; this indicates that summer flounder revenues contributed approximately 12.52% of the total gross receipts for these small entities. The six firms that were categorized as large entities had combined gross receipts of \$27,328,240 and average summer flounder receipts of \$2,753,537, as such, summer flounder receipts as a proportion of gross receipts is 10.08% (near identical to the proportion for small business entities). In general terms, the active commercial summer flounder fishery participants derive a small share of overall gross receipts from the summer flounder fishery. The more immediate impact of the rule may be felt by the firms that are active participants.

The expected effects of the proposed action were analyzed by employing quantitative approaches to the extent possible. In the current analysis, effects on profitability associated with the proposed management measures should be evaluated by looking at the impact of the proposed measures on individual business entities costs and revenues. However, in the absence of cost data for individual business entities engaged in the fishery, changes in gross revenues are used as a proxy for profitability. Where quantitative data were not available, qualitative analyses were conducted.

² Affiliate database for 2013-2015 was provided by the NMFS NEFSC Social Science Branch.

8.10.4 Economic Impacts on Commercial Regulated Entities

Impacts of 2017 Preferred Alternative 5

The overall potential summer flounder revenue reduction associated with the proposed action in 2017 is approximately \$7.7 million.³ For small entities the revenue reduction would be approximately \$6.9 million. Assuming the decrease in ex-vessel gross revenues was distributed equally among firms that landed summer flounder (547 firms), the average decrease in revenue associated with the decrease in quota is approximately \$12,619 per firm that landed summer flounder during the 2013-2015 period. The overall revenue reduction for small entities due to the decrease in summer flounder quota is approximately 3.56%.⁴ The changes in in ex-vessel gross revenues associated with the potential changes in the revised preferred quota in 2017 versus the previously preferred 2017 alternative presented in the December 2015 EA assume static prices for summer flounder. However, it is possible that given the potential decrease in landings of this species, price for summer flounder may increase, holding all other factors constant. An increase in summer flounder price could mitigate some of the revenue losses associated with lower quotas.

Impacts of 2018 Preferred Alternative 5

The overall potential summer flounder revenue reduction associated with the proposed action in 2018 is approximately \$4.3 million.⁵ For small entities the revenue reduction would be approximately \$3.8 million. Assuming the decrease in ex-vessel gross revenues was distributed equally among firms that landed summer flounder (547 firms), the average decrease in revenue associated with the decrease in quota is approximately \$7,004 per firm that landed summer flounder during the 2013-2015 period. The overall revenue reduction for small entities due to the decrease in summer flounder quota is approximately 1.98%.⁶ As indicated above, it is possible that given the potential decrease in landings of this species, price for summer flounder may

³ When compared to the previous 2017 preferred alternative presented in the December 2015 EA. Note: the revised preferred recommendation represents a 28.45% reduction in commercial landings when compared to the previously preferred 2017 alternative presented in the December 2015 EA.

⁴ For large entities the revenue reduction would be approximately \$0.8 million. Assuming the decrease in ex-vessel gross revenues was distributed equally among firms that landed summer flounder (6 firms), the average decrease in revenue associated with the decrease in quota is approximately \$130,564 per firm that landed summer flounder during the 2013-2015 period. The overall revenue reduction for large entities due to the decrease in summer flounder quota is approximately 2.87% (near identical to that from small entities). No disproportionality issues are expected.

⁵ When compared to the previous 2018 preferred alternative presented in the December 2015 EA. Note: the revised preferred recommendation represents a 15.97% reduction in commercial landings when compared to the previously preferred 2018 alternative presented in the December 2015 EA.

⁶ For large entities the revenue reduction would be approximately \$0.4 million. Assuming the decrease in ex-vessel gross revenues was distributed equally among firms that landed summer flounder (6 firms), the average decrease in revenue associated with the decrease in quota is approximately \$72,464 per firm that landed summer flounder during the 2013-2015 period. The overall revenue reduction for large entities due to the decrease in summer flounder quota is approximately 1.59% (near identical to that from small entities). No disproportionality issues are expected.

increase, holding all other factors constant. An increase in summer flounder price could mitigate some of the revenue losses associated with lower quotas.

8.10.5 Number of Regulated Recreational Entities

A business primarily engaged in for-hire fishing activity is classified as a small business if it has combined annual receipts not in excess of \$7 million. According to the vessel ownership data (see description of data set above) 411 for-hire affiliate firms generated revenues from fishing recreationally for various species during the 2013-2015 period; all of those business affiliates are categorized as small business. It is not possible to derive what proportion of the overall revenues for these for-hire firms came from specific fishing activities (e.g., summer flounder, scup, black sea bass, bluefish, groundfish, tilefish, weakfish, striped bass, tautog, pelagics). Nevertheless, given the popularity of summer flounder as a recreational species in the Mid-Atlantic and New England regions, it is likely that revenues generated from summer flounder fishing is important for some if not all of these firms. The three-year average (2013-2015) combined gross receipts (all for-hire fishing activity combined) for these small entities was \$53,592,318, ranging from less than \$10,000 for 121 entities (lowest value \$78) to over \$1,000,000 for 10 entities (highest value \$2.7 million).

8.10.6 Economic Impacts on Recreational Regulated Entities

Impacts of 2017 Preferred Alternative 5

The economic analyses presented for the various quota scenarios presented in this document are principally for the commercial fisheries. While general statements regarding potential changes in the recreational fisheries due to changes in recreational harvest limits for summer flounder are made in this document, the effects of specific recreational management measures (i.e., bag limits, size limits, and seasonal closures) will be described in a separate action in early 2017.

If summer flounder recreational landings in 2016 are similar to those in 2015 (4.72 million pounds), additional management measures (e.g., lower possession limits, greater minimum size limits, and/or shorter seasons compared to 2015) will likely be necessary in 2017 to ensure that recreational landings do not exceed the recreational harvest limit under this scenario (3.77 million pounds). For this reason, the summer flounder recreational harvest limit under this scenario will likely reduce recreational satisfaction when compared to 2015.

There is no information regarding how the potential decrease in the recreational harvest limits for summer flounder will affect the demand for party/charter boat trips. Currently, the market demand for this sector is relatively stable; however, it is likely that given the proposed recreational harvest limits under this scenario, the demand for party/charter boat trips may decrease. Some anglers that choose to reduce their effort in 2017 because of these recreational harvest limits are likely to transfer their effort to other species (e.g., spot, bluefish, weakfish, striped bass, tautog, pelagics, etc.) resulting in very little change in overall fishing effort. However, recreational harvest restrictions for many of the other species in the Northeast are becoming more binding each year, resulting in fewer substitute landing opportunities, particularly for anglers fishing aboard headboats where passengers are primarily limited to bottom fishing.

As mentioned above, the specific management measures for the summer flounder recreational fishery will be analyzed in a separate action in early 2017. It is anticipated that changes to existing recreational regulations may occur at that time.

Impacts of 2018 Preferred Alternative 5

If summer flounder recreational landings in 2017 are similar to those in 2015 (4.72 million pounds), additional management measures (e.g., lower possession limits, greater minimum size limits, and/or shorter seasons compared to 2015) will likely be necessary in 2018 to ensure that recreational landings do not exceed the recreational harvest limit under this scenario (4.42 million pounds). For this reason, the summer flounder recreational harvest limit under this scenario will likely reduce recreational satisfaction when compared to 2015 but to a lesser extent than described under the preferred alternative 5 for 2017. As previously indicated, the specific management measures for the 2018 summer flounder recreational fishery will be analyzed in a separate action in early 2018.

9.0 LITERATURE CITED

Beanlands, G.E., and P. N. Duinker. 1984. Ecological framework adjustment for environmental impact assessment. *Journal of Environmental Management*. 8:3.

Hall-Arber M, Dyer C, Poggie J, McNally J, Gagne R. 2001. New England's Fishing Communities. Cambridge (MA): MIT Sea Grant 01-15. Available at: <http://seagrant.mit.edu/cmss/>

MAFMC (Mid-Atlantic Fishery Management Council). 2002. Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. 552 p. + append. Available at: <http://www.mafmc.org/fisheries/fmp/sf-s-bsb>

NEFSC (Northeast Fisheries Science Center). 2013. 57th Northeast Regional Stock Assessment Workshop (57th SAW) Assessment Summary Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 13-14; 39 p.

NEFSC (Northeast Fisheries Science Center). 2015. Stock Assessment Update of Summer Flounder for 2015. Northeast Fisheries Science Center Reference Document 15-13; 18 p.

NEFSC (Northeast Fisheries Science Center). 2016. Summer Flounder Stock Assessment Update for 2016. Available at: <http://www.mafmc.org/briefing/august-2016>.

Stenseth, N.C, Mysterud, A., Otterson, G., Hurrell, J.W., Chan, K., and M. Lima. 2002. Ecological Effects of Climate Fluctuations. *Science* 297(5585); 1292-1296

10.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this supplemental environmental assessment, the Council consulted with NMFS, the ASMFC, the New England and South Atlantic Fishery Management Councils, U.S. Fish and Wildlife Service, and the states of Maine through North Carolina through their membership on the Mid-Atlantic and New England Fishery Management Councils and the ASMFC. To ensure compliance with NMFS formatting requirements, the advice of NMFS GARFO personnel was sought.

Copies of the specifications document, including the Environmental Assessment and Regulatory Flexibility Act Analysis and other supporting documents for the specifications are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901.