2013 and 2014 Summer Flounder, Scup, and Black Sea Bass Specifications Environmental Assessment Initial Regulatory Flexibility Analysis

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

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1.0 EXECUTIVE SUMMARY

This document was prepared by the Mid-Atlantic Fishery Management Council (Council) in consultation with the National Marine Fisheries Service (NMFS). The purpose of this action (specifications document) is to implement commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries in 2013 and the summer flounder and scup fisheries for 2014 that are necessary to prevent overfishing, ensure annual catch limits (ACLs) are not exceeded.

This specifications document was developed in accordance with all applicable laws and statutes as described in section 8.0 and the document details all management alternatives for summer flounder, scup, and black sea bass fisheries evaluated for a two year period (2013 and 2014). Under the FMP, the no action alternatives for summer flounder, scup, and black sea bass are not equivalent to the *status quo*. If the actions proposed in this document are not taken, some current management measures will remain in place, but the overall management program will not be identical to that of 2012. The "true" no action alternative for each fishery is infeasible and inconsistent with the Magnuson-Stevens Fishery Conservation and Management Act (MSA); therefore, the no action alternatives are presented in section 5.4 of this document but not analyzed further. For comparison purposes, the alternatives in this specifications document are compared to the *status quo* alternatives (baseline) as opposed to the "true" no action alternatives. For the 2013 alternatives, the base line condition is the adjusted quotas for 2012 (quotas adjusted for research set-aside (RSA) and/or overages/quotas restorations). For the 2014 alternatives for summer flounder and scup, the baseline condition is the Council preferred adjusted quotas for 2013. For black sea bass, the Council did not make a specifications recommendation for 2014. However, for the purpose of analyzing the 2014 impacts, the baseline condition for black sea bass was defined as the highest commercial quota and recreational harvest limits in the time series, those corresponding to the year 2005.

The proposed actions in this specifications document would only modify the commercial quotas and recreational harvest limits for summer flounder, scup, and black sea bass for 2013 and summer flounder and scup for 2014 (Box ES-1). The Council did not recommend changes to other regulations in place for these fisheries. Therefore, any other fishery management measures in place will remain unchanged (*status quo*) for the 2013 and 2014 fishing years (see section 5.4 for additional discussion). The Council and Atlantic States Marine Fisheries Commission's Summer Flounder, Scup and Black Sea Bass Board (Board) will meet in December 2012 to adopt 2013 recreational management measures (and potentially 2014 measures) when more complete data regarding 2012 recreational landings are available. An Environmental Assessment (EA) will analyze the impacts of recreational management measures for summer flounder, scup, and black sea bass (i.e., bag limits, size limits, and seasonal closures) and will be prepared in February.

Summary of Alternatives

The following section presents a qualitative summary of expected impacts, by species, research set-aside, and cumulatively, for the alternatives under consideration for 2013 and 2014 (Box ES-1). For purposes of impact evaluation, *status quo* alternatives for 2013 and 2014 are compared to 2012 condition, while all other alternatives are compared to the *status quo* alternative. As previously discussed, the no action alternative for each species is presented in section 5.4 but is not analyzed.

Box ES-1. Summary of the 2013 and 2014 summer flounder, scup, and black sea bass alternatives analyzed in this specifications document. Commercial quotas and recreational harvest limits (landings limits), in million lb.

Year	Alternatives	Resource	Research Set-Aside	Commercial Quota	Recreational Harvest Limit
2013	**Alternative 1** (Preferred)	**Summer flounder**	0.59	11.45	7.62
		Scup	0.96	23.52	7.56
		Black sea bass	0.11	1.78	1.84
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	0.68	12.73	8.49
		Scup	1.09	27.91	8.45
		Black sea bass	0.09	1.71	1.32
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	0.47	9.18	6.12
		Scup	0.42	10.68	3.01
		Black sea bass	0.07	1.09	1.14
2014	**Alternative 1** (Preferred)	**Summer flounder**	0.59	11.39	7.60
		Scup	0.90	21.94	7.03
		Black sea bass[1]	0.25	3.90	4.05
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	0.68	12.73	8.49
		Scup	1.09	27.91	8.45
		Black sea bass[1]	0.09	1.71	1.32
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	0.47	9.18	6.12
		Scup	0.42	10.68	3.01
		Black sea bass[1]	0.07	1.09	1.14

[1] Although not recommended by the Council, 2014 black sea bass catch and landings limits are included under each alternative to allow for a more complete analysis of the impacts associated with each alternative given the interrelated, multi-species nature of the summer flounder, scup, and black sea bass fisheries.

2013 Alternatives

Overall, preferred alternative 1 is expected to result in biological impacts on the managed resources and non-target species that range from slightly negative to slightly positive in 2013, when compared to the *status quo* (alternative 2; Box ES-2). Alternative 1 represents a decrease in landings limits for summer flounder and scup and increase for black sea bass when compared to the *status quo*, and it is consistent with the recommendations of the Council's Scientific and Statistical Committee (SSC). Non-preferred alternative 2 is expected to result in overall biological impacts on the managed resource and non-target species that range from slightly negative to neutral in 2013, when compared to existing impacts. This alternative proposes measures that are slightly higher for scup and summer flounder than those considered under alternative 1. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall biological impacts that are positive for 2013, when compared to the *status quo*. This most restrictive alternative may be more restrictive than necessary given the advice of the SSC. Ranking these three alternatives from more likely to less likely to result in overall positive biological impacts, they rank as alternative 3, alternative 1, and alternative 2.

Given the range of potential habitat impacts, depending upon whether fishing effort increases or decreases and results in increasing or decreasing contact time of fishing gear with habitat, preferred alternative 1 is expected to result in habitat impacts that range from slightly negative to slightly positive in 2013, when compared to the *status quo* (alternative 2; Box ES-2). Non-preferred alternative 2 is expected to result in overall habitat impacts that are neutral in 2013, when compared to existing impacts. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall habitat impacts that are positive for 2013, when compared to the *status quo*. Ranking these three alternatives from more likely to less likely to result in overall positive habitat impacts, they rank as alternative 3, alternative 2, and alternative 1.

Given the range of potential impacts on Endangered Species Act (ESA) listed and Marine Mammal Protection Act (MMPA) protected resources, depending upon whether fishing effort increases or decreases and associated interaction rates increase or decrease, preferred alternative 1 is expected to result in impacts on ESA-listed and MMPA protected resources that range from slightly negative to slightly positive in 2013, when compared to the *status quo* (alternative 2; Box ES-2). Non-preferred alternative 2 is expected to result in overall impacts on ESA-listed and MMPA protected resources that are neutral in 2013, when compared to existing impacts. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall impacts on ESA-listed and MMPA protected resources that are positive for 2013, when compared to the *status quo*. Ranking these three alternatives from more likely to less likely to result in overall positive impacts on ESA-listed and MMPA protected resources, they rank as alternative 3, alternative 2, and alternative 1.

Under preferred alternative 1, it is expected that social and economic impacts will range from negative (due to decreasing quotas for summer flounder) to slightly positive (due to a slight increase in black sea bass) in 2013, when compared to the *status quo* (alternative 2; Box ES-2). Under non-preferred alternative 2 (*status quo*) it is expected that impacts will range from neutral to negative in the long-term. Non-preferred alternative 3 is expected to result in negative social

and economic impacts overall because of the substantially lower landings limits under this alternative, relative to the *status quo*. Ranking these three alternatives from more likely to less likely to result in overall positive impacts, they rank as alternative 1, alternative 2, and alternative 3.

Box ES-2. Overall qualitative summary of the expected impacts of various summer flounder, scup, and black sea bass alternatives considered in this document for 2013 and 2014. A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies an expected positive impact, and zero is used to indicate a null impact. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+). An 'S' indicates short-term, and an 'L' is indicates long-term impacts.

Year	Alternatives	Resource	Biological	EFH	Protected Resources	Economic	Social
2013	**Alternative 1** (Preferred)	**Summer flounder**	0/sl+	0/sl-	0/sl-	-	-
		Scup	0/sl+	0/sl-	0/sl-	0	0
		Black sea bass	0/sl-	0/sl+	0/sl+	0/sl+	0/sl+
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	sl-	0	0	0S/-L	0S/-L
		Scup	0/sl-	0	0	0	0
		Black sea bass	0	0	0	0	0
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	+	+	+	-	-
		Scup	+	+	+	-	-
		Black sea bass	+	+	+	-	-
2014	**Alternative 1** (Preferred)	**Summer flounder**	0	0	0	0	0
		Scup	0/sl+	0/sl-	0/sl-	0	0
		Black sea bass[1]	-	-	-	+S/-L	+S/-L
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	sl-	0/sl-	0/sl-	+S/-L	+S/-L
		Scup	0/sl-	0/sl-	0/sl-	0	0
		Black sea bass[1]	0/sl+	0	0	0/sl-	0/sl-
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	+	+	+	-	-
		Scup	+	+	+	-	-
		Black sea bass[1]	+	+	+	-	-

[1]Although not recommended by the Council, 2014 black sea bass catch and landings limits are included under each alternative to allow for a more complete analysis of the impacts associated with each alternative given the interrealted, multi-species nature of the summer flounder, scup, and black sea bass fisheries.

2014 Alternatives

Overall, preferred alternative 1 is expected to result in biological impacts on the managed resources and non-target species that range from negative to slightly positive in 2014, when compared to the *status quo* (alternative 2; Box ES-2). Alternative 1 represents a decrease in landings limits for summer flounder and scup and it is consistent with the recommendations of the Council's SSC. Non-preferred alternative 2 is expected to result in overall biological impacts on the managed resource and non-target species that range from slightly negative to slightly positive in 2014, when compared to existing impacts. This alternative proposes measures that are slightly higher for scup and summer flounder than those considered under alternative 1. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall biological impacts that are positive for 2014, when compared to the *status quo*. This most restrictive alternative may be more restrictive than necessary given the advice of the SSC. Ranking these three alternatives from more likely to less likely to result in overall positive biological impacts, they rank as alternative 3, alternative 2, and alternative 1.

Given the range of potential habitat impacts, depending upon whether fishing effort increases or decreases and results in increasing or decreasing contact time of fishing gear with habitat, preferred alternative 1 is expected to result in habitat impacts that range from negative to neutral in 2014, when compared to the *status quo* (alternative 2; Box ES-2). Non-preferred alternative 2 is expected to result in overall habitat impacts that are slight negative to neutral in 2014, when compared to existing impacts. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall habitat impacts that are positive for 2014, when compared to the *status quo*. Ranking these three alternatives from more likely to less likely to result in overall positive habitat impacts, they rank as alternative 3, alternative 2, and alternative 1.

Given the range of potential impacts on ESA-listed and MMPA protected resources, depending upon whether fishing effort increases or decreases and associated interaction rates increase or decrease, preferred alternative 1 is expected to result in impacts on ESA-listed and MMPA protected resources that range from negative to neutral in 2014, when compared to the *status quo* (alternative 2; Box ES-2). Non-preferred alternative 2 is expected to result in overall impacts on ESA-listed and MMPA protected resources that are slightly negative to neutral in 2014, when compared to existing impacts. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall impacts ESA-listed and MMPA protected resources that are positive for 2014, when compared to the *status quo*. Ranking these three alternatives from more likely to less likely to result in overall positive impacts on ESA-listed and MMPA protected resources, they rank as alternative 3, alternative 2, and alternative 1.

Under preferred alternative 1, it is expected that social and economic impacts will range from neutral (for summer flounder and scup) to positive short-term and negative long-term (black sea bass) in 2014, when compared to the *status quo* (alternative 2; Box ES-2). Under non-preferred alternative 2 (*status quo*) it is expected that impacts will range from from slight negative to positive short-term and negative long-term. Non-preferred alternative 3 is expected to result in negative social and economic impacts overall because of the substantially lower landings limits under this alternative, relative to the *status quo*. Ranking these three alternatives from more

likely to less likely to result in overall positive impacts on ESA-listed and MMPA protected resources, they rank as alternative 1, alternative 2, and alternative 3.

Research Set-aside

Under both RSA alternative 1 (No Action/No Research Set-Aside) and alternative 2 (Specify RSA/*status quo*), all summer flounder, scup, and black sea bass landings count against the overall quotas regardless of whether or not an RSA is implemented; therefore, the biological impacts of alternatives 1 and 2 in 2013 and 2014 would not change relative to 2012. However under alternative 2, which specifies RSA amounts for each FMP species, there could be indirect positive effects as new data or other information pertaining to these fisheries are obtained for management and/or stock assessment purposes.

The impacts of both alternative 1 and alternative 2 in 2013 and 2014 on protected and endangered resources and habitat are not expected to change relative to 2012. Because all landings count against the overall quota regardless of which alternative is implemented, neither alternative is expected to change the level of fishing effort. The quotas themselves are determined through action taken in other alternatives within this document, and are not expected to cause effort to be redistributed by gear type, or change the manner in which these fisheries are prosecuted. Under non-preferred alternative 1, there will be no RSA deducted from the overall TALs for each FMP species. In fisheries where the entire quota is taken and the fishery is prematurely closed (i.e., the quota is constraining), the economic and social costs of the program are shared among the non-RSA participants in the fishery. Since no RSA is implemented under this alternative, there are no direct economic or social costs as described above. Under preferred alternative 2, specifying the RSA would result in indirect positive effects from the collaborative efforts among the public, research institutions, and government in broadening the scientific base upon which management decisions are made. There may also be other small indirect positive impacts such as reduced discarding of RSA landed fish during season closures and efficiency of operations. Qualitative summaries of the impacts of the RSA alternatives under consideration are provided in Box ES-3.

Box ES-3. Overall qualitative summary of the expected impacts of summer flounder, scup, and black sea bass research set-aside measures considered in this document for 2013 and 2014. A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies an expected positive impact, and a zero is used to indicate a null impact.

Year	Alternatives	Environmental Dimensions				
		Biological	**EFH**	**Protected Resources**	**Economic**	**Social**
2013 and 2014	**Alternative 1** (No Action/No Research Set-Aside)	0	0	0	0	0
	Alternative 2 (Preferred; Specify RSA/*Status quo*)	+	0	0	0/+	0/+

Cumulative Impacts

For summer flounder, scup, and black sea bass, the Council analyzed the biological, habitat (EFH), ESA-listed and MMPA protected species, and social and economic impacts of the Council-considered alternatives. When the proposed action 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 on the human environment associated with the action proposed in this document (see section 7.5).

Conclusions

A detailed description and discussion of the expected environmental impacts resulting from each of the alternatives, as well as any cumulative impacts, considered in this specifications document are provided in section 7.0. None of the preferred action alternatives are associated with significant impacts to the biological, social or economic, or physical environment individually or in conjunction with other actions under National Environmental Protection Act (NEPA); therefore, a "Finding of No Significant Impact" is warranted.

2.0 LIST OF ACRONYMS

ABC	Annual Biological Catch
ACL	Annual Catch Limit
ALWTRP	Atlantic Large Whale Take Reduction Plan
AM	Accountability Measure
ASAP	Age Structured Assessment Program
ASMFC	Atlantic States Marine Fisheries Commission or Commission
CEA	Cumulative Effects Assessment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CV	Coefficient of Variation
CZMA	Coastal Zone Management Act
DPS	Distinct Population Segment
DPSWG	Data Poor Stocks Working Group
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EFP	Exempted Fishing Permit
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
F	Fishing Mortality Rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
HPTRP	Harbor Porpoise Take Reduction Plan
IRFA	Initial Regulatory Flexibility Analysis
LNG	Liquified Natural Gas
LOF	List of Fisheries
LWTRP	Large Whale Take Reduction Plan
MAFMC	Mid-Atlantic Fishery Management Council
MMPA	Marine Mammal Protection Act
MFMT	Maximum Fishing Mortality Threshold
MRFSS	Marine Recreational Fisheries Statistical Survey
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NAO	National Oceanic and Atmospheric Administration Administrative Order
NEFSC	Northeast Fisheries Science Center
NEFOP	Northeast Fisheries Observer Program
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Overfishing Limit
OY	Optimal Yield
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
RSA	Research Set-Aside
SARC	Stock Assessment Review Committee
SAW	Stock Assessment Workshop
SCALE	Statistical Catch-at-Length Model
SFA	Sustainable Fisheries Act
SBA	Small Business Administration
SSB	Spawning Stock Biomass

SSC	Scientific and Statistical Committee
TED	Turtle Excluder Device
US	United States
VECs	Valued Ecosystem Components
VTR	Vessel Trip Report

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ENVIRONMENTAL ASSESSMENT

4.0 INTRODUCTION AND BACKGROUND OF SPECIFICATION PROCESS

4.1 PURPOSE AND NEED OF THE ACTION

The purpose of this action (specifications document) is to implement commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries in 2013 and the summer flounder and scup fisheries in 2014. The need for this action is 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 National Environmental Protection Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ), and the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). Failure to specify management measures that constrain catch to prevent overfishing for summer flounder, scup, and black sea bass would be inconsistent with the National Standards under the MSA. The management regime and objectives of the fishery are detailed in the FMP, including any subsequent amendments, and are available at: http://www.mafmc.org.

The MSA requires each Council's Scientific and Statistical Committee (SSC) to provide recommendations for acceptable biological catch (ABC), preventing overfishing, and maximum sustainable yield. The Council's catch limit recommendations for the upcoming fishing year(s) cannot exceed the ABC recommendation of the SSC. In addition, the FMP established Monitoring Committees (MC) for each managed resource which develop recommendations for the Council on the management measures necessary to achieve the recommended catch limits, including recommedations for annual catch targets (ACTs). A memo from the SSC chairman to the Council chair, dated July 30, 2012 (available at http://www.mamfc.org), provides details on the derivation of ABC for each managed resource and highlights the specific sources of scientific uncertainty that were of particular relevance to the SSC deliberation. Briefing materials from the MC chair to the Council chair for the August 2012 Council Meeting (available at http://www.mamfc.org), details the Committee recommendations for ACTs that account for management uncertainty, and other recommended changes to management measures for the commercial fishery. An overview is provided here.

The SSC identified an overfishing limit (OFL) for summer flounder of 29.81 million lb. The OFL is the maximum amount of catch that can be removed from the stock without causing overfishing, and is derived using the maximum fishing mortality threshold (MFMT) rate as applied to the stock size. The SSC identified summer flounder as a Level 3 stock and recommended an ABC for 2013 of 22.34 million lb, based on a projected biomass at 92% percent of B_{MSY}, a probability of overfishing (P*) = 0.364, and a lognormal OFL distribution with a coefficient of variation (CV) = 100 percent. For 2014, applying an fishing mortality (F) = 0.224 results in an ABC of 22.24 million lb. The sum of the recreational and commercial ACLs are equal to the ABC; therefore, based on the allocation precepts of the FMP and information

[1] Magnuson-Stevens Fishery Conservation and Management Act (MSA), portions retained plus revisions made by the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA).

about each sectors contribution to dead discards from the stock assessment, the 2013 commercial ACL is 12.11 million lb and the recreational ACL is 10.23 million lb. For 2014, the commercial ACL is 12.05 million lb and the recreational ACL is 10.19 million lb. The Monitoring Committee recommended the recreational and commercial ACT sbe set equal to the respective ACLs.

The SSC identified an OFL for scup of 47.80 million lb. The SSC identified scup as a Level 3 stock and recommended an ABC for 2013 of 38.71 million lb, based on a biomass greater than 100 percent of B_{MSY}, a probability of overfishing (P*) = 0.4, and a lognormal OFL distribution with a CV = 100 percent. For 2014, applying an F=0.142 results in an ABC of 35.99 million lb. The 2013 commercial ACL is 30.19 million lb and the recreational ACL is 8.52 million lb, while for 2014, the commercial ACL is 28.07 million lb and the recreational ACL is 7.92 million lb. The Monitoring Committee recommended the recreational and commercial ACT be set equal to the respective ACLs. For 2015, the SSC, Monitoring Committee, and Council developed catch limits recommendations which will be presented and analyzed in a subsequent environmental assessment.

The SSC did not endorse the stock assessment calculated OFL for black sea bass of 7.00 million lb. The SSC identified black sea bass as a Level 4 stock and recommended a constant ABC for 2013-2015 of 4.50 million lb, based on significant sources of scientific uncertainty and specific concerns about the reliability of the black sea bass assessment and the OFL (see July 30, 2012 memo for more details). For 2013-2015, the black sea bass commercial ACL is 2.13 million lb and the recreational ACL is 2.37 million lb. The Monitoring Committee recommended the recreational and commercial ACTs be set equal to the respective ACLs. The Council only recommended measures for 2013.

After consideration of the SSC and Monitoring Committee's recommendations, the Council has developed recommendation to the NMFS Northeast Regional Administrator, with those alternatives recommended by the Council identified in this specifications document as "preferred". The Regional Administrator will review the recommendation forwarded through this document and may revise them if necessary to achieve FMP objectives and statutory requirements. Because the FMP is cooperatively managed with the Atlantic States Marine Fiseries Commission (Commission), the Commission's Board typically adopts complementary measures. The Council met jointly with the Board in August 2012 and recommended complementary management measures for 2013 and 2014.

This specifications document serves a dual purpose. It conveys the Council recommendations (i.e., preferred alternatives) to the Regional Administrator and also serves as a decision document for the Regional Administrator, who reviews the analysis of impacts of the various management alternatives presented here and determines which alternative achieves the FMP objectives as well as the objectives and statutory requirements under MSA and other applicable laws.

This Environmental Assessment (EA) examines the impacts of each proposed action and their alternatives on the human environment. The 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). These VECs comprise the affected environment and are specifically defined as the managed resources (summer flounder,

scup, and black sea bass) and any non-target species; habitat, including EFH for the managed resource and non-target species; Endangered Species Act (ESA) listed and Marine Mammal Protection Act (MMPA) protected species; and any human communities (social and economic aspects of the environment). The impacts of the alternatives are evaluated with respect to these VECs.

All management alternatives under consideration for summer flounder, scup, and black sea bass were analyzed for 2013 and 2014 only. Although the Council did not make specifications recommendations for black sea bass in 2014, given the interrelated, multi-species nature of the three fisheries, catch and landings limits for black sea bass were included with each alternative for 2014 to allow for a more complete analysis of impacts. For 2014, Alternative 1 (preferred) uses a baseline condition of the highest commercial quota and recreational harvest limit in the time series (2005), representing the upper end of the range of landings levels. Alternative 2 (*status quo*) is equivalent to the commercial quotas and recreational harvest limits for 2012. Alternative 3 (non-preferred; most restrictive) uses the commercial quota and recreational harvest limit from 2009, the most restrictive year in the time series. For scup, the Council developed recommendations for fishing year 2015; however, these measures will not be analyzed until late 2014 when fishing year 2015 recommendations for summer flounder and black sea bass are developed to allow for a combined fishery impact analysis, and more recent data can be used to provide for a more complete analysis of impacts relative to the *status quo*. A full description of each alternative for 2013 and 2014, including a discussion of a no action alternative, is given in section 5.0. The preferred alternative (specified at the August 2012 Council meeting), a *status quo* alternative, and any additional alternatives under consideration are provided. The *status quo* alternatives used in the analysis for 2013 and 2014 are the measures that were implemented in 2012; however, given the likelihood that the Council preferred 2013 measures will be implemented given their consistency with the current scientific advice, the 2014 measures are also compared to the proposed, preferred 2013 measures.These recommendations and their impacts are described in section 7.0.

5.0 MANAGEMENT ALTERNATIVES

The proposed alternatives described below modify the specifications for the summer flounder, scup, and black sea bass fisheries in 2013 and for the summer flounder and scup fisheries in 2014. The Council recommended commercial and recreational ACLs and ACTs, from which commercial quotas and recreational harvest limits are derived for the 2013 and 2014 fishing years (preferred), and based on the Council's SSC advice on ABCs and scientific uncertainty and Monitoring Committee's advice on ACTs and management uncertainty (see section 4.1). The Council did not recommend changes to other regulations in place for these fisheries; therefore, any other fishery management measures in place will remain unchanged (*status quo*) for the 2013 and 2014 fishing years (see section 5.4 for additional discussion). Comprehensive descriptions of the regulations for summer flounder, scup, and black sea bass as detailed in the Code of Federal Regulations (CFR) are available through the website for the Northeast Regional Office (NERO) of NMFS: http://www.nero.noaa.gov/nero/regs/.

Under the management programs for summer flounder, scup, and black sea bass, detailed in the FMP, the no action alternative is not equivalent to the *status quo* alternative (see section 5.4 for additional discussion). Therefore, for purposes of comparing impacts throughout this document, the proposed alternatives for each species are compared to the *status quo* alternative (baseline) as opposed to the "true" no action alternative.

The comprehensive system of catch limits and accountability measures first implemented in 2012 and applied in 2013 and 2014, considers both scientific and management uncertainty, and is designed to ensure recreational and commercial catch do not exceed the recreational and commercial ACLs, the sum of which are equal the ABC. The amount of total catch, both landings and discards, produced in these fisheries in 2013 and 2014 is contingent on how the combinations of fishery regulations (i.e., minimum fish size, gear requirements, possession limits, etc.) interact to achieve the specific levels of commercial quotas and recreational harvest limits to be implemented. Therefore, for the purposes of impact analyses, changes in the commercial quotas and recreational harvest limits are expected to drive any anticipated changes in effort and impacts on the valued VECs considered in this EA.

The ABCs, ACLs, and ACTs that were recommended under each of the preferred alternatives, as well as the commercial quotas and recreational harvest limits, are given below in Tables 1 and 2. For some of the non-preferred alternatives, only commercial quotas and recreational harvest limits are provided, as the system of annual catch limits is recently implemented and the history of implementation for those other catch limits (i.e., ABCs, ACLs, or ACTs) does not exist or cannot be derived. Given changes in the underlying commercial quotas and recreational harvest limits are the focus of the impacts analysis, a meaningful comparison can be done without those other levels being provided for non-preferred alternatives.

For each of the proposed quota alternatives, commercial quotas and state shares and recreational harvest limits are provisional and may be adjusted (i.e., by state for summer flounder, period for scup, or coastwide for black sea bass) by NMFS in the 2013 and 2014 specifications final rule. Adjustments to the commercial quotas may be made to account for 2012 overages and/or

transfers or to account for overages and/or transfers from the 2011 fishery that were not previously accounted for in the 2012 specifications final rule. RSA projects for fishing year 2013 and 2014 have not yet been approved and awarded. The Council approved an RSA of 3 percent of the landings for each of the FMP species; therefore, an RSA of 3 percent was accounted for in the commercial quotas and recreational harvest limits described below and in Tables 1 and 2. The actual 2013 and 2014 RSA amounts may be equal to or less than the 3 percent maximum allowable depending on which projects are approved and the specific RSA amounts requested.

Table 1. Comparison of the 2013 summer flounder, scup, and black sea bass alternatives and associated catch and landings limits (million lb).

		ABC	Commercial ACL/ Recreational ACL	Commercial ACT/ Recreational ACT	Maximum RSA (3%)	Commercial Quota	Recreational Harvest Limit
Alternative 1 (Preferred)	**Summer flounder**	22.34	12.11/10.23	12.11/10.23	0.59	11.45	7.62
	Scup	38.71	30.19/8.52	30.19/8.52	0.96	23.52	7.56
	Black sea bass	4.50	2.13/2.37	2.13/2.37	0.11	1.78	1.84
Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	25.58	14.00/11.58	14.00/11.58	0.68	12.73	8.49
	Scup	40.88	31.89/8.99	31.89/8.99	1.09	27.91	8.45
	Black sea bass	4.50	1.98/2.52	1.98/1.86	0.09	1.71	1.32
Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	NA	NA	NA	0.47	9.18	6.12
	Scup	NA	NA	NA	0.42	10.68	3.01
	Black sea bass	NA	NA	NA	0.07	1.09	1.14

Table 2. Comparison of the 2014 summer flounder, scup, and black sea bass alternatives and associated catch and landings limits (million lb).

		ABC	Commercial ACL/ Recreational ACL	Commercial ACT/ Recreational ACT	Maximum RSA (3%)	Commercial Quota	Recreational Harvest Limit
Alternative 1 (Preferred)	**Summer flounder**	22.24	12.05/10.19	12.05/10.19	0.59	11.39	7.60
	Scup	35.99	28.07/7.92	28.07/7.92	0.90	21.94	7.03
	Black sea bass[1]	NA	NA	NA	0.25	3.90	4.05
Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	25.58	14.00/11.58	14.00/11.58	0.68	12.73	8.49
	Scup	40.88	31.89/8.99	31.89/8.99	1.09	27.91	8.45
	Black sea bass[1]	4.50	1.98/2.52	1.98/1.86	0.09	1.71	1.32
Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	NA	NA	NA	0.47	9.18	6.12
	Scup	NA	NA	NA	0.42	10.68	3.01
	Black sea bass[1]	NA	NA	NA	0.07	1.09	1.14

[1]Although not recommended by the Council, 2014 black sea bass catch and landings limits are included under each alternative to allow for a more complete analysis of the impacts associated with each alternative given the interrelated, multi-species nature of the summer flounder, scup, and black sea bass fisheries.

5.1 Alternatives for 2013 (Summer Flounder, Scup, and Black Sea Bass)

5.1.1 Alternative 1 (Preferred: Consistent with SSC Recommended ABCs)

Alternative 1 is the preferred summer flounder, scup, and black sea bass alternative for 2013. For summer flounder it includes an ABC of 22.34 million lb. This ABC is 75 percent of the OFL, is associated with a 40 percent probability of overfishing consistent with the Council's risk policy, and is expected by the Council and the Council's SSC to ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 12.11 million lb, and a recreational ACL and recreational ACT both equal to 10.23 million lb. After deducting discards and the Council approved maximum 3 percent RSA for summer flounder in 2013 (589,800 lb), the commercial quota is 11.45 million lb and recreational harvest limit is 7.62 million lb. State commercial shares would range from 53 lb to 3.14 million lb in 2013 (Table 3).

Table 3. 2013 Summer flounder commercial fishery state-by-state allocations for coastwide quota alternatives 1-3[a].

		Quota Allocation (lb)		
State	**Percent**	**Alternative 1**	**Alternative 2**	**Alternative 3**
ME	**0.04756**	5,444	6,054	4,364
NH	**0.00046**	53	59	42
MA	**6.82046**	780,670	868,245	625,859
RI	**15.68298**	1,795,074	1,996,443	1,439,102
CT	**2.25708**	258,345	287,326	207,114
NY	**7.64699**	875,274	973,462	701,703
NJ	**16.72499**	1,914,342	2,129,091	1,534,719
DE	**0.01779**	0	0	0
MD	**2.0391**	233,395	259,577	187,112
VA	**21.31676**	2,439,916	2,713,624	1,956,069
NC	**27.44584**	3,141,451	3,493,855	2,518,485
Total [a]	**100**	**11,446,000**	**12,730,000**	**9,176,200**

[a]Total quota is the summation of all states having allocation. Delaware had an allocation of zero (0) in 2013 due to an overage of about 50,000 lb.

For scup, this includes an ABC of 38.71 million lb. This ABC is 81 percent of the OFL, is associated with a 40 percent probability of overfishing consistent with the Council's risk policy, and is expected by the Council and the Council's SSC to ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 30.19 million lb, and a recreational ACL and recreational ACT both equal to 8.52 million lb. After deducting discards and the RSA for scup in 2013 (961,200 lb), the commercial quota is 23.52 million lb and recreational harvest limit is 7.56 million lb.

Framework Adjustment 3 to the FMP allows for the transfer of unused scup quota from the Winter I to the Winter II period. As such, if the fishery does not land their quota in Winter I, the

opportunities to land those scup are not lost for the fishing year. The current scup period allocation formula remains unchanged as detailed in Table 4.

Table 4. Comparison (in million lb) of the commercial scup quota alternatives, by period, for 2013.

		Adjusted Quota (million lb)		
Period	**Percent Allocation**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Annual	100	23.52	27.91	10.68
Winter I (Jan-April)	45.11	10.61	12.59	4.82
Summer (May-Oct)	38.95	9.16	10.87	4.16
Winter II (Nov-Dec)	15.94	3.75	4.45	1.70

For black sea bass, this includes an ABC of 4.50 million lb. This catch-based ABC is expected by the Council and the Council's SSC to ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 2.13 million lb, and a recreational ACL and recreational ACT both equal to 2.37 million lb. After deducting discards and the RSA for scup in 2013 (111,900 lb), the commercial quota is 1.78 million lb and recreational harvest limit is 1.84 million lb.

5.1.2 Alternative 2 (Non-Preferred: *Status Quo* (No Action))

The 2013 *status quo* alternative for summer flounder, scup, and black sea bass include the same measures implemented in 2012; however a maximum 3 percent RSA is applied (whereas in some cases the actual 2012 RSA was not 3 percent).

For summer flounder, after deducting discards and the Council approved maximum 3 percent RSA in 2013 (677,128 lb), the commercial quota is 12.73 million lb and the recreational harvest limit is 8.49 million lb for 2013. The state commercial shares for this alternative would range from 59 lb to 3.49 million lb in 2013 (Table 3). After deducting discards and the RSA for scup in 2013 (1,090,800 lb), the commercial quota is 27.91 million lb and the recreational harvest limit is 8.45 million lb for 2013. The current scup period allocation formula remains unchanged as detailed in Table 4. For black sea bass, after deducting discards and the RSA for 2013 (92,600 lb), the commercial quota is 1.71 million lb and recreational harvest limit is 1.32 million lb.

5.1.3 Alternative 3 (Non-Preferred: Most Restrictive)

The most restrictive alternative for 2013 includes the lowest commercial quotas and recreational harvest limits in the summer flounder time series (2008), the lowest in the most recent three years for scup (2010), and the lowest in the time series for black sea bass (2009).

For summer flounder, after deducting discards and the Council approved maximum 3 percent RSA in 2013 (473,100 lb), the commercial quota is 9.18 million lb and the recreational harvest

limit is 6.12 million lb for 2013. The state commercial shares for this alternative would range from 42 lb to 2.52 million lb in 2013 (Table 3). After deducting discards and the RSA for scup in 2013 (423,300 lb), the commercial quota is 10.68 million lb and the recreational harvest limit is 3.01 million lb for 2013. The current scup period allocation formula remains unchanged as detailed in Table 4. For black sea bass, after deducting discards and the RSA for 2013 (69,000 lb), the commercial quota is 1.09 million lb and recreational harvest limit is 1.14 million lb.

5.2 Alternatives for 2014 (Summer Flounder and Scup)

Although the Council did not make specifications recommendations for black sea bass in 2014, given the interrelated, multi-species nature of the three fisheries, catch and landings limits for black sea bass were included with each alternative for 2014 to allow for a more complete analysis of imapcts. For the purposes of analysis for 2014, Alternative 1 (preferred) uses a baseline condition of the highest commercial quota and recreational harvest limit in the time series (2005), representing the upper end of the range of landings levels. Alternative 2 (*status quo*) is equivalent to the commercial quotas and recreational harvest limits for 2012. Alternative 3 (non-preferred; most restrictive) uses the commercial quota and recreational harvest limit from 2009, the most restrictive year in the time series.

5.2.1 Alternative 1 (Preferred: Consistent with SSC Recommended ABCs)

Alternative 1 is the preferred summer flounder, scup, and black sea bass alternative for 2014. For summer flounder it includes an ABC of 22.24 million lb. This ABC is based on the fishing mortality rate associated with the 2013 ABC as projected for 2014, and is expected by the Council and the Council's SSC to ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 12.05 million lb, and a recreational ACL and recreational ACT both equal to 10.19 million lb. After deducting discards and the Council approved maximum 3 percent RSA for summer flounder in 2013 (587,100 lb), the commercial quota is 11.39 million lb and recreational harvest limit is 7.60 million lb. State commercial shares would range from 52 lb to 3.13 million lb in 2014 (Table 5).

For scup, this includes an ABC of 35.99 million lb. This ABC is based on the fishing mortality rate associated with the 2013 ABC as projected for 2014, and is expected by the Council and the Council's SSC to ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 28.07 million lb, and a recreational ACL and recreational ACT both equal to 7.92 million lb. After deducting discards and the RSA for scup in 2014 (896,100 lb), the commercial quota is 21.94 million lb and recreational harvest limit is 7.03 million lb.

Framework Adjustment 3 to the FMP allows for the transfer of unused scup quota from the Winter I to the Winter II period. As such, if the fishery does not land their quota in Winter I, the opportunities to land those scup are not lost for the fishing year. The current scup period allocation formula remains unchanged as detailed in Table 6.

Table 5. 2014 Summer flounder commercial fishery state by state allocations for coastwide quota alternatives 1-3[a].

		Quota Allocation (lb)		
State	**Percent**	**Alternative 1**	**Alternative 2**	**Alternative 3**
ME	**0.04756**	5,416	6,054	4,364
NH	**0.00046**	52	59	42
MA	**6.82046**	776,700	868,245	625,859
RI	**15.68298**	1,785,946	1,996,443	1,439,102
CT	**2.25708**	257,032	287,326	207,114
NY	**7.64699**	870,824	973,462	701,703
NJ	**16.72499**	1,904,608	2,129,091	1,534,719
DE	**0.01779**	0	0	0
MD	**2.0391**	232,209	259,577	187,112
VA	**21.31676**	2,427,510	2,713,624	1,956,069
NC	**27.44584**	3,125,477	3,493,855	2,518,485
Total [a]	**100**	**11,387,800**	**12,730,000**	**9,176,200**

[a]Total quota is the summation of all states having allocation. Delaware had an allocation of zero (0) in 2014 due to the potential for an ongoing overage of about 50,000 lb as a result of landings fish when the allocation is zero, as has occurred in past years.

Table 6. Comparison (in million lb) of the commercial scup quota alternatives, by period, for 2014.

		Adjusted Quota (million lb)		
Period	**Percent Allocation**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Annual	100	21.94	27.91	10.68
Winter I (Jan-April)	45.11	9.90	12.59	4.82
Summer (May-Oct)	38.95	8.55	10.87	4.16
Winter II (Nov-Dec)	15.94	3.50	4.45	1.70

As stated above, black sea bass commercial quotas and harvest limits were included in the 2014 alternatives 1, 2, and 3 (sections 5.2.1-5.2.3) even though not recommended by the Council to allow for a more thorough analysis of expected impacts on summer flounder and scup, under a range of black sea bass measures, given the multi-species nature of these fisheries. For analytical purposes for black sea bass, and after deducting discards and the RSA for black sea bass in 2014 (246,000 lb), the commercial quota is 3.90 million lb and recreational harvest limit is 4.05 million lb. The black sea bass commercial quota and recreational harvest limits is the highest in the time series (2005), and represent the uppermost range of landings levels.

5.2.2 Alternative 2 (Non-Preferred: *Status quo* (No Action))

The 2014 *status quo* alternative for summer flounder, scup, and black sea bass include the same measures implemented in 2012, and this alernative is the same as described under 2013 status quo alternative 2 (section 5.1.2).

5.2.3 Alternative 3 (Non-Preferred: Most Restrictive)

The most restrictive alternative for summer flounder, scup, and black sea bass for 2014 is the same as described under 2013 most restrictive alternative 3 (section 5.1.3) and includes the lowest commercial quotas and recreational harvest limits in the summer flounder time series (2008), the lowest in the most recent three years for scup (2010), and the lowest in the time series for black sea bass (2009).

5.3 Research Set-Aside (RSA) Measures

Framework Adjustment 1 to the FMP established a program in which research projects can be funded through the sale of fish that has been set-aside from the total annual quota. Through the Mid-Atlantic RSA Program the Council encourages collaborative efforts between the public, research institutions, and government agencies in broadening the scientific base upon which management decisions are made. Reserving a small portion of the annual harvest as RSA quota to subsidize the research costs of vessel operations and scientific expertise is considered an important investment in the future of the nation's fisheries.

In addition, the Mid-Atlantic RSA Program assures that research endeavors selected and funded under this program will receive the peer review and analysis necessary to be utilized in improving the management of public fisheries resources. The annual RSA amount may vary between 0 and 3 percent of each managed resources quota. For those managed resources that have both a commercial quota and a recreational harvest limit, the set-aside calculation shall be made from the combined landing levels.

5.3.1 Alternative 1 (No Research Set-Asides/No-Action)

Under this alternative, no RSA will be implemented for summer flounder, scup, or black sea bass in 2013 or 2014. Thus, the commercial quotas and recreational harvest limits would not be adjusted downward for the RSAs when established.

5.3.2 Alternative 2 (Preferred: Specify Research Set-Asides/*Status Quo*)

The Council has recommended that 3 percent of the 2013 summer flounder, scup, and black sea combined commercial and recreational landings levels (589,888, 961,200, and 111,900 lb, respectively), be set-aside to fund projects selected under the 2013 Mid-Atlantic RSA Program. Although the project selection and award process has not concluded, 2 projects, as described in Section 7.4, have been preliminarily selected for funding. If any portion of the research quota is not awarded, NMFS will return any un-awarded set-aside amount to the commercial and

recreational fisheries either through the 2013 summer flounder, scup, and black sea bass specification rulemaking process or through the publication of a separate notice in the *Federal Register* notifying the public of a quota adjustment. The Council has recommended that 3 percent of the 2014 summer flounder and scup combined commercial and recreational landings levels (587,100 and 896,100 lb, respectively), be set-aside to fund projects selected under the 2014 Mid-Atlantic RSA Program. The project selection and award process for the 2014 program will occur later in 2013, and for the purposes of a complete and thorough analysis, a maximum 246,000 lb black sea bass was included for 2014.

To expedite the implementation of the 2013 Mid-Atlantic RSA Program, the environmental impact of this program and the selected projects are analyzed in this document in section 7.0. The research activities of Project #1 will be evaluated under a separate EA and Endangered Species Act Section 7 Consultation. This EA analyzes the research activities of Project #2, compensation fishing activities for both projects, and regulatory exemptions for both projects. The MSA requires that interested parties are provided an opportunity to comment on all proposed exempted fishing permits (EFPs). Additional consultation and analysis with respect to NEPA, ESA, the Magnuson-Stevens Act, and other applicable law may be necessary if the statements of work change or additional exemptions are requested.

Following is a description of the two preliminarily selected projects and associated exemptions that would likely be required to conduct the research.

Project #1: Because the research activities of Project #1, for which the NEPA and Endangered Species Act analysis will occur through a separate EA and Section 7 Consultation, respectively, additional environmental review under this EA is not necessary.

For informational purposes, project #1 would conduct a spring and fall monitoring (trawl) survey in shallow waters between Martha's Vineyard, MA and Cape Hatteras, NC. The project investigators plan to provide stock assessment data for Mid-Atlantic RSA species, including summer flounder, scup, black sea bass, longfin squid, butterfish, and Atlantic bluefish, and assessment-quality data for weakfish, Atlantic croaker, spot, several skate and ray species, smooth dogfish, horseshoe crab, and several unmanaged but important forage species.

Project #2: The proposed project is a fishery independent black sea bass survey of four separate hard bottom sites in Southern New England and Mid-Atlantic waters. Unvented black sea bass pots will be fished on each site for five months from June through October in Southern New England, and April through August in the Mid-Atlantic. The project is designed to collect black sea bass from areas un-sampled by current state and federal finfish bottom trawl surveys. The length frequency distribution of the catch will be compared statistically to each of the other collection sites, and to finfish trawl data collected by NMFS and state agencies.

Black sea bass will be collected from four general zones along the coast utilizing black sea bass pots (43½" long, 23" wide, and 16" high) made with 1½ x 1½ inch coated wire mesh, single mesh entry head, and single mesh inverted parlor nozzle. The four general zones will include one in Massachusetts, one south of Rhode Island, one south of New Jersey, and one south of

Virginia. This particular configuration is being proposed as it generally corresponds to the northern and southern core range of the species, and each is an area in which a major black sea bass fishery takes place. In each of these general zones four individual sampling sites will be selected, each of which will be one square mile in size.

Each of the individual sampling sites will be separated by at least four miles in order to provide adequate spatial coverage. Specific sampling sites within each square mile sampling site will be randomly selected from the sub-blocks each month. The traps will be set at the center of each sampling site once per month. The sampling protocol will require that a commercial vessel take 30 pots (3 ten pot trawls) to each of the randomly selected hard bottom sampling sites. This procedure will continue each month during the sampling season for five months. Thus, 16 locations will be sampled monthly. Pots will be un-baited and allowed to remain in place for a minimum of four days. The date, area, depth, set over days, and catch will be recorded and fish measured utilizing the standard NMFS sea sampling protocols. Fish will be measured excluding tendril, which is the NMFS/ASMFC standard. At the conclusion of each sampling cycle, pots will be placed on the vessel for transport back to port.

Research vessels for Project #2 would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota.

5.4 "True" No-Action Alternatives – (Summer Flounder, Scup, and Black Sea Bass)

Section 5.03(b) of NOAA Administrative Order (NAO) 216-6, "Environmental review procedures for implementing the National Environmental Policy Act," states that "an Environmental Assessment (EA) must consider all reasonable alternatives, including the preferred action and the no action alternative." Consideration of the "no action" alternative is important because it shows what would happen if the proposed action is not taken. Defining exactly what is meant by the "no action" alternative is often difficult. The President's Council on Environmental Quality (CEQ) has explained that there are two distinct interpretations of the "no action:" One interpretation is essentially the *status quo*, i.e., no change from the current management; and the other interpretation is when a proposed project, such as building a railroad facility, does not take place. In the case of the proposed 2013 specifications for summer flounder, scup, and black sea bass and 2014 specifications for summer flounder and scup determining the no action alternative is slightly more complicated than either of these interpretations suggest.

The *status quo* management for the summer flounder, scup, and black sea bass fisheries each involve a set of indefinite (i.e., in force until otherwise changed) management measures, such as minimum allowable sizes, bag limits, and reporting requirements. These measures will continue

as they are even if the proposed specifications are not implemented. However, the current management program includes catch and landings limits that are specific to the 2012 fishing year. There are no "roll-over" provisions currently for these three fisheries provided for in the FMP. Thus, if the proposed 2013 summer flounder, scup, or black sea bass and 2014 summer flounder and scup specifications are not implemented for one or all of these fisheries by January 1, 2013, that fishery/or fisheries will operate without an identified cap on allowable catch and landings for 2013 and 2014. Therefore, because of the subtleties in the management program for each FMP species the no action alternative is not equivalent to *status quo*. If the action that results in setting the proposed specifications for any/or all of these fisheries is not taken, some current measures will remain in place, but the overall management program for those fisheries will not be identical to that of 2012.

For the purposes of this EA, the no action alternatives for summer flounder, scup, and black sea bass are defined as follows: (1) no 2013 proposed specifications for the summer flounder, scup, or black sea bass fishery or 2014 summer flounder and scup fishery will be published; (2) the indefinite management measures (minimum sizes, bag limits, possession limits, permit and reporting requirements, etc.) for each of these species remain unchanged; (3) no RSA allocated to research in 2013 or 2014 (excluding black sea bass); and (4) no specific cap on the allowable annual catch (i.e., ACLs) and landings in each of these fisheries (i.e., no commercial quotas or recreational harvest limits). Under the no action alternatives, the only regulatory controls on fishing effort and harvests would be the indefinite[1] measures. A commercial quota and recreational harvest limit, which determines the maximum amount of summer flounder, scup, and black sea bass landings allowable before the commercial or recreational fishery are closed, would not be implemented for 2013 or 2014.

The implications of the no action alternatives for summer flounder, scup, and black sea bass are substantial. These alternatives do not allow NMFS to specify and implement ACLs, commercial quotas, and recreational harvest limits for these fisheries, as required in the regulations at 50 CFR part 648, for the upcoming fishing year. Monitoring the landings, and taking action as necessary to prevent the state and federal caps from being exceeded, as applicable, is essential for management of these fisheries and forms the backbone of the current quota-based management systems under the FMP. The no action alternative is inconsistent with the goals and objectives of the FMP, as well as its implementing regulations, and may result in overfishing or cause the ACLs for summer flounder, scup, and/or black sea bass to be exceeded. By not preventing overfishing and/or allowing the ACLs to be exceeded, it is also inconsistent with the MSA. The no action alternatives are not considered reasonable. Therefore, they are not analyzed further in the EA. Therefore, the alternatives proposed are compared to alternatives 2 for both 2013 and 2014, which are the *status quo* alternatives (baseline) as opposed to the "true" no action alternatives described above.

[1] Comprehensive descriptions of the regulations as detailed in the CFR are available through the website for the NERO of NMFS: http://www.nero.noaa.gov/nero/regs/.

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

6.1 Description of the Managed Resource

6.1.1 Description of the Fisheries

The management unit for summer flounder (*Paralichthys dentatus*) is the U.S. waters in the western Atlantic Ocean from the southern border of North Carolina northward to the U.S.-Canadian border. The management unit for both scup (*Stenotomus chrysops*) and black sea bass (*Centropristis striata*) is the U.S. waters in the western Atlantic Ocean from Cape Hatteras, North Carolina northward to the U.S.-Canadian border.

The commercial and recreational fisheries for summer flounder, scup, and black sea bass are fully described in section 3.3.2 of Amendment 13 to the FMP (MAFMC 2002) and are also outlined by principal port in section 3.4.2 of that document. Otter trawls are utilized in the commercial fisheries for all three species. In addition, floating traps and pots/traps are utilized to capture scup and black sea bass, respectively. An overview of commercial and recreational fisheries landings for each of the FMP species is provided below. The commercial landings are based on Dealer Weighout Data and recreational landings are based on Marine Recreational Fisheries Statistical Survey (MRFSS) and Marine Recreational Information Program (MRIP) data. Additional information on these fisheries can be found in Council meeting materials available at: http://www.mafmc.org.

6.1.1.1 Summer Flounder

The relative contributions of commercial and recreational summer flounder landings are shown in Figure 1.

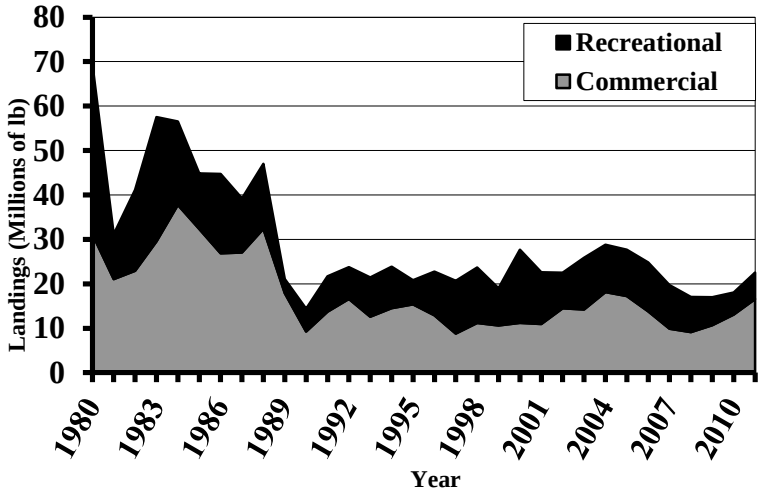

Figure 1. Summer flounder commercial and recreational landings, 1980-2011.

6.1.1.2 Scup

The relative contributions of commercial and recreational scup landings are shown in Figure 2.

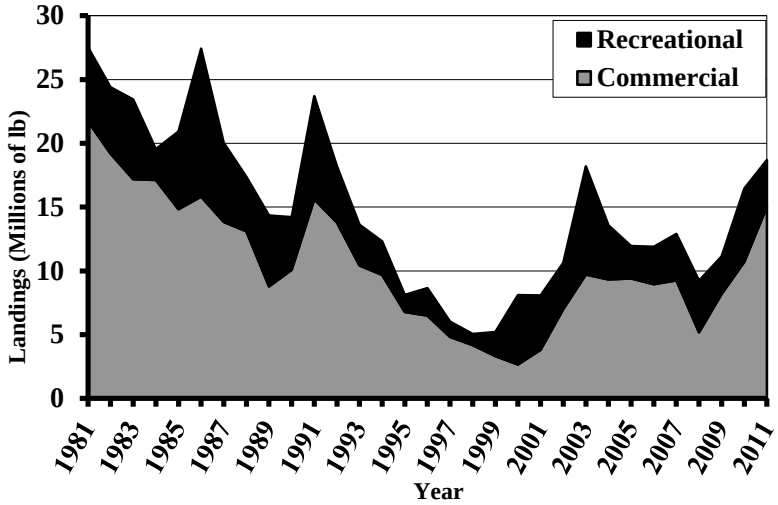

Figure 2. Scup commercial and recreational landings, 1981-2011.

6.1.1.3 Black Sea Bass

The relative contributions of commercial and recreational black sea bass landings are shown in Figure 3.

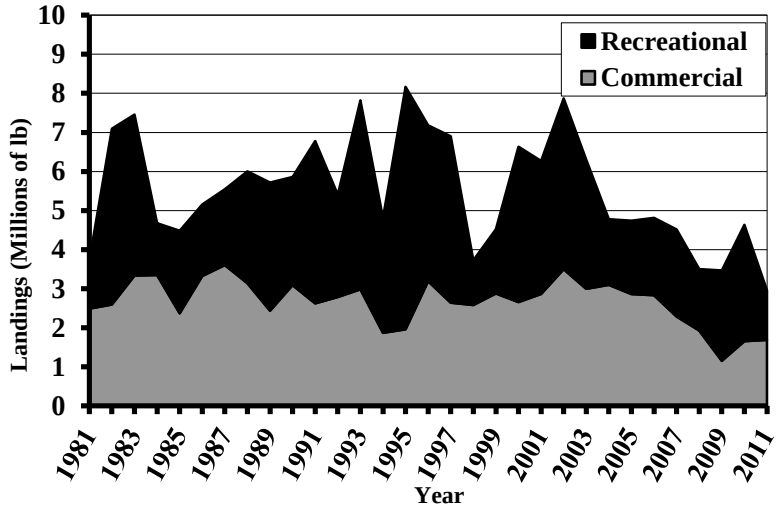

Figure 3. Black sea bass commercial and recreational landings, 1981-2011.

6.1.2 Description of the Stock (Including Status, Stock Characteristics, and Ecological Relationships)

Reports on stock status, including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, Stock Assessment Review Committee (SARC) reports, and Data Poor Stocks Working Group (DPSWG) reports and peer-review panelist reports are available online at the NEFSC website: http://www.nefsc.noaa.gov/. EFH Source Documents, which include details on stock characteristics and ecological relationships, are available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

6.1.2.1 Summer Flounder

The assessment update published in July 2012 (Terceiro 2012) indicated that the summer flounder stock was not overfished and overfishing is not occurring relative to the reference points established in the SAW 47 assessment. F in 2011 = 0.241, below the reference point F_{MSY} = 0.310. Spawning Stock Biomass (SSB) was estimated to be 125.71 million lb, below SSB_{MSY} = 132.44 million lb. The summer flounder stock was determined by NMFS to be rebuilt in November of 2011 and is no longer subject to the formal rebuilding program in place since 2000.

6.1.2.2 Scup

The assessment update published in July 2012 (Terceiro 2012) indicated that the scup stock is not overfished and overfishing is not occurring relative to the DPSWG biological reference points. F in 2011 = 0.034, below the reference point F_{MSY} = 0.177. SSB in 2011 was estimated to be 420.0 million lb, more than double the SSB_{MSY} level of 202.9 million lb. The scup stock is considered rebuilt by NMFS.

6.1.2.3 Black Sea Bass

Based on the July 2012 update (Shepherd 2012), the stock is not overfished and overfishing is not occurring, relative to the July 2012 update of the DPSWG biological reference points. F in 2011 = 0.21, a decrease from F = 0.41 in 2010. This point estimate of F in 2011 is below the updated reference point of F_{MSY} = 0.44. SSB in 2011 is 24.6 million lb, slightly above the deterministic value of SSB_{MSY} = 24.0 million lb. The black sea bass stock is considered rebuilt by NMFS.

6.1.3 Non-Target Species

The summer flounder, scup and black sea bass fisheries are mixed fisheries, where squid, Atlantic mackerel, silver hake, skates, and other species are harvested with summer flounder, scup, and/or black sea bass. Section 5.1.9 of Amendment 13 to the FMP (MAFMC 2002) provides a full description of bycatch and/or non-target species in these fisheries. The term "bycatch," as defined by the MSA, means fish that are harvested in a fishery but that are not sold or kept for personal use. Bycatch includes the discard of whole fish at sea or elsewhere, including economic and regulatory discards, and fishing mortality due to an encounter with fishing gear that does not result in capture of fish (i.e., unobserved fishing mortality). Bycatch

does not include fish released alive under a recreational catch-and-release fishery management program.

6.2 Habitat (Including Essential Fish Habitat)

A description of the habitat associated with the summer flounder, scup, and black sea bass fisheries is presented in section 3.2 of Amendment 13 to the FMP (MAFMC 2002), and a brief summary of that information is given here. The impact of fishing on summer flounder, scup, and black sea bass on habitat (and EFH) and the impact of the summer flounder, scup, and black sea bass fisheries on other species' habitat and EFH can be found in Amendment 13 to the FMP (section 3.2; MAFMC 2002). Potential impacts associated with the measures proposed in this specifications document on habitat (including EFH) are discussed in section 7.2.

6.2.1 Physical Environment

Detailed information on the affected physical and biological environments inhabited by the managed resources is available in Stevenson et al. (2004). The managed resources inhabit the Northeast U.S. Shelf Ecosystem, which has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream. The continental slope includes the area east of the shelf, out to a depth of 2000 m. Four distinct sub-regions comprise the NOAA Fisheries Northeast Region: the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope. The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types. Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters and strong currents. The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, NC. The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. It is fairly homogenous, with exceptions at the shelf break, some of the canyons, the Hudson Shelf Valley, and in areas of glacially rafted hard bottom.

The environment that could potentially be affected by the proposed action overlaps with EFH for the managed resources. The following sections describe where to find detailed information on EFH and any past actions taken in the FMPs to minimize adverse EFH effects to the extent practicable.

6.2.2 Essential Fish Habitat (EFH)

Information on summer flounder, scup, and black sea bass habitat requirements can be found in the documents titled, "Essential Fish Habitat Source Document: Summer Flounder, *Paralichthys dentatus*, Life History and Habitat Characteristics" (Packer et al. 1999), "Essential Fish Habitat Source Document: Scup, *Stenotomus chrysops*, Life History and Habitat Characteristics" (Steimle et al. 1999a), "Essential Fish Habitat Source Document: Black Sea Bass, *Centropristis striata*, Life History and Habitat Characteristics" (Steimle et al. 1999b) and an update of that document, "Essential Fish Habitat Source Document: Black Sea Bass, *Centropristis striata*, Life

History and Habitat Characteristics" (Drohan et al. 2007). Electronic versions of these source documents are available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/. The current designations of EFH by life history stage for summer flounder, scup, and black sea bass are provided in Table 1 in Appendix A, and are also available at the following website: http://www.nero.noaa.gov/hcd/list.htm. A summary description of EFH for summer flounder, scup, and black sea bass is provided here.

Summer flounder spawn during the fall and winter over the open ocean areas of the continental shelf. Planktonic larvae are often found in the northern part of the Middle Atlantic Bight from September to February and in the southern part from November to May. From October to May, larvae and postlarvae migrate inshore, entering coastal and estuarine nursery areas. Juveniles are distributed inshore and in many estuaries throughout the range of the species during spring, summer, and fall. Summer flounder exhibit strong seasonal inshore-offshore movements. Adult flounder normally inhabit shallow coastal and estuarine waters during the warmer months of the year and remain offshore during the colder months. EFH includes pelagic waters, demersal waters, saltmarsh creeks, seagrass beds, mudflats, and open bay areas, from the Gulf of Maine through North Carolina.

Scup spawn once annually, over weedy or sand-covered areas in the spring. Scup eggs and newly hatched larvae are found in open water in bays and sounds of Southern New England during the spring-summer. Juvenile and adult scup are demersal using inshore waters in the spring and moving offshore in the winter. EFH includes demersal waters, sands, mud, mussel and seagrass beds, from the Gulf of Maine through Cape Hatteras, North Carolina.

The northern population of black sea bass spawns in the Middle Atlantic Bight continental shelf during the spring through fall, primarily between Virginia and Cape Cod, Massachusetts. Spawning begins in the spring in the southern portion of the population range, i.e., off North Carolina and Virginia, and progresses north into southern New England waters in the summer-fall; these pelagic eggs are closely associated with spawning. Collections of ripe fish and egg distributions indicate that the species spawns primarily on the inner continental shelf between Cape Hatteras, North Carolina and Cape Cod, Massachusetts. The duration of larval stage and habitat-related settlement cues are unknown; therefore, distribution and habitat use of this pelagic stage may only partially overlap with that of the egg stage. Adult black sea bass are also very structure oriented, especially during their summer coastal residency. Unlike juveniles, they tend to enter only larger estuaries and are most abundant along the coast. Larger fish tend to be found in deeper water than smaller fish. A variety of coastal structures are known to be attractive, and these include shipwrecks, rocky and artificial reefs, mussel beds and any other object or source of shelter on the bottom. In the warmer months, inshore, resident adult black sea bass are usually found associated with structured habitats. EFH for black sea bass is pelagic waters, structured habitat (e.g., sponge beds), rough bottom shellfish, sand and shell, from the Gulf of Maine through Cape Hatteras, North Carolina.

There are other lifestages of federally-managed species that have designated EFH that may be susceptible to adverse impacts from bottom-tending mobile gear; descriptions of these are given in Table 2 of Appendix A (from Stevenson et al. 2004).

6.2.3 Fishery Impact Considerations

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP (MAFMC 2002). In the commercial fisheries for these managed resources, summer flounder are primarily landed by bottom otter trawls, scup are primarily landed by fish pots/traps, bottom and midwater trawls, and lines, and black sea bass are primarily landed by fish pots/traps, bottom and midwater trawls, and lines. Amendment 13 included alternatives to minimize the adverse impacts of fishing gear on EFH (as required pursuant to section 303(a)(7) of the MSA). As stated in section 3.2 of Amendment 13, the Council determined that both mobile bottom tending and stationary gear have a potential to adversely impact EFH. The analysis in that document also indicated that no management measures were needed, because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. On that basis, the Council selected the no action alternative, from among the suite of alternatives to minimize fishing gear impacts on EFH in Amendment 13 to the FMP. There have be no significant changes to the manner in which the summer flounder, scup, and black sea bass fishery is prosecuted, and none of the alternatives being considered in this document would adversely affect EFH (see section 7.0); therefore, the effects of fishing on EFH have not been re-evaluated since Amendment 13 to the FMP, and no alternatives to minimize adverse effects on EFH are presented in this document. The FMP limits recreational specifications for summer flounder, scup, and black sea bass to minimum fish size requirements, possession limits, and restrictions on the open fishing season. The principal gears used in the recreational fishery for summer flounder are rod and reel and handline. The potential adverse impacts of these gears on EFH for any of the federally-managed species in the region are minimal (Stevenson et al. 2004).

6.3 ESA-Listed Species and MMPA Protected Species

There are numerous species inhabiting the environment, within the management unit of the three species managed through this FMP, that are afforded protection under the Endangered Species Act (ESA) of 1973 (i.e., for those designated as threatened or endangered) and the Marine Mammal Protection Act of 1972 (MMPA). Table 7 provides species formally listed as threatened or endangered under the ESA, with four additional candidate species, that occur within the management units for summer flounder, scup, and black sea bass.

On February 6, 2012, NMFS issued two final rules listing five Distinct Population Segments (DPS) of Atlantic sturgeon as threatened or endangered (Table 7). Four DPSs (New York Bight, Chesapeake Bay, Carolina and South Atlantic) are listed as endangered and one DPS (Gulf of Maine) is listed as threatened. As a result of this listing, NMFS has reinitiated consultation on seven fisheries, including the summer flounder, scup, and black sea bass fishery. During the consultation period, the effects of the summer flounder, scup, and black sea bass fishery on the five DPSs will be fully examined and any bycatch reduction requirements will be addressed, as needed, based on the outcome and recommendations in the resulting biological opinion. In the previous biological opinion on the summer flounder, scup, and black sea bass fishery, NMFS concluded that the action considered would not jeopardize the continued existence of any ESA-listed species. Allowing these fisheries to continue during the reinitiation period will not increase

the likelihood of interactions with these species above the amount that would otherwise occur if consultation had not been reinitiated, because allowing these fisheries to continue does not entail making any changes to the fishery during the reinitiation period that would cause an increase in interactions with ESA-listed species. Because of this, the continuation of these fisheries during the reinitiation period would not be likely to jeopardize the continued existence of any ESA-listed species.

Table 7. Species endangered and threatened under the ESA that are found in the environment utilized by the summer flounder, scup, and black sea bass fisheries.

Species	Common name	Scientific Name	Status
Cetaceans	North Atlantic right	*Eubalaena glacialis*	Endangered
	Humpback	*Megaptera novaeangliae*	Endangered
	Fin	*Balaenoptera physalus*	Endangered
	Blue	*Balaenoptera musculus*	Endangered
	Sei	*Balaenoptera borealis*	Endangered
	Sperm	*Physeter macrocephalus*	Endangered
Sea Turtles	Leatherback	*Dermochelys coriacea*	Endangered
	Kemp's ridley	*Lepidochelys kempii*	Endangered
	Green	*Chelonia mydas*	Threatened
	Hawksbill	*Eretmochelys imbricata*	Endangered
	Loggerhead[1]	*Caretta caretta*	Threatened
Fishes	Shortnose sturgeon	*Acipenser brevirostrum*	Endangered
	Atlantic salmon	*Salmo salar*	Endangered
	Atlantic sturgeon	*Acipenser oxyrinchus*	
	Gulf of Maine DPS		Threatened
	New York Bight DPS		Endangered
	Chesapeake Bay DPS		Endangered
	Carolina DPS		Endangered
	South Atlantic DPS		Endangered
	Cusk	*Brosme brosme*	Candidate
	Alewife	*Alosa pseudoharengus*	Candidate
	Blueback herring	*Alosa aestivalis*	Candidate
	Scalloped hammerhead	*Sphyrna lewini*	Candidate

[1] Northwest Atlantic distinct population segment (DPS) of loggerhead turtles.

Four species (cusk, blueback herring, alewife, and scalloped hammerhead) are candidate species for listing under the ESA (Table 7). Candidate species receive no substantive or procedural protection under the ESA (i.e., conference provisions requirement of the ESA applies only if a candidate species is proposed for listing); however, NMFS recommends that project proponents consider implementing conservation actions to limit the potential for adverse effects on candidate species from any proposed project. The Protected Resources Division of the NMFS Northeast Regional Office has initiated review of recent stock assessments, bycatch information, and other information for the candidate species. Any conservation measures deemed appropriate for these species will follow the information from these reviews. Sections 6.3.1 and 6.3.2 below document the recreational and commercial fishery interactions. Descriptions of the distributions of species with recent interactions within the management units for summer flounder, scup, and black sea bass are provided in section 6.3.3 below. More detailed description of the species listed in Table 7, including their environment, ecological relationships and life history information including recent stock status, is available at: http://www.nero.noaa.gov/prot_res/.

6.3.1 Recreational Fisheries Interactions

The principle gears used in the recreational fishery for summer flounder, scup, and black sea bass are rod and reel and handline. Recreational fisheries, in general, have very limited interaction with ESA-listed or MMPA protected species. Anecdotal information indicates that recreational anglers periodically foul hook Atlantic sturgeon while in pursuit of other recreational species such as striped bass, but these impacts are believed to be infrequent occurrences, and thought to be well below the level which would impact the continued survivability of Atlantic sturgeon (Damon-Randall, NMFS, Protected Resources Division, pers. comm.). Recreational fishermen do contribute to difficulties for ESA-listed and MMPA protected marine species in that it is estimated that recreational fishermen discard over 227 million lb (103 million kg) of litter each year (O'Hara et al. 1988). More than nine million recreational vessels are registered in the United States. The greatest concentrations of recreational vessels in the United States are found in the waters off New York, New Jersey, the Chesapeake Bay, and Florida (O'Hara et al. 1988). As previously stated, recreational fishermen are a major source of debris in the form of monofilament fishing line. The amount of fishing line lost or discarded by the 17 million U.S. fishermen during an estimated 72 million fishing trips in 1986 is not known, but if the average angler snares or cuts loose only one yard of line per trip, the potential amount of deadly monofilament line is enough to stretch around the world (O'Hara et al. 1988). Although the recreational fishery may impact these marine species, nothing in this document would modify the manner in which the fishery is prosecuted. Potential impacts to ESA-listed and MMPA protected species associated with the proposed measures are discussed in section 7.0.

6.3.2 Commercial Fisheries Interactions

A description of the areas fished commercially for summer flounder, scup, and black sea bass (i.e., area affected by the proposed action) is given in section 6.4.2. The commercial fishery for summer flounder is primarily prosecuted with otter trawls, while those for scup and black sea bass are primarily prosecuted with otter trawls and pots/traps. These fisheries are mixed fisheries (indiscriminate), where squid, Atlantic mackerel, silver hake, skates, and other species are

harvested with summer flounder, scup, and/or black sea bass. The List of Fisheries (LOF) classifies U.S. commercial fisheries into Categories according to the level of interactions that result in incidental mortality or serious injury of marine mammals (Table 8).

Marine Mammals

Based on NMFS Northeast Fisheries Observer Program (NEFOP) database for the period of January 2007 through December 2011, there were 10 observed interactions between marine mammals in the Mid-Atlantic bottom trawl and gill net fishery, where summer flounder, scup, or black sea bass were the fishing trip targets. Specifically, in the bottom otter trawl fishery, one Risso's dolphin was dead (fresh), four common dolphins were dead (fresh), one unknown dolphin was observed in unknown condition, and one habor porpoise was dead (moderately decomposed). In the gill net fishery, one gray seal was dead (moderately decomposed), and two unknown seals were dead (unknown condition). There have been no observed interactions of fin and humpback whales, or other whales such as Sei or Right whales, with the Atlantic mixed species trap/pot fishery; however, the lobster trap/pot fishery has been involved in entanglements with large cetaceans.

Table 8. Commercial Fisheries Classification based on 2012 List of Fisheries (LOF).

Fishery (Action Area)	Resource	Gears	LOF	Potential for Interactions
See section 6.4.2 for a description of the areas fished the managed resources	summer flounder, scup, and black sea bass	Mid-Atlantic bottom trawl fishery	Cat. II	bottlenose, common, Risso's and white-sided dolphins; short- and long-finned pilot whales; harbor seal
		Northeast bottom trawl	Cat. II	bottlenose, common, and white-sided dolphins; harbor porpoise; harbor, gray, and harp seals; short and long-finned pilot whale
	scup and black sea bass	Atlantic mixed species trap/pot fishery	Cat. II	fin whale and humpback whale (classified by analogy due to lobster pot entanglements)

Sea Turtles

The NEFOP database for the period of January 2007 through December 2011 indicate there were 25 sea turtle takes where summer flounder was the species being targeted during trips where bottom otter trawls were used. Of these 25 takes, 15 were loggerhead turtles released alive, 4 were loggerheads released alive and resuscitated, and 3 were loggerheads that were dead (fresh). The remaining takes included one Kemp's ridley turtle (dead, fresh), one leatherback turtle (released alive), and one unknown, hard-shell turtle (dead, severely decomposed).

Since 1992, all vessels using bottom trawls to fish for summer flounder in specific areas and times off VA and NC have been required to use NMFS-approved Turtle Excluder Devices (TEDs) in their nets (57 FR 57358, December 4, 1992; 50 CFR 223.206(d)(2)(iii)). NMFS is considering similar measures to protect threatened and endangered sea turtles in the western Atlantic Ocean and Gulf of Mexico from incidental capture, which could be implemented under the ESA.

Warden (2011) developed a generalized additive model of loggerhead interaction rates using the NEFOP database. The model-predicted loggerhead interactions and commercial fishing data were used to estimate the numbers of interactions for the trawl fleet from 2005-2008. Interactions rates were the highest south of 37°N, and estimated adult interactions were highest from 37-39°N in shallow water (< 50 m) and warmer temperatures (> 15°C). Compared to 1996-2004 (Murray 2008), the predicted average annual loggerhead interaction in the trawl fisheries has decreased as a result of decreased trawling effort. Annual days fished in the late 1990s were > 30,000 but were less than 12,000 in the mid- to late 2000s. The combined effects of finfish trawling regulations are believed to have resulted in this decrease in effort.

Atlantic Sturgeon

Atlantic sturgeon is known to interact frequently with commercial gillnet and trawl gears. Atlantic sturgeon from any of the five DPSs could occur in areas where the summer flounder, scup, and black sea bass fisheries operate, and the species has been captured as bycatch in gear targeting summer flounder, scup, and black sea bass (Stein et al. 2004, ASMFC TC 2007). Of these gear types known to incidentally capture Atlantic sturgeon, sink gillnet gear poses the greatest known risk of mortality for sturgeon (ASMFC TC 2007). Sturgeon deaths were rarely reported in the observer gathered otter trawl data (ASMFC TC 2007). However, the level of mortality after release from the gear is unknown (Stein et al. 2004). A review of the NEFOP database for the years 2001-2006 indicated sturgeon bycatch occurred in statistical areas abutting the coast from Massachusetts (statistical area 514) to North Carolina (statistical area 635) (ASMFC TC 2007). Based on the available data, participants in an ASMFC bycatch workshop concluded that Atlantic sturgeon encounters tended to occur in waters less than 50 m throughout the year, although seasonal patterns exist (ASMFC TC 2007). Stein et al (2004), based on a review of the NEFOP data from 1989-2000, found clinal variation in the bycatch rate of sturgeon in sink gillnet gear with lowest rates occurring off of Maine and highest rates off of North Carolina for all months of the year. In an updated analysis, the NEFSC was able to use data from the NEFOP database to provide updated actual and estimated bycatch capture and observed mortality data for years 2006-2010. Data were limited by observer coverage to waters outside the coastal boundary and north of Cape Hatteras, NC. The Atlantic sturgeon included in the data set were those identified by Federal observers as Atlantic sturgeon, as well as those categorized as unknown sturgeon. Because the data included unknown sturgeon classifications, the data may overestimate occurrence and mortality of Atlantic sturgeon occurring as bycatch in Northeastern fisheries. The frequency of encounters on observed trips were expanded by total landings recorded in vessel trip reports (VTR) as this provides a near census of the total commercial landings and allows disaggregation of the data by gear and mesh sizes. The data were combined into divisions statistical area aggregations, quarter, gear type (otter trawl, fish and sink gillnet)

and mesh categories. Mesh sizes were categorized for otter trawl as small (<5.5”) or large (greater than or equal to 5.5”).

Information from Amendment 13 to the summer flounder, scup, and black sea bass FMP indicates that 93, 77, and 41 percent of the respective summer flounder, scup, and black sea bass landings are from otter trawl gear, with bottom otter trawls comprising the vast majority of trawl gear used. NEFOP data indicate that floating traps and fish pots/traps commonly used to target scup and black sea bass have not, to date, had documented encounters with Atlantic sturgeon. This does not mean that there have not been interactions but given how the gears operate, it is reasonable to conclude that Atlantic sturgeon captured in floating fish traps could be released with very high survivability while interactions with fish pot/trap gear would be unlikely to capture anything but relatively young Atlantic sturgeon. Many black sea bass fish pots/traps are fished without bait, have escape panels to allow egress of small fish, and biodegradable panels that allow egress should the gear remain in the water for extended periods or become lost. These suggest that Atlantic sturgeon interaction and mortality with in the black sea bass pot/trap fishery may be unlikely.

Amendment 13 analyses indicated that sink gill nets infrequently capture summer flounder, scup, and black sea bass. Data indicate that 0.5 percent of summer flounder, 0.14 percent of scup, and 0.37 percent of black sea bass total landings from the 10-year period encompassing the 1990s occurred from sink gillnets. These are likely incidental captures of the three FMP species while targeting other species with sink gillnets. It should be noted that some VTRs do indicate that summer flounder, scup, or black sea bass are the primary target species for a small portion of sink gillnet trips. The overall magnitude of sink gillnet use by the summer flounder, scup, and black sea bass fisheries is very low and, as such, the impact on Atlantic sturgeon is believed to be minimal despite information that indicates that mortality associated with sink gill nets is higher than other gear types. Thus, the remaining focus of the potential interactions and impacts to Atlantic sturgeon with respect to the summer flounder, scup, and black sea bass fisheries are limited to discussion of otter trawls.

Bottom trawls use in the summer flounder, scup, and black sea bass fisheries occurs in the same temporal and spatial areas in which Atlantic sturgeon are known to occur. Information from Amendment 13 to the FMP indicated that bottom trawl use for summer flounder, scup, and black sea bass occurs most heavily in statistical areas 612 (Raritan Bay/upper Hudson Canyon), 621 (ocean waters adjacent to the mouth of Delaware Bay), 624 (offshore waters, lower reaches of Hudson Canyon), 625 and 631(ocean waters adjacent to the mouth of Chesapeake Bay), and 635 (ocean waters adjacent to Cape Hatteras, NC). Additional effort occurs throughout the mid-Atlantic bight, southern New England, and along the 182 m (100 fathom) isobath up to the southern flank of George’s Bank. However, literature indicates otter trawl effort in waters deeper than 50 m (27 fathoms) are less likely to encounter Atlantic sturgeon. This includes statistical area 624, which is the deeper reaches of the southeastern end of Hudson Canyon. Statistical areas 612 and 621 for large mesh and areas 625, 631, and 635 for small mesh otter trawls account for the majority of observed otter trawl Atlantic sturgeon takes recorded in the NEFOP data (Table 9).

Table 9. Atlantic sturgeon encounters in observed large and small mesh otter trawl trips, 2006-2010.

Large mesh otter trawl

area	month 1	2	3	4	5	6	7	8	9	10	11	12
464	0		0		0					0	0	
465	0		0	0		0	0				0	0
511	0		0	0								0
512	0		0	0	0	0	0	0	0	0	0	0
513	0	0	0	0	0	0	0	0	0	0	0	0
514	3	0	0	0	0	0	0	0	0	0	0	0
515	0	0	0	0	0	0	0	0	0	0	0	0
521	0	0	0	0	0	0	0	0	0	0	0	0
522	0	0			0			0	0	0	0	
525				0	0			0				
526	0	0	0	0	0	0	0	0	0	0	0	0
537	0	0	0	0	0	0	0	0	0	0	0	0
538				0	0	0	0	0	0	0	0	
539	0	0	0	0	0	0	0	0	0	0	0	0
562					0			0				
611	0	0	0	0	0	0	0	0	0	0	0	0
612		**1**		0	**25**	**5**	**5**	0	**33**	**1**	0	0
613	0	0	0	**1**	0	0		0	0	0	0	0
614				**1**	0	0	0		0			
615	0		0		0	0	0	0	0		0	0
616	0	0	0	0						0	0	0
621	0	0	0		0	**2**	0	0	**18**	0	0	0
622	0	0	0	0							0	0
623			0	0								
625							0			0	0	0
626	0	0	0	0							0	0
627				0								
631	0	**2**										0
632		0										
635	0											0

small mesh otter trawl

area	month 1	2	3	4	5	6	7	8	9	10	11	12
465									0			
512							0		0		0	
513	0	0				0	0	0	0		0	
514	0	0	0				0	0	0	0	1	0
515	0		0			0	0		0		0	
521	0	0	0				0	0	0	0	0	0
522						0	0	0	0	0		
525	0	0	0	0	0	0	0	0	0	0	0	0
526	0	0	0				0	0	0	0	0	0
533				0								
534									0			
537	0	0	0	0	0	**1**	**1**	0	0	0	0	0
538				0	0	0	0	0	0	0		
539	0	0	0	0	0	1	0	0	0	0	0	0
562	0	0	0		0	0	0	0	0	0	0	0
611	0	0		0	1	0	0	0	0	0	0	0
612	0		0	**6**	**14**	**13**	0	0	**1**	0	0	0
613	0	0	0	0	0	0	**1**	0	0	**1**	**4**	0
614					**1**	**3**	0	0	0	0	0	
615	0	0	0	0	0	0	0	0	0	0	0	0
616	0	0	0	0	0	0	0	0	0	0	0	0
621	0	0	0	0	**3**	**1**	**1**	0	3	9	2	0
622	0	0	0	0	0	0	0	0	0	0	0	0
623	0	0	0	0				0	0	0	0	0
625	4		0			0				**1**	**12**	**2**
626	0	0	0	0		0	0	0	0	0	0	0
627	0	0		0			0	0	0	0		
631	**2**	**2**	**22**	**7**						**1**	**2**	**3**
632	0			0		0	0	0	0	0	0	0
633								0				
635	**10**	**4**	**8**	**1**						0	0	0
636	0	0		0		0	0	0	0	0	0	0

Source: NEFOP database, April 8, 2011.

The information presented in Table 10 shows that the number of estimated annual takes of Atlantic sturgeon in otter trawls by both mesh sizes. These estimated numbers were derived utilizing the estimation methods (i.e., expansion by VTR data) and input data (i.e., NEFOP, 2006-2010) previously described and, as such, represent a theoretical range of encounters and mortality based on the best available information. The data suggest that the majority of Atlantic sturgeons encountered by otter trawl gear are released alive. However, there is no information available to quantify potential affects to the animals post-release. It should be noted that the management structure for the summer flounder, scup, and black sea bass fisheries has remained constant across this time period: The regulatory mesh size requirements for the three species have remained 5.5" for summer flounder (when fishing without an exemption for smaller mesh), 5.0" for scup, and 4.5" mesh for black sea bass. The number of deaths attributable to the otter trawl mesh sizes in the summer flounder, scup, and black sea bass fisheries has declined in the two most recent years, despite substantial increases to the summer flounder and scup landing levels and comparable levels over the most recent years for black sea bass. The landing levels in 2008 for the three FMP species was at or near the lowest levels in the most recent 10 year period, yet that year yielded the highest amount of observed Atlantic sturgeon mortality. This suggests that landing levels alone and the assumed changes in effort that may follow do not correlate well to increases in Atlantic sturgeon mortality from bycatch in the summer flounder, scup, and black sea bass fisheries.

Table 10. Estimated Atlantic sturgeon encounters in otter trawl gear based upon NEFOP data, 2006-2010.

	Total Encounters	Dead Encounters	Percent Dead
2006	1,606	90	5.6
2007	807	63	7.8
2008	857	145	16.9
2009	1,050	19	1.2
2010	1,644	7	0.4

Source: NEFOP database, April 8, 2011.

Based on mixed stock analysis of the NEFOP data, it is possible to break down estimates of Atlantic sturgeon mortalities into the DPS(s) from which these fish originated. This analysis reveals that Atlantic sturgeon bycatch mortality is composed of an estimated 11% from the Gulf of Maine DPS, 49% from the New York Bight DPS, 14% from the Chesapeake Bay DPS, 4% from the Carolina DPS, and 20% from the South Atlantic DPS. Atlantic sturgeon from Canada comprise 2% of the mortalities, although these sturgeon are not listed under the ESA. Reductions in bycatch mortality and the other sources of anthropogenic mortality may be required in order to recover Atlantic sturgeon.

As mentioned in Section 6.3, NMFS has listed five Distinct Population Segments (DPS) of Atlantic sturgeon as threatened or endangered (Table 7). As a result of this listing, NMFS has reinitiated consultation on seven fisheries, including the summer flounder, scup, and black sea bass fishery.

6.3.3 Description of Species with Interactions

The following provides descriptions of ESA-listed and MMPA protected resources which have had recent interactions with the managed resources (most recent 5 years, 2007-2011; section 6.3.2) and include the Risso's dolphin, common dolphin, harbor porpoise, gray seal, loggerhead sea turtle (Northwest Atlantic DPS), Kemp's ridley sea turtle, leatherback sea turtle, and Atlantic sturgeon. Detailed descriptions of other ESA-listed and MMPA protected species that are distributed within the management units of summer flounder, scup, and black bass are available at the following website: http://www.nmfs.noaa.gov/pr/.

Sea Turtles: The Northwest Atlantic DPS of loggerhead sea turtle occurs throughout the temperate and tropical regions of the Atlantic, Pacific and Indian Oceans (Dodd 1988). Loggerhead sea turtles are found in a wide range of habitats throughout the temperate and tropical regions of the Atlantic. These habitats include open ocean, continental shelves, bays, lagoons, and estuaries (NMFS & USFWS 2008). Because they are limited by water temperatures, loggerhead sea turtles do not usually appear on the summer foraging grounds in the Gulf of Maine until June, but are found in Virginia as early as April. They remain in these areas until as late as November and December in some cases, but the large majority leaves the Gulf of Maine by mid-September.

Kemp's ridley turtles have one major nesting site, a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico (Carr 1963). Juvenile Kemp's ridleys inhabit northeastern US coastal waters where they forage and grow in shallow coastal areas during the summer months. Juvenile Kemp's ridleys migrate southward with autumnal cooling and are found predominantly in shallow coastal embayments along the Gulf Coast during the late fall and winter months. Kemp's ridleys found in mid-Atlantic waters are primarily post-pelagic juveniles averaging 40 cm in carapace length, and weighing less than 20 kg. After loggerheads, they are the second most abundant sea turtle in Virginia and Maryland waters, arriving there during May and June and then emigrating to more southerly waters from September to November (Lutcavage and Musick 1985).

Leatherback turtles are widely distributed and can be found throughout the waters of the Atlantic, Pacific, Caribbean, and the Gulf of Mexico. Leatherbacks are predominantly pelagic and exhibit broad thermal tolerances. Evidence suggests that adults engage in routine migrations between boreal, temperate and tropical waters (NMFS & USFWS 1992). Located in the northeastern waters during warmer months, this species is found in coastal waters of the continental shelf and near the Gulf Stream edge, but rarely in the inshore areas.

Additional information on these and other sea turtle species that do not have recent documented interactions with the directed managed resource fisheries can be found at: http://www.nmfs.noaa.gov/pr/species/turtles/.

Small Cetaceans: Numerous small cetacean species, including Risso's dolphins, common dolphins, and harbor porpoises, occur within the area from Cape Hatteras through the Gulf of Maine where the managed resource fisheries are prosecuted. Risso's dolphins are distributed

worldwide in tropical and temperate seas, and in the Northwest Atlantic occur from Florida to eastern Newfoundland (Leatherwood et al. 1976; Baird and Stacey 1990). Off the Northeast U.S. coast, Risso's dolphins are distributed along the continental shelf edge from Cape Hatteras northward to Georges Bank during spring, summer, and autumn (CETAP 1982; Payne et al.1984). In winter, the range is in the Mid-Atlantic Bight and extends outward into oceanic waters (Payne et al. 1984).

Common dolphins are distributed worldwide in temperate and subtropical seas. In the northeastern U.S., common dolphins are distributed along the continental slope and associated with Gulf Stream features. Common dolphins occur from Cape Hatteras northeast to Georges bank from mid-January to May, moving to Georges bank and the Scotian Shelf from mid-summer to autumn (Waring et al. 2012).

The Gulf of Maine/Bay of Fundy stock of harbor porpoises is concentrated in the northern Gulf of Maine and southern Bay of Fundy region from July to September, generally in waters less than 150 m deep. In the fall and spring, harbor porpoises are widely distributed from New Jersey to Maine, with the majority of the population found over the continental shelf. In the winter, harbor porpoises can be found in the waters off New Jersey to North Carolina, and in lower densities in the waters off New York to New Brunswick, Canada. There does not appear to be a temporally coordinated migration or a specific migratory route to and from the Bay of Fundy region (Waring et al. 2012).

Additional information on these species and other small cetaceans that do not have recent documented interactions with the directed managed resource fisheries can be found at: http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/.

Pinnipeds: Of the four species of seals expected to occur in the area, harbor seals have the most extensive distribution with sightings occurring as far south as 30° N (Katona et al. 1993). Grey seals are the second most common seal species in U.S. EEZ waters, occurring primarily in New England (Katona et al. 1993; Waring et al. 2006). Pupping colonies for both species are also present in New England, although the majority of pupping occurs in Canada. Harp and hooded seals are less commonly observed in U.S. EEZ waters. Both species form aggregations for pupping and breeding off of eastern Canada in the late winter/early spring, and then travel to more northern latitudes for molting and summer feeding (Waring et al. 2006). However, individuals of both species are also known to travel south into U.S. EEZ waters and sightings as well as strandings of each species have been recorded for both New England and Mid-Atlantic waters (Waring et al. 2009). Additional information on seal species can be found at: http://www.nmfs.noaa.gov/pr/species/mammals/pinnipeds/.

Fishes: Atlantic sturgeon is an anadromous species that spawns in relatively low salinity, river environments, but spends most of its life in the marine and estuarine environments from Labrador, Canada to the Saint Johns River, Florida (Holland and Yelverton 1973, Dovel and Berggen 1983, ASSRT 2007). Tracking and tagging studies have shown that sub-adult and adult Atlantic sturgeon that originate from different rivers mix within the marine environment, utilizing ocean and estuarine waters for life functions such as foraging and overwintering (Stein

et al. 2004, Dadswell 2006, ASSRT 2007, Laney et al. 2007, Dunton et al. 2010). Fishery-dependent data as well as fishery-independent data demonstrate that Atlantic sturgeon use relatively shallow inshore areas of the continental shelf; primarily waters less than 50 m (Stein et al. 2004, ASMFC TC 2007, Dunton et al. 2010). The data also suggest regional differences in Atlantic sturgeon depth distribution with sturgeon observed in waters primarily less than 20 m in the Mid-Atlantic Bight and in deeper waters in the Gulf of Maine (Stein et al. 2004, ASMFC TC 2007, Dunton et al. 2010). Additional information on Atlantic sturgeon and other ESA-listed fishes can be found at: http://www.nmfs.noaa.gov/pr/species/fish/**.**

6.4 Human Communities and Economic Environment

6.4.1 Fishery Descriptions

A detailed description of the economic aspects of the commercial and recreational fisheries for summer flounder, scup, and black sea bass was presented in section 3.3.1, 3.3.2, and 3.3.3, respectively, of Amendment 13 to the FMP (MAFMC 2002). Recent trends in landings and ex-vessel values are presented below.

6.4.1.1 Summer Flounder

The ex-vessel value of summer flounder landings in 2011 was approximately $29.9 million resulting from commercial landings of 16.6 million lb, with an average ex-vessel price estimated at $1.80/lb. The value of commercial landings of summer flounder from 2009 to 2011 averaged $25.8 million, with an average ex-vessel price of $1.91/lb. In general, summer flounder landings for smaller tonnage vessels tend to be greater in the summer months, while landings for larger tonnage vessels tend to be greater in the winter months. On average, higher prices tend to occur during the summer months. This price fluctuation is likely in response to supply. Recent summer flounder, scup, and black sea bass landing patterns among ports are presented in section 6.4.3.

Summer flounder continues to be an important component of the recreational fishery. Estimates of primary species sought as reported by anglers in recent intercept surveys indicate that summer flounder recreational trips have shown an upward trend, ranging from 3.8 million in 1992 to 6.1 million in 2001. For the 2009 to 2011 period, summer flounder recreational fishing trips were estimated at 4.6, 4.5, and 4.5 million, respectively (section 8.11.3.1.2).

6.4.1.2 Scup

Commercial scup landings were approximately 15.0 million lb (from ME to Cape Hatteras, NC) and valued at $8.2 million in 2011 ($0.55/lb). The value of commercial landings of scup from 2009 to 2011 averaged $7.17 million, with an average ex-vessel price of $0.66/lb. Recent summer flounder, scup, and black sea bass landing patterns among ports are presented in section 6.4.3.

Scup continues to be an important component of the recreational fishery. Estimates of primary species sought as reported by anglers in recent intercept surveys indicate that scup recreational

trips have shown an upward trend, ranging from 0.20 million in 1997 to 0.97 million in 2003. For the 2009 to 2011 period, scup recreational fishing trips were estimated at 0.54, 0.70, and 0.48 million, respectively (section 8.11.3.1.2).

6.4.1.3 Black Sea Bass

Commercial black sea bass landings were approximately 1.71 million lb (from ME to Cape Hatteras, NC) and valued at $5.4 million in 2011 ($3.20/lb). The value of commercial landings of black sea bass from 2009 to 2011 averaged $4.79 million, with an average ex-vessel price of $3.12/lb. Recent summer flounder, scup, and black sea bass landing patterns among ports are presented in section 6.4.3.

Black sea bass continues to be an important component of the recreational fishery. Estimates of primary species sought as reported by anglers in recent intercept surveys indicate that black sea bass recreational trips have shown an upward trend, ranging from 0.14 million in 1999 to 0.42 million in 2010. For the 2009 to 2011 period, black sea bass recreational fishing trips were estimated at 0.39, 0.42, and 0.19 million, respectively (section 8.11.3.1.2).

6.4.2 Description of the Areas Fished

The baseline impact of the summer flounder, scup, and black sea bass commercial fisheries on the environment is fully described in section 3.2.8 of Amendment 13 to the FMP (MAFMC 2002). It should be noted that the VTR data presented does not represent every trip made in these three fisheries because state-only permitted vessel effort may not be captured through VTRs.

6.4.2.1 Summer Flounder

NMFS 2011 VTR data indicated that 17,885 trips, by five major gear types, caught a total of 14.94 million lb of summer flounder; landing 14.77 million lb and discarding 0.17 million lb. The majority of the trips and catch were made by bottom otter and beam trawls (74.9 percent of trips, 97.6 percent of catch), followed by handline “other” (10.2 percent of trips, 1.0 percent of catch), gillnets (11 percent of trips, 0.9 percent of catch), scallop dredges (2.9 percent of trips, 0.4 percent of catch), and pots and traps (0.6 percent of trips, less than 0.1 percent of catch). There were seven statistical areas (Figure 4), which individually accounted for greater than 5 percent of the summer flounder catch in 2011 (Table 11). Collectively, these seven areas accounted for 77 percent of the summer flounder catch. There were six statistical areas, which individually accounted for greater than 5 percent of the trips which caught summer flounder in 2011 (Table 12). Collectively, these six areas accounted for 78 percent of the trips that caught summer flounder and 38 percent of the 2011 summer flounder catch.

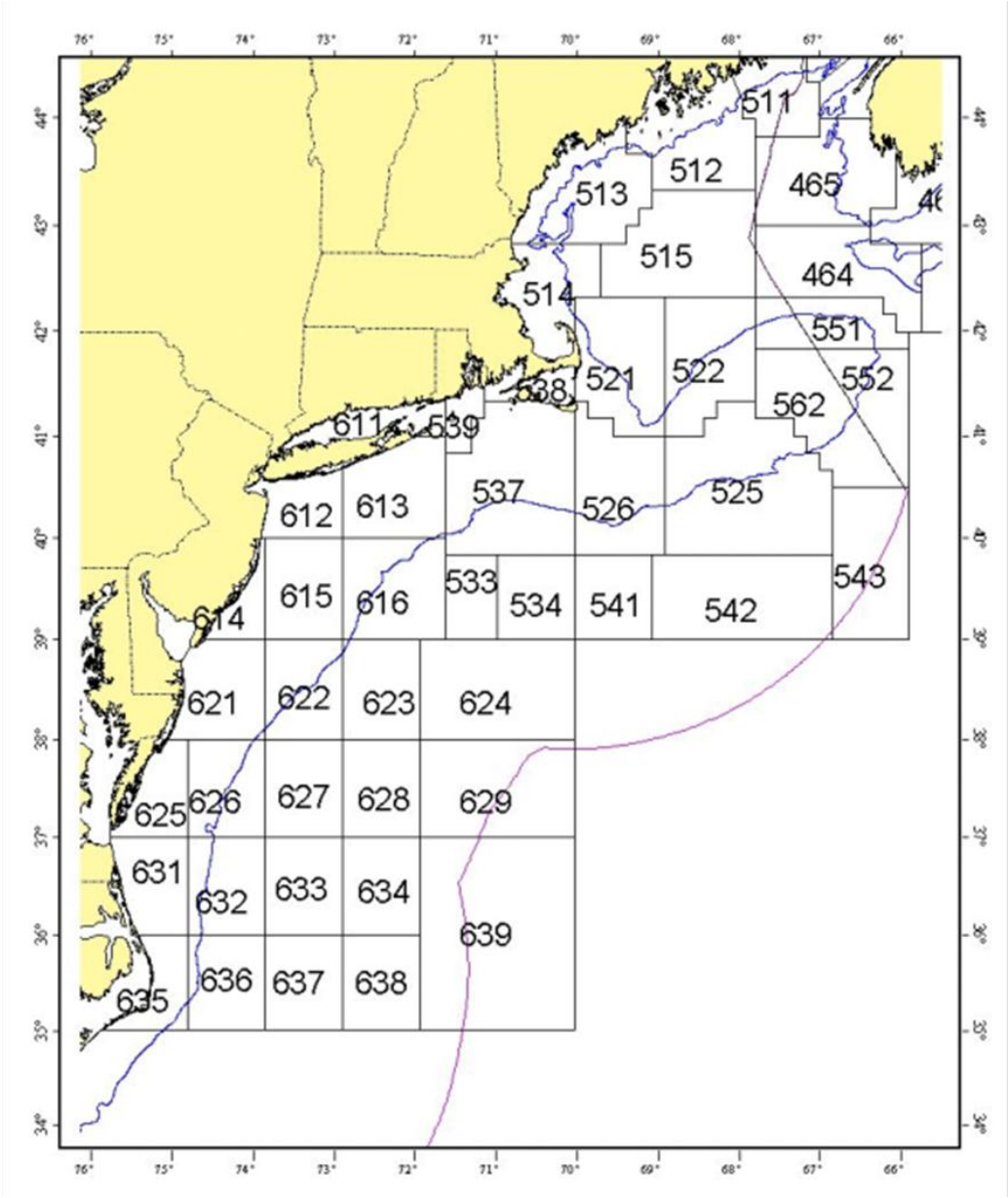

Figure 4. NMFS Northeast statistical areas.

Table 11. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass catch in 2011, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
616	21.15	32.25	13.60
537	14.45	12.31	4.17
626	10.98	0.06	4.37
622	10.75	4.76	19.74
612	8.19	0.87	2.81
621	5.51	0.11	17.66
613	5.73	12.73	4.52
611	3.80	11.73	4.43
539	4.23	17.15	4.88
615	4.13	2.92	7.15

Table 12. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass trips in 2011, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
539	17.06	24.99	18.03
611	15.81	25.78	17.89
612	15.73	5.28	12.95
613	13.75	14.94	14.25
537	9.47	7.96	6.71
538	6.40	11.60	6.58
616	4.43	6.08	6.47

6.4.2.2 Scup

NMFS 2011 VTR data indicated that 9,390 trips, by four major gear types, caught a total of 11.40 million lb of scup. Of these, 11.2 million lb of scup were landed, and 0.21 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (70.5 percent of trips, 93.9 percent of catch), followed by hand line "other" (11.2 percent of trips, 0.89 percent of catch), pots and traps (11.2 percent of trips, 2.8 percent of catch), gillnets (6.6 percent of trips, 0.26 percent of catch), and weirs (0.1 percent of trips, 0.4 percent of catch). There were five statistical areas, which individually accounted for greater than 5 percent of the scup catch in 2011 (Table 11). Collectively, these five areas accounted for 86 percent of the scup catch. There were seven statistical areas, which individually accounted for greater than 5 percent of the trips which caught scup in 2011 (Table 12). Collectively, these seven areas accounted for 97 percent of the trips that caught scup and 89 percent of the 2011 scup catch.

6.4.2.3 Black Sea Bass

NMFS 2011 VTR data indicated that 7,511 trips, by four major gear types, caught a total of 1.37 million lb of black sea bass. Of these, 1.29 million lb of black sea bass were landed, and 0.09 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (54.8 percent of trips, 52.7 percent of catch), followed by pots and traps (26.2 percent of trips, 40.5 percent of catch), handline “other” (14.31 percent of trips, 6.4 percent of catch), and gillnets (4.2 percent of trips, 0.7 percent of catch). There were four statistical areas, which individually accounted for greater than 5 percent of the black sea bass catch in 2011 (Table 11). Collectively, these four areas accounted for 58.2 percent of the black sea bass catch. There were seven statistical areas, which individually accounted for greater than 5 percent of the trips which caught black sea bass in 2011 (Table 12). Collectively, these seven areas accounted for 83 percent of the trips that caught black sea bass and 39 percent of the 2011 black sea bass catch.

6.4.3 Port and Community Description

The ports and communities that are dependent on summer flounder, scup, and black sea bass are fully described in Amendment 13 to the FMP (section 3.4; MAFMC 2002). Additional information on "Community Profiles for the Northeast US Fisheries" can be found at http://www.nefsc.noaa.gov/read/socialsci/communityProfiles.html.

To examine recent landings patterns among ports, 2011 NMFS dealer data are used. The top commercial landings ports for summer flounder, scup, and black sea bass by pounds landed are shown in Table 13.

Table 13. Top ports of landing (in lb) for summer flounder (FLK), scup (SCP), and black sea bass (BSB), based on NMFS 2011 dealer data. Since this table includes only the "top ports," it may not include all of the landings for the year. Note: C = Confidential

Port	Landings of FLK (lb)	# FLK Vessels	Landings of SCP (lb)	# SCP Vessels	Landings of BSB (lb)	# BSB Vessels
PT. JUDITH, RI	2,443,489	117	4,407,054	116	157,016	124
WANCHESE, NC	1,276,173	31	121,649	17	55,708	33
HAMPTON, VA	1,723,032	48	289,441	26	109,348	30
NEWPORT NEWS, VA	2,195,166	44	321,160	23	70,351	26
PT. PLEASANT, NJ	1,116,575	41	1,129,143	25	138,062	33
CAPE MAY, NJ	783,800	53	421,411	23	115,896	40
BEAUFORT, NC	334,725	9	C	C	19,508	8
ORIENTAL, NC	408,044	11	546	4	3,511	8
ENGELHARD, NC	400,301	12	74,835	5	18,931	9
MONTAUK, NY	662,762	71	2,326,640	81	80,609	73
BELFORD, NJ	534,740	20	301,518	16	5,851	15
NEW BEDFORD, MA	573,826	84	724,475	49	53,773	45
CHINCOTEAGUE, VA	657,941	31	182,974	9	59,323	10
HAMPTON BAY, NY	285,021	38	505,652	36	23,317	34
LOWLAND, NC	169,421	6	42,939	5	9,350	6
STONINGTON, CT	299,970	22	334,651	24	12,347	17
OCEAN CITY, MD	228,720	22	54,229	5	166,959	14
BARNEGAT LIGHT/LONG BEACH, NJ	312,815	35	14,405	8	5,651	7
WOODS HOLE, MA	7,562	13	4,560	7	6,411	7
NEWPORT, RI	90,643	18	290,549	16	10,229	18
MATTITUCK, NY	138,962	4	129,123	4	47,559	3
LITTLE COMPTON, RI	72,976	24	1,374,451	19	33,763	21
PT. LOOKOUT, NY	90,964	7	347,568	6	3,461	7
NANTUCKET, MA	135,343	15	47,712	9	823	8
FALMOUTH, MA	201,615	23	38,319	28	53,677	31
AMAGANSETT, NY	64,720	5	169,978	4	8,560	5
SWAN QUARTER, NC	141,100	3	--	--	--	--
NEW LONDON, CT	30,941	3	134,578	5	760	3
TIVERTON, RI	C	C	C	C	C	C

A "top port" is defined as any port that landed at least 100,000 lb of summer flounder, scup, or black sea bass. Related data for the recreational fisheries are shown in Table 14. However, due to the nature of the recreational database, it is inappropriate to desegregate to less than state levels. The level of precision of annual harvest estimates from recreational data depend on the survey sample sizes, the frequency of sampled angler trips that caught the species, and the variability of numbers caught among those trips. Harvest estimates are always progressively less precise at lower levels of stratification. Thus port-level recreational data are not shown.

Table 14. MRIP estimates of 2011 recreational harvest (numbers of fish kept) and total catch (numbers of fish) for summer flounder (FLK), scup (SCP) and black sea bass (BSB).

State	FLK Harvest (# of fish kept)	FLK Catch (# of fish caught)	SCP Harvest (# of fish kept)	SCP Catch (# of fish caught)	BSB Harvest (# of fish kept)	BSB Catch (# of fish caught)
ME	0	0	0	0	0	738
NH	0	0	0	0	0	0
MA	58,371	240,958	785,204	1,959,635	194,751	575,403
RI	161,125	885,622	567,697	1,230,165	50,203	271,024
CT	47,072	391,628	932,637	1,471,639	8,378	53,960
NY	376,198	7,671,294	714,789	1,712,309	274,473	1,167,316
NJ	736,849	8,832,809	44,813	79,787	148,486	1,450,706
DE	66,820	682,322	40	618	42,961	254,001
MD	15,346	487,882	11	146	47,445	400,637
VA	317,674	2,304,657	10,413	18,152	18,964	463,000
NC	60,422	61,629	607	883	95,004	1,157,569

6.4.4 Analysis of Permit Data

Federally Permitted Vessels

This analysis estimates that in 2011, there were 2,039 vessels with one or more of the following three commercial or recreational federal Northeast permits: summer flounder, scup, and black sea bass (Table 15). A total of 911, 761, and 799 federal commercial permits for summer flounder, scup, and black sea bass, respectively, had been issued to Northeast region fishing vessels (Table 15). For party/charter operators, a total of 845, 761, and 819 federal permits were issued for summer flounder, scup, and black sea bass, respectively (Table 15).

These three fisheries (summer flounder, scup, and black sea bass) have vessels permitted as commercial, party/charter for participation in recreational fisheries, or both. Of the 2,039 vessels

with at least one federal permit, there were 1,150 that held only commercial permits for summer flounder, scup, and/or black sea bass while there were 791 vessels that held only a recreational permit. The remaining vessels (98) held some combination of recreational and commercial permits (Table 15). Whether engaged in a commercial or recreational fishing activity, vessels may hold any one of seven combinations of summer flounder, scup, and black sea bass permits. The total number of vessels holding any one of these possible combinations of permits by species and commercial or recreational status are reported in Table 15.

Table 15. Summary of number of vessels holding federal commercial and/or recreational permit combinations for summer flounder (FLK), scup (SCP) and black sea bass (BSB), 2011.

Comm. Permit Combinations	Recreational Permit Combinations								
	No Rec. Permit	FLK Only	SCP Only	BSB Only	FLK/ SCP	FLK/ BSB	SCP/ BSB	FLK/ SCP/ BSB	Row Total
No Comm. Permit	0	36	7	18	14	52	13	651	791
FLK Only	299	1	0	1	0	0	2	4	307
SCP Only	44	0	0	1	0	2	0	7	54
BSB Only	111	4	0	2	1	5	0	12	135
FLK/ SCP	84	0	0	0	0	0	0	4	88
FLK/ BSB	43	0	0	0	0	1	0	1	45
SCP/ BSB	121	3	0	0	0	0	0	24	148
FLK/ SCP/ BSB	448	2	0	0	2	0	0	19	471
Column Total	1,150	46	7	22	17	60	15	722	2,039

Row sums in Table 15 indicate the total number of vessels that have been issued some unique combination of commercial permits. For example, there were 299 vessels whose only commercial permit was for summer flounder. By contrast, there were 448 vessels that held all three commercial permits. Column totals in Table 15 indicate the total number of vessels that have been issued some unique combination of federal recreational permits. For example, there were 7 vessels whose only recreational permit was for scup, while 722 vessels held all three recreational permits. Each cell in Table 15 reports the total number of vessels that have a unique

combination of recreational and commercial permits by species. For example, the cell entry of 1 in row 2 column 2 indicates that there was 1 vessel that held the unique combination of single summer flounder commercial permit and a single summer flounder recreational permit. Note that each cell entry in row 1 corresponds to vessels that held no commercial permit for summer flounder, scup or black sea bass, while each cell entry in column 1 corresponds to vessels that held no such recreational permit.

In addition to summer flounder, scup, and black sea bass, there are a number of alternative commercial or recreational fisheries for which any given vessel might possess a federal permit. The total number of vessels holding any one or more of these other permits is reported in Table 16.

Of the vessels that hold at least one federal permit for summer flounder, scup, or black sea bass, the largest number of commercial permit holders are held by Massachusetts vessels, followed by New Jersey, New York, Rhode Island, North Carolina, and Virginia (Table 17). The fewest permits are held by Pennsylvania, Florida, and Delaware vessels. In terms of average tonnage, the largest commercial vessels are found in Pennsylvania, followed by Virginia, Connecticut, North Carolina, Massachusetts, and New Jersey. In terms of average length, the largest commercial vessels are found in Virginia, Pennsylvania, and North Carolina followed by Connecticut, New Jersey, Massachusetts, and Rhode Island. In terms of average horse power, the largest commercial vessels are found in Pennsylvania followed by Connecticut, Virginia, and New Jersey.

For party/charter vessels (Table 18), the largest numbers of permit holders are found in Massachusetts, followed by New Jersey and New York. The fewest permits are in Florida and North Carolina. As might be expected, recreational vessels are smaller on average than commercial vessels. In terms of average length, the largest party/charter vessels operate out of principal ports in the state of Florida, followed by Connecticut, Pennsylvania, New York, North Carolina, New Jersey, and Maryland. In terms of average horse power, the largest recreational vessels are found in Florida, North Carolina, and Virginia.

For vessels that hold a combination of commercial and party/charter permits, most vessels operate out of ports in the state of New York followed by Massachusetts, New Jersey, North Carolina, and Rhode Island (Table 19). Like the vessels that hold only party/charter summer flounder, scup, or black sea bass permits, these vessels are generally smaller than exclusively commercial vessels.

Summer flounder landings are allocated by state, though vessels are not constrained to land in their home state. It can be useful, therefore, to examine the degree to which vessels from different states make it a practice to land in states other than their home state.

Table 16. Federal northeast region permits held by summer flounder, scup, and black sea bass commercial and recreational vessels, 2011. Note: LA= limited access; OA = open access; DAS = days at sea; P/C=party/charter; GOM = Gulf of Maine.

	Commercial Only (n= 1,150)		Party/Charter Only (n= 791)		Commercial and Party/Charter (n= 98)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Ocean Quahog	482	42	9	1	10	10
Surfclam	487	42	8	1	8	8
Scallop - LA DAS	310	27	0	0	0	0
Scallop - ITQ	177	15	3	0	3	3
Scallop - limited entry GOM general category	47	4	3	0	2	2
Scallop - incidental general category	217	19	2	0	1	1
Non-trap Lobster (comm.)	681	59	15	2	22	22
P/C Lobster	0	0	20	3	5	5
Lobster Trap (commercial)	325	28	56	7	29	30
P/C Multi-Species	2	0	612	77	36	37
Commercial Multispecies	10	1	3	0	0	0
Multispecies - OA other than P/C Multispecies	428	37	297	38	42	43
P/C Squid/ Mackerel/ Butterfish	0	0	687	87	74	76
Commercial Squid/ Mackerel/ Butterfish	1,047	91	298	38	75	77

Table 16 (Continued). Federal northeast region permits held by summer flounder, scup, and black sea bass commercial and recreational vessels, 2011.

	Commercial Only (n= 1,150)		Party/Charter Only (n= 791)		Commercial and Party/Charter (n= 98)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Commercial Bluefish	1,088	95	381	48	93	95
P/C Bluefish	6	1	736	93	87	89
Spiny Dogfish	1,059	92	478	60	86	88
Herring - LA all area permit	17	1	0	0	0	0
Herring - LA area 2 & 3	4	0	0	0	0	0
Herring - LA incidental	39	3	0	0	2	2
Herring - OA	837	73	366	46	71	72
Red Crab Incidental	756	66	147	19	41	42
Red Crab 75,000 lb trip limit	0	0	0	0	0	0
Red Crab > 75,000 lb trip limit	0	0	0	0	0	0
Skate	996	87	336	42	73	74
Tilefish Commercial (IFQ + incidental categories combined)	927	81	393	50	75	77
tilefish P/C	2	0	313	40	38	39
Monkfish	523	45	5	1	10	10
Incidental Monkfish	687	60	411	52	77	79

Table 17. Descriptive data from northeast region permit files for commercial vessels, 2011.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	25	6	2	384	17	57	98	27	210	122	1	120	82	2
No. of Permits by Home Port State	27	5	5	406	15	44	102	21	200	129	5	109	81	1
No. of Permits by Principal Port State	28	4	1	397	15	42	91	22	206	126	1	121	96	0
Average Length by Principal Port	61	37	18	54	47	37	63	40	60	44	64	52	66	NA
Average Tonnage by Principal Port	90	13	2	82	29	37	82	28	78	38	109	58	102	NA
Average Horse Power by Principal Port	596	314	50	470	369	244	492	290	521	342	850	411	566	NA
Percent Home Port Equal Principal Port	96	100	100	99	93	98	91	91	93	97	0	88	74	0

Table 18. Descriptive data from northeast region permit files for party/charter vessels, 2011.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	27	34	5	209	31	34	14	34	178	115	17	55	32	6
No. of Permits by Home Port State	23	36	7	207	33	34	19	35	176	119	10	60	30	2
No. of Permits by Principal Port State	24	32	3	206	33	38	17	33	186	117	3	62	35	2
Average Length by Principal Port	48	36	52	35	41	34	43	39	42	45	48	34	41	NA
Average Tonnage by Principal Port	32	16	51	17	28	15	25	21	27	31	34	16	23	NA
Average Horse Power by Principal Port	685	517	1,168	464	665	431	956	568	616	593	723	448	710	NA
Percent Home Port Equal Principal Port	83	97	100	98	82	89	100	100	92	96	0	94	83	100

Table 19. Descriptive data from northeast region permit files for combination commercial/recreational vessels, 2011.

	CT	DE	MA	NC	NJ	NY	RI	VA	Other
No. of Permits By Mailing Address State	3	4	15	10	13	36	8	7	2
No. of Permits By Home Port State	1	4	19	9	11	37	6	8	3
No. of Permits by Principal Port State	1	4	15	11	12	36	10	7	2
Average Length by Principal Port	42	53	33	43	52	40	42	45	NA
Average Tonnage by Principal Port	13	38	14	33	38	28	32	26	NA
Average Horse Power by Principal Port	700	775	320	374	564	405	560	619	NA
Percent Home Port Equal Principal Port	100	100	100	100	92	100	60	100	100

With the exception of the state of Pennsylvania, a high percentage of commercial vessel owners list the same state as both the vessel owner's declared principal port of landing and their identified home port (Table 17).

A high percentage of recreational vessel owners list the same state as both the vessel owner's declared principal port of landing and their identified home port, with the exception of Pennsylvania (Table 18). With the exception of the state of Rhode Island, a high percentage of recreational/commercial vessel owners list the same state as both the vessel owner's declared principal port of landing and their identified home port (Table 19).

Those vessels which have generally made it a practice to land in their home state may have less inherent flexibility in altering their landing state to adjust to smaller quotas in their home state.

Dealers

There were 263 Federally-permitted dealers who bought summer flounder, scup and/or black sea bass in 2011 from Maine through North Carolina. They were distributed by state as indicated in Table 20X. Employment data for these specific firms are not available. In 2011, these dealers from Maine through North Carolina bought approximately $29.9 million worth of summer flounder; $8.2 million worth of scup; and $5.4 million worth of black sea bass.

Table 20. Dealers reporting buying summer flounder, scup, and/or black sea bass, by state (from NMFS commercial landings database) in 2011.

	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Other
Number of Dealers	50	43	12	61	35	3	5	23	28	3

7.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This EA analyzes the impacts of the alternatives described fully under section 5.0 which specify commercial quotas and recreational harvest limits for the 2013 summer flounder, scup, and black sea bass fisheries and summer flounder and scup fisheries for 2014, that are necessary to ensure overfishing does not occur and ACLs are not exceeded (Table 21). The Council did not recommend changes to other regulations in place for these fisheries; therefore, any other management measures in place will remain unchanged (*status quo*) for the 2013 and 2014 fishing year (see section 5.4 for additional discussion). The Council developed recommendations for scup for 2015, but as noted previously, these measures will not be analyzed until late 2014 when fishing year 2015 recommendations for summer flounder and black sea bass have been developed, and more recent data can be used to provide for a more complete analysis of impacts relative to the *status quo*.

The Council and Commission's Board will meet in December 2012 to adopt 2013 and/or 2014 recreational management measures when more complete data regarding 2012 recreational landings are available. Therefore, while the impacts of recreational harvest limits are addressed in this EA, the impacts of the specific recreational management measures to implement that harvest limit will be analyzed in an EA in early 2013. The nature and extent of the management programs for the managed resource fisheries have been examined in detail in the EAs and EISs prepared for management actions for the FMP. The aspects of the environment VECs that could be affected by the proposed actions in this EA are detailed in section 6.0, and the analysis in this section focuses on impacts of the alternatives described in section 5.0 relative to each VECs (managed resources and non-target species, habitat (including EFH), ESA-listed and MMPA protected species, and human communities).

For purposes of comparing each of the alternatives, the proposed 2013 and 2014 commercial quota under each alternative is compared to the 2012 commercial quota and 2011 commercial landings, to provide the increase or decrease in quota or harvest limit (as a percentage) that is expected under each of the alternatives (Table 21 and 22). Similarly, the recreational harvest limit under alternative is compared to the 2012 harvest limit and 2011 recreational landings.

Changes in quota can result in changes in fishing effort. The direction and magnitude of change is dependent on factors such as fish abundance/availability and how the fishery responds regulations changes. 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 change in effort that results from changes in quota is difficult to quantify; therefore, following describes the general directionality of impacts in response to two factors (Table 23).

Table 21. Summary of the commercial quotas and recreational harvest limits (in million lb), for each of the quota-based alternatives.

Species		2013			2014		
		Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive	Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	11.45	12.73	9.18	11.39	12.73	9.18
	Recreational Harvest Limits	7.62	8.49	6.12	7.60	8.49	6.12
Scup	Commercial Quotas	23.52	27.91	10.68	21.94	27.91	10.68
	Recreational Harvest Limits	7.56	8.45	3.01	7.03	8.45	3.01
Black sea bass	Commercial Quotas	1.78	1.71	1.09	3.90	1.71	1.09
	Recreational Harvest Limits	1.84	1.32	1.14	4.05	1.32	1.14

Table 22. The percentage difference between the proposed commercial quotas under each alternative and 2011 commercial landings, and the proposed recreational harvest limits under each alternative and the 2011 recreational landings.

Species	Observed Landings	2013			2014		
		Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive	Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive
Summer flounder	2011 Commercial Landings	-30.9	-23.2	-44.6	-31.3	-23.2	-44.6
	2011 Recreational Landings	+27.9	+42.4	+2.7	+27.5	+42.4	+2.7
Scup	2011 Commercial Landings	+56.6	+85.7	-28.9	+46.0	+85.7	-28.9
	2011 Recreational Landings	+106.6	+130.9	-17.8	+92.1	+130.9	-17.8
Black sea bass	2011 Commercial Landings	+6.0	+1.8	-35.1	+132.1	+1.8	-35.1
	2011 Recreational Landings	+44.9	+3.9	-10.2	+218.9	+3.9	-10.2

Table 23. Changes in fishing effort as a result of adjustments to quota and/or fish availability.

Change in quota	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 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 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.

A decrease in effort may result in positive impacts (+) as a result of fewer encounters with non-targets or ESA-listed and MMPA protected species and fewer habitat gear impacts, and an increase in effort may result in a negative impact (-). Similar effort result in neutral impacts (0). The magnitude of negative effects of increases in fishing effort in the recreational fishery on non-target species may be offset by the use of ethical angler practices, which include using proper catch and release techniques and use of gear which minimizes mortality (i.e., circle or j hooks) on non-target species. In addition, the commercial fishery may avoid non-target species, particularly those that cannot be landed because commercial fishermen do not find it lucrative to spend additional fuel costs and resources sorting/processing species that the commercial vessels do not have permits to land or a market to sell.

While a general evaluation of effort in response to these two important factors (i.e., quota levels, fish availability) is generalized in Table 23; however, fishing effort does not always respond as expected (increase or decrease) as a result of consideration of only the quota or fish availability. Fishing demand models are used to forecast the demand for trips as well as to determine the value that commercial fishermen or recreational anglers place on the various factors that affect their behavior. Models can attempt to predict how changes in fishing site characteristics (travel costs, catch rates, available species, etc.), fishery management policies, and other characteristics affect the demand for fishing trips. Limited data is available to address many of these factors. This makes evaluation of changes in fishing behavior difficult and complex and therefore makes it difficult to predict how fishing effort will change each year.

7.1 Biological Impacts

7.1.1 Alternatives for 2013

When comparing across the 3 alternatives for 2013 that follow, which have potential biological impacts that range from neutral to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive), followed by alternative 1 (preferred), and alternative 2 (*status quo*).

7.1.1.1 Alternative 1 (Preferred 2013)

The summer flounder stock was declared rebuilt in the Fall of 2011 (based on 2010 data), and the stock was 95 percent of SSB_{MSY} in 2011, and projected (although not confirmed) to be 92% of SSB_{MSY} in 2012 (Terceiro 2012; section 6.1). Projected summer flounder SSB decreased by 3% in 2013; however, this change is small and fish abundance and availability are not expected to change substantially and would be expected to remain relatively stable (Table 23). The small summer flounder commercial quota decrease under alternative 1 (10.1 percent; Table 24) and decrease in recreational harvest limit (10.2 percent) is consistent with the ABC recommendations of the SSC and is therefore based on the best scientific information available and is intended to prevent overfishing. Continuing to prevent overfishing, as was done in 2012, is expected to result in neutral impacts on the managed resource overall. However, there may be slight positive biological impacts because of the slight decrease in quota. While it is not known how this small decrease in quota and harvest limit will affect fishing effort and interactions with other non-

target species, given the small decrease in quota and potential relatively stable fish availability it is expected to have effects on the incidental catch rates of non-target species that are neutral to slightly positive, when compared to *status quo* (Table 23; cell B). For summer flounder, alternative 1 is expected to result in biological impacts that range from neutral to slight positive biological when compared to the *status quo*.

Table 24. The percentage difference between the proposed commercial quotas and recreational harvest limits under each 2013 alternative and 2012 commercial quotas and recreational harvest limits that were implemented.

Species	2012	2013		
		Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	-10.1	0.0	-27.9
	Recreational Harvest Limits	-10.2	0.0	-27.9
Scup	Commercial Quotas	-15.7	0.0	-61.7
	Recreational Harvest Limits	-10.5	0.0	-64.4
Black sea bass	Commercial Quotas	+4.1	0.0	-36.3
	Recreational Harvest Limits	+39.4	0.0	-13.6

The scup stock was slightly more than double SSB_{MSY} in 2011, fully rebuilt, and stock biomass has been relatively stable the last few years above SSB_{MSY} (Terceiro 2012). As such, scup abundance and availability would be expected to be similar to prior years (Table 23). The scup commercial quota decrease under alternative 1 (15.7 percent; Table 24) and decrease in recreational harvest limit (10.5 percent) is consistent with the ABC recommendations of the SSC and is therefore based on the best scientific information available and is intended to prevent overfishing. Continuing to prevent overfishing, as was done in 2012, is expected to result in neutral impacts on the managed resource overall. However, there may be slight positive impacts because for scup, landings in recent years have not kept pace with the recent large increase in the ABCs and ACLs in 2011 and 2012. Scup landings have been substantially lower due to market

conditions and other factors. Therefore, the landings are expected to be similar to or slightly higher than 2011. For 2013, even though the commercial quota under alternative 1 is lower than that implemented in 2012 (*status quo*), it is still about 56.6 percent higher (Table 22) than the 2011 observed landings. While it is not known how this decrease in scup quota and harvest limit will affect fishing effort and interactions with other non-target species, given the decrease in quota is small, similar fish availability is expected, and landings levels are expected to be neutral to only slightly increased, the incidental catch rates of non-target species are expected to be neutral (see discussion above in 7.0 about ethical angler practices and potential avoidance of non-targets), when compared to *status quo* (Table 23; cell E). For scup, alternative 1 is expected to result in biological impacts that range from neutral to slight positive when compared to the *status quo*.

The black sea bass stock was 102 percent of SSB_{MSY} in 2011, fully rebuilt, and stock biomass has been relatively stable the last few years (Shepherd 2012). As such, black sea bass abundance and availability would be expected to be similar to prior years (Table 23). The black sea bass commercial quota and recreational harvest limit increase under alternative 1 are both higher (4.1 and 39.4 percent, respectively; Table 24). These measures are consistent with the ABC recommendations of the SSC and is therefore based on the best scientific information available and is intended to prevent overfishing. Continuing to prevent overfishing, as was done in 2012, is expected to result in neutral impacts on the managed resource overall. However, there may be slight negative biological impacts because of the slight increase in quota. While it is not known how this increase in quota and harvest limit will affect fishing effort and interactions with other non-target species, given the increase in quota and relatively similar fish availability it is expected to have effects on the incidental catch rates of non-target species that are neutral to slight negative, when compared to *status quo* (Table 23; cell H). For black sea bass, alternative 1 is expected to result in biological impacts that range from neutral to slight negative when compared to the *status quo*.

7.1.1.2 Alternative 2 (*Status Quo* 2013)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to 2012 (Table 24). The measures contained under the *status quo* alternative are higher than those measures recommended by the SSC for ABC and are inconsistent with the Council risk policy on overfishing. As such, slight negative impacts are expected on the managed resource given the increased risk of overfishing the stock, when compared to existing impacts. It is expected that under the same quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to existing impacts (Table 23; cell E). For summer flounder, alternative 2 is expected to result in biological impacts that range from neutral to slight negative.

The scup commercial quota and recreational harvest limit under Alternative 2 (*status quo*) are identical to 2012 (Table 24). The measures contained under the *status quo* alternative are higher than those measures recommended by the SSC for ABC and are inconsistent with the Council risk policy on overfishing. As such, neutral to slight negative impacts are expected on the managed resource given the fact that scup landings are likely to be below the allowable levels

due to market conditions (neutral) and the increased risk of overfishing the stock, when compared to existing impacts (slight negative). It is expected that under the same quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to existing impacts (Table 23; cell E). For scup, alternative 2 is expected to result in biological impacts that range from neutral to slight negative.

The black sea bass commercial quota and recreational harvest limit under Alternative 2 (*status quo*) are identical to 2012 (Table 24). The black sea bass measures contained under the *status quo* alternative are consistent with the measures recommended by the SSC for ABC. As such, neutral impacts are expected on the managed resource. It is expected that under the same quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to existing impacts (Table 23; cell E). For black sea bass, alternative 2 is expected to result in biological impacts that are neutral.

7.1.1.3 Alternative 3 (Most Restrictive 2013)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (27.9, 61.7, and 36.3 percent, respectively) and recreational harvest limits (27.9, 64.4, and 13.6 percent, respectively) from 2012 levels (Table 24). This alternative is substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Positive impacts on summer flounder, scup, and black sea bass are expected from alternative 3. Under a substantially lower quota and relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on the incidental catch rates of non-target species will be positive, when compared to *status quo* (Table 23; cell B). Overall, alternative 3 is expected to result in biological impacts that are positive, when compared to *status quo*.

7.1.2 Alternatives for 2014

When comparing across the 3 alternatives for 2014 that follow, which have potential biological impacts that range from negative to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive).

7.1.2.1 Alternative 1 (Preferred 2014)

The summer flounder commercial quota decrease under alternative 1 (0.5 percent; Table 25) and decrease in recreational harvest limit (0.3 percent) is nearly identical to the 2013 preferred measures, and consistent with the ABC recommendations of the SSC and therefore based on the best scientific information available and is intended to prevent overfishing. Continuing to prevent overfishing, as was done in 2012, is expected to result in neutral impacts on the managed resource overall. It is expected that under the same quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to *status quo* (Table 23; cell B). For summer flounder, alternative 1 is expected to result in biological impacts that are neutral when compared to the *status quo*.

Table 25. The percentage difference between the proposed commercial quotas and recreational harvest limits under each 2014 alternative and 2013 commercial quotas and recreational harvest limits preferred measures.

Species	2013 Preferred	2014		
		Alternative 1 Preferred	Alternative 2 Status Quo	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	-0.5	+11.2	-19.8
	Recreational Harvest Limits	-0.3	+11.4	-19.7
Scup	Commercial Quotas	-6.7	+18.7	-54.6
	Recreational Harvest Limits	-7.0	+11.8	-60.2
Black sea bass	Commercial Quotas	+119.1	-3.9	-38.8
	Recreational Harvest Limits	+120.1	-28.3	-38.0

The scup commercial quota decrease under alternative 1 (6.7 percent; Table 25) and decrease in recreational harvest limit (7.0 percent) is consistent with the ABC recommendations of the SSC and is therefore based on the best scientific information available and is intended to prevent overfishing. Continuing to prevent overfishing, as was done in 2013, is expected to result in neutral impacts on the managed resource overall. However, there may be slight positive impacts because for scup, landings in recent years have not kept pace with the recent large increase in the ABCs and ACLs in 2011 and 2012. Scup landings have been substantially lower due to market conditions and other factors. Therefore, the landings are expected to be similar to or slightly higher than 2011. For 2014, even though the commercial quota under alternative 1 is lower than that implemented in 2012 (status quo), it is still about 46.0 percent higher (Table 22) than the 2011 observed landings. While it is not known how this decrease in scup quota and harvest limit will affect fishing effort and interactions with other non-target species, given the decrease in quota is small, similar fish availability is expected, and landings levels are expected to be neutral to only slightly increased, the incidental catch rates of non-target species are expected to be neutral (see discussion above in 7.0 about ethical angler practices and potential avoidance of non-targets), when compared to *status quo* (Table 23; cell E). For scup, alternative 1 is expected

to result in biological impacts that range from neutral to slight positive when compared to the *status quo*.

The black sea bass commercial quota and recreational harvest limit increase under alternative 1 (119.1 and 120.0 percent, respectively; Table 24). The measures contained under this alternative are higher than those measures recommended by the SSC for ABC. As such, negative impacts are expected on the managed resource. While it is not known how this increase in quota and harvest limit will affect fishing effort and interactions with other non-target species, given the increase in quota and relatively similar fish availability it is expected to have effects on the incidental catch rates of non-target species that are negative, when compared to *status quo* (Table 23; cell H). For black sea bass, alternative 1 is expected to result in biological impacts that range are negative when compared to the *status quo*.

7.1.2.2 Alternative 2 (*Status Quo* 2014)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (status quo) are slightly higher (11.2 and 11.4 percent, respectively) relative to 2013 preferred measures (Table 25). The measures contained under the status quo alternative are higher than those measures recommended by the SSC for ABC and are inconsistent with the Council risk policy on overfishing. As such, slight negative impacts are expected on the managed resource given the increased risk of overfishing the stock, when compared to existing impacts. It is expected that under a similar quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to existing impacts (Table 23; cell E). For summer flounder, alternative 2 is expected to result in biological impacts that range from neutral to slight negative.

The scup commercial quota and recreational harvest limit under alternative 2 (status quo) are higher (18.7 and 11.8 percent, respectively) relative to 2013 preferred measures (Table 25). The measures contained under the status quo alternative are higher than those measures recommended by the SSC for ABC and are inconsistent with the Council risk policy on overfishing. As such, neutral to slight negative impacts are expected on the managed resource given the fact that scup landings are likely to be below the allowable levels due to market conditions (neutral) and the increased risk of overfishing the stock, when compared to existing impacts (slight negative). It is expected that under a slightly higher quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral to slight negative, when compared to existing impacts (Table 23; cell H). For scup, alternative 2 is expected to result in biological impacts that range from neutral to slight negative.

The black sea bass commercial quota and recreational harvest limit under alternative 2 (status quo) are lower (3.9 and 28.3 percent, respectively) relative to 2013 preferred measures (Table 25). The black sea bass measures contained under the status quo alternative are consistent with the measures recommended by the SSC for ABC. In addition, the recreational harvest limit is lower unde this alternative because an ACT had been used, and thus will result in lower landings than allowable under the ABC. As such, neutral to slightly positive impacts are expected on the managed resource. It is expected that under the lower quota and relatively similar fish

abundance, impacts on the incidental catch rates of non-target species will be neutral to slight positive, when compared to existing impacts (Table 23; cell E). For black sea bass, alternative 2 is expected to result in biological impacts that are neutral.

7.1.2.3 Alternative 3 (Most Restrictive 2014)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.8, 54.6, and 38.8 percent, respectively) and recreational harvest limits (19.7, 60.2, and 38.0 percent, respectively) relative to 2013 preferred measures (Table 25). This alternative is substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Positive impacts on summer flounder, scup, and black sea bass are expected from alternative 3. Under a substantially lower quota and relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on the incidental catch rates of non-target species will be positive, when compared to *status quo* (Table 23; cell B). Overall, alternative 3 is expected to result in biological impacts that are positive, when compared to status quo.

7.1.3 RSA

Federally permitted vessels harvesting research quota in support of approved research projects would be issued an EFP authorizing them to exceed Federal possession limits and to fish during Federal quota closures. The Magnuson-Stevens Act requires that interested parties are provided an opportunity to comment on all proposed EFPs. Comments on EFPs issued under the 2013 Mid-Atlantic RSA program will be received through the 2013 summer flounder, scup, and black sea bass specification rulemaking process. These exemptions are necessary to facilitate compensation fishing and allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting research quota. Vessels harvesting research quota would operate within all other regulations that govern the fishery, unless otherwise exempted through a separate permit. Because RSA is deducted from the available landings levels, exemption from closures will have no additional environmental impact. Exemption from possession limits could result in compensation fishing vessels altering their normal fishing behavior; altering tow duration or fishing longer or shorter than they otherwise would for example. However, these slight alterations in fishing behavior will not likely impact the environment beyond that of the fishery otherwise operating within the full suite of regulations.

Under alternative 1, there would not be a summer flounder, scup, or black sea bass set-aside for 2013 or 2014, and the RSA quota amounts would not be deducted from their respective commercial quotas and recreational harvest limits. Because all summer flounder, scup, and black sea bass landings count against the 2013 or 2014 overall quota regardless of whether or not an RSA is implemented, the biological impacts would not change if this alternative were adopted. Under this alternative, there would also be no indirect positive effects from broadening the scientific base upon which management decisions are made.

Under alternative 2, RSA quota would be awarded to selected projects and deducted from their respective commercial quotas and recreational harvest limits. Because the RSA quota is a part of the TAL no additional mortality is expected to occur if this alternative were adopted. In addition, this alternative is expected to indirectly benefit the resource as selected projects will likely provide information that will improve resource science and management.

Federally permitted vessels harvesting research quota in support of approved research projects would be issued exempted fishing permits (EFPs) authorizing them to exceed Federal possession limits and to fish during Federal quota closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting research quota. Vessels harvesting research quota would operate within all other regulations, unless otherwise exempted through a separate permit (Table 26). Because quota closures may or may not occur during a given fishing year, exemption from these closures will have no additional environmental impact beyond what is considered under this EA. Exemption from possession limits could result in compensation fishing vessels altering their normal fishing behavior; extending tow duration or fishing longer than they otherwise would for example. However, this slight alteration in fishing behavior is expected to have negligible impacts beyond that of the vessels operating within the full suite of fishery regulations.

Research activities for project #2, as described in Section 7.4, would only occur in concert with commercial fishing trips and/or compensation fishing trips. Research activities would not result in additional fishing effort. Research vessels for this project would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. These changes to standard commercial fishing practice are not expected to result in a substantive increase in mortality of fish under the minimum size.

Although projects have not yet been selected for the 2014 RSA program, the impacts expected under the 2014 RSA alternatives are expected to be similar to those of 2013 for the same reasons described above.

Table 26. Status of stock for potential non-target species for all proposed 2013 Mid-Atlantic research set-aside projects as of March and May 2012 (Source: NMFS/NERO).

Species	Status of Stock
American Lobster	SNE – Overfished
Atlantic Cod	GOM - Overfishing; GB - Overfishing, Overfished
Atlantic Herring	-
Atlantic Mackerel	-
Barndoor Skate	-
Butterfish	Overfished
Clearnose Skate	-
Haddock	-
Illex	-
Little Skate	-
Monkfish	-
Offshore Hake	-
Rosette Skate	-
Silver Hake	-
Smooth Skate	-
Spiny Dogfish	-
Thorny Skate	GOM – Overfished
Weakfish	Depleted, but Overfishing is not occurring
White Hake	Overfishing, Overfished
Windowpane Flounder	GOM/GB – Overfishing, Overfished; SNE/MA - Overfished
Winter Flounder	SNE/MA - Overfished
Winter Skate	-
Witch Flounder	Overfishing, Overfished
Yellowtail Flounder	GB - Overfished; SNE/MA - Overfishing, Overfished; CC/GOM - Overfishing, Overfished

CC – Cape Cod; GB – Georges Bank; GOM – Gulf of Maine; MA – Mid-Atlantic; SNE – Southern New England

7.2 Habitat

7.2.1 Alternatives for 2013

When comparing across the 3 alternatives for 2013 that follow, which have potential biological impacts that range from slight negative to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive), followed by alternative 1 (preferred), and alternative 2 (*status quo*).

7.2.1.1 Alternative 1 (Preferred 2013)

As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2013. While it is not known with certainty how the small summer flounder commercial quota decrease under alternative 1 (10.1 percent; Table 24) will affect fishing effort and resulting fishing gear impacts on habitat, given the small decrease in quota and potential increase in fish availability it is expected to have effects on habitat and EFH that are neutral to slightly positive, when compared to *status quo* (Table 23; cell B). More specifically, the slight positive is because the lower commercial quota is likely to result in less fishing time, during which gear (predominately bottom trawls) will contact the bottom and impact habitat, given abundance is expected to be similar. This assumes regulations will reamin the same. However, states may modify their summer flounder regulations, potentially decreases the trip limit slightly to prolonge the fishing season, in which case the impacts may be neutral.

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota decrease under alternative 1 (15.7 percent; Table 24) will affect fishing effort and resulting fishing gear impacts on habitat, given the decrease in quota with relatively stable fish availability. However, the commercial quota proposed is 56.6 percent higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on habitat are expected to be neutral to slight negative, when compared to *status quo*. This is because there is the potential for slightly increased trips, and thus more contact of fishing gear with the bottom and habitat (Table 23; cell H). There is uncertainty associated with these slight negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries.

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota increase under alternative 1 (4.1 percent; Table 19) will affect fishing effort and resulting fishing gear impacts on habitat, given the small increase in quota (nearly identical to 2012) with relatively stable availability it is not expected to affect fishing effort very much and is therefore is expected to have effects on habitat and EFH that are neutral, when compared to *status quo* (Table 23; cell E).

7.2.1.2 Alternative 2 (*Status Quo* 2013)

As described above, summer flounder, scup and black sea bass abundance and availability would be expected to be similar to prior years (section 7.1.1.1, 7.1.1.2, and 7.1.1.3, respectively). Under alternative 2 (*status quo*), the commercial quotas for summer flounder, scup, and black sea bass are identical to the 2012 quota (Table 24). Therefore, this alternative is not expected to alter fishing effort, during which gear (predominately bottom trawls) will contact the bottom and impact habitat, and impacts are expected to be neutral on habitat, when compared to existing imapacts (Table 23; cell E).

7.2.1.3 Alternative 3 (Most Restrictive 2013)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (27.9, 61.7, and 36.3 percent, respectively) relative to the 2012 quota (Table 24). While it is not known with certainty how these substantially lower quotas will impact habitat, given the relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on habitat would be expected to be positive, when compared to status quo (Table 23; cell B). This is because of an expected decrease in fishing effort as a result of lower quotas while availability may remain the same, thus reducing the time during which gear (predominately bottom trawls) will contact the bottom and impact habitat.

7.2.2 Alternatives for 2014

When comparing across the 3 alternatives for 2014 that follow, which have potential biological impacts that range from slight negative to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive), followed alternative 2 (*status quo*), and then alternative 1 (preferred).

7.2.2.1 Alternative 1 (Preferred 2014)

As described above in section 7.1.1.1, summer flounder abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the summer flounder commercial quota decrease under alternative 1 (0.5 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the small increase in quota (nearly identical to 2013 preferred measures) with relatively stable availability it is not expected to affect fishing effort very much and is therefore expected to have effects on habitat and EFH that are neutral, when compared to existing impacts (Table 23; cell E).

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota decrease under alternative 1 (6.7 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the decrease in quota with relatively stable fish availability it is expected to have effects on habitat and EFH. However, the commercial quota proposed is 46.0 percent higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on habitat are expected

to be neutral to slight negative, when compared to *status quo*. This is because there is the potential for slightly increased trips, and thus more contact of fishing gear with the bottom and habitat (Table 23; cell H). There is uncertainty associated with these slight negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries.

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota increase under alternative 1 (119.1 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the large increase in quota and stable fish availability it is expected to have effects on habitat and EFH that are negative, when compared to existing impacts. This is because there is the potential for increased trips/effort, and thus more contact of fishing gear (predominately bottom trawls) with the bottom and habitat (Table 23; cell H). There is uncertainty associated with these slight negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries. It may be reasonable to expect that states may liberalize possession limits which may offset the effects of the higher quota.

7.2.2.2 Alternative 2 (Status Quo 2014)

As described above in section 7.1.1.1, summer flounder black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the small summer flounder commercial quota increase under alternative 1 (11.2 percent; Table 24) will affect fishing effort and resulting fishing gear impacts on habitat; given the small increase in quota and stable fish availability it is expected to have effects on habitat and EFH that are neutral to slightly negative, when compared to existing impacts. This is because there is the potential for slightly increased trips, and thus more contact of fishing gear (predominately bottom trawls) with the bottom and habitat (Table 23; cell H). There is uncertainty associated with these slight negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries.

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota increase under alternative 2 (18.7 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat; however, given the increase in quota with relatively stable availability it is expected to have effects on habitat and EFH that are neutral to slight negative. This is because the commercial quota proposed is 85.7 higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on habitat are expected to be neutral to slight negative, when compared to existing

impacts. This is because there is the potential for slightly increased trips, and thus more contact of fishing gear with the bottom and habitat (Table 23; cell H).

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota decrease under alternative 2 (3.9 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the small increase in quota (nearly identical to 2013 preferred measures) with relatively stable availability it is not expected to affect fishing effort very much and is therefore is expected to have effects on habitat and EFH that are neutral, when compared to existing impacts (Table 23; cell E).

7.2.2.3 Alternative 3 (Most Restrictive 2014)

As described above, summer flounder, scup and black sea bass abundance and availability would be expected to be similar to prior years (section 7.1.1.1, 7.1.1.2, and 7.1.1.3, respectively). Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.8, 54.6, and 38.8 percent, respectively) relative to the 2013 preferred measures (Table 25). While it is not known with certainty how these substantially lower quotas will impact habitat, given the relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on habitat would be expected to be positive, when compared to *status quo* (Table 23; cell B). This is because of an expected decrease in fishing effort as a result of lower quotas while availability may remain the same, thus reducing the time during which gear (predominately bottom trawls) will contact the bottom and impact habitat.

7.2.3 Research Sea-Aside Measures

Because all summer flounder, scup, and black sea bass landings count against the 2013 overall quota regardless of whether or not an RSA is implemented, neither alternative is expected to change the level of fishing effort for these species. In addition, it is not expected that effort will be redistributed by gear type or change the manner in which these fisheries are prosecuted under either alternative.

Although under Alternative 2 exemptions would be issued for compensation fishing that would exempt vessels from possession limits and quota closures, there would be no additional impacts on habitat because RSA quota is part of, and not in addition to, the overall TAL. Because research activities for project #2, as described in Section 7.4, would only occur in concert with commercial or compensation fishing trips, it is unlikely that additional habitat impacts would result from funding this project. The exemptions for research purposes, as described below, would not alter the impact on EFH that occurs during standard commercial and recreational fishing activities. Therefore, each of these alternatives will likely minimize the adverse effects of fishing on EFH to the extent practicable, pursuant to section 305 (a)(7) of the Magnuson-Stevens Act.

Federally permitted research vessels for Project #2 would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length

frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. Such exemptions would not have any additional impact on EFH.

Although projects have not yet been selected for the 2014 RSA program, the impacts expected under the 2014 RSA alternatives are expected to be similar to those of 2013 for the same reasons described above.

7.3 ESA-Listed Species and MMPA Protected Species

Section 6.2 describes the ESA-listed and MMPA protected species VEC and other related impact considerations. In a memorandum to the record dated August 28, 2012, NMFS determined that, while reinitiation of consultation on the summer flounder, scup, and black sea bass fisheries are required, allowing these fisheries to continue to operate during the reinitiation period will not violate sections 7(a)(2) of 7(d) of the ESA.

All fishing gears are required to meet gear restrictions as required under the Atlantic Large Whale Take Reduction Plan (ALWTRP) and Harbor Porpoise Take Reduction Plan (HPTRP). These plans contain measures that are designed to reduce interactions/impacts associated with fishing gears. It should be noted that the rates of interactions between endangered and protected resources and summer flounder, scup, and black sea bass fishing gears is also affected by the stock status (i.e., increasing or decreasing stock size) and distribution of these species. This is difficult to quantify and should be noted that this has the potential to affect the magnitude and directionality of impacts.

7.3.1 Alternatives for 2013

When comparing across the 3 alternatives for 2013 that follow, which have potential biological impacts that range from slight negative to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive), followed by alternative 1 (preferred), and alternative 2 (*status quo*).

7.3.1.1 Alternative 1 (Preferred 2013)

As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2013. While it is not known with certainty how the small summer flounder commercial quota decrease under alternative 1 (10.1 percent; Table 24) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species, given the small decrease in quota and potential increase in fish availability it is expected to have effects on ESA-listed and MMPA protected species that are neutral to slightly positive, when compared

to *status quo* (Table 23; cell B). More specifically, the slight positive is because the lower commercial quota is likely to result in less fishing time, during which gear will contact the bottom and impact habitat, given abundance is expected to be similar. This assumes regulations will remain the same. However, states may modify their summer flounder regulations, potentially decreases the trip limit slightly to prolonge the fishing season, in which case the impacts may be neutral.

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota decrease under alternative 1 (15.7 percent; Table 24) will affect fishing effort and and resulting interaction rates with ESA-listed and MMPA protected species, given the decrease in quota with relatively stable fish availability. However, the commercial quota proposed is 56.6 higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on ESA-listed and MMPA protected species are expected to be neutral to slight negative, when compared to *status quo*. This is because there is the potential for slightly increased interaction rates with ESA-listed and MMPA protected species (table 23; cell H). There is uncertainty about the slight negative impacts expected. Effort would not be expected to increase in direct proportion to the increase in commercial quota. While Federal waters have established possession limits by fishing period, individual states also set possession limits for the fishing periods in state waters and the Council cannot predict the behavioral response the states may have to trip limit adjustments or other management measures as a result of implementing a higher commercial quota. However, it may be reasonable to expect that states may liberalize possession limits. In addition, there are other factors that affect effort, of which market supply demand and price are important considerations and the availability of additional quota could affect ex-vessel price, and perhaps have an influence in the expected fishing effort as some individual trips may be less lucrative.

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota increase under alternative 1 (4.1 percent; Table 19) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species; given the small increase in quota (nearly identical to 2012) with relatively stable availability it is not expected to affect fishing effort very much and is therefore is expected to have effects on ESA-listed and MMPA protected species that are neutral, when compared to *status quo* (Table 23; cell E).

7.3.1.2 Alternative 2 (Status Quo 2013)

As described above, summer flounder, scup and black sea bass abundance and availability would be expected to be similar to prior years (section 7.1.1.1, 7.1.1.2, and 7.1.1.3, respectively). Under alternative 2 (*status quo*), the commercial quotas for summer flounder, scup, and black sea bass are identical to the 2012 quota (Table 24). Therefore, this alternative is not expected to alter fishing effort, and resulting interaction rates with ESA-listed and MMPA protected species, and impacts are expected to be neutral on ESA-listed and MMPA protected species, when compared to existing impacts (Table 23; cell E).

7.3.1.3 Alternative 3 (Most Restrictive 2013)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (27.9, 61.7, and 36.3 percent, respectively) relative to the 2012 quota (Table 24). While it is not known with certainty how these substantially lower quotas will impact habitat, given the relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on ESA-listed and MMPA protected species would be expected to be positive, when compared to *status quo* (Table 23; cell B). This is because of an expected decrease in fishing effort (fishing trips) as a result of lower quotas while availability may remain the same, thus reducing the resulting interaction rates with ESA-listed and MMPA protected species.

7.3.2 Alternatives for 2014

When comparing across the 3 alternatives for 2014 that follow, which have potential biological impacts that range from slight negative to positive, the greatest potential for overall positive biological impacts are associated with alternative 3 (most restrictive), followed alternative 2 (*status quo*), and then alternative 1 (preferred).

7.3.2.1 Alternative 1 (Preferred 2014)

As described above in section 7.1.1.1, summer flounder abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the summer flounder commercial quota decrease under alternative 1 (0.5 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species, given the small increase in quota (nearly identical to 2013 preferred measures) with relatively stable availability it is not expected to affect fishing effort very much and is therefore expected to have effects on ESA-listed and MMPA protected species that are neutral, when compared to existing impacts (Table 23; cell E).

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota decrease under alternative 1 (6.7 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species. However, the commercial quota proposed is 46.0 higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on ESA-listed and MMPA protected species are expected to be neutral to slight negative, when compared to *status quo*. This is because there is the potential for slightly increased trips, and thus increased interaction rates with ESA-listed and MMPA protected species (Table 23; cell H). There is uncertainty about the slight negative impacts expected. Effort would not be expected to increase in direct proportion to the increase in commercial quota. While Federal waters have established possession limits by fishing period, individual states also set possession limits for the fishing periods in state waters and the Council cannot predict the behavioral response the states may have to trip limit adjustments or other management measures as a result of implementing a higher commercial quota. However, it may be reasonable to expect that states may liberalize possession limits. In addition, there are other factors that affect effort, of which market supply

demand and price are important considerations and the availability of additional quota could affect ex-vessel price, and perhaps have an influence in the expected fishing effort as some individual trips may be less lucrative.

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota increase under alternative 1 (119.1 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species, given the large increase in quota and stable fish availability it is expected to have effects on habitat and EFH that are negative, when compared to status quo. This is because there is the potential for increased trips/effort, and thus more interactions with ESA-listed and MMPA protected species (Table 23; cell H). There is uncertainty about the negative impacts expected that are similar to the scup discussion for this alternative. Effort would not be expected to increase in direct proportion to the increase in commercial quota, and changes to regulations, market conditions, and the steady, not increased, fish availability may result in the quota not being fully utilized.

7.3.2.2 Alternative 2 (*Status Quo* 2014)

As described above in section 7.1.1.1, summer flounder abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the small summer flounder commercial quota increase under alternative 1 (11.2 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species; given the small increase in quota and stable fish availability it is expected to have effects on ESA-listed and MMPA protected species that are neutral to slightly negative, when compared to existing impacts. This is because there is the potential for slightly increased trips, and thus increased interaction rates with ESA-listed and MMPA protected species (Table 23; cell H). There is uncertainty associated with these slight negative impacts expected. Effort would not be expected to increase in direct proportion to the increase in commercial quota, and changes to regulations, market conditions, and the steady, not increased, fish availability may result in the quota not being fully utilized.

As described above in section 7.1.1.2, scup abundance and availability would be expected to be similar to prior years. It is not known with certainty how the scup commercial quota increase under alternative 2 (18.7 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species; however, given the increase in quota with relatively stable availability it is expected to have effects on ESA-listed and MMPA protected species that are neutral to slight negative. This is because the commercial quota proposed is 85.7 higher than the 2011 landings (Table 22), and because of market condition, the fishery is expected to have similar to slightly higher landings. Therefore, impacts on ESA-listed and MMPA protected species; are expected to be neutral to slight negative, when compared to existing impacts because there is the potential for slightly increased trips (Table 23; cell H). There is uncertainty associated with these slight negative impacts expected due to the same reasons described above for summer flounder under this alternative.

As described above in section 7.1.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the black sea bass commercial quota decrease under alternative 2 (3.9 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the small increase in quota (nearly identical to 2013 preferred measures) with relatively stable availability it is not expected to affect fishing effort very much and is therefore is expected to have effects on ESA-listed and MMPA protected species that are neutral, when compared to existing impacts (Table 23; cell E).

7.3.2.3 Alternative 3 (Most Restrictive 2014)

As described above, summer flounder, scup and black sea bass abundance and availability would be expected to be similar to prior years (section 7.1.1.1, 7.1.1.2, and 7.1.1.3, respectively). Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.8, 54.6, and 38.8 percent, respectively) relative to the 2013 preferred measures (Table 25). While it is not known with certainty how these substantially lower quotas will impact ESA-listed and MMPA protected species, given the relatively stable fish abundance for summer flounder, scup, and black sea bass, impacts on ESA-listed and MMPA protected species would be expected to be positive, when compared to *status quo* (Table 23; cell B). This is because of an expected decrease in fishing effort (trips) as a result of lower quotas while fish availability may remain the same, thus reducing the interactions rates with ESA-listed and MMPA protected species.

7.3.3 RSA

Because all summer flounder, scup, and black sea bass landings count against the overall quota for 2013 regardless of whether or not an RSA is implemented, neither alternative is expected to change the level of fishing effort for these species.

Vessels harvesting research quota in support of approved research projects would be issued EFPs authorizing them to exceed Federal possession limits and to fish during Federal quota closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting research quota. Vessels harvesting research quota would operate within all other regulations, unless otherwise exempted through a separate EFP. Because quota closures may or may not occur during a given fishing year, exemption from these closures will have no additional environmental impact. Exemption from possession limits could result in compensation fishing vessels altering their normal fishing behavior; extending tow duration or fishing longer than they otherwise would for example.

Because research activities for project #2, as described in Section 7.4, would only occur in concert with commercial and compensation fishing trips, it is unlikely that research activities would have any impact on protected species. The exemptions for research purposes, as described below, would not alter the potential effects beyond that of standard commercial and recreational fishing activities.

Federally permitted research vessels for Project #2 would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. Such exemptions would not have any effect on protected species.

Although projects have not yet been selected for the 2014 RSA program, the impacts expected under the 2014 RSA alternatives are expected to be similar to those of 2013 for the same reasons described above.

7.4 Socioeconomic Impacts

7.4.1 Alternatives for 2013

When comparing across the 3 alternatives (for the three species combined) for 2013 that follow, alternative 3 (most restrictive) will result in the greatest potential for overall negative social and economic impacts, followed by alternative 1 (preferred). Alternative 2 (*status quo*) is expected to result in neutral social and economic impacts.

7.4.1.1 Alternative 1 (Preferred 2013)

As a result of the potential decrease in commercial and recreational landings under preferred alternative 1, it is expected that small negative economic impacts on the summer flounder fisheries are likely to occur when compared to 2012 (Table 24). Each state's summer flounder allocation commercial limits will decrease under these adjusted commercial quotas (Table 3). Note that while the overall commercial summer flounder quota under this alternative is about 10.1 percent lower than the quota implemented in 2012, the associated changes in quota levels for Virginia and North Carolina are about 44.9 percent lower and 76.2 percent higher than the 2012 final adjusted quotas implemented in those states, respectively. The difference in quota changes for North Carolina and Virginia (between 2013 and 2012) when compared to the overall coastwide quota change is due to quota transfers from North Carolina to Virginia. These quota transfers were prompted by summer flounder landings of a number of North Carolina vessels that were granted safe harbor in Virginia due to hazardous shoaling in Oregon Inlet, North Carolina. If the quota transfers between North Carolina and Virginia are ignored, the associated quota reduction in 2013 for those states when compared to adjusted 2012 quota (without transfers) would be close to the coastwide quota change (10.1 percent decrease). In order to conduct a more realistic analysis of potential changes in revenues associated with the proposed quotas under this alternative as well as alternatives 2 and 3 below, we use the original adjusted quota for Virginia and North Carolina without the state quota transfers discussed above. This assumption is used in

order to avoid overestimation of revenue gains in North Carolina and overestimation of revenue losses in Virginia.

Whereas dealers are not directly regulated entities under this action, is important to mention that as a consequence of North Carolina vessels landings summer flounder in Virginia, the amount of summer flounder purchased by dealers has decreased in North Carolina and increased in Virginia in 2012. Assuming the 2011 summer flounder ex-vessel price of $1.81/lb, the summer flounder quota transferred from North Carolina to Virginia in 2012 (1.7 million lb) is worth about $3.1 million.

While the proposed scup commercial quota and recreational harvest limits under this alternative are lower than the landings implemented in 2012, they are substantially higher than the 2011 commercial and recreational landings, respectively. In 2011, the commercial quota and recreational harvest limit each increased by 91 percent when compared to the limits implemented in 2010. The high 2011 commercial quota and recreational harvest limit values did not constrain the fishery in 2011 as it occurred in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2013, it would be expected that commercial and recreational landings will likely be close to the 2011 landings. There is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2012 or 2013.

As a result of the potential increase in landings under the black sea bass commercial quota and recreational harvest limits under preferred alternative 1, it is expected that a small positive economic impacts are likely to occur when compared to 2012.

Overall, the projected decrease in landings in 2013 under alternative 1 for summer flounder will likely result in a revenue decrease relative to the *status quo* alternative. Conversely, it is expected that the projected increase in black sea bass landings in 2013 will likely result in a revenue increase relative to the *status quo* alternative. For scup, no revenue change is expected if market conditions do not change when compared to 2011.

If recreational landings for these three species are the same in 2012 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 1 (7.62 million lb for summer flounder, 7.56 million for scup, and 1.84 million for black sea bass) are expected to constrain recreational landings in 2013. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2013 when compared to 2012. Specific recreational management measures (for all three species) will be determined in December when more complete data regarding 2012 recreational landings are available (section 7.0). Alternative 1 is likely to maintain recreational satisfaction for these fisheries when compared to the *status quo*.

It is expected that positive social and economic impacts will continue to be realized in the long-term, as the summer flounder stock continues to be exploited at sustainable levels. The small decrease in the summer flounder landings limit (commercial and recreational) under alternative 1 is consistent with the ABC recommendations of the SSC and is therefore based on the best

scientific information available and is intended to prevent overfishing. The scup and black sea bass measures under alternative 1 are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available to prevent overfishing.

7.4.1.2 Alternative 2 (*Status Quo* 2013)

Alternative contains the *status quo* alternatives for summer flounder, scup, and black sea bass. The overall commercial quotas and recreational harvest limits for these three species under this alternative are identical to the commercial quotas and recreational harvest limits implemented in 2012.

Note that even though the summer flounder quota under alternative 2 is the *status quo* measure, the overall 2013 summer flounder quota is 0.4 percent higher than the adjusted quota implemented in 2012 due to overage reduction adjustments in New York in 2012. More specifically, about 51,000 lb of summer flounder were deducted from that state in 2012 due to 2011 overages. The summer flounder state-by-state allocations under this alternative would be identical than under 2012, except for New York, where a 5 percent quota increase in 2013 when compared to 2012 is expected. For scup and black sea bass, the 2013 quotas under this alternative are identical to the quotas implemented in 2012. Given that the overall potential change in commercial quota associated with this alternative when compared to 2012 is very small; it is expected that slight positive economic and social impacts will occur when compared to 2012.

If recreational landings for these three species are the same in 2012 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 2 (8.49 million lb for summer flounder, 8.45 million for scup, and 1.32 million for black sea bass) are expected to constrain recreational landings in 2013. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2013 when compared to 2012. Alternative 2 will likely to maintain the same level of recreational satisfaction for the summer flounder, scup, and black sea bass recreational fisheries relative to 2012.

The measures contained under the *status quo* alternative for summer flounder and scup are higher than the measures recommended by the SSC for ABC and are inconsistent with the Council's risk policy on overfishing. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of these stocks are jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recomemndations for ABC.

7.4.1.3 Alternative 3 (Most Restrictive 2013)

Non-preferred alternative 3 contains the most restrictive measures for summer flounder, scup, and black sea bass. As a result of the lower summer flounder and black sea bass commercial quotas of 27.9 percent and 36.3 percent, respectively, negative economic impacts on the summer flounder and black sea bass fishery are likely to occur, relative to alternative 2 (*status quo*). However, it is possible that given the potential decrease in summer flounder and black sea bass landings, price for these species may increase if all other factors are held constant. If this occurs,

an increase in the price for summer flounder and black sea bass may mitigate some of the revenue reductions associated with lower quantities of summer flounder and black sea bass quota availability under alternative 3.

The proposed scup commercial quota under this alternative is lower than the landings implemented in 2012 (61.7 percent) and the 2011 commercial landings (28.9 percent). It is expected that negative economic impacts on the scup fishery are likely to occur, relative to alternative 2 (*status quo*).

If recreational landings for these three species are the same in 2012 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 3 (6.12 million lb for summer flounder, 3.01 million for scup, and 1.14 million for black sea bass) are only expected to constrain recreational landings for summer flounder in 2013. As such, it is likely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required for scup and black sea bass in 2013 when compared to 2012. Alternative 3 will likely to maintain the same level of recreational satisfaction for the summer flounder recreational fishery relative to *status quo*. However, for scup and black sea bass recreational satisfaction is expected to decrease when compared to the *status quo*.

The measures contained under this alternative are substantially lower than the recommendation of the SSC and would be expected to have the lowest risk of overfishing. Conversely, these measures will be expected to result in the greatest negative social and economic impacts in 2013.

Overall, when comparing across all three summer flounder alternatives, summer flounder alternative 1 (preferred) would result in the second greatest negative social and economic impacts on the summer flounder fisheries when compared to alternative 2 (*status quo*), while alternative 3 (most restrictive) would result in the greatest negative social and economic impacts. When comparing across all there scup alternatives, scup alternative 1 (preferred) is expected to have similar social and economic impacts to those under the *status quo* alternative (alternative 2) if similar current market conditions continue into 2013. Negative social and economic impacts would be expected under scup alternative 3 when compared to the *status quo* alternative. Lastly, it is expected that black sea bass alternative 1 (preferred) would result in the greatest positive social and economic impacts on the black sea bass fishery when compared to alternative 2 (*status quo*), while black sea bass alternative 3 would result in the greatest negative social and economic impacts.

7.4.2 Alternatives for 2014

When comparing across the 3 alternatives (for the three species combined) for 2014 that follow, alternative 3 (most restrictive) will result in the greatest potential for overall negative social and economic impacts, followed by alternative 1 (preferred) and alternative 2 (*status quo*).

7.4.2.1 Alternative 1 (Preferred 2014)

As a result of the potential decrease in commercial and recreational landings under preferred alternative 1, it is expected that small negative economic impacts on the summer flounder fisheries are likely to occur when compared to 2013. Each state's summer flounder allocation commercial limits will decrease under these adjusted commercial quotas (Table 5).

While the proposed scup commercial quota and recreational harvest limits under this alternative are lower than the landings implemented in 2013, they are substantially higher than the 2011 commercial and recreational landings, respectively. In 2011, the commercial quota and recreational harvest limit each increased by 91 percent when compared to the limits implemented in 2010. The high 2011 commercial quota and recreational harvest limit values did not constrain the fishery in 2011 as it occurred in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2014, it would be expected that commercial and recreational landings will likely be close to the 2011 landings. There is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2012-2014.

As a result of the potential increase in landings under the black sea bass commercial quota and recreational harvest limits under preferred alternative 1, it is expected that a positive economic impacts are likely to occur when compared to 2013.

Overall, the projected decrease in landings in 2014 under alternative 1 for summer flounder will likely result in a small revenue decrease relative to the *status quo* alternative. Conversely, it is expected that the projected increase in black sea bass landings in 2013 will likely result in a revenue increase relative to the *status quo* alternative. For scup, no revenue change is expected if market conditions do not change when compared to 2011.

If recreational landings for these three species are the same in 2013 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 1 (7.60 million lb for summer flounder, 7.03 million for scup, and 4.05 million for black sea bass) are expected to constrain recreational landings in 2014. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2014 when compared to 2013. Alternative 1 is likely to maintain recreational satisfaction for these fisheries when compared ot the *status quo*.

The measures for summer flounder and scup under this alternative are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available, and are expected to continue to prevent overfishing. However, the measures for black sea bass are higher than the recommendations of the SSC and could result in negative impacts on the managed resource and negative social and economic impacts as the health of the black sea bass resource could be jeopardized.

7.4.2.2 Alternative 2 (*Status Quo* 2014)

The 2014 *status quo* alternative for summer flounder, scup, and black sea bass include the same measures implemented in 2012. As a result of the potential increase in commercial and recreational landings under alternative 2, it is expected that positive economic impacts on the summer flounder fisheries are likely to occur when compared to 2013.

The proposed scup commercial quota and recreational harvest limits under this alternative are higher than the landings implemented in 2013 and are substantially higher than the 2011 commercial and recreational landings, respectively. In 2011, the commercial quota and recreational harvest limit each increased by 91 percent when compared to the limits implemented in 2010. The high 2011 commercial quota and recreational harvest limit values did not constrain the fishery in 2011 as it occurred in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2014, it would be expected that commercial and recreational landings will likely be close to the 2011 landings. There is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2012-2014.

As a result of the potential decrease in landings under the black sea bass commercial quota and recreational harvest limits under alternative 2, it is expected that a negative economic impacts are likely to occur when compared to 2013. However, it is possible that given the potential decrease in black sea bass landings, price for this species may increase if all other factors are held constant. If this occurs, an increase in the price for black sea bass may mitigate some of the revenue reductions associated with lower quantities of black sea bass quota availability under alternative 2.

If recreational landings for these three species are the same in 2013 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 2 (8.49 million lb for summer flounder, 8.45 million for scup, and 1.32 million for black sea bass) are expected to constrain recreational landings in 2014. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2014 when compared to 2013. Alternative 2 is likely to maintain recreational satisfaction for these fisheries relative to 2013.

The measures contained under the *status quo* alternative for summer flounder and scup are higher than the measures recommended by the SSC for ABC and are inconsistent with the Council's risk policy on overfishing. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of these stocks are jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recomemndations for ABC.

7.4.2.3 Alternative 3 (Most Restrictive 2014)

Non-preferred alternative 3 contains the most restrictive measures for summer flounder, scup, and black sea bass. As a result of the lower summer flounder and black sea bass commercial

quotas of 19.8 percent and 38.8 percent, respectively, negative economic impacts on the summer flounder and black sea bass fishery are likely to occur, relative to alternative 2 (*status quo*). However, it is possible that given the potential decrease in summer flounder and black sea bass landings, price for these species may increase if all other factors are held constant. If this occurs, an increase in the price for summer flounder and black sea bass may mitigate some of the revenue reductions associated with lower quantities of summer flounder and black sea bass quota availability under alternative 3.

The proposed scup commercial quota under this alternative is lower than the preferred quota recommended for 2013 (54.6 percent) and the 2011 commercial landings (28.9 percent). It is expected that negative economic impacts on the scup fishery are likely to occur, relative to alternative 2 (*status quo*).

If recreational landings for these three species are the same in 2013 as in 2011 (5.96 million lb for summer flounder, 3.66 million lb for scup, and 1.27 million for black sea bass), the recreational harvest limits under alternative 3 (6.12 million lb for summer flounder, 3.01 million for scup, and 1.14 million for black sea bass) are only expected to constrain recreational landings for summer flounder in 2014. As such, it is likely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required for scup and black sea bass in 2014 when compared to 2013. Alternative 3 will likely to maintain the same level of recreational satisfaction for the summer flounder recreational fishery relative to *status quo*. However, for scup and black sea bass recreational satisfaction is expected to decrease when compared to the *status quo*.

The measures contained under this alternative are substantially lower than the recommendation of the SSC and would be expected to have the lowest risk of overfishing. Conversely, these measures will be expected to result in the greatest negative social and economic impacts in 2013.

Overall, when comparing across all three summer flounder alternatives, summer flounder alternative 1 (preferred) would result in the second greatest negative social and economic impacts on the summer flounder fisheries when compared to alternative 2 (*status quo*), while alternative 3 (most restrictive) would result in the greatest negative social and economic impacts. When comparing across all there scup alternatives, scup alternative 1 (preferred) is expected to have similar social and economic impacts to those under the *status quo* alternative (alternative 2) if similar current market conditions continue into 2014. Negative social and economic impacts would be expected under scup alternative 3 when compared to the *status quo* alternative. Lastly, it is expected that black sea bass alternative 1 (preferred) would result in the greatest positive social and economic impacts on the black sea bass fishery when compared to alternative 2 (*status quo*), while black sea bass alternative 3 would result in the greatest negative social and economic impacts.

7.4.3 RSA

Under non-preferred alternative 1, there will be no RSA deducted from the combined commercial and recreational landings levels for summer flounder, scup, and black sea bass. Therefore, the initial commercial quotas and recreational harvest limits for these species do not

need to be adjusted downward as would be done under a situation when an RSA is established. In fisheries where the entire quota is taken and the fishery is prematurely closed (i.e., the quota is constraining), the economic and social costs of the program are shared among the non-RSA participants in the fishery. That is, each participant in a fishery that utilizes a resource that is limited by the annual quota relinquishes a share of the amount of quota retained in the RSA quota. Since no RSA is implemented under this alternative, there are no direct economic or social costs as described above. Under non-preferred alternative 1, the collaborative efforts among the public, research institutions, and government in broadening the scientific base upon which management decisions are made will cease. In addition, the Nation will not receive the benefit derived from data or other information about these fisheries for management or stock assessment purposes.

Under preferred alternative 2, RSAs for each species would be specified. Under the RSA program, successful applicants receive a share of the annual quota for the purpose of conducting scientific research. However, as described above, the economic and social costs of the program are shared among the non-RSA participants in the fishery. The evaluation of the socioeconomic impacts of the commercial quotas in section 7.4 was based on adjusted commercial quotas that account for the RSA proposed under preferred alternative 1.

The Council recommended research set-aside quotas of 3 percent of the overall combined commercial and recreational landings levels for summer flounder, scup, and black sea bass for 2013 and 2014. The research set aside quantities associated with each alternative evaluated in this document are shown in Table 27. NMFS dealer data from Maine to Virginia and NMFS general canvass data for North Carolina were used to derive the ex-vessel prices for summer flounder from Maine through North Carolina and for scup and black sea bass from Maine through Cape Hatteras, North Carolina. Assuming these 2011 ex-vessel prices (summer flounder -- $1.80/lb; scup -- $0.55/lb; and black sea bass -- $3.20/lb), the 2013 RSA for the commercial component of the fishery could be worth as much as $637,200, $731,299, and $510,840 under the evaluated summer flounder alternatives 1, 2, and 3, respectively. For scup, the commercial component of the RSA could be worth as much as $400,125, $467,953, and $181,665 under alternatives 1, 2, and 3, respectively. Lastly, for black sea bass, the commercial component of the RSA could be worth as much as $175,680, $145,197, and $108,192 under alternatives 1, 2, and 3, respectively. The 2014 RSA for the commercial component of the fishery could be worth as much as $633,960, $731,299, and $510,840 under the evaluated summer flounder alternatives 1, 2, and 3, respectively. For scup, the commercial component of the RSA could be worth as much as $373,230, $467,953, and $181,665 under alternatives 1, 2, and 3, respectively. Lastly, for black sea bass, the commercial component of the RSA could be worth as much as $385,728, $145,197, and $108,192 under alternatives 1, 2, and 3, respectively.

Table 27. Pounds of RSA under each alternative evaluated.

Alternatives		2013			2014		
		Research Set-Aside	**Commercial RSA**	**Recreational RSA**	**Research Set-Aside**	**Commercial RSA**	**Recreational RSA**
Alternative 1 (Preferred)	**Summer flounder**	589,800	354,000	235,800	587,100	352,200	234,900
	Scup	961,200	727,500	233,700	896,100	678,600	217,500
	Black sea bass	111,900	54,900	57,000	246,000	120,540	125,460
Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	677,128	406,277	270,851	677,128	406,277	270,851
	Scup	1,090,800	850,824	239,976	1,090,800	850,824	239,976
	Black sea bass	92,600	45,374	47,226	92,600	45,374	47,226
Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	473,100	283,800	189,300	473,100	283,800	189,300
	Scup	423,300	330,300	93,000	423,300	330,300	93,000
	Black sea bass	69,000	33,810	35,190	69,000	33,810	35,190

As such, in 2013, on a per vessel basis, the commercial RSAs could result in a potential decrease in summer flounder revenues of $954, $1,095, and $765 under evaluated alternatives 1, 2, and 3, respectively. The potential decrease in revenue for scup is $791, $925, and $359 per vessel under alternatives 1, 2, and 3, respectively. Lastly, the potential decrease in revenue for black sea bass revenue is $302, $249, and $186 per vessel under alternatives 1, 2, and 3, respectively. The values estimated above assume an equal decrease in revenue among all active vessels in 2011, i.e., 668, 506, and 582 commercial vessels that landed summer flounder, scup, and black sea bass, respectively. In 2014, on a per vessel basis, the commercial RSAs could result in a potential decrease in summer flounder, scup, and black sea bass revenues of $949, $723, and $663 under alternative 1, respectively. Potential losses on a per vessel basis for summer flounder, scup, and black sea bass vessels under alternatives 2 and 3 would be similar to those in 2013 described above.

The adjusted commercial quotas analyzed in sections 7.4 accounts for the RSAs (as described in section 5.0). If RSAs are not used, the landings would be included in the overall landings levels for each fishery. As such, the estimated economic impacts would be smaller than those estimated under each alternative discussed in section 7.4.

Given the substantial decerase in quota under alternative 3 (most restrictive alternative) in both 2013 and 2014, the cost of any premature closure of the fishery (pounds of summer flounder, scup, and black sea bass allocated for set-aside) would be shared among the non-RSA participants in these fisheries. In addition, it is possible that the vessels that will be used by researchers will not be vessels that have traditionally fished for these species. As such, permit holders that land this species during a period where the quota has been reached and the fishery closed could be disadvantaged. However, the extent of RSA activity under these three projects (e.g., fishing trips, no. of tows, landings) are negligible when compared to the overall activity of the directed fisheries for the managed resources; therefore, overall impacts of research trips and compensation trips are expected to be negligible. The impacts of the RSAs for other species are addressed in their respective species specifications packages, e.g., bluefish in the 2013 bluefish specifications package.

In 2013, changes in the recreational harvest limit by including the RSA amount will be small. For the analyzed summer flounder alternatives, the changes in the recreational harvest limits in 2013 are from 7.62 (with RSA deducted) to 7.86 million lb (without RSA) for alternative 1, from 8.49 to 8.76 million lb under alternative 2, and from 6.12 to 6.31 million lb under alternative 3. For the analyzed scup alternatives, the changes in the recreational harvest limits in 2013 are from 7.56 to 7.79 million lb under alternative 1, from 8.45 to 8.69 million lb under alternative 2, and from 3.01 to 3.10 million lb under alternative 3. Lastly, for the analyzed black sea bass alternatives, the changes in the recreational harvest limits in 2013 are from 1.84 to 1.90 million lb under alternative 1, from 1.32 to 1.37 million lb under alternative 2, and from 1.14 to 1.17 million lb under alternative 3. Changes in the recreational harvest limit will also be small in 2014, under the summer flounder, scup, and black sea bass preferred alternative 1, the limit changes from 7.60 to 7.83, from 7.03 to 7.25, and from 4.05 to 4.18 million lb, respectively. The change in other recreational harvest limit combinations would be similar to those in 2013. Each of these changes in recreational harvest limits approximately represents a 3 percent decrease. It is

unlikely that the possession, size or seasonal limits will change as the result of this RSA, and there will be no negative impacts.

7.5 Cumulative Effects Analysis

A cumulative effects analysis (CEA) is required by the Council on Environmental Quality (CEQ) (40 CFR part 1508.7). The purpose of CEA is to consider the combined effects of many actions on the human environment over time that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective, but rather, the intent is to focus on those effects that are truly meaningful. A formal cumulative impact assessment is not necessarily required as part of an EA under NEPA as long as the significance of cumulative impacts have been considered (U.S. EPA 1999). The following remarks address the significance of the expected cumulative impacts as they relate to the federally managed summer flounder, scup, and black sea bass fisheries.

7.5.1 Consideration of the VECs

In section 6.0 (Description of the Affected Environment), the VECs that exist within the summer flounder, scup, and black sea bass fishery environment are identified. Therefore, the significance of the cumulative effects will be discussed in relation to the VECs listed below.

1. Managed resources (summer flounder, scup, and black sea bass)
2. Non-target species
3. Habitat including EFH for the managed resource and non-target species
4. ESA-listed and MMPA protected species
5. Human communities

7.5.2 Geographic Boundaries

The analysis of impacts focuses on actions related to the harvest of summer flounder, scup, and black sea bass. The core geographic scope for each of the VECs is focused on the Western Atlantic Ocean (section 6.0). The core geographic scopes for the managed resources are the range of the management units (section 6.1). For non-target species, those ranges may be expanded and would depend on the biological range of each individual non-target species in the Western Atlantic Ocean. For habitat, the core geographic scope is focused on EFH within the EEZ but includes all habitat utilized by summer flounder, scup, black sea bass and other non-target species in the Western Atlantic Ocean. The core geographic scope for endangered and protected resources can be considered the overall range of these VECs in the Western Atlantic Ocean. For human communities, the core geographic boundaries are defined as those U.S. fishing communities directly involved in the harvest or processing of the managed resources, which were found to occur in coastal states from Maine through North Carolina (section 6.4).

7.5.3 Temporal Boundaries

The temporal scope of past and present actions for VECs is primarily focused on actions that have occurred after FMP implementation (1988 for summer flounder; 1996 for scup and black sea bass). For endangered and other protected resources, the scope of past and present actions is on a species-by-species basis (section 6.3) and is largely focused on the 1980s and 1990s through the present, when NMFS began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ. The temporal scope of future actions for all five VECs extends about three years (2015) into the future. This period was chosen because the dynamic nature of resource management for these three species and lack of information on projects that may occur in the future make it very difficult to predict impacts beyond this timeframe with any certainty.

7.5.4 Actions Other Than Those Proposed in this Amendment

The impacts of each of the alternatives considered in this specifications document are given in section 7.1 through 7.4. Table 28 presents meaningful past (P), present (Pr), or reasonably foreseeable future (RFF) actions to be considered other than those actions being considered in this specifications document. These impacts are described in chronological order and qualitatively, as the actual impacts of these actions are too complex to be quantified in a meaningful way. When any of these abbreviations occur together (i.e., P, Pr, RFF), it indicates that some past actions are still relevant to the present and/or future actions.

Past and Present Actions

The historical management practices of the Council have resulted in positive impacts on the health of the summer flounder, scup, and black sea bass stocks (section 6.1). Numerous actions have been taken to manage the commercial and recreational fisheries for these three species through amendment and framework adjustment actions. In addition, the specifications process is intended to provide the opportunity for the Council and NMFS to regularly assess the status of the fishery and to make necessary adjustments to ensure that there is a reasonable expectation of meeting the objectives of the FMP and the targets associated with any rebuilding programs under the FMP. The statutory basis for federal fisheries management is the MSA. To the degree with which this regulatory regime is complied, the cumulative impacts of past, present, and reasonably foreseeable future federal fishery management actions on the VECs should generally be associated with positive long-term outcomes. Constraining fishing effort through regulatory actions can often have negative short-term socioeconomic impacts. These impacts are usually necessary to bring about long-term sustainability of a given resource, and as such, should, in the long-term, promote positive effects on human communities, especially those that are economically dependent upon the summer flounder, scup, and black sea bass stocks.

Non-fishing activities that introduce chemical pollutants, sewage, changes in water temperature, salinity, dissolved oxygen, and suspended sediment into the marine environment pose a risk to all of the identified VECs. Human-induced non-fishing activities tend to be localized in nearshore areas and marine project areas where they occur. Examples of these activities include, but are not limited to agriculture, port maintenance, beach nourishment, coastal development,

marine transportation, marine mining, dredging and the disposal of dredged material. Wherever these activities co-occur, they are likely to work additively or synergistically to decrease habitat quality and, as such, may indirectly constrain the sustainability of the managed resources, non-target species, and protected resources. Decreased habitat suitability would tend to reduce the tolerance of these VECs to the impacts of fishing effort. Mitigation of this outcome through regulations that would reduce fishing effort could then negatively impact human communities. The overall impact to the affected species and their habitats on a population level is unknown, but likely neutral to low negative, since a large portion of these species have a limited or minor exposure to these local non-fishing perturbations.

In addition to guidelines mandated by the MSA, NMFS reviews these types of effects through the review processes required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for certain activities that are regulated by federal, state, and local authorities. The jurisdiction of these activities is in "waters of the U.S." and includes both riverine and marine habitats.

Reasonably Foreseeable Future Actions

In fishing year 2012, ACLs and AMs were first implemented for summer flounder, scup, and black sea bass (as well as other Council managed species) to ensure that catch and landings limits are not exceeded and overfishing does not occur. In 2013, catch and landings information will be available to be compared to ACLs to evaluate the performance of this new system. As a result, the Reasonably Forseeable Future Actions over the next three years may include the implementation of accountability measures and other Council recommended adaptive adjustments to the way this new system of catch limits and accountability functions and interacts with the fishery regulations in place.

For many of the proposed non-fishing activities to be permitted under other federal agencies (such as beach nourishment, offshore wind facilities, etc.), those agencies would conduct examinations of potential impacts on the VECs. The MSA (50 CFR 600.930) imposes an obligation on other federal agencies to consult with the Secretary of Commerce on actions that may adversely affect EFH. The eight Fishery Management Councils are engaged in this review process by making comments and recommendations on any federal or state action that may affect habitat, including EFH, for their managed species and by commenting on actions likely to substantially affect habitat, including EFH.

In addition, under the Fish and Wildlife Coordination Act (Section 662), “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the U.S., or by any public or private agency under federal permit or license, such department or agency first shall consult with the U.S. Fish and Wildlife Service (USFWS), Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular state wherein the” activity is taking place. This act provides another avenue for review of actions by other federal and state agencies that may impact resources that NMFS manages in the reasonably foreseeable future.

In addition, NMFS and the USFWS share responsibility for implementing the ESA. ESA requires NMFS to designate "critical habitat" for any species it lists under the ESA (i.e., areas that contain physical or biological features essential to conservation, which may require special management considerations or protection) and to develop and implement recovery plans for threatened and endangered species. The ESA provides another avenue for NMFS to review actions by other entities that may impact endangered and protected resources whose management units are under NMFS' jurisdiction.

7.5.5 Magnitude and Significance of Cumulative Effects

In determining the magnitude and significance of the cumulative effects, the additive and synergistic effects of the proposed action, as well as past, present, and future actions, must be taken into account. The following section discusses the effects of these actions on each of the VECs.

Table 28. Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this specifications document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
P, Pr Original FMP and subsequent Amendments and Frameworks to the FMP	Established commercial and recreational management measures	**Indirect Positive** Regulatory tool available to rebuild and manage stocks	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Benefited domestic businesses
P, Pr Summer Flounder, Scup, and Black Sea Bass Specifications	Establish quotas, RHLs, other fishery regulations (commercial and recreational)	**Indirect Positive** Regulatory tool to specify catch limits, and other regulation; allows response to annual stock updates	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Benefited domestic businesses
P, Pr, RFF Developed, Applied, and Redo of Standardized Bycatch Reporting Methodology	Established acceptable level of precision and accuracy for monitoring of bycatch in fisheries	**Neutral** May improve data quality for monitoring total removals of managed resource	**Neutral** May improve data quality for monitoring removals of non-target species	**Neutral** Will not affect distribution of effort	**Neutral** May increase observer coverage and will not affect distribution of effort	**Potentially Indirect Negative** May impose an inconvenience on vessel operations
Pr, RFF Omnibus Amendment ACLs/AMs Implemented	Establish and apply ACLs and AMs for all three plan species	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis
P, Pr, RFF Agricultural runoff	Nutrients applied to agricultural land are introduced into aquatic systems	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality negatively affects resource
P, Pr, RFF Port maintenance	Dredging of coastal, port and harbor areas for port maintenance	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Direct Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects

Table 28 (Continued). Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this specifications document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
P, Pr, RFF Offshore disposal of dredged materials	Disposal of dredged materials	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality negatively affects resource viability
P, Pr, RFF Beach nourishment	Offshore mining of sand for beaches	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Mixed** Positive for mining companies, possibly negative for fishing industry
	Placement of sand to nourish beach shorelines	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Positive** Beachgoers like sand; positive for tourism
P, Pr, RFF Marine transportation	Expansion of port facilities, vessel operations and recreational marinas	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Mixed** Positive for some interests, potential displacement for others
P, Pr, RFF Installation of pipelines, utility lines and cables	Transportation of oil, gas and energy through pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Direct Negative** Reduced habitat quality	**Potentially Direct Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects
P, Pr, RFF National Offshore Aquaculture Act of 2007	Bill that grants DOC authority to issue permits for offshore aquaculture in federal waters	**Potentially Indirect Negative** Localized decreases in habitat quality possible	**Potentially Indirect Negative** Localized decreases in habitat quality possible	**Direct Negative** Localized decreases in habitat quality possible	**Potentially Indirect Negative** Localized decreases in habitat quality possible	**Uncertain – Likely Mixed** Costs/benefits remain unanalyzed

Table 28 (Continued). Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this specifications document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
RFF Offshore Wind Energy Facilities (within 3 years)	Construction of wind turbines to harness electrical power (Several proposed from ME through NC, including NY/NJ, DE, and VA)	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Potentially Direct Negative** Localized decreases in habitat quality possible	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects
Pr, RFF Liquefied Natural Gas (LNG) terminals (within 3 years)	Transport natural gas via tanker to terminals offshore and onshore (1 terminal built in MA; 1 under construction; proposed in RI, NY, NJ and DE)	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Potentially Direct Negative** Localized decreases in habitat quality possible	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects
RFF Convening of Gear Take Reduction Teams (within next 3 years)	Recommend measures to reduce mortality and injury to marine mammals	**Indirect Positive** Will improve data quality for monitoring total removals	**Indirect Positive** Reducing availability of gear could reduce bycatch	**Indirect Positive** Reducing availability of gear could reduce gear impacts	**Indirect Positive** Reducing availability of gear could reduce encounters	**Indirect Negative** Reducing availability of gear could reduce revenues
RFF Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (w/in next 3 years)	May recommend strategies to prevent the bycatch of sea turtles in commercial fisheries operations	**Indirect Positive** Will improve data quality for monitoring total removals	**Indirect Positive** Reducing availability of gear could reduce bycatch	**Indirect Positive** Reducing availability of gear could reduce gear impacts	**Indirect Positive** Reducing availability of gear could reduce encounters	**Indirect Negative** Reducing availability of gear could reduce revenues

7.5.5.1 Managed Resources

Those past, present, and reasonably foreseeable future actions, whose effects may impact the managed resources and the direction of those potential impacts, are summarized in Table 28. The indirectly negative actions described in Table 28 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on the managed resources is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on productivity of the managed resources is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources under NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on the managed resources. It is anticipated that the future management actions, described in Table 29, will result in additional indirect positive effects on the managed resources through actions which reduce and monitor bycatch, protect habitat, and protect ecosystem services on which summer flounder, scup, and black sea bass productivity depends. The 2012 fishing year was the first year of implementation for an Amendment which requires specification of ACLs/AMs and catch accountability and this process has been carried forward into the 2013 and 2014 proposed measures. This represents a major change to the current management program and is expected to lead to improvements in resource sustainability over the long-term. These impacts could be broad in scope. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to summer flounder, scup, and black sea bass have had a positive cumulative effect.

Catch limits, commercial quotas and recreational harvest limits for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The impacts from annual specification of management measures established in previous years on the managed resources 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. The proposed action in this document would positively reinforce the past and anticipated positive cumulative effects on the summer flounder, scup, and black sea bass 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 (see Table 29).

Table 29. Summary of the effects of past, present, and reasonably foreseeable future actions on the managed resource.

Action	Past to the Present		Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	**Indirect Positive**		
Summer Flounder, Scup and Black Sea Bass Specifications	**Indirect Positive**		
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on the managed resources * See section 7.5.5.1 for explanation.**		

7.5.5.2 Non-Target Species or Bycatch

Those past, present, and reasonably foreseeable future actions, whose effects may impact non-target species and the direction of those potential impacts, are summarized in Table 28. The effects of indirectly negative actions described in Table 28 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on non-target species is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on productivity of non-target resources and the oceanic ecosystem is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources prior to permitting or implementation of those projects. At this time, NMFS can consider impacts to non-target species (federally-managed or otherwise) and comment on potential impacts. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources within NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on non-target species. Implementation and application of a standardized bycatch reporting methodology (SBRM) would have a particular impact on non-target species by improving the methods which can be used to assess the magnitude and extent of a potential bycatch problem. The redevelopement of the SBRM will result in better assessment of potential bycatch issues and allow more effective and specific management measures to be developed to address a bycatch problem. It is anticipated that future management actions, described in Table 30, will result in additional indirect positive effects on non-target species through actions which reduce and monitor bycatch, protect habitat, and protect ecosystem services on which the productivity of many of these non-target resources depend. The impacts of these future actions could be broad in scope, and it should be noted the managed resource and non-target species are often coupled in that they utilize similar habitat areas and ecosystem resources on which they depend. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful have had a positive cumulative effect on non-target species.

Catch limits, commercial quotas and recreational harvest limits for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed actions in this document have impacts that range from neutral to positive or negative impacts, and would not change the past and anticipated positive cumulative effects on non-target species and thus, would not have any significant effect on these species individually or in conjunction with other anthropogenic activities (Table 30).

Table 30. Summary of the effects of past, present, and reasonably foreseeable future actions on the non-target species.

Action	Past to the Present		Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	**Indirect Positive**		
Summer Flounder, Scup and Black Sea Bass Specifications	**Indirect Positive**		
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on the non-target species * See section 7.5.5.2 for explanation.**		

7.5.5.3 Habitat (Including EFH)

Those past, present, and reasonably foreseeable future actions, whose effects may impact habitat (including EFH) and the direction of those potential impacts, are summarized in Table 28. The direct and indirect negative actions described in Table 28 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on habitat is expected to be limited due to a lack of exposure to habitat at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on habitat and EFH is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources and the habitat on which they rely prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of direct and indirect negative impacts those actions could have on habitat utilized by resources under NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on habitat and EFH. The actions have constrained fishing effort at a large scale and locally, and have implemented gear requirements, which may reduce habitat impacts. As required under these FMP actions, EFH and HAPCs were designated for the managed resources. It is anticipated that the future management actions, described in Table 31, will result in additional direct or indirect positive effects on habitat through actions which protect EFH for federally-managed species and protect ecosystem services on which these species' productivity depends. These impacts could be broad in scope. All of the VECs are interrelated; therefore, the linkages among habitat quality and EFH, managed resources and non-target species productivity, and associated fishery yields should be considered. For habitat and EFH, there are direct and indirect negative effects from actions which may be localized or broad in scope; however, positive actions that have broad implications have been, and it is anticipated will continue to be, taken to improve the condition of habitat. There are some actions, which are beyond the scope of NMFS and Council management such as coastal population growth and climate changes, which may indirectly impact habitat and ecosystem productivity. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to habitat have had a neutral to positive cumulative effect.

Catch limits, commercial quotas and recreational harvest limits for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed actions in this document would not change the past and anticipated cumulative effects on habitat and thus, would not have any significant effect on habitat individually or in conjunction with other anthropogenic activities (Table 31).

Table 31. Summary of the effects of past, present, and reasonably foreseeable future actions on the habitat.

Action	Past to the Present		Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	**Indirect Positive**		
Summer Flounder, Scup and Black Sea Bass Specifications	**Indirect Positive**		
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Direct Negative**		
Port maintenance	**Uncertain – Likely Direct Negative**		
Offshore disposal of dredged materials	**Direct Negative**		
Beach nourishment – Offshore mining	**Direct Negative**		
Beach nourishment – Sand placement	**Direct Negative**		
Marine transportation	**Direct Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Direct Negative**		
National Offshore Aquaculture Act of 2007	**Direct Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Potentially Direct Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Potentially Direct Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, neutral to positive impacts on habitat, including EFH * See section 7.5.5.3 for explanation.**		

7.5.5.4 ESA-Listed and MMPA Protected Species

Those past, present, and reasonably foreseeable future actions, whose effects may impact the protected resources and the direction of those potential impacts, are summarized in Table 28. The indirectly negative actions described in Table 28 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on protected resources, relative to the range of many of the protected resources, is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on protected resources either directly or indirectly is unquantifiable. As described above (section 7.5.4), NMFS has several means, including ESA, under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' protected resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on protected resources under NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on ESA-listed and MMPA protected species through the reduction of fishing effort (potential interactions) and implementation of gear requirements. It is anticipated that the future management actions, specifically those recommended by the ALWTRT and the development of strategies for sea turtle conservation described in Table 32, will result in additional indirect positive effects on the protected resources. These impacts could be broad in scope. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to protected resources have had a positive cumulative effect.

Catch limits, commercial quotas and recreational harvest limits for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed actions in this document would not change the past and anticipated cumulative effects on ESA-listed and MMPA protected species and thus, would not have any significant effect on protected resources individually or in conjunction with other anthropogenic activities (Table 32).

Table 32. Summary of the effects of past, present, and reasonably foreseeable future actions on the protected resources.

Action	Past to the Present		Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	**Indirect Positive**		
Summer Flounder, Scup and Black Sea Bass Specifications	**Indirect Positive**		
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Potentially Direct Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on protected resources** *** See section 7.5.5.4 for explanation.**		

7.5.5.5 Human Communities

Those past, present, and reasonably foreseeable future actions, whose effects may impact human communities and the direction of those potential impacts, are summarized in Table 28. The indirectly negative actions described in Table 28 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on human communities is expected to be limited in scope. It may, however, displace fishermen from project areas. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude. This may result in indirect negative impacts on human communities by reducing resource availability; however, this effect is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on human communities.

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. Sustainable management practices are, however, expected to yield broad positive impacts to fishermen, their communities, businesses, and the nation as a whole. It is anticipated that the future management actions, described in Table 33, will result in positive effects for human communities due to sustainable management practices, although additional indirect negative effects on the human communities could occur through management actions that may implement gear requirements or area closures and thus, reduce revenues. Overall, the past, present, and reasonably foreseeable future actions that are truly meaningful to human communities have had an overall positive cumulative effect.

Catch limits, commercial quotas and recreational harvest limits for each of the managed resources have been specified to ensure these rebuilt stocks are managed in a sustainable manner, and measures are consistent with the objectives of the FMP under the guidance of the MSA. The impacts from annual specification measures established in previous years on the managed resources are largely dependent on how effective those measures were in meeting their intended objectives and the extent to which mitigating measures were effective. Overages may alter the timing of commercial fishery revenues (revenues realized a year earlier), and there may be impacts on some fishermen caused by unexpected reductions in their opportunities to earn revenues in the commercial fisheries in the year during which the overages are deducted. Similarly recreational fisheries may have decreased harvest opportunities due to reduced harvest limits as a result of overages, or more restrictive recreational management measures that must be implemented (i.e., minimum fish size, possession limits, fishing seasons).

Despite the potential for negative short-term effects on human communities, the expectation is that there would be a positive long-term effect on human communities due to the long-term sustainability of summer flounder, scup, and black sea bass. Overall, 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 (Table 33).

Table 33. Summary of the effects of past, present, and reasonably foreseeable future actions on human communities.

Action	Past to the Present		Reasonably Foreseeable Future
Original FMP and subsequent Amendments and Frameworks to the FMP	**Indirect Positive**		
Summer Flounder, Scup and Black Sea Bass Specifications	**Indirect Positive**		
Developed, Apply, and Redo Standardized Bycatch Reporting Methodology	**Potentially Indirect Negative**		
Amendment to address ACL/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Mixed**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Mixed**		
Beach nourishment – Sand placement	**Positive**		
Marine transportation	**Mixed**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Mixed**		
National Offshore Aquaculture Act of 2007	**Uncertain – Likely Mixed**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Mixed**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Mixed**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Negative**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Negative**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on human communities** *** See section 7.5.5.5 for explanation.**		

7.5.6 Preferred Action on all the VECS

The Council has identified its preferred action alternatives in section 5.0. The cumulative effects of the range of actions considered in this document can be considered to make a determination if significant cumulative effects are anticipated from the preferred action. The direct and indirect impacts of the proposed action on the VECs are described in sections 7.1 through 7.4. The magnitude and significance of the cumulative effects, which include the additive and synergistic effects of the proposed action, as well as past, present, and future actions, have been taken into account throughout this section 7.5. The action proposed in this annual specifications document builds off action taken in the original FMP and subsequent amendments and framework documents. When this action 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. Based on the information and analyses presented in these past FMP documents and this document, there are no significant cumulative effects associated with the action proposed in this document (Table 34).

Table 34. Magnitude and significance of the cumulative effects; the additive and synergistic effects of the 2013 and 2014 preferred action, as well as past, present, and future actions.

VEC	Status in 2012	Net Impact of P, Pr, and RFF Actions	Impact of the Preferred Action for 2013 and 2014	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.1)	2013 slightly negative to slightly positive; 2014 negative to slightly positive (Sections 7.1)	**None**
Non-target Species	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.2)	2013 slightly negative to slightly positive; 2014 negative to neutral (Sections 7.1)	**None**
Habitat	Complex and variable (Section 6.2)	Neutral to positive (Sections 7.5.4 and 7.5.5.3)	2013 slightly negative to slightly positive; 2014 negative to neutral (Sections 7.1)	**None**
Protected Resources	Complex and variable (Section 6.3)	Positive (Sections 7.5.4 and 7.5.5.4)	2013 slightly negative to slightly positive; 2014 negative to neutral (Sections 7.1)	**None**
Human Communities	Complex and variable (Section 6.4)	Positive (Sections 7.5.4 and 7.5.5.5)	2013 negative to slightly positive; 2014 neutral to negative short-term with positive long-term (Sections 7.4)	**None**

8.0 APPLICABLE LAWS

8.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA)

8.1.1 National Standards

Section 301 of the MSA requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. 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, scup, and black sea bass and the U.S. fishing industry. To achieve OY, both scientific and management uncertainty need to be addressed when establishing catch limits that are less than the OFL; therefore, the Council has developed recommendations that do not exceed the ABC recommendations of the SSC which have been developed to explicitly address scientific uncertainty. In addition, the Council has considered relevant sources of management uncertainty and other social, economic, and ecological factors, which resulted in recommendations for annual catch targets for all three managed resources. The Council uses the best scientific information available (National Standard 2) and manages all three species throughout their range (National Standard 3). These management measures do not discriminate among residents of different states (National Standard 4), 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 FINDING OF NO SIGNIFICANT IMPACT (FONSI)

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the 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 NAO 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?

None of the proposed specifications or RSA program presented in this document is expected to jeopardize the sustainability of any target species affected by the action. The preferred alternatives to establish catch and landing limits for each species 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, scup, and black sea bass stocks.

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

None of the proposed specifications or RSA program presented in this document is expected to jeopardize the sustainability of any non-target species, including ESA-listed and MMPA protected species. The proposed measures are not expected to alter fishing methods or activities.

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 as described in section 7.0 of the EA 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. In general, bottom-tending mobile gear, primarily otter trawls, has the potential to adversely affect EFH for the species detailed in section 6.2 of the EA. The quota-setting measures proposed in this action could, under certain conditions, increase the amount of time that bottom trawling vessels spend fishing for summer flounder, scup, or black sea bass, but the adverse impacts of this increased level of fishing on benthic habitats would not be expected to be significant.

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

None of the measures alters 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 impact adversely 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?

None of the proposed specifications or RSA program is expected to alter fishing methods or activities. None of the proposed specifications or RSA program is expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort (see section 7.0). Further, as discussed in Section 6.3, the proposed action is not expected to result in adverse impacts to the recently listed Atlantic sturgeon DPSs. An updated Biological Opinion must be completed to fully evaluate the impacts of the fishery on Atlantic sturgeon, and will detail any necessary measures, terms, and conditions to reduce the impact of the fishery on

Atlantic sturgeon populations. However, in a memorandum to the record dated August 28, 2012, NMFS determined that, while reinitiation of consultation on the summer flounder, scup, and black sea bass fisheries are required, allowing these fisheries to continue to operate during the reinitiation period will not violate sections 7(a)(2) of 7(d) of the ESA.

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 revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. None of the proposed specifications or RSA program is expected to alter fishing methods or activities. None of the proposed specifications or RSA program is expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort.

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; in the Mid-Atlantic mixed trawl, pot/trap, and hook and line fisheries for scup; and in the pot/trap, Mid-Atlantic mixed trawl, and hook and line fisheries for black sea bass. 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 these fisheries. However, none of the proposed specifications or RSA program is expected to alter fishing methods or activities or is expected to substantially increase fishing effort or 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.

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

The impacts of the proposed measures on the human environment are described in section 7.0 of the EA. This action merely revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. 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. 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 revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. 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 the 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 measures on the human environment are described in section 7.0 of the EA. This action merely revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. None of the proposed specifications or RSA program is expected to alter fishing methods or activities or is expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort. 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 7.5, the proposed action is not expected to have individually insignificant, but cumulatively significant impacts. The synergistic interaction of improvements in the efficiency of the fishery is expected to generate insignificant positive impacts overall. The proposed actions, together with past, present, and reasonably foreseeable future actions, are 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 measures on the human environment are described in section 7.0 of the EA. This action merely revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. 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 the 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 revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. There is no

evidence or indication that these fisheries have ever resulted in the introduction or spread of nonindigenous species. None of the proposed specifications or RSA program is expected to alter fishing methods or activities. None of the proposed specifications or RSA program is expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort. Therefore, it is highly unlikely that the proposed action would be expected to 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 revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. None of the proposed specifications or RSA program is expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort. When new stock assessment or other biological information about these species becomes available in the future, then the specifications will be adjusted consistent with the FMP and MSA. None of these specifications or RSA program 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 revises catch and landings limits in 2013 for the summer flounder, scup, and black sea bass fisheries and for the summer flounder and scup fisheries in 2014. None of the proposed specifications or RSA program is 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. In fact, the proposed measures have been found to be consistent with other applicable laws (see sections 8.3-8.11 below).

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 alternatives on the biological, physical, and human environment are described in section 7.0. The cumulative effects of the proposed action on target and non-target species, including ESA-listed and MMPA protected species, are detailed in section 7.5 of the EA. None of the proposed specifications or RSA program is expected to substantially increase fishing effort or 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 document and the analysis contained in the supporting EA prepared for the 2013 summer flounder, scup, and black sea bass fisheries and 2014 summer flounder and scup specifications, it is hereby determined that the proposed actions in this specification package will not significantly impact the quality of the human environment as described above and in the 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.

for J. Bullard — 12/17/12

Regional Administrator for NERO, NMFS, NOAA — *Date*

8.3 Endangered Species Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on endangered species and protected resources. None of the specifications proposed in this document are 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 the fisheries.

8.4 Marine Mammal Protection Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on marine mammals. None of the specifications proposed in this document are 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 (CZMA) 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. It is recognized that 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 CZM programs for each state (Maine through North Carolina).

8.6 Administrative Procedure Act

Sections 551-553 of the Federal Administrative Procedure Act establish procedural requirements applicable to informal rulemaking by federal agencies. The purpose is to ensure public access to the federal rulemaking process and to give the public notice and opportunity to comment before the agency promulgates new regulations.

The Administrative Procedure Act requires solicitation and review of public comments on actions taken in the development of an FMP and subsequent amendments and framework adjustments. Development of this specifications document provided many opportunities for public review, input, and access to the rulemaking process. This action and the proposed specifications document was developed through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on management measures during the SSC meeting held on July 25-26, 2012, the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee Meetings held on July 27, 2012, held in Baltimore, MD, and during the MAFMC meeting held on August 13-16, 2012 in Philadelphia, PA. In addition, the public will have further opportunity to comment on this specifications document once NMFS publishes a request for comments notice in the Federal Register (FR).

8.7 Section 515 (Data Quality Act)

Utility of Information Product

This action proposes annual commercial quotas and recreational harvest limits in 2013 and 2014 for the summer flounder and scup fisheries, and in 2013 for the black sea bass fishery. This document includes: A description of the alternatives considered, the preferred action and rationale for selection, and any changes to the implementing regulations of the FMP. 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 specifications document 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. The public had the opportunity to review and comment on management measures during a number of public meetings (see section 8.6). In addition, the public will have further opportunity to comment on this specifications document once NMFS publishes a request for comments notice in the FR.

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 here 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 and the most up to date information is used to develop the EA which evaluates the

impacts of those alternatives (see section 7.0 of this document for additional details). 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, scup, and black sea bass fisheries.

The review process for this specifications document involves MAFMC, NEFSC, NERO, and NMFS 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 MAFMC review process involves public meetings at which affected stakeholders have the opportunity to comments on proposed management measures. Review by NERO 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 Environmental Justice/EO 12898

This EO provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” EO 12898 directs each Federal agency to analyze the environmental effects, including human health, economic, and social effects of Federal actions on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA. Agencies are further directed to “identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices.”

The proposed actions are not expected to affect participation in the summer flounder, scup, and black sea bass fisheries. Since the proposed action represents no changes relative to the current levels of participation in these fisheries, no negative economic or social effects in the context of EO 12898 are anticipated as a result. Therefore, the proposed action is not expected to cause

disproportionately high and adverse human health, environmental or economic effects on minority populations, low-income populations, or Indian tribes.

8.11 Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA) requires the Federal rulemaker to examine the impacts of proposed and existing rules on small businesses, small organizations, and small governmental jurisdictions. In reviewing the potential impacts of proposed regulations, the agency must either certify that the rule "will not, if promulgated, have a significant economic impact on a substantial number of small entities." A determination of substantial depends on the context of the proposed action, the problem to be addressed, and the structure of the regulated industry. Standards for determining significance are discussed below. As indicated in section 4.0, the proposed actions in this specifications document would only modify the commercial quotas and recreational harvest limits for summer flounder, scup, and black sea bass for 2013 and summer flounder and scup for 2014. Although not recommended by the Council, 2014 black sea bass catch and landings limits were included with each alternative to allow for a more complete analysis of the impacts associated with each alternative given the interrelated, multi-species nature of the three fisheries. A full description of each alternative, including a discussion of a no action alternative, is given in section 5.0. In 2013, positive economic impacts are anticipated as a result of this action due to quota increase in black sea bass (4.1 percent) when compared to 2012. For summer flounder, negative economic impacts are anticipated as a result of this action due to quota decrease (10.1 percent) when compared to 2012. Furthermore, neutral economic impacts are expected for scup when compared to 2012. In 2014, positive economic impacts are anticipated as a result of this action due to quota increase in black sea bass (119.1 percent) and negative economic impacts are expected for summer flounder due to quota decrease (0.5 percent) when compared to 2013. Furthermore, neutral economic impacts are expected for scup when compared to 2013. An Initial Regulatory Flexibility Analysis (IRFA) was prepared to further evaluate the economic impacts of the various alternatives presented in this document on small business entities. This analysis is undertaken in support of a more thorough analysis for the 2013 and 2014 commercial specifications for fishing for summer flounder, scup, and black sea bass.

8.11.1 Initial Regulatory Flexibility Analysis

An IRFA which evaluates the economic impacts of the alternatives on small business entities is provided in this section. This analysis supports a more thorough analysis (RFA) which will be completed for the commercial specifications for the FMP species in 2013 and 2014. The economic analyses presented for the various alternatives are principally for the commercial fishery. General statements on potential changes in the recreational fishery due to changes in recreational harvest limits for summer flounder, scup, and black sea bass are made in this document; however, the effects of specific recreational management measures (i.e., bag limits, size limits, and seasonal closures) will be analyzed and submitted along with the Council and Boards recommendations in a recreational specifications document after the December Council meeting. The Council and Commission's Board will meet in December 2012 to adopt 2013 and/or 2014 recreational management measures when more complete data regarding 2012 recreational landings are available.

8.11.1.1 Description of the Reasons Why Action by the Agency is Being Considered

A complete description of the purpose and need and objectives of this proposed rule is found under section 4.0. A statement of the problem for resolution is presented under section 4.0.

8.11.1.2 The Objectives and Legal Basis of the Proposed Rule

A complete description of the objectives of this proposed rule is found under section 4.0. This action is taken under the authority of the MSA and regulations at 50 CFR part 648.

8.11.1.3 Estimate of the Number of Small Entities

The potential number of small entities (i.e., those which fit the definition of a small business) that may be affected by the proposed rule is presented below.

8.11.1.4 Reporting Requirements

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.

8.11.1.5 Conflict with Other Federal Rules

This action does not duplicate, overlap, or conflict with other Federal rules.

8.11.1.6 Analysis of Economic Impacts

A description of the summer flounder, scup, and black sea bass fisheries is presented in section 6.0 of this document 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. Recent landing patterns among ports are presented in section 6.4.3 and an analysis of permit data is found in section 6.4.4. Additional information on "Community Profiles for the Northeast US Fisheries" can be found at http://www.nefsc.noaa.gov/read/socialsci/community_profiles/.

A full description of the alternatives analyzed in this section and the harvest limits derivation process is presented in sections 4.0 and 5.0. A brief description of each alternative is presented below for reference purposes.

The Small Business Administration (SBA) defines a small business in the commercial fishing and recreational fishing activity, as a firm with receipts (gross revenues) of up to $4.0 and $6.5 million, respectively. The proposed measures regarding the 2013 and 2014 summer flounder, scup, and black sea bass quotas could affect any vessel holding an active Federal permit for summer flounder, scup, or black sea bass as well as vessels that fish for any one of these species

in state waters. Data from the Northeast permit application database shows that in 2011 there were 2,039 vessels that were permitted to take part in the summer flounder, scup, and/or black sea bass fisheries (both commercial and party/charter sectors; Table 15). These permitted vessels may be further categorized depending upon which permits or combinations of permits that were held (see section 6.4.4). Table 15 reports the number of vessels by possible combination of permits. For example, the proposed quota for scup could potentially affect all scup permit holders, however, active participants are more likely to be affected in the near term. All permitted vessels readily fall within the definition of small business.

Since all permit holders may not be actively fishing and land any of the three species, the more immediate impact of the rule may be felt by the 861 commercial vessels that are active participants (Table 35). The impacts of specific recreational management measures (i.e., bag limits, size limits, and seasonal closures) on "active" party/charter vessels will be analyzed and submitted along with the Council and Boards recommendations in a supplement to this EA after the December Council meeting. An active participant was defined as being any vessel that reported having landed one or more pounds of any one of the three species in the Northeast dealer data during calendar year 2011. The dealer data covers activity by unique vessels that hold a Federal permit (of any kind) and provides summary data for vessels that fish exclusively in state waters. This means an active vessel may be a vessel that holds a valid Federal summer flounder, scup, or black sea bass permit; a vessel that holds a valid Federal permit but no summer flounder, scup or black bass permit; a vessel that holds a Federal permit other than summer flounder, scup, or black sea bass and fishes for those species exclusively in state waters; or may be a vessel that holds no Federal permit of any kind. Of the four possibilities the number of vessels in the latter two categories cannot be estimated because the dealer data provides only summary information for state waters vessels, and because the vessels in the last category do not have to report landings. Of the active vessels reported in Table 35, 338 commercial vessels did not hold a valid Federal permit for summer flounder, scup, or black sea bass during calendar year 2011.

In this IRFA, the primary unit of observation when performing a threshold analysis is vessels that participated in any one or more of the three fisheries (summer flounder, scup, and black sea bass) during calendar year 2011, irrespective of their current permit status. Not all landings and revenues reported through the Federal dealer data can be attributed to a specific vessel. Vessels without Federal permits are not subject to any Federal reporting requirements with which to corroborate the dealer reports. Similarly, dealers that buy exclusively from state waters only vessels and have no Federal permits, are also not subject to Federal reporting requirements. Thus, it is possible that some vessel activity cannot be tracked with the landings and revenue data that are available. Therefore, these vessels cannot be included in the threshold analysis, unless each state was to report individual vessel activity through some additional reporting system - which currently does not exist. This problem has two consequences for performing threshold analyses. First, the stated number of entities subject to the regulation is a lower bound estimate, since vessels that operate strictly within state waters and sell exclusively to non-federally permitted dealers cannot be counted. Second, the portion of activity by these uncounted vessels may cause the estimated economic impacts to be over- or underestimated.

Table 35. Numbers of vessels landing scup, black sea bass and/or summer flounder in 2011.

Landings Class	Landings Combinations	Commercial Vessels (#)
1	Scup Only	23
2	Black Sea Bass Only	80
3	Summer Flounder Only	210
4	Scup/Black Sea Bass	90
5	Scup/Summer Flounder	46
6	Black Sea Bass/Summer Flounder	65
7	Scup/Black Sea Bass/Summer Flounder	347
	Total	861

Data from Northeast Region dealer data.

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

In order to conduct a more thorough socioeconomic analysis, overall impacts of the three species combined were examined in combination. For example, for 2013, quota scenario 1 would include the preferred alternative for summer flounder, scup, and black sea bass; quota scenario 2 would include the non-preferred *status quo* alternative for summer flounder, scup, and black sea bass; and quota scenario 3 would include the most restrictive alternative for summer flounder, scup, and black sea bass. The same quota scenario mix would also be used to analyze the 2014 measures. Overall impacts (i.e., combined impacts of summer flounder, scup, and black sea bass) were examined because many of the vessels active in these fisheries participate in more than one or even all three of these fisheries.

Procedurally, the economic effects of the quota alternatives were estimated using four steps. First, the Northeast dealer data were queried to identify all vessels that landed at least one or more pounds of summer flounder, scup, or black sea bass in calendar year 2011. The fact that individual owners' business organization may differ from one another is reflected in the different combinations of species landed by these vessels. Thus, for purposes of the threshold analysis, active vessels were grouped into seven classes or tiers (Table 35) based on combinations of

summer flounder, scup and black sea bass landings. In this manner, the original universe of vessels is treated as seven distinct "sub-universes" with a separate threshold analysis conducted for each. Note that the states of Connecticut and Delaware report canvas (summary) data to NMFS, so landings and revenues by individual vessels cannot be included. Thus, vessels that land exclusively in those states cannot be analyzed. Vessels that land in these, plus other states, are analyzed - but landings and revenues represent only that portion of business conducted in states other than Connecticut and Delaware. It is presumed that the impacts on vessels that cannot be identified will be similar to the participating vessels that are analyzed herein.

The second step was to estimate total revenues from all species landed by each vessel during calendar year 2011. This estimate provides the base from which subsequent quota changes and their associated effects on vessel revenues were compared. Since 2011 is the last full year of data available (partial year data from 2012 could miss seasonal fisheries), it was chosen as the base year for the analysis. As such, 2011 data were used as a proxy for 2012.

The third step was to deduct or add, as appropriate, the expected change in vessel revenues depending upon which of the three quota scenarios were evaluated. This was accomplished by estimating proportional reductions or increases in the three quota scenarios for 2013 for all three species versus the base quota year 2012. For 2014, proportional reduction between 2014 measuresa and the Council-preferred adjusted quotas for 2013 was used to assess revenue changes. RSA estimates were employed to adjust the 2013 and 2014 quotas (section 5.0). For the purpose of estimating the 2013 and 2014 quotas and revenue changes, the following assumptions were made: a) the industry will fully harvest, and not exceed the 2012-2013 quotas; and b) the entire summer flounder, and black sea bass quota allocations will be taken in 2013 and 2014. While the proposed scup commercial quota and recreational harvest limits under alternatives 1 in 2013 and 2014 are lower than the base line quotas from which those years are compared against (Table 24), they are considerably higher than the 2011 commercial and recreational landings, respectively (Table 22). In 2011, the commercial quota and recreational harvest limit each increased by 91 percent when compared to the limits implemented in 2010. The high 2011 commercial quota and recreational harvest limit values did not constrain the fishery in 2011 as it occurred in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2012 to 2014, it would be expected that commercial and recreational landings will likely be close to the 2011 landings. There is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2012 to 2014. In addition, under alternative 2 in 2014, the scup commercial quota and recreational harvest limit are substantially higher than the limits implemented in recent years. As such, for cases that show a future allocation that is higher than the 2011 landings, it is assumed that future landings (e.g., 2013 and 2014) would be equal to the 2011 landings. However, for cases that show a future allocation smaller than their 2011 landings, the change due to the future allocation is considered for analysis purposes. In doing so, we avoid overestimating potential losses or gains in this fishery due to changes in the commercial quota levels.

The fourth step was to compare the estimated 2013 and 2014 revenues from all species to the 2012 base revenues for every vessel in each of the seven classes to assess potential changes. For

each quota alternative a summary table was constructed that reports the results of the threshold analysis by class when necessary. These results were further summarized by home state as defined by permit application data, when appropriate.

The threshold analysis described is intended to identify impacted vessels and to characterize the potential economic impact on directly affected entities. In addition to evaluating if the proposed regulations reduce profit for a significant number of small entities, the RFA also requires that disproportionality be evaluated. Disproportionality is judged to occur when a proportionate effect on profits, costs, or net revenue is expected to occur for a substantial number of small entities when compared to large entities; that is, if a regulation places a substantial number of small entities at a significant competitive disadvantage. According to the SBA definition of small business presented above, all permitted vessels in these fisheries readily fall within the definition of small business. Therefore, there are no disproportionality issues.

8.11.2 Description of Quota Alternatives

8.11.2.1 Quota and Non-Quota Alternatives

2013 Alternatives

Section 5.0 contains a full description of the commercial quotas and recreational harvest limits under consideration for 2013 and 2014. Quota scenario 1 includes preferred harvest levels for all three species. The summer flounder, scup, and black sea bass landings limits are consistent with the ABC recommendations of the SSC and therefore based on the best scientific information available and are intended to prevent overfishing.

Quota scenario 2 includes non-preferred *status quo* harvest levels for all three species implemented in 2012. The measures contained under the *status quo* alternative for summer flounder and scup are higher than the measures recommended by the SSC for ABC and are inconsistent with the Council's risk policy on overfishing. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of these stocks are jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recomemndations for ABC.

Quota scenario 3 includes the most restrictive harvest levels, i.e., those that would result in the greatest reductions in landings for all species. This scenario includes non-preferred harvest levels for all three species. The most restrictive alternative for 2013 includes the lowest commercial quotas and recreational harvest limits in the summer flounder time series (2008), the lowest in the most recent three years for scup (2010), and the lowest in the time series for black sea bass (2009). The landings limits associated under this scenario for all three species may be more restrictive than necessary given the recommendations of the SSC for 2013.

2014 Alternatives

Quota scenario 1 includes preferred harvest levels for summer flounder and scup. The summer flounder and scup landings limits are consistent with the ABC recommendations of the SSC and therefore based on the best scientific information available and is intended to prevent overfishing. For black sea bass, harvest levels based on the 2005 time series high were used to conduct a more complete analysis, given the multi-species nature of these fisheries.

Quota scenario 2 includes non-preferred *status quo* harvest levels for all three species implemented in 2012. Biological impacts under this quota scenario are similar to those under alterntive 2 for 2013.

Quota scenario 3 includes the most restrictive harvest levels and includes the same measures implemented in 2012, and this alternative is the same as described under 2013 most restrictive alternative 3. The measures contained under this alternative are substantially lower than the recommendation of the SSC and would be expected to have the lowest risk of overfishing. Conversely, these measures will be expected to result in the greatest negative social and economic impacts in 2013.

Research Set-Aside

Under alternative 1, no RSA will be implemented for summer flounder, scup, or black sea bass in 2013 and 2014. Under preferred alternative 2 (*status quo*) the Council has recommended that 3 percent (of each the 2013 and 2014) summer flounder, scup, and black sea combined commercial and recreational landings levels will be set-aside to fund projects selected under the 2013 and 2014 Mid-Atlantic RSA Programs.

8.11.3 Analyses of Impacts of Alternatives

In the analysis of the following alternatives, several assumptions were made. First, average revenue changes noted in this analysis were evaluated using 2011 dealer data and participation. In addition to this, 2011 permit files were used to describe permit holders in these fisheries. It is important to mention that revenue changes for 2013 and 2014 are dependent upon previous landings and overages. The Council recommended adjusted commercial quotas and recreational harvest limits were not adjusted for 2012 partial-year overages and/or final transfers of quota among states. NMFS will adjust quotas based on updated information on overages and/or final transfers as part of the final rule that implements the 2013 specifications late in 2012 when the data are more complete. Likewise, for 2014, any overages and/or final transfers of quota among states will be addressed based on updated 2013 information in subsequent rulemaking.

For the analyses themselves, reductions are estimated by examining the total revenue earned by an individual vessel in 2011 (as a proxy for 2012), and comparing it to its potential revenue in 2013 and 2014, given the changes in fishing opportunity (harvest levels) from 2012 to 2013 and from 2013 to 2014, respectively. In addition, changes in ex-vessel gross revenues associated with the potential change in quotas in 2013 and 2014 assume static (2011) prices for summer flounder, scup, and black sea bass. Generally, the percent of a vessel's revenue reduction varies considerably based on the permits it holds (i.e., based on the fisheries in which it was able to

participate) and species it landed. Diversity in the fleet helps to balance loss in one fishery with revenue generated from other fisheries. Lastly, it is important to keep in mind that while the analyses are based on landings for federally permitted vessels only, those vessels may be permitted to, and frequently do, fish in state waters for a species of fish for which it does not hold a federal permit.

8.11.3.1 Quota Scenario 1 (Preferred 2013)

This quota scenario examines the impacts on industry that would result from the preferred landings limits for summer flounder, scup, and black sea bass. To analyze the economic effects of all scenarios evaluated in this document, the total landings limits specified under section 5.0 were employed. This scenario contains commercial quotas of 11.45, 23.52, 1.78 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 7.62, 7.56, and 1.84 million lb for flounder, scup, and black sea bass, respectively.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 10.1 and 10.2 percent decrease, respectively, in allowable commercial landings and recreational harvest limit relative to the 2012 allocations (Table 24). The scup specifications would result in a 15.7 and 10.5 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 4.1 and 39.4 percent increase, respectively, in allowable commercial landings and recreational harvest limit. Note as discussed under section 8.11.1.6, given recent overall scup quota allocations, market conditions, and landings patterns in the fishery, it is assumed that scup landings in 2013 would be close to the landings realized in 2011.

8.11.3.1.1 Commercial Impacts

The results of the threshold analysis are presented in Table 36. The analysis of the harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 5 percent (relative to 2012) for 132 vessels, 5-9 percent for 276 vessels, and 10-19 percent for 220 vessels. In addition, 210 vessels are projected to incur in revenue gains and 23 vessels are expected to have no revenue change.

Table 36. Threshold analysis of revenue impacts for participating vessels associated with the 2013 combined summer flounder, scup, and black sea bass quota under scenario 1 (preferred). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 1 (Preferred)	Increased Revenue	No Change in	Number of Impacted Vessels by Reduction Percentile (%)

Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction	(number)	Revenue (number)	<5	5-9	10-19	20-29	30-39	40-49	≥50
1	**SCP Only**	23	0	0	23	0	0	0	0	0	0	0
2	**BSB Only**	80	0	80	0	0	0	0	0	0	0	0
3	**FLK Only**	210	210	0	0	0	17	193	0	0	0	0
4	**SCP/BSB**	90	0	90	0	0	0	0	0	0	0	0
5	**SCP/FLK**	46	38	0	0	8	28	10	0	0	0	0
6	**BSB/FLK**	65	41	13	0	11	31	10	0	0	0	0
7	**SCP/BSB/FLK**	347	207	27	0	113	200	7	0	0	0	0
	Totals	861	496	210	23	132	276	220	0	0	0	0

Impacts of the quotas provisions were examined relative to a vessel's home state as reported on the vessel's permit application (Table 37). "Home state" indicates the state where a vessel is based and primarily ported, and is presumed to reflect where the costs and benefits of management actions return. However, home state is self-reported at the time an individual applies for a federal permit and may not necessarily indicate where the vessel subsequently conducts most of its activity. The number of vessels with revenue reduction of ≥ 5 percent by home state ranged from 1 in Delaware to 74 in New Jersey (Table 37).

By virtue of holding a valid federal permit for summer flounder, scup, or black sea bass a vessel is subject to any regulations that are promulgated under the FMP. From this perspective, these vessels are subject to any quota specification whether or not they actually choose to engage in any one of the three (summer flounder, scup, or black sea bass) fisheries. The decision to engage in any given fishery during a given time period is subject to numerous considerations from temporary suspension of fishing due to illness or vessel construction or repair to merely a reasoned decision to pursue other fisheries. Given the limited access nature of the fisheries, a vessel may wish to continue to hold a permit to preserve the opportunity to engage in the fishery when circumstance allows.

Table 37. Review of revenue impacts under quota scenario 1 (preferred; associated with the 2013 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	5	1	1	2	5	0	0	0	0	0

DE	3	1	2	0	0	1	0	0	0	0	0
MA	92	71	18	1	2	29	42	0	0	0	0
MD	8	4	4	0	0	0	4	0	0	0	0
NC	74	66	8	0	2	42	22	0	0	0	0
NH	6	3	2	1	0	1	2	0	0	0	0
NJ	108	74	18	1	15	34	40	0	0	0	0
NY	95	13	17	4	61	12	1	0	0	0	0
RI	87	63	9	0	15	58	5	0	0	0	0
VA	36	24	11	0	1	7	17	0	0	0	0
OTHER[a]	5	5	0	0	0	3	2	0	0	0	0
NOT KNOWN[b]	338	169	120	15	34	84	85	0	0	0	0
Total	861	496	210	23	132	276	220	0	0	0	0

[a]States with fewer than 3 vessels were aggregated.
[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

Of the 496 vessels showing revenue reduction of ≥ 5 percent, 327 are identified as holders of federal summer flounder, scup, or black sea bass permits. The 327 vessels holding various combinations of summer flounder, scup, and black sea bass permits are described in Table 38. It is most common for vessels to have permits for ad all three species combined, summer flounder only, scup and summer flounder combined, and black sea bass and summer flounder combined.

Table 38. Combinations of 2011 summer flounder (FLK), scup (SCP), and black sea bass (BSB) permits held by commercial vessels projected to have revenue reductions in the 5 percent or more range under quota scenario 1 (preferred) in 2013.

	All 3	FLK only	BSB only	SCP only	SCP/ BSB	SCP/ FLK	BSB/ FLK	None*
Commercial	190	60	12	7	13	25	20	169

* "None" indicates no summer flounder, scup, or black sea bass permit held, and not necessarily no commercial permits held.

Many of the vessels projected to have revenue reductions of ≥ 5 percent hold permits in other fisheries (Table 39). In particular, most vessels have bluefish (commercial), squid-mackerel-butterfish (commercial), dogfish, skates, tilefish, herring (open access commercial) and lobster (commercial; non-trap gear). As a result, they have access to some alternative fisheries, although some like multispecies and scallops, are already under heavy regulation and likely to have increasingly stringent catch limits for the near future.

The majority of the impacted vessels (with revenue reductions of 5 percent or more) with federal permits for summer flounder, scup and/or black sea bass have home ports in New Jersey, Massachusetts, North Carolina, and Rhode Island. The principal ports of landing for these

vessels are mainly located in New Jersey, Rhode Island, Massachusetts, and North Carolina (Table 40).

Although the summer flounder quota is allocated to the individual states, vessels are not necessarily constrained to land in their home state. It is useful, therefore, to examine the degree to which vessels from different states make it a practice to land in states other than their home state. Thus, of the various states home-porting vessels projected to have revenue reductions in the ≥ 5 percent range, vessels in those states are likely to land in their home port state (67-100 percent; Table 40). This information is important because impacts will occur both in the community of residence and in the community where the vessel's catch is landed and sold.

The largest vessels are found in North Carolina, Virginia, North Carolina, Massachusetts, and New Jersey (Table 40). Larger vessels often have more options than smaller vessels, due to increased range and more deck space for alternative gear configurations. This can help them to respond to cuts in quota in particular states. They also, however, need larger volumes to remain profitable.

Most commercial vessels showing revenue reductions in the ≥ 5 percent range are concentrated in New Jersey, Massachusetts, Rhode Island, and North Carolina (Table 41). Within these states, the most impacted counties (largest number of impacted vessels) are: Ocean, Cape May, and Monmouth in New Jersey; Bristol and Suffolk in Massachusetts; Washington and New Port in Rhode Island; and Dare, Hyde, Craven, Carteret, and Pamlico in North Carolina. Some individual ports with 5 or more impacted vessels in these counties are: Cape May (Cape May county, NJ); Barnegat Light and Point Pleasant (Ocean county, NJ); Belford (Monmouth county, NJ); New Bedford (Bristol county, MA); Boston (Suffolk county, MA); Point Judith (Washington county, RI); Newport (Newport county, RI); and Swan Quarter (Hyde county, NC); Wanchese (Dare county, NC); Lowland (Pamlico county, NC); New Bern (Craven county, NC); and Beaufort (Carteret county, NC). If communities having larger numbers of impacted vessels also have a larger total numbers of vessels, the proportion that may be impacted thus may be lower. This effect may mitigate the impacts on the community as a whole.

To further characterize the potential impacts on indirectly impacted entities and the larger communities within which owners of impacted vessels reside, selected county profiles were constructed. The profile is based on impacts under the most restrictive possible quota scenario 3. The most restrictive scenario is chosen to identify impacted counties because it would identify the maximum number possible and thus include the broadest possible range of counties in the analysis. Reported statistics including demographic statistics, employment, and wages for these counties is presented in section 8.11.5 below.

Table 39. Other 2011 permits held by the 327 vessels holding summer flounder, scup and/or black sea bass permits projected to have revenue reductions in the 5 percent or more range under quota scenario 1 (preferred) in 2013.

	Northeast Region Permit Status	Number of Vessels	Percent of Permitted Vessels

Commercial	Multispecies	3	1
	Multispecies - Open access other than P/C Multispecies	93	28
	Surfclam	176	54
	Quahog	177	54
	Scallop - Limited access (Days-at-sea)	78	24
	Scallop - ITQ	84	26
	Scallop - Limited entry - Gulf of Maine general category	10	3
	Scallop - incidental general category	96	29
	Tilefish Commercial (IFQ + incidental categories combined)	271	83
	Herring - Limited access all areas	5	2
	Herring - Limited access area 2 and 3	4	1
	Herring - Limited access incidental	18	6
	Herring - Open access	242	74
	Lobster, trap gear	88	27
	Lobster, non-trap gear	230	70
	Squid/Mackerel/Butterfish	311	95
	Bluefish	323	99
	Dogfish	308	94
	Atl. Deep-Sea Red Crab - Incidental	211	65
	Skate	304	93
	Monkfish - Limited Access	170	52
	Monkfish - Incidental	143	44
Recreational	Squid/Mackerel/Butterfish	6	2
	Bluefish	10	3
	Tilefish	4	1
	Lobster	1	<1

Table 40. Descriptive information for the commercial vessels showing revenue reductions in the 5 percent or more range (in 2013) based on 2011 descriptive data from NMFS permit files under quota scenario 1 (preferred). No vessel characteristics data are reported for states with fewer than 3 permits.

	CT	MA	MD	NC	NH	NJ	NY	RI	VA	Other

# Permits by Home Port State	5	71	4	64	3	74	13	63	24	6
# Permits by Principal Port State	6	66	4	56	3	79	13	67	31	2
# Permits by Mailing Address State	8	63	5	58	3	76	9	66	31	8
Avg. Length in Feet by Principal Port	55	66	58	74	46	61	46	53	78	NA
Avg. GRT by Principal Port	65	101	40	109	40	74	44	61	128	NA
Avg. Vessel Horsepower	382	498	405	578	314	505	334	386	620	NA
% of Vessels where Home Port State = Principal Port State	100	90	100	84	67	97	77	98	80	NA

In addition to the threshold analysis described above, the Council also analyzed changes in total ex-vessel gross revenue that would occur as a result of the quota alternatives. NMFS dealer data from Maine to Virginia and NMFS general canvass data for North Carolina were used to derive the ex-vessel price for summer flounder from Maine through North Carolina, and for scup and black sea bass from Maine through Cape Hatteras, North Carolina. Assuming 2011 ex-vessel prices (summer flounder -- $1.80/lb; scup -- $0.55/lb; and black sea bass -- $3.20/lb), the 2013 quotas associated with this scenario would decrease summer flounder and increase black sea bass revenues by approximately $2.3 and $0.2 million, respectively, relative to the quota implemented in 2012. Note as discussed under section 8.11.1.6, given recent overall scup quota allocations, market conditions, and landings patterns in the fishery, it is assumed that scup landings in 2013 would be close to the landings realized in 2011. As such, no change in revenue is expected for scup under this scenario.

Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed summer flounder (668), the average decrease in revenue associated with the decrease in quota is approximately $3,449. Assuming the increase in black sea bass ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed black sea bass (582), the average increase in revenue associated with the increase in quota is approximately $378. The changes in ex-vessel gross revenues associated with the potential changes in quotas in 2013 versus 2012 assumed static prices for summer flounder, scup, and black sea bass. However, for example, it is possible that given the potential decrease in landings for summer flounder, price for this species may increase holding all other factors constant. If this occurs, an increase in the price for summer flounder may mitigate some of the revenue losses associated with lower quantity of summer flounder quota availability.

Furthermore, as indicated in section 8.11.1.6, in the current analysis of all the alternatives in this document, changes in gross revenues are used as a proxy for profitability due to the absence of cost data. Therefore, in cases where a quota decrease is analyzed, it may be expected that fewer trips may be taken by commercial vessels and the decline in gross revenues may be overstating negative economic impacts. Conversely, when a quota increase is analyzed, it maybe expected that if more trips are taken, the increase in gross revenues may be overstating the economic impacts.

Table 41. Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 1 (preferred; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
Maryland	**Worcester**	**Ocean City**	4
Connecticut	**New London**	**Stonington**	2
		Various (3 ports)	3
Massachusetts	**Bristol**	**New Bedford**	37
		Various (1 port)	2
	Barnstable	**Woods Hole**	3
		Various (3 ports)	4
	Suffolk	**Boston**	13
	Essex	**Gloucester**	3
		Various (2 ports)	2
	Plymouth	**Various (3 ports)**	4
	Cape May	**Cape May**	24
		Various (2 ports)	3
	Ocean	**Barnegat/Barnegat Light**	21
		Point Pleasant	5
		Various (3 ports)	5
	Monmouth	**Belford**	13
		Various (1 port)	1

Table 41 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 1 (preferred; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
New York	Suffolk	Montauk	4
		Various (2 ports)	2
	Nassau	Freeport	3
	New York	New York	6
		Various (1 port)	1
Rhode Island	Washington	Point Judith	36
		Wakefield	4
		Narragansett	4
		South Kingstown	4
		Various (1 port)	1
	Newport	Newport	7
		Sakonnet Point	4
		Little Compton	3
		Tiverton	3
North Carolina	Hyde	Swan Quarter	10
		Engelhard	3
		Various (1 port)	1
	Dare	Wanchese	13
		Various (2 ports)	2
	Pamlico	Lowland	6
		Various (3 ports)	3
	Craven	New Bern	10
	Carteret	Beaufort	10
	Beaufort	Belhaven	5
		Various (1 port)	1

Table 41 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 1 (preferred; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
Virginia	City of Norfolk	Norfolk	3
	City of Newport News	Newport News	4
	City of Hampton	Hampton	5
	York	Seaford	8

8.11.3.1.2 Recreational Impacts

As indicated in the executive summary, the management measures addressed in this specifications document include commercial quotas, recreational harvest limits, and other measures designed to ensure recreational and commercial catch do not exceed the recreational and commercial ACLs, the sum of which are equal the ABC. The economic analyses presented for the various quota scenarios 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, scup, and black sea bass are made in this document, the effects of specific recreational management measures (i.e., bag limits, size limits, and seasonal closures) will be analyzed in a supplement to this EA that will be prepared in February.

Landing statistics show that recreational summer flounder landings have generally exceeded the recreational harvest limits, ranging from 5 percent in 1993 to 122 percent in 2000. For the last five years combined, recreational landings have been 13 percent (5.23 million lb) above the recreational limit (Table 42). For 2010 and 2011, recreational landings were 42 percent (3.62 million lb) and 49 percent (5.62 million lb) below the limits for those years, respectively (Table 42).

Table 42. Number of summer flounder recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2014.

	Number of	Recreational Harvest Limit	Recreational Landings

Year	Fishing Trips[a]	(million lb)	of Summer Flounder (million lb)[b]
1991	4,536,651	None	7.96
1992	3,820,071	None	7.15
1993	4,671,638	8.38	8.83
1994	5,769,037	10.67	9.33
1995	4,683,754	7.76	5.42
1996	4,885,179	7.41	9.82
1997	5,595,636	7.41	11.87
1998	5,268,926	7.41	12.48
1999	4,219,909	7.41	8.37
2000	5,802,215	7.41	16.47
2001	6,130,383	7.16	11.64
2002	4,564,011	9.72	8.01
2003	5,624,387	9.28[c]	11.64
2004	4,864,356	11.21[c]	10.87
2005	5,845,890	11.98[c]	10.58
2006	4,991,476	9.29[c]	11.55
2007	5,491,077	6.68[c]	9.86
2008	4,932,811	6.21[c]	7.90
2009	4,596,612	7.16[c]	6.30
2010	4,452,956	8.59[c]	4.97
2011	4,500,040	11.58[c]	5.96
2012	NA	8.59[c]	NA
2013	NA	7.62[c,d]	NA
2014	NA	7.60[c,d]	NA

[a]Estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Scott Steinback, NMFS/NER/NEFSC. [b]From Maine through North Carolina. [c]Adjusted for research set-aside. [d]Recreational harvest limit under preferred alternative 1. NA = Data not available.

Summer flounder continues to be an important component of the recreational fishery. Estimation of primary species sought as reported by anglers in recent intercept surveys indicate that summer flounder has shown an upward trend in importance in the U.S. from Maine through North Carolina combined. The number of trips for which recreational anglers targeted summer flounder has shown a flat trend from the early 1990s to the late 2000s; however, for the 2002 to 2011

period, the trend shows a slight decrease. Summer flounder recreational trips averaged 5.0 million for the 1991-2011 period, ranging from 3.8 million in 1992 to 6.1 million in 2001. On average, for the 2007-2011 period, summer flounder recreational fishing trips were estimated at 4.5 million trips; ranging from 5.5 million in 2007 to 4.5 million in 2010 (Table 42).

If summer flounder recreational landings are the same in 2012 as in 2011 (5.96 million lb), the recreational harvest limit under this scenario is expected to constrain recreational landings in 2013. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2013 when compared to 2012. The summer flounder recreational harvest limit under this scenario will likely maintain recreational satisfaction for the summer flounder recreational fishery, relative to 2012.

Scup recreational landings declined over 89 percent for the period 1991 to 1998, then increased by 518 percent from 1998 to 2000 (Table 43). The number of fishing trips also declined over 73 percent from 1991 to 1998, and then increased by 127 percent from 1998 to 2000. The decrease in the recreational fishery in the 1990s occurred both with and without any recreational harvest limits in place, and it is perhaps a result of the stock being over-exploited and at a low biomass level during that period. In addition, it is possible that party/charter boats may have targeted other species that were relatively more abundant than scup (e.g., striped bass), thus accounting for the decrease in the number of fishing trips in this fishery in the 1990s. Recreational landings decreased from 5.44 million lb in 2000 to 3.62 million lb in 2002 (33 percent decrease). In 2003, recreational landings increased to 8.48 million lb (134 percent); these landings were the highest for the 1991 to 2011 period. Recreational landings decreased in 2005 and 2006 to 2.54 and 2.93 million lb respectively. In 2007 through 2011, scup recreational landings increased to 3.65, 4.04, 2.94, 5.74, and 3.66 million lb, respectively. The number of trips for which recreational anglers targeted scup has shown an upward trend from the entire time series (1991-2011); however, from 2002 to 2011, the trend is decreasing. Scup recreational trips averaged 0.49 million lb for the 1991 to 2011 period, ranging from 0.20 million lb in 1997 to 0.97 million lb in 2003. On average, for the 2007-2011 period, scup recreational fishing trips were estimated at 0.55 million lb; ranging from 0.70 million lb in 2010 to 0.48 million lb in 2011 (Table 43).

If scup recreational landings are the same in 2012 as in 2011 (3.66 million lb), the recreational harvest limit under this scenario is expected to constrain recreational landings in 2013. The scup recreational harvest limit under this scenario will likely maintain recreational satisfaction for the scup recreational fishery when compared to 2012.

Table 43. Number of scup recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2014.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb)	Recreational Landings of Scup (million lb)[b]

1991	793,593	None	8.09
1992	499,780	None	4.41
1993	499,703	None	3.20
1994	435,625	None	2.63
1995	242,956	None	1.34
1996	241,322	None	2.16
1997	198,754	1.95	1.20
1998	213,842	1.55	0.88
1999	231,596	1.24	1.89
2000	485,039	1.24	5.44
2001	484,604	1.77	4.26
2002	481,716	2.71[c]	3.62
2003	971,770	4.01[c]	8.48
2004	698,561	4.01[c]	4.24
2005	545,729	3.96[c]	2.54
2006	547,761	4.15[c]	2.93
2007	516,751	2.74[c]	3.65
2008	536,307	1.83[c]	4.04
2009	538,085	2.59[c]	2.94
2010	699,516	3.01[c]	5.74
2011	477,276	5.74[c]	3.66
2012	NA	8.45[d]	NA
2013	NA	7.56[c,d]	NA
2014	NA	7.03[c,d]	NA

[a]Estimated number of recreational fishing trips (expanded) where the primary target species was scup, Maine through North Carolina. Source: Scott Steinback, NMFS/NEFSC. [b]From Maine through North Carolina. [c]Adjusted for research set-aside. [d]Recreational harvest limit under preferred alternative 1. NA = Data not available.

Black sea bass recreational landings have shown a slight upward trend from 1991-1997. Black sea bass landings decreased considerably from 1995-1996 to 1998-1999, but then substantially increased in 2002 to 4.37 million lb. For the 2003-2011, recreational landings ranged from 3.30 million lb in 2003 to 1.27 million lb in 2011. For the 2003-2008 period, recreational landings were below the harvest limits implemented those years; combined recreational landings during this time period were 7.50 million lb, or 37 percent below the combined implemented limit. In 2009 and 2010, recreational landings were 2.31 million lb (1.17 million lb or 103 percent) and 2.98 million lb (1.15 or 63 percent) above the recreational limit implemented that year, respectively. In 2011, recreational landings were 31 percent (0.56 million pounds) below the implemented limit. Black sea bass recreational trips averaged 0.27 million lb for the 1991-2011 period, ranging from 0.14 million lb million in 1999 to 0.42 million lb in 2011. On average, for the 2007-2011 period, black sea bass recreational fishing trips were estimated at 0.33 million trips; ranging from 0.26 million in 2008 to 0.19 million in 2011 (Table 44).

If black sea bass recreational landings are the same in 2012 as in 2011 (1.27 million lb), the recreational harvest limit under this scenario is expected to constrain recreational landings in 2013. The black sea bass recreational harvest limit under this scenario will likely maintain recreational satisfaction for the black sea bass recreational fishery when compared to 2012.

General Effort Trends

Recreational landings for all three fisheries have fluctuated over the past several years. The number of trips targeting a given species in any given year is quite variable (Tables 42 to 44). In the aggregate, total number of recreational trips (all modes combined) in the North Atlantic and Mid-Atlantic sub-regions combined has shown an upward trend from the early 1990s to the late 2000s; however, from 2002 to 2011, the trend is slightly downward. On average, for the 1990-2011 period, approximately 25 million marine recreational fishing trips (all modes combined) were taken in the North Atlantic and Mid-Atlantic sub-regions combined. For that period, marine recreational trips ranged from 18 million trips in 1992 to 31 million trips in 2007 in the two regions combined. In 2010 and 2011, 24 and 22 million combined recreational trips were taken, respectively.

The number of party/charter boat trips taken in the North Atlantic and Mid-Atlantic sub-regions combined has shown a downward trend from the early 1990s to the late 2000s; however, from 2002 to 2011, the trend has been relatively flat. On average, for the 1990-2011 period, 1.7 million party/charter marine fishing trips were taken in the North Atlantic and Mid-Atlantic sub-regions combined, ranging from 1.1 million trips in 1999 to 2.6 million trips in 1993. For the last 10 years (2002-2011), the number of party/charter trips in both regions combined has ranged from 1.2 in 2010 to 2.2 million in 2007 (averaging 1.6 million). In 2011, 1.4 million party/charter trips were taken in the Northeast region.

Table 44. Number of black sea bass recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2014.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb)	Recreational Landings of BSB (million lb)[b]
1991	288,691	None	4.32
1992	263,957	None	2.91
1993	299,404	None	4.99
1994	253,888	None	3.05
1995	313,537	None	6.34
1996	231,090	None	3.99
1997	310,898	None	4.26
1998	137,734	3.15	1.14
1999	136,452	3.15	1.64
2000	255,789	3.15	3.98
2001	293,191	3.15	3.41
2002	283,537	3.43[c]	4.37
2003	285,861	3.43[c]	3.30
2004	149,670	4.01[c]	1.68
2005	199,603	4.13[c]	1.88
2006	253,040	3.99[c]	1.98
2007	368,042	2.47[c]	2.23
2008	256,340	2.11[c]	1.57
2009	393,391	1.14[c]	2.31
2010	417,665	1.83[c]	2.98
2011	193,656	1.83[c]	1.27
2012	NA	1.32[c]	NA
2013	NA	1.84[c,d]	NA
2014	NA	4.05[c]	NA

[a]Estimated number of recreational fishing trips (expanded) where the primary target species was black sea bass, Maine through North Carolina. Source: Scott Steinback, NMFS/NEFSC. [b]From Maine through Cape Hatteras, North Carolina. [c]Adjusted for research set-aside. [d]Recreational harvest limit under preferred alternative 1.
NA = Data not available.

The number of anglers participating in marine recreational trips in the North Atlantic and Mid-Atlantic subregions combined has shown an upward trend for the 1990 to 2011 period. On average, for the 1990 to 2011 period, 3.3 million anglers fished in the North Atlantic and Mid-Atlantic sub-regions combined, ranging from 2.6 million anglers in 1999 to 5.1 million anglers in 2007 (the highest value in time series). For the last 10 years (2002-2011), the number of anglers participating in marine recreational trips in both regions combined has ranged from 3.0 in 2002 to 5.1 million in 2007 (averaging 4.2 million). In 2010, 3.7 million anglers fished in both sub-regions combined.

8.11.3.1.3 Other Impacts

Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions

The proposed summer flounder, scup, and black sea bass alternatives would only modify the 2013 and 2014 commercial quotas and recreational harvest limits. Changes to other commercial management measures were not recommended for 2013 and 2014 by the Council, Board, or the Summer Flounder, Scup, and Black Sea Bass Monitoring Committees. Therefore, other commercial management measures in place will remain unchanged (*status quo*) for the 2013 and 2014 fishing year (see section 5.1 through 5.3 for additional discussion).

Effects of the RSA

A detailed discussion regarding the socioeconomic impacts of the RSA for summer flounder, scup, and black sea bass is presented in section 7.4.3.

The social and economic impacts of this research should be minimal. The commercial set-aside could be worth as much as $637,200, $400,125, and $175,680 for summer flounder, scup, and black sea bass based on 2011 prices, respectively, under quota scenario 1. Assuming an equal reduction among all active vessels (i.e., 668, 506, and 582 commercial vessels that landed summer flounder, scup, and black sea bass in 2011, respectively), this may mean a reduction of $954, $791, and $302 per individual vessel for summer flounder, scup, and black sea bass, respectively. However, if a vessel is participating in two or more of these fisheries, the revenue reduction could be greater. It is also possible that the vessels used by researchers to conduct the research are vessels that have not traditionally fished for these species. As such, some minimal additional effects may result as permit holders that would have landed these species could be disadvantaged. If RSAs are not used, the landings would be included in the overall landings levels for each fishery, then the estimated economic impacts would be smaller than those estimated in threshold analyses presented in this section. The maximum 3 percent RSA was used to assess potential impacts; however, the actual RSA may be less than 3 percent. As such, the monetary worth of the RSA for all three species is associated with the upper limit of impacts.

8.11.3.2 Quota Scenario 2 (*Status Quo* 2013)

This quota scenario examines the impacts on industry that would result from the *status quo* landings limits for summer flounder, scup, and black sea bass. These are the limits that were

implemented in 2012. This scenario contains commercial quotas of 12.73, 27.91, and 1.71 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational harvest limits of 8.49, 8.45, and 1.32 million lb for flounder, scup, and black sea bass, respectively. The overall measures under this alternative would provide similar overall fishing opportunities for these fisheries in 2013 when compared to 2012.

8.11.3.2.1 Commercial Impacts

The results of the threshold analysis are presented in Table 45. The analysis of the harvest levels under this alternative indicate that across all vessel classes, a total of 738 vessels were projected to incur in no revenue change and 123 vessels were projected to incur in revenue increase relative to 2012.

Table 45. Threshold analysis of revenue impacts for participating vessels associated with the 2013 combined summer flounder, scup, and black sea bass quota under scenario 2 (*status quo*). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 2 (Least Restrictive)				Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction			<5	5-9	10-19	20-29	30-39	40-49	≥50
1	SCP Only	23	0	0	23	0	0	0	0	0	0	0
2	BSB Only	80	0	0	80	0	0	0	0	0	0	0
3	FLK Only	210	0	17	193	0	0	0	0	0	0	0
4	SCP/BSB	90	0	0	90	0	0	0	0	0	0	0
5	SCP/FLK	46	0	13	33	0	0	0	0	0	0	0
6	BSB/FLK	65	0	8	57	0	0	0	0	0	0	0
7	SCP/BSB/FLK	347	0	85	262	0	0	0	0	0	0	0
	Totals	861	0	123	738	0	0	0	0	0	0	0

Impacts of the quotas provisions were examined relative to a vessel's home state as reported on the vessel's permit application (Table 46). "Home state" indicates the state where a vessel is based and primarily ported, and is presumed to reflect where the costs and benefits of management actions return. However, home state is self-reported at the time an individual applies for a federal permit and may not necessarily indicate where the vessel subsequently conducts most of its activity. The number of vessels with revenue increase by home state ranged from 1 vessel in each, Delaware, New Hampshire, Rhode Island, and Virginia to 70 vessels in New York. Note that even though the summer flounder quota under alternative 2 is the *status quo* measure, the overall 2013 summer flounder quota is 0.4 percent higher than the adjusted

quota implemented in 2012 due to overage reduction adjustments in New York in 2012. More specifically, about 51,000 lb of summer flounder were deducted from that state in 2012 due to 2011 overages. The summer flounder state-by-state allocations under this alternative would be identical than under 2012, except for New York, where a 5 percent quota increase in 2013 when compared to 2012 is expected.

Table 46. Review of revenue impacts under quota scenario 2 (*status quo*; associated with the 2013 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	0	0	9	0	0	0	0	0	0	0
DE	3	0	1	2	0	0	0	0	0	0	0
MA	92	0	2	90	0	0	0	0	0	0	0
MD	8	0	0	8	0	0	0	0	0	0	0
NC	74	0	0	74	0	0	0	0	0	0	0
NH	6	0	1	5	0	0	0	0	0	0	0
NJ	108	0	3	105	0	0	0	0	0	0	0
NY	95	0	70	25	0	0	0	0	0	0	0
RI	87	0	1	86	0	0	0	0	0	0	0
VA	36	0	1	35	0	0	0	0	0	0	0
OTHER[a]	5	0	0	5	0	0	0	0	0	0	0
NOT KNOWN[b]	338	0	44	294	0	0	0	0	0	0	0
Total	861	0	79	444	0	0	0	0	0	0	0

[a]States with fewer than 3 vessels were aggregated.
[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

8.11.3.2.2 Recreational Impacts

The information regarding trends in recreational participation (trends in effort) presented under section 8.11.3.1.2 also apply here.

If summer flounder, scup, and black sea bass recreational landings are the same in 2012 as in 2011 (5.96, 3.66, and 1.27 million lb, respectively), the recreational harvest limit under this scenario (8.49, 8.45, and 1.32 million lb for summer flounder, scup, and black sea bass, respectively) are expected to constrain recreational landings in 2013. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2013 when compared to 2012. The summer flounder, scup, and black sea bass recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2012.

8.11.3.2.3 Other Impacts

Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions

The impacts of these non-quota management measures described in quota scenario 1 above (section 8.11.3.1.3) also apply here.

Effects of the RSA

A detailed discussion regarding the socioeconomic impacts of the RSA for summer flounder, scup, and black sea bass is presented in section 7.4.3. In addition, the background information regarding impacts of the RSA program described in section 8.11.3.1.3 also apply here.

The social and economic impacts of this research should be minimal. The commercial set-aside could be worth as much as $731,299, $467,953, and $145,197 for summer flounder, scup, and black sea bass based on 2011 prices, respectively, under quota scenario 2. Assuming an equal reduction among all active vessels (i.e., 668, 506, and 582 commercial vessels that landed summer flounder, scup, and black sea bass in 2011, respectively), this may mean a reduction of $1,095, $925, and $249 per individual vessel for summer flounder, scup, and black sea bass, respectively.

8.11.3.3 Quota Scenario 3 (Most Restrictive 2013)

This quota scenario examines the impacts on industry that would result from the most restrictive landings limits for summer flounder, scup, and black sea bass. This scenario contains commercial quotas of 9.18, 10.68, and 1.09 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 6.12, 3.01, and 1.14 million lb for flounder, scup, and black sea bass, respectively.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 27.9 percent decrease in both allowable commercial landings and recreational harvest limit relative to the 2012 allocations (Table 24). The scup specifications would result in a 61.7 and 64.4 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 36.3 and 13.6 percent decrease, respectively, in allowable commercial landings and recreational harvest limit.

8.11.3.3.1 Commercial Impacts

The results of the threshold analysis are presented in Table 47. The analysis of the harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 10-19 percent (relative to 2012) for 3 vessels, 20-29 percent for 552 vessels, and 30-39 for 306 vessels. The number of vessels with revenue reduction of ≥ 5 percent by home state ranged from 3 in Delaware to 108 in New Jersey (Table 48).

Table 47. Threshold analysis of revenue impacts for participating vessels associated with the 2013 combined summer flounder, scup, and black sea bass quota under scenario 3 (most restrictive). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 3 (Most Restrictive)				Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction			<5	5-9	10-19	20-29	30-39	40-49	≥50
1	SCP Only	23	23	0	0	0	0	2	0	21	0	0
2	BSB Only	80	80	0	0	0	0	0	0	80	0	0
3	FLK Only	210	210	0	0	0	0	0	210	0	0	0
4	SCP/BSB	90	90	0	0	0	0	0	1	89	0	0
5	SCP/FLK	46	46	0	0	0	0	0	42	4	0	0
6	BSB/FLK	65	65	0	0	0	0	0	44	21	0	0
7	SCP/BSB/FLK	347	347	0	0	0	0	1	255	91	0	0
	Totals	861	861	0	0	0	0	3	552	306	0	0

Table 48. Review of revenue impacts under quota scenario 3 (most restrictive; associated with the 2013 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	9	0	0	0	0	1	7	1	0	0
DE	3	3	0	0	0	0	0	1	2	0	0
MA	92	92	0	0	0	0	0	67	25	0	0
MD	8	8	0	0	0	0	0	4	4	0	0
NC	74	74	0	0	0	0	0	64	10	0	0
NH	6	6	0	0	0	0	0	3	3	0	0
NJ	108	108	0	0	0	0	1	81	26	0	0
NY	95	95	0	0	0	0	1	68	26	0	0
RI	87	87	0	0	0	0	0	55	32	0	0
VA	36	36	0	0	0	0	0	24	12	0	0
OTHER[a]	5	5	0	0	0	0	0	4	1	0	0
NOT KNOWN[b]	338	338	0	0	0	0	0	174	164	0	0
Total	861	861	0	0	0	0	3	552	306	0	0

[a]States with fewer than 3 vessels were aggregated.

[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

Of the 861 vessels showing revenue reduction of ≥ 5 percent, 523 are identified as holders of federal summer flounder, scup, or black sea bass permits. The 523 vessels holding various combinations of summer flounder, scup, and black sea bass permits are described in Table 49. It is most common for vessels to have permits for all three species combined, scup and black sea bass combined, summer flounder only, black sea bass only, and all three species combined.

Table 49. Combinations of 2011 summer flounder (FLK), scup (SCP), and black sea bass (BSB) permits held by commercial vessels projected to have revenue reductions in the 5 percent or more range under quota scenario 3 (most restrictive).

	All 3	FLK only	BSB only	SCP only	SCP/ BSB	SCP/ FLK	BSB/ FLK	None*
Commercial	279	61	56	12	64	28	23	338

* "None" indicates no summer flounder, scup, or black sea bass permit held, and not necessarily no commercial permits held.

Many of the vessels projected to have revenue reductions of ≥ 5 percent hold permits in other fisheries (Table 50). In particular, most vessels have bluefish (commercial), dogfish, squid-mackerel-butterfish (commercial), skates, tilefish, and herring (open access commercial). As a result, they have access to some alternative fisheries, although some like multispecies and scallops, are already under heavy regulation and likely to have increasingly stringent catch limits for the near future.

The majority of the impacted vessels (with revenue reductions of 5 percent or more) with federal permits for summer flounder, scup and/or black sea bass have home ports in New Jersey, New York, Massachusetts, Rhode Island, North Carolina, and Virginia. The principal ports of landing for these vessels are mainly located in New Jersey, Rhode Island, New York, Massachusetts, North Carolina, and Virginia (Table 51).

Although the summer flounder quota is allocated to the individual states, vessels are not necessarily constrained to land in their home state. It is useful, therefore, to examine the degree to which vessels from different states make it a practice to land in states other than their home state. Thus, of the various states home-porting vessels projected to have revenue reductions in the ≥ 5 percent range, vessels in those states are likely to land in their home port state (81-100 percent; Table 51). This information is important because impacts will occur both in the community of residence and in the community where the vessel's catch is landed and sold.

The largest vessels are found in North Carolina, Virginia, Connecticut, Massachusetts, and New Jersey (Table 51). Larger vessels often have more options than smaller vessels, due to increased range and more deck space for alternative gear configurations. This can help them to respond to cuts in quota in particular states. They also, however, need larger volumes to remain profitable.

Most commercial vessels showing revenue reductions in the ≥ 5 percent range are concentrated in New Jersey, New York, Massachusetts, Rhode Island, and North Carolina (Table 52). Within

these states, the most impacted counties (largest number of impacted vessels) are: Ocean and Cape May in New Jersey; Suffolk in New York; Bristol, Suffolk, and Barnstable in Massachusetts; Washington and Newport in Rhode Island; and Dare and Hyde in North Carolina. Some individual ports with 5 or more impacted vessels in these counties are: Cape May and Sea Isle (Cape May county, NJ); Barnegat Light and Point Pleasant (Ocean county, NJ); Montauk and Shinnecock (Suffolk county, NY); New Bedford (Bristol county, MA); Boston (Suffolk county, MA); Point Judith and Wakefield (Washington county, RI); Newport and Sakonnet Point (Newport county, RI); Swan Quarter (Hyde county, NC); and Wanchese (Dare county, NC). If communities having larger numbers of impacted vessels also have a larger total numbers of vessels, the proportion that may be impacted thus may be lower. This effect may mitigate the impacts on the community as a whole.

Table 50. Other 2011 permits held by the 523 vessels holding summer flounder, scup and/or black sea bass permits projected to have revenue reductions in the 5 percent or more range under quota scenario 3 (most restrictive) in 2013.

	Northeast Region Permit Status	Number of Vessels	Percent of Permitted Vessels
Commercial	Multispecies	5	1
	Multispecies - Open access other than P/C Multispecies	167	32
	Surfclam	224	43
	Quahog	255	49
	Scallop - Limited access (Days-at-sea)	93	18
	Scallop - ITQ	106	20
	Scallop - Limited entry - Gulf of Maine general category	14	3
	Scallop - incidental general category	124	24
	Tilefish Commercial (IFQ + incidental categories combined)	420	80
	Herring - Limited access all areas	7	1
	Herring - Limited access area 2 and 3	4	1
	Herring - Limited access incidental	30	6
	Herring - Open access	372	71
	Lobster, trap gear	167	32
	Lobster, non-trap gear	308	59
	Squid/Mackerel/Butterfish	472	90
	Bluefish	514	98
	Dogfish	485	93
	Atl. Deep-Sea Red Crab - Incidental	322	62
	Skate	464	89
	Monkfish - Limited Access	217	41
	Monkfish - Incidental	259	50
Recreational	Multispecies	8	2
	Squid/Mackerel/Butterfish	28	5
	Bluefish	36	7
	Tilefish	18	3
	Lobster	2	<1

Table 51. Descriptive information for the commercial vessels showing revenue reductions in the 5 percent or more range (in 2013) based on 2011 descriptive data from NMFS permit files under quota scenario 3 (most restrictive). No vessel characteristics data are reported for states with fewer than 3 permits.

	CT	DE	MA	MD	NC	NH	NJ	NY	RI	VA	ME	Other
# Permits by Home Port State	9	3	92	8	74	6	108	95	87	36	1	4
# Permits by Principal Port State	10	3	84	8	66	6	115	92	95	43	1	0
# Permits by Mailing Address State	12	3	78	9	67	6	113	88	96	43	4	4
Avg. Length in Feet by Principal Port	65	47	60	51	69	45	60	47	52	67	77	N/A
Avg. GRT by Principal Port	92	18	84	35	95	32	74	44	59	99	157	N/A
Avg. Vessel Horsepower	571	552	459	368	551	301	520	370	408	570	700	N/A
% of Vessels where Home Port State = Principal Port State	100	100	89	100	81	83	95	94	98	86	100	N/A

Table 52. Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under scenario 3 (most restrictive; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
Delaware	Sussex	Various (3 ports)	3
Maryland	Worcester	Ocean City	7
		Various (1 port)	1
Connecticut	New London	Stonington	3
		Various (4 ports)	4
New Hampshire	Rockingham	Various (3 ports)	5
Massachusetts	Bristol	New Bedford	38
		Fairhaven	3
		Various (3 ports)	4
	Barnstable	Woods Hole	3
		Provincetown	3
		Various (5 ports)	6
	Suffolk	Boston	18
	Essex	Gloucester	3
		Various (2 ports)	2
	Plymouth	Various (3 ports)	4
	Dukes	Various (3 ports)	4
New Jersey	Atlantic	Atlantic City	4
		Various (1 port)	1
	Cape May	Cape May	39
		Sea Isle	5
		Various (1 port)	1
	Ocean	Barnegat/Barnegat Light	21
		Point Pleasant	14
		Point Pleasant Beach	3
		Various (3 ports)	4
	Monmouth	Belford	13
		Various (2 ports)	3

Table 52 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under scenario 3 (most restrictive; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
New York	Suffolk	Montauk	43
		Shinnecock	11
		Hampton Bays	4
		Various (7 ports)	8
	Nassau	Freeport	6
		Various (3 ports)	4
	New York	New York	16
		Various (1 port)	1
Rhode Island	Washington	Point Judith	51
		Wakefield	5
		Narragansett	4
		Various (4 ports)	4
	Newport	Newport	10
		Sakonnet Point	6
		Little Compton	4
		Tiverton	3
North Carolina	Hyde	Swan Quarter	10
		Engelhard	3
		Various (1 port)	1
	Dare	Wanchese	19
		Various (4 ports)	6
	Pamlico	Lowland	6
		Various (3 ports)	3
	Craven	New Bern	10
	Carteret	Beaufort	10
	Beaufort	Belhaven	5
		Various (1 port)	1

Table 52 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 3 (most restrictive; in 2013; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2011 NMFS permit files - home ports with fewer than three vessels are not reported - only county-level data supplied; counties with fewer than three vessels are not reported.

State	County	Home port	Number of Vessels
Virginia	City of Norfolk	Norfolk	11
		Various (1 port)	1
	City of Newport News	Newport News	4
	City of Hampton	Hampton	5
	Accomac	Various (2 ports)	3
	York	Seaford	8

To further characterize the potential impacts on indirectly impacted entities and the larger communities within which owners of impacted vessels reside, selected county profiles were constructed based on the impacts of this alternative (see section 8.11.5). In addition to the threshold analysis described above, the Council also analyzed changes in total ex-vessel gross revenue that would occur as a result of the quota alternatives. The 2013 quotas associated with this scenario would decrease summer flounder and black sea bass revenues by approximately $6.39 and 1.98 million, respectively, relative to the quota implemented in 2012 (assuming the same ex-vessel prices presented above). For scup, the 2013 quota would represent a revenue reduction of $2.39 million relative to the 2011 scup landings.

Assuming the decrease in summer flounder, scup, and black sea bass in ex-vessel gross revenues under this scenario were distributed equally among the vessels that landed summer flounder (668), scup (506), and black sea bass (582) in 2011, the average decrease in revenue associated with the decrease in quota is approximately $9,566, $4,723, and $3,402, respectively. The combined overall change in ex-vessel gross revenue associated with summer flounder, scup, and black sea bass commercial quotas under this alternative is an approximately $10.76 million decrease (assuming 2011 ex-vessel prices). If this is distributed among the 861 vessels that landed summer flounder, scup, and black sea bass in 2011, the average decrease in revenue is approximately $12,497/vessel.

The changes in ex-vessel gross revenues associated with the potential changes in landings under this alternative assumed static prices for summer flounder, scup, and black sea bass. Overall, the

projected decrease in summer flounder, scup, and black sea bass landings in 2013 under this scenario will likely result in revenue decrease for vessels participating in those fisheries. However, for example, it is possible that given the potential decrease in landings, price for these species may increase holding all other factors constant. If this occurs, an increase in the price for these species may mitigate some of the revenue losses associated with lower quantity of quota availability.

8.11.3.3.2 Recreational Impacts

The information regarding trends in recreational participation (trends in effort) presented under section 8.11.3.1.2 also apply here.

If summer flounder recreational landings are the same in 2012 as in 2011 (5.96 million lb), the recreational harvest limit under this scenario (6.12 million lb) is expected to constraint recreational landings in 2013. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2013 when compared to 2012. The summer flounder recreational harvest limit under this scenario is likely to maintain the same level of recreational satisfaction for the summer flounder recreational fishery, relative to 2012.

If scup and black sea bass recreational landings are the same in 2012 as in 2011 (3.66 and 1.27 million, respectively), the scup and black sea bass recreational harvest limits under this scenario (3.01 and 1.14 million lb, respectively) are not expected to constrain recreational landings in 2013. As such, it is likely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2013 when compared to 2012. The scup and black sea bass recreational harvest limit under this scenario will likely decrease recreational satisfaction for the scup and black sea bass recreational fisheries, relative to 2012.

At the present time, there is neither behavioral nor demand data available to estimate how sensitive party/charter boat anglers might be to proposed fishing regulations. It is likely that proposed management measures for scup and black sea bass may restrict the recreational fishery for 2013, and these measures may cause some decrease in recreational satisfaction (i.e., low bag limit, larger fish size or closed season).

There is no information regarding how the potential decrease in the recreational harvest limits for these species 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 for scup and black sea bass under this scenario, the demand for party/charter boat trips may be negatively impacted. Some anglers that choose to reduce their effort in 2013 as a consequence of these recreational harvest limits are likely to transfer this effort to alternative species (i.e., 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 alternative 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.

8.11.3.3.3 Other Impacts

Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions

The impacts of these non-quota management measures described in quota scenario 1 above (section 8.11.3.1.3) also apply here.

Effects of the RSA

A detailed discussion regarding the socioeconomic impacts of the RSA for summer flounder, scup, and black sea bass is presented in section 7.4.4.

The impacts of this non-quota management measure described in quota scenario 1 above (see section 8.11.3.1.3) also apply here. However, under this alternative, the commercial RSA component for summer flounder could be worth as much as $510,840 or $765 per individual vessel; $181,665 or $359/vessel for scup; and $108,192 or $186/vessel for black sea bass.

8.11.3.4 Quota Scenario 1 (Preferred 2014)

This quota scenario examines the impacts on industry that would result from the preferred landings limits for summer flounder, scup, and black sea bass. This scenario contains commercial quotas of 11.39, 21.94, 3.90 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 7.60, 7.03, and 4.05 million lb for flounder, scup, and black sea bass, respectively.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 0.5 and 0.3 percent decrease, respectively, in allowable commercial landings and recreational harvest limit relative to the 2013 preferred allocations (Table 25; alternative 1 in 2013). The scup specifications would result in a 6.7 and 7.0 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 119.1 and 120.1 percent increase, respectively, in allowable commercial landings and recreational harvest limit. Note as discussed under section 8.11.1.6, given recent overall scup quota allocations, market conditions, and landings patterns in the fishery, it is assumed that scup landings in 2014 would be close to the landings realized in 2011.

8.11.3.4.1 Commercial Impacts

The results of the threshold analysis are presented in Table 53. The analysis of the harvest levels under this alternative indicate that across all vessel classes, a total of 289 vessels were projected to incur in revenue decrease of <5 percent and 549 vessels were projected to incur in revenue increase relative to 2013. In addition, 23 vessels were projected to incur in no revenue change.

Table 53. Threshold analysis of revenue impacts for participating vessels associated with the 2014 combined summer flounder, scup, and black sea bass quota under scenario 1 (preferred). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 1 (Least Restrictive)				Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction			<5	5-9	10-19	20-29	30-39	40-49	≥50
1	SCP Only	23	0	0	23	0	0	0	0	0	0	0
2	BSB Only	80	0	80	0	0	0	0	0	0	0	0
3	FLK Only	210	0	0	0	210	0	0	0	0	0	0
4	SCP/BSB	90	0	90	0	0	0	0	0	0	0	0
5	SCP/FLK	46	0	0	0	46	0	0	0	0	0	0
6	BSB/FLK	65	0	58	0	7	0	0	0	0	0	0
7	SCP/BSB/FLK	347	0	321	0	26	0	0	0	0	0	0
	Totals	861	0	549	23	289	0	0	0	0	0	0

Impacts of the quotas provisions were examined relative to a vessel's home state as reported on the vessel's permit application (Table 54). "Home state" indicates the state where a vessel is based and primarily ported, and is presumed to reflect where the costs and benefits of management actions return. However, home state is self-reported at the time an individual applies for a federal permit and may not necessarily indicate where the vessel subsequently conducts most of its activity. The number of vessels with revenue reduction of <5 percent by home state ranged from 1 in each Delaware and Connecticut to 51 in Massachusetts (Table 54).

In addition to the threshold analysis described above, the Council also analyzed changes in total ex-vessel gross revenue that would occur as a result of the quota alternatives. The 2014 quotas associated with this scenario would decrease summer flounder and increase black sea bass revenues by approximately $0.1 and $6.8 million, respectively, relative to the relative to the 2013 preferred allocations. Note as discussed under section 8.11.1.6, given recent overall scup quota allocations, market conditions, and landings patterns in the fishery, it is assumed that scup landings in 2014 would be close to the landings realized in 2011. As such, no change in revenue is expected for scup under this scenario.

Table 54. Review of revenue impacts under quota scenario 1 (preferred; associated with the 2014 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	0	7	1	1	0	0	0	0	0	0
DE	3	0	2	0	1	0	0	0	0	0	0
MA	92	0	40	1	51	0	0	0	0	0	0
MD	8	0	5	0	3	0	0	0	0	0	0
NC	74	0	51	0	23	0	0	0	0	0	0
NH	6	0	2	1	3	0	0	0	0	0	0
NJ	108	0	65	1	42	0	0	0	0	0	0
NY	95	0	79	4	12	0	0	0	0	0	0
RI	87	0	73	0	14	0	0	0	0	0	0
VA	36	0	19	0	17	0	0	0	0	0	0
OTHER[a]	5	0	3	0	2	0	0	0	0	0	0
NOT KNOWN[b]	338	0	203	15	120	0	0	0	0	0	0
Total	861	0	549	23	289	0	0	0	0	0	0

[a]States with fewer than 3 vessels were aggregated.
[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed summer flounder (668), the average decrease in revenue associated with the decrease in quota is approximately $162. Assuming the increase in black sea bass ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed black sea bass (582), the average increase in revenue associated with the increase in quota is approximately $11,656. The changes in ex-vessel gross revenues associated with the potential changes in quotas in 2014 versus 2013 assumed static prices for summer flounder, scup, and black sea bass. However, for example, it is possible that given the potential decrease in landings for summer flounder, price for this species may increase holding all other factors constant. If this occurs, an increase in the price for summer flounder may mitigate some of the revenue losses associated with lower quantity of summer flounder quota availability.

8.11.3.4.2 Recreational Impacts

The information regarding trends in recreational participation (trends in effort) presented under section 8.11.3.1.2 also apply here.

If summer flounder, scup, and black sea bass recreational landings are the same in 2013 as in 2011 (5.96, 3.66, and 1.27 million lb, respectively), the recreational harvest limit under this scenario (7.60, 7.03, and 4.05 million lb for summer flounder, scup, and black sea bass, respectively) are expected to constrain recreational landings in 2014. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter

seasons) will be required in 2014 when compared to 2013. The summer flounder, scup, and black sea bass recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2013.

8.11.3.4.3 Other Impacts

Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions

The impacts of these non-quota management measures described in 2013 quota scenario 1 above (section 8.11.3.1.3) also apply here.

Effects of the RSA

A detailed discussion regarding the socioeconomic impacts of the RSA for summer flounder, scup, and black sea bass is presented in section 7.4.4.

The impacts of this non-quota management measure described in 2013 quota scenario 1 above (see section 8.11.3.1.3) also apply here. However, under this alternative, the commercial RSA component for summer flounder could be worth as much as $633,960 or $949 per individual vessel; $373,230 or $738/vessel for scup; and $385,728 or $663/vessel for black sea bass.

8.11.3.5 Quota Scenario 2 (*Status Quo* 2014)

This quota scenario examines the impacts on industry that would result from the *status quo* landings limits for summer flounder, scup, and black sea bass. These are the limits that were implemented in 2012. This scenario contains commercial quotas of 12.73, 27.91, and 1.71 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 8.49, 8.45, and 1.32 million lb for flounder, scup, and black sea bass, respectively. The overall measures under this alternative would provide similar overall fishing opportunities for these fisheries in 2014 when compared to 2012.

8.11.3.5.1 Commercial Impacts

The results of the threshold analysis are presented in Table 55. The analysis of the harvest levels under this alternative indicate that across all vessel classes, a total of 210 vessels were projected to incur a revenue decrease of <5 percent and 628 vessels were projected to incur a revenue increase relative to 2013. In addition, 23 vessels were projected to incur no revenue change.

Table 55. Threshold analysis of revenue impacts for participating vessels associated with the 2014 combined summer flounder, scup, and black sea bass quota under scenario 2 (*status quo*). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 1 (Least Restrictive)				Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction			<5	5-9	10-19	20-29	30-39	40-49	≥50
1	SCP Only	23	0	0	23	0	0	0	0	0	0	0
2	BSB Only	80	0	0	0	80	0	0	0	0	0	0
3	FLK Only	210	0	210	0	0	0	0	0	0	0	0
4	SCP/BSB	90	0	0	0	90	0	0	0	0	0	0
5	SCP/FLK	46	0	46	0	0	0	0	0	0	0	0
6	BSB/FLK	65	0	52	0	13	0	0	0	0	0	0
7	SCP/BSB/FLK	347	0	320	0	27	0	0	0	0	0	0
	Totals	861	0	628	23	210	0	0	0	0	0	0

Impacts of the quotas provisions were examined relative to a vessel's home state as reported on the vessel's permit application (Table 56). "Home state" indicates the state where a vessel is based and primarily ported, and is presumed to reflect where the costs and benefits of management actions return. However, home state is self-reported at the time an individual applies for a federal permit and may not necessarily indicate where the vessel subsequently conducts most of its activity. The number of vessels with revenue reduction of <5 percent by home state ranged from 1 in Connecticut to 18 in each Massachusetts and Connecticut (Table 56).

In addition to the threshold analysis described above, the Council also analyzed changes in total ex-vessel gross revenue that would occur as a result of the quota alternatives. The 2014 quotas associated with this scenario would increase summer flounder and decrease black sea bass revenues by approximately $2.3 and $0.2, respectively, relative to the relative to the 2013 preferred allocations. Note as discussed under section 8.11.1.6, given recent overall scup quota allocations, market conditions, and landings patterns in the fishery, it is assumed that scup landings in 2014 would be close to the landings realized in 2011. As such, no change in revenue is expected for scup under this scenario.

Table 56. Review of revenue impacts under quota scenario 2 (*status quo*; associated with the 2014 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	0	7	1	1	0	0	0	0	0	0
DE	3	0	1	0	2	0	0	0	0	0	0
MA	92	0	73	1	18	0	0	0	0	0	0
MD	8	0	4	0	4	0	0	0	0	0	0
NC	74	0	66	0	8	0	0	0	0	0	0
NH	6	0	3	1	2	0	0	0	0	0	0
NJ	108	0	89	1	18	0	0	0	0	0	0
NY	95	0	74	4	17	0	0	0	0	0	0
RI	87	0	78	0	9	0	0	0	0	0	0
VA	36	0	25	0	11	0	0	0	0	0	0
OTHER[a]	5	0	5	0	0	0	0	0	0	0	0
NOT KNOWN[b]	338	0	203	15	120	0	0	0	0	0	0
Total	861	0	628	23	210	0	0	0	0	0	0

[a]States with fewer than 3 vessels were aggregated.
[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

Assuming the increase in summer flounder ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed summer flounder (668), the average decrease in revenue associated with the decrease in quota is approximately $3,443. Assuming the decrease in black sea bass ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed black sea bass (582), the average increase in revenue associated with the increase in quota is approximately $385.

8.11.3.5.2 Recreational Impacts

The information regarding trends in recreational participation (trends in effort) presented under section 8.11.3.1.2 also apply here.

If summer flounder, scup, and black sea bass recreational landings are the same in 2013 as in 2011 (5.96, 3.66, and 1.27 million lb, respectively), the recreational harvest limit under this scenario (8.49, 8.45, and 1.32 million lb for summer flounder, scup, and black sea bass, respectively) are expected to constrain recreational landings in 2014. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2014 when compared to 2013. The summer flounder, scup, and black sea bass recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2013.

8.11.3.5.3 Other Impacts

Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions

The impacts of these non-quota management measures described in 2013 quota scenario 1 above (section 8.11.3.1.3) also apply here.

Effects of the RSA

Similar impacts as those described under 2013 alternative 2 are expected here.

8.11.3.6 Quota Scenario 3 (Most Restrictive 2014)

This quota scenario examines the impacts on industry that would result from the most restrictive landings limits for summer flounder, scup, and black sea bass. This scenario contains commercial quotas of 9.18, 10.68, and 1.09 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 6.12, 3.01, and 1.14 million lb for flounder, scup, and black sea bass, respectively. These limits are identical to the limits under the 2013 most restrictive quota scenario 3.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 19.8 and 19.7 percent decrease in allowable commercial landings and recreational harvest limit, respectively, relative to the 2013 preferred allocations (Table 25). The scup specifications would result in a 54.6 and 60.2 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 38.8 and 38.0 percent decrease, respectively, in allowable commercial landings and recreational harvest limit.

8.11.3.6.1 Commercial Impacts

The results of the threshold analysis are presented in Table 57. The analysis of the harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 10-19 percent (relative to 2013) for 273 vessels, 20-29 percent for 339 vessels, and 30-39 for 249 vessels. The number of vessels with revenue reduction of ≥ 5 percent by home state ranged from 3 in Delaware to 108 in New Jersey (Table 58).

Table 57. Threshold analysis of revenue impacts for participating vessels associated with the 2014 combined summer flounder, scup, and black sea bass quota under scenario 3 (most restrictive). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 3 (Most Restrictive)				Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (%)						
Class	Landings Combination	Total Vessels	Number of Vessels Impacted by ≥ 5 Reduction			<5	5-9	10-19	20-29	30-39	40-49	≥50
1	SCP Only	23	23	0	0	0	0	2	0	21	0	0
2	BSB Only	80	80	0	0	0	0	0	0	80	0	0
3	FLK Only	210	210	0	0	0	0	210	0	0	0	0
4	SCP/BSB	90	90	0	0	0	0	0	1	89	0	0
5	SCP/FLK	46	46	0	0	0	0	20	24	2	0	0
6	BSB/FLK	65	65	0	0	0	0	14	35	16	0	0
7	SCP/BSB/FLK	347	347	0	0	0	0	27	279	41	0	0
	Totals	861	861	0	0	0	0	273	339	249	0	0

Table 58. Review of revenue impacts under quota scenario 3 (most restrictive; associated with the 2014 combined summer flounder, scup, and black sea bass quotas), by home port state.

State	Participating Vessels	Number of Vessels Impacted ≥5 percent	Increased Revenue (number)	No Change in Revenue (number)	Number of Impacted Vessels by Reduction Percentile (percent)						
					<5	5-9	10-19	20-29	30-39	40-49	≥50
CT	9	9	0	0	0	0	2	6	1	0	0
DE	3	3	0	0	0	0	1	0	2	0	0
MA	92	92	0	0	0	0	46	26	20	0	0
MD	8	8	8	0	0	0	4	0	4	0	0
NC	74	74	0	0	0	0	26	40	8	0	0
NH	6	6	0	0	0	0	3	0	3	0	0
NJ	108	108	0	0	0	0	47	41	20	0	0
NY	95	95	0	0	0	0	12	61	22	0	0
RI	87	87	0	0	0	0	9	64	14	0	0
VA	36	36	0	0	0	0	17	7	12	0	0
OTHER[a]	5	5	0	0	0	0	2	3	0	0	0
NOT KNOWN[b]	338	338	0	0	0	0	104	91	143	0	0
Total	861	861	0	0	0	0	273	339	249	0	0

[a]States with fewer than 3 vessels were aggregated.

[b]Vessels have shown landings of either of those three species in 2011, but did not hold any of the requisite Federal permits in 2011. These vessels may be fishing exclusively in state waters fisheries for those species, and landings are indicated because of reporting requirements for their other Federal permits or they do not hold a Federal permit to participate in these fisheries any longer.

In addition to the threshold analysis described above, the Council also analyzed changes in total ex-vessel gross revenue that would occur as a result of the quota alternatives. The 2014 quotas associated with this scenario would decrease summer flounder and black sea bass revenues by approximately $4.09 and $2.21 million, respectively, relative to the 2013 preferred allocations. For scup, the 2014 quota would represent a revenue reduction of $2.39 million relative to the 2011 scup landings.

Assuming the decrease in summer flounder, scup, and black sea bass in ex-vessel gross revenues under this scenario were distributed equally among the vessels that landed summer flounder (668), scup (506), and black sea bass (582) in 2011, the average decrease in revenue associated with the decrease in quota is approximately $6,123, $4,723, and $3,793, respectively. The combined overall change in ex-vessel gross revenue associated with summer flounder, scup, and black sea bass commercial quotas under this alternative is an approximately $8.69 million decrease (assuming 2011 ex-vessel prices). If this is distributed among the 861 vessels that landed summer flounder, scup, and black sea bass in 2011, the average decrease in revenue is approximately $10,093/vessel.

The rest of the statistics for the impacted vessels under this alternative (permit combinations, descriptive information for the affected commercial vessels, and port/county/state distribution of these entities) is similar to those described under the 2013 quota scenario 3 (also most restrictive 2013 alternative; Tables 49-52). In addition, the community profiles developed under 2031 alternative 3 (section 8.11.5) will also be applicable to this alternative.

8.11.3.6.2 Recreational Impacts

Recreational impacts similar to those described under 2013 quota scenario 3 (section 8.11.3.3.2) are expected here.

8.11.3.6.3 Other Impacts

<u>Effects of Minimum Mesh, Minimum Fish Size, Commercial Trip Limits, and Gear Restrictions</u>

The impacts of these non-quota management measures described in 2013 quota scenario 1 above (section 8.11.3.1.3) also apply here.

<u>Effects of the RSA</u>

Similar impacts as those described under 2013 alternative 3 are expected here.

8.11.4 Summary of Impacts

Quota Scenario 1(Preferred 2013)

In sum, the proposed commercial quota and recreational harvest limit for summer flounder under quota scenario 1 are lower than the limits implemented in 2012 (for black sea bass they are

higher). While the scup commercial quota under this alternative is lower than the limit implemented in 2012, it is assumed that since commercial landings have been considerably lower than both, the proposed quota and quotas implemented in recent years, landings for this species in 2013 would be close to 2011 landings assuming that current market conditions continue. The commercial analysis of the proposed harvest levels under this scenario would incur in losses of more than 5 percent for 496 vessel; revenue gains for 210 vessels and no revue change for 23 vessels that participate in these fisheries relative to 2012. Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario is distributed equally among the vessels that landed summer flounder in 2011, the average decrease in revenue associated with the decrease in quota is approximately $3,449/vessel. For black sea bass an increase in ex-vessel gross revenue of $378/vessel is expected as a result of the higher quota level.

The recreational harvest limits for summer flounder and scup for 2013 are lower when compared to the limits implemented in 2012; for black sea bass the limit is higher. However, the proposed recreational harvest limits will likely maintain recreational satisfaction for all three fisheries given recent recreational landings in these fisheries. It is not anticipated that these measures will result in decrease in the demand for party/charter boat trips or affect angler participation in a negative manner.

The social and economic impacts of RSAs should be minimal. The RSAs are, conceptually, available for commercial vessels to participate in research, as well as for other vessels. Also, the RSAs are expected to yield important long-term benefits associated with improved data upon which to base management decisions.

The summer flounder, scup, and black sea bass landings levels under this scenario are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available and are intended to prevent overfishing. This scenario is projected to minimize the negative economic impacts upon small entities when compared to quota scenario 3. However, it is expected to have negative economic impacts when compared to quota scenario 2 (*status quo*).

Quota Scenario 2 (Status Quo 2013)

In sum, the proposed commercial quotas and recreational harvest limits for summer flounder, scup, and black sea bass under this alternative are identical to the limits implemented in 2012. The analysis of the commercial harvest level under this alternative indicate that the economic impacts ranged from expected revenue increase for 123 vessels to no change in revenue for 738 vessels. Note that even though the summer flounder quota under alternative 2 is the *status quo* measure, the overall 2013 summer flounder quota is 0.4 percent higher than the adjusted quota implemented in 2012 due to overage reduction adjustments in New York in 2012. The potential summer flounder revenue increase associated with this quota scenario is small (about 0.4 percent) and positively impact vessels that land summer flounder only or in a combination of summer flounder with scup and/or black sea bass in the state of New York.

The recreational harvest limits for the summer flounder, scup, and black sea bass are identical to the limits implemented in 2012. The proposed recreational harvest limits will likely maintain recreational satisfaction for all three fisheries given recent recreational landings in these fisheries. It is not anticipated that these measures will result in decrease in the demand for party/charter boat trips or affect angler participation in a negative manner.

The social and economic impacts of RSAs should be minimal. The RSAs are, conceptually, available for commercial vessels to participate in research, as well as for other vessels. Also, the RSAs are expected to yield important long-term benefits associated with improved data upon which to base management decisions.

The measures contained under the *status quo* alternative for summer flounder and scup are higher than the measures recommended by the SSC for ABC and are inconsistent with the Council's risk policy on overfishing. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of these stocks are jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recomemndations for ABC. Overall, it is expected that this scenario would incur in similar socioeconomic impacts when compared to 2012. Across all scenarios, it is expected that this scenario would produce neutral to slightly positive socioeconomic impacts when compared to scenarios 1 and 3.

Quota Scenario 3 (Most Restrictive 2013)

In sum, the proposed commercial quotas and recreational harvest limits for all three species under quota scenario 3 are lower than the limits implemented in 2012. The analysis of the commercial harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 10-19 percent (relative to 2012) for 3 vessels, 20-29 percent for 552 vessels, and 30-39 percent for 306 vessels.

Assuming the decrease in summer flounder, scup, and black sea bass in ex-vessel gross revenues under this scenario were distributed equally among the vessels that landed summer flounder, scup, and black sea bass in 2011, the average decrease in revenue associated with the decrease in quota is approximately $9,566, $4,723, and $3,402/vessel, respectively.

The recreational harvest limits under this scenario are not expected to constraint recreational landings for scup and black sea bass in 2013 given recent recreational landings in these fisheries. However, the summer flounder recreational harvest limit under this scenario is expected to constrain recreational landings in 2013. As such, it is likely that more restrictive limits (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2013 when compared to 2012 for the scup and black sea bass recreational fisheries. The scup and black sea bass recreational harvest limit under this scenario will likely decrease recreational satisfaction for these recreational fisheries, relative to 2012.

Given the substantial decerase in quota under alternative 3 (most restrictive alternative) in 2013 the cost of any premature closure of the fishery (pounds of summer flounder, scup, and black sea

bass allocated for set-aside) would be shared among the non-RSA participants in the fishery. In addition, it is possible that the vessels that will be used by researchers will not be vessels that have traditionally fished for these species. As such, permit holders that land this species during a period where the quota has been reached and the fishery closed could be disadvantaged.

The landings limits for all three species under this scenario may be more restrictive than necessary given the recommendations of the SSC and the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee for 2013 and would be expected to have the lowest risk of overfishing. This scenario will produce greater negative socioeconomic impacts when compared to quota scenarios 1 and 2.

It is important to stress that discussion for all three scenarios presented above are merely potential changes, i.e., based on available data and assumptions made in order to conduct this analysis. Actual changes in revenue will likely vary. This variation would occur for several reasons, including impacts undetermined for unidentifiable vessels, revenues earned or lost due to possession limits and seasons set by a state to manage sub-allocations of quota, and other reductions in 2013 (and 2014 below; i.e., overages) that were not accounted for here.

Quota Scenario 1(Preferred 2014)

In sum, the proposed commercial quota and recreational harvest limit for summer flounder under quota scenario 1 are lower than the preferred 2013 allocations (for black sea bass they are higher). While the scup commercial quota under this alternative is lower than the preferred limit for 2013, it is assumed that since commercial landings have been considerably lower than both, the proposed quota and quotas implemented in recent years, landings for this species in 2014 would be close to 2011 landings assuming that current market conditions continue. The commercial analysis of the proposed harvest levels under this scenario would incur in losses <5 percent for 289 vessel; revenue gains for 549 vessels and no revue change for 23 vessels that participate in these fisheries relative to 2013. Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario is distributed equally among the vessels that landed summer flounder in 2011, the average decrease in revenue associated with the decrease in quota is approximately $162/vessel. For black sea bass an increase in ex-vessel gross revenue of $11,656/vessel is expected as a result of the higher quota level.

The recreational harvest limits for summer flounder and scup for 2013 are lower when compared to the limits implemented in 2013; for black sea bass the limit is higher. However, the proposed recreational harvest limits will likely maintain recreational satisfaction for all three fisheries given recent recreational landings in these fisheries. It is not anticipated that these measures will result in decrease in the demand for party/charter boat trips or affect angler participation in a negative manner.

The social and economic impacts of RSAs should be minimal. The RSAs are, conceptually, available for commercial vessels to participate in research, as well as for other vessels. Also, the RSAs are expected to yield important long-term benefits associated with improved data upon which to base management decisions.

The measures for summer flounder and scup under this alternative are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available, and are expected to continue to prevent overfishing. However, the measures for black sea bass are higher than the recommendations of the SSC and could result in negative impacts on the managed resource and negative social and economic impacts as the health of the black sea bass resource could be jeopardized.

Quota Scenario 2 (Status Quo 2014)

In sum, the proposed commercial quotas and recreational harvest limits for summer flounder, scup, and black sea bass under this alternative are identical to the limits implemeneted in 2012. The proposed commercial quota and recreational harvest limit for summer flounder and scup under quota scenario 2 are higher than the preferred 2013 allocation (for black sea bass they are lower). While the scup commercial quota under alternative 1 is higher than the preferred limit for 2013, it is assumed that since commercial landings have been considerably lower than both, the proposed quota and quotas implemented in recent years, landings for this species in 2014 would be close to 2011 landings assuming that current market conditions continue. The analysis of the commercial harvest level under this alternative indicate that the economic impacts ranged from expected revenue increase for 628 vessels to revenue decrease of <5 percent for 210 vessels. In addition, 23 vessels were projected to incur no change in revenue.

The proposed recreational harvest limits will likely maintain recreational satisfaction for all three fisheries given recent recreational landings in these fisheries. It is not anticipated that these measures will result in decrease in the demand for party/charter boat trips or affect angler participation in a negative manner.

The social and economic impacts of RSAs should be minimal. The RSAs are, conceptually, available for commercial vessels to participate in research, as well as for other vessels. Also, the RSAs are expected to yield important long-term benefits associated with improved data upon which to base management decisions.

The measures contained under the *status quo* alternative for summer flounder and scup are higher than the measures recommended by the SSC for ABC and are inconsistent with the Council's risk policy on overfishing. As such, it is possible that negative social and economic impacts could occur in the future if overfishing occurs and the sustainability of these stocks are jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recomemndations for ABC.

Quota Scenario 3 (Most Restrictive 2014)

In sum, the proposed commercial quotas and recreational harvest limits for all three species under quota scenario 3 are lower than the the preferred 2013 allocations. The analysis of the commercial harvest levels under this scenario indicate that the economic impacts from expected

revenue losses on the order of 10-19 percent (relative to 2013) for 273 vessels, 20-29 percent for 339 vessels, and 30-39 percent for 249 vessels.

Assuming the decrease in summer flounder, scup, and black sea bass in ex-vessel gross revenues under this scenario were distributed equally among the vessels that landed summer flounder, scup, and black sea bass in 2011, the average decrease in revenue associated with the decrease in quota is approximately $6,123, $4,723, and $3,793/vessel, respectively.

RSA and recreational impacts similar to those described under 2013 quota scenario 3 are expected here.

The measures contained under this alternative are substantially lower than the recommendation of the SSC and would be expected to have the lowest risk of overfishing. Conversely, these measures will be expected to result in the greatest negative social and economic impacts in 2013.

8.11.5 Other Impacts

County Impacts

To further characterize the potential impacts on indirectly impacted entities and the larger communities where owners of impacted vessels reside, selected county profiles are typically constructed. Each profile is based on impacts under the most restrictive quota scenario because it would identify the maximum number possible and thus include the broadest possible range of counties in the analysis. The following criteria was employed to derive the range of counties profiled: a) the number of vessels with revenue losses exceeding 5 percent per county was either greater than 4, or b) all vessels with losses exceeding 5 percent in a given state were from the same home county. It is expected that this system will allow for a county profile that may include a wide range of potentially affected areas.

Counties are typically selected as the unit of observation because a variety of secondary economic and demographic statistical data were available from several different sources. Limited data are available for place names (i.e., by town or city name) but in most instances reporting is too aggregated or is not reported due to confidentiality requirements. Reported statistics include demographic statistics, employment, and wages.

Based on these criteria, a total of 26 counties were identified to be impacted in 2012: Sussex, DE; Worcester, MD; New London, CT; Rockingham, NH; Bristol, Barnstable, Suffolk, and Essex, MA; Atlantic, Cape May, Ocean, and Monmouth, NJ; Suffolk, Nassau, and New York, NY; Washington and Newport, RI; Hyde, Dare, Pamlico, Craven, Carteret, and Beaufort, NC; City of Norfolk, City of Hampton, and York, VA. Counties not included in this analysis (e.g., Plymouth and Dukes, MA; City of Newport New and Accomac, VA; Fairfield, CT, Queens, NY; City of Suffolk, VA, Philadelphia, PA, Kent, RI, and Nantucket, MA) did not meet the criteria specified, i.e., there were less than 5 impacted vessels per county, or all impacted vessels in a state were not home ported within the same county. The target counties were identified based on the county associated with the vessels homeport as listed in the owner's 2011 permit application.

Table 59 details population sizes, employment, personal income, and the contribution of commercial fishing and sea food processing to total personal income for selected counties. Counties presented correspond to the counties identified as impacted due to the management measures evaluated (i.e., as described in the above paragraph). Data presented in Table 59 were obtained from data bases supplied by the Minnesota IMPLAN Group for the calendar year 2001.

Of the counties identified, the percentage of total personal income derived from commercial fishing sales and from seafood processing was less than 1 percent for all counties. These data indicate that each of the identified counties in Table 59 is not substantially dependent upon sales of commercial fishing products to sustain the county economies. Population in these counties ranged from 6 thousand in Hyde County to 1.5 million in New York County. Additional information on "Community Profiles for the Northeast US Fisheries" can be found at http://www.nefsc.noaa.gov/read/socialsci/community_profiles/.

Table 59. Counties identified as having >= 4 commercial vessels showing revenue reductions of 5 percent or more as a consequence of the most restrictive quota scenario (2013 quota scenario 3) evaluated in this document (section 8.11.3.3).

State	County[a]	Population[b]	Employment[c]	Total Personal Income[d] (million of $'s)	Commercial Fishing Employment	Percent of Personal Income Derived From Comm. Fishing	Fresh and Frozen Seafood Processing Employment	Percent of Personal Income derived From Seafood Processing
DE	Sussex	161,270	85,726	3,733.21	*	*	248	.20%
MD	Worcester	48,084	32,443	1,306.08	405	.14%	46	.09%
CT	New London	259,065	163,257	8,634.74	122	.01%	0	0%
NH	Rockingham	297,350	198,585	13,821.32	481	.0004%	255	.0012%
MA	Brtistol	540,360	269,977	15,730.40	3,232	.64%	917	.19%
MA	Barnstable	226,809	132,491	8,159.31	793	.08%	0	.0008%
MA	Suffolk	682,062	703,540	29,633.35	447	.07%	494	.09%
MA	Essex	730,296	391,367	27,580.29	1,325	.06%	858	.18%
NJ	Atlantic	255,479	166,252	8,063.50	79	.02%	0	0%
NJ	Cape May	102,352	55,562	3,209.74	796	.34%	294	.30%
NJ	Ocean	527,207	187,627	15,742.25	166	.04%	0	0%
NJ	Monmouth	622,977	326,491	26,192.23	52	.01%	23	.002%
NY	Suffolk	1,438,973	752,834	52,116.44	1,111	.01%	0	0%
NY	Nassau	1,334,648	761,530	63,524.34	198	.0039%	84	.0029%
NY	New York	1,541,150	2,768,774	144,033.30	0	0%	23	.0013%
RI	Washington	125,991	62,870	4,212.16	793	.46%	96	.11%
RI	Newport	85,218	52,334	3,009.40	239	.14%	0	0%
VA	City of Norfolk	233,147	236,953	5,479.15	0	0%	52	.04%
VA	City of Hampton	145,665	88,495	3,273.93	0	0%	98	.25%
VA	York	61,027	31,018	2,477.92	19	.01%	0	0%
NC	Hyde	5,703	3,135	117.10	126	.56%	129	1.8%
NC	Pamlico	12,929	4,396	295.07	173	.50%	150	.83%
NC	Craven	91,316	59,316	2,382.08	0	0%	*	*
NC	Carteret	59,901	32,131	1,603.17	431	.08%	64	.14%
NC	Beaufort	45,224	23,503	1,022.68	15	.08%	245	.34%
NC	Dare	31,168	25,453	830.10	77	.08%	17	.01%

* = < 10 observations.

a = Data obtained from the Minnesota IMPLAN Group, Inc., IMPLAN System (data and software), 1725 Tower Drive West, Suite 140, Stillwater, MN 55082, www.implan.com, 2001.

b = Year-round population.

c = Includes both full-time and part-time workers.

d = Includes employee compensation (wage and salary payments and benefits paid by employers) and proprietary income (payments received by self-employed individuals as income).

Source: Scott Steinback (NEFSC).

Note: The PA module was not available to conduct the county profile for that state. However, it is expected that overall commercial fishing employment; percent of personal income derived from commercial fishing; fresh and frozen seafood processing employment percent of personal; and income derived from seafood processing are expected to be low and not higher than the highest values presented in this table due to the small amount of marine commercial fishing activity in that state.

9.0 ESSENTIAL FISH HABITAT ASSESSMENT

Summer flounder, scup, and black sea bass have EFH designated in many of the same bottom habitats that have been designated as EFH for most of the MAFMC, New England Fishery Management Council, South Atlantic Fishery Management Council, and NMFS Highly Migratory Species Division managed species. The specific identification and description of summer flounder, scup, and black sea bass EFH is detailed in section 3.2 of Amendment 13 to the FMP (MAFMC 2002). A brief description of habitats that are important to summer flounder, scup, and black sea bass are described in section 6.2 of this document.

9.1 Description of Action

The purpose of the proposed action is to implement specifications for the summer flounder, scup, and black sea bass fisheries that are necessary to prevent overfishing and not exceed the ACLs. Under the preferred measures for 2013, the commercial quota would decrease by 10.1 and 15.7 percent for summer flounder and scup, respectively, and increase by 4.1 percent for black sea bass. Under the preferred measures for 2014, relative to preferred 2013 quotas, the commercial quota would decrease by 0.5 percent and 6.7 percent for summer flounder and scup, respectively. A full description of the action proposed in this annual specifications document is provided in section 5.0. Under the EFH Final Rule, "Councils must act to prevent, mitigate, or minimize any adverse effect from fishing, to the extent practicable, if there is evidence that a fishing activity adversely affects EFH in a manner that is more than minimal and not temporary in nature..." Because of the narrow scope of this annual specifications document, and the fact that any action taken (annual management measures) is consistent with the current regulations implementing the FMP, the effects of fishing on EFH have not been re-evaluated since they were analyzed in Amendment 13, and no alternatives to minimize adverse effects on EFH are presented.

9.2 Analysis of Potential Adverse Effects on EFH

Bottom trawls are used in the commercial fishery to harvest all three species. Although trawls can adversely impact EFH for federally-managed species within the affected environment for this action, the decreased commercial quotas for summer flounder and scup are unlikely to increase bottom trawling activity and increase adverse impacts to benthic EFH. Section 7.0 describes potential impacts of *status quo* or increased quotas on fishing effort, and associated potential impacts on habitat and EFH. Assuming bottom trawling for summer flounder or scup does increase in 2013 and 2014, the areas which would be subjected to increased disturbance are already fished by mobile, bottom-tending gear used in this and other fisheries, so the additional impact that could result from an increase would be minimal and not require any mitigation. In addition, Warden (2011) suggests that trawling activity has decreased overall in recent years. The proposed commercial quotas for black sea bass are not expected to cause any increased impacts to EFH.

10.0 LITERATURE CITED

(Literature cited in the appendices only can be found in their respective appendix).

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11.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this specifications document, the Council consulted with NMFS, New England and South Atlantic Fishery Management Councils, 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. To ensure compliance with NMFS formatting requirements, the advice of NMFS NERO personnel was sought.

Copies of the specifications document, including the Environmental Assessment and Initial Regulatory Flexibility 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

APPENDIX A

Table 1. Essential Fish Habitat descriptions for summer flounder, scup, and black sea bass by life stage.

Species	Life Stage	EFH Description
Summer Flounder	Eggs	1) North of Cape Hatteras, EFH is the pelagic waters found over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of the all the ranked ten-minute squares for the area where summer flounder eggs are collected in the MARMAP survey. 2) South of Cape Hatteras, EFH is the waters over the Continental Shelf (from the coast out to the limits of the EEZ), from Cape Hatteras, North Carolina to Cape Canaveral, Florida, to depths of 360 ft. In general, summer flounder eggs are found between October and May, being most abundant between Cape Cod and Cape Hatteras, with the heaviest concentrations within 9 miles of shore off New Jersey and New York. Eggs are most commonly collected at depths of 30 to 360 ft.
	Larvae	1) North of Cape Hatteras, EFH is the pelagic waters found over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares for the area where summer flounder larvae are collected in the MARMAP survey. 2) South of Cape Hatteras, EFH is the nearshore waters of the Continental Shelf (from the coast out to the limits of the EEZ), from Cape Hatteras, North Carolina to Cape Canaveral Florida, in nearshore waters (out to 50 miles from shore). 3) Inshore, EFH is all the estuaries where summer flounder were identified as being present (rare, common, abundant, or highly abundant) in the ELMR database, in the "mixing" (defined in ELMR as 0.5 to 25.0 ppt) and "seawater" (defined in ELMR as greater than 25 ppt) salinity zones. In general, summer flounder larvae are most abundant nearshore (12-50 miles from shore) at depths between 30 to 230 ft. They are most frequently found in the northern part of the Mid-Atlantic Bight from September to February, and in the southern part from November to May.
	Juveniles	1) North of Cape Hatteras, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares for the area where juvenile summer flounder are collected in the NEFSC trawl survey. 2) South of Cape Hatteras, EFH is the waters over the Continental Shelf (from the coast out to the limits of the EEZ) to depths of 500 ft, from Cape Hatteras, North Carolina to Cape Canaveral, Florida. 3) Inshore, EFH is all of the estuaries where summer flounder were identified as being present (rare, common, abundant, or highly abundant) in the ELMR database for the "mixing" and "seawater" salinity zones. In general, juveniles use several estuarine habitats as nursery areas, including salt marsh creeks, seagrass beds, mudflats, and open bay areas in water temperatures greater than 37 oF and salinities from 10 to 30 ppt range.
	Adults	1) North of Cape Hatteras, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares for the area where adult summer flounder are collected in the NEFSC trawl survey. 2) South of Cape Hatteras, EFH is the waters over the Continental Shelf (from the coast out to the limits of the EEZ) to depths of 500 ft, from Cape Hatteras, North Carolina to Cape Canaveral, Florida. 3) Inshore, EFH is the estuaries where summer flounder were identified as being common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Generally summer flounder inhabit shallow coastal and estuarine waters during warmer months and move offshore on the outer Continental Shelf at depths of 500 ft in colder months.

Scup	Eggs	EFH is estuaries where scup eggs were identified as common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. In general scup eggs are found from May through August in southern New England to coastal Virginia, in waters between 55 and 73 oF and in salinities greater than 15 ppt.
	Larvae	EFH is estuaries where scup were identified as common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. In general scup larvae are most abundant nearshore from May through September, in waters between 55 and 73 oF and in salinities greater than 15 ppt.
	Juveniles	1) Offshore, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares of the area where juvenile scup are collected in the NEFSC trawl survey. 2) Inshore, EFH is the estuaries where scup are identified as being common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Juvenile scup, in general during the summer and spring are found in estuaries and bays between Virginia and Massachusetts, in association with various sands, mud, mussel and eelgrass bed type substrates and in water temperatures greater than 45 oF and salinities greater than 15 ppt.
	Adults	1) Offshore, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares of the area where adult scup are collected in the NEFSC trawl survey. 2) Inshore, EFH is the estuaries where scup were identified as being common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Generally, wintering adults (November through April) are usually offshore, south of New York to North Carolina, in waters above 45 oF.
Black Sea Bass	Eggs	EFH is the estuaries where black sea bass eggs were identified in the ELMR database as common, abundant, or highly abundant for the "mixing" and "seawater" salinity zones. Generally, black sea bass eggs are found from May through October on the Continental Shelf, from southern New England to North Carolina.
	Larvae	1) North of Cape Hatteras, EFH is the pelagic waters found over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all ranked ten-minute squares of the area where black sea bass larvae are collected in the MARMAP survey. 2) EFH also is estuaries where black sea bass were identified as common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Generally, the habitats for the transforming (to juveniles) larvae are near the coastal areas and into marine parts of estuaries between Virginia and New York. When larvae become demersal, they are generally found on structured inshore habitat such as sponge beds.
	Juveniles	1) Offshore, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked squares of the area where juvenile black sea bass are collected in the NEFSC trawl survey. 2) Inshore, EFH is the estuaries where black sea bass are identified as being common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Juveniles are found in the estuaries in the summer and spring. Generally, juvenile black sea bass are found in waters warmer than 43 oF with salinities greater than 18 ppt and coastal areas between Virginia and Massachusetts, but winter offshore from New Jersey and south. Juvenile black sea bass are usually found in association with rough bottom, shellfish and eelgrass beds, man-made structures in sandy-shelly areas; offshore clam beds and shell patches may also be used during the wintering.
	Adults	1) Offshore, EFH is the demersal waters over the Continental Shelf (from the coast out to the limits of the EEZ), from the Gulf of Maine to Cape Hatteras, North Carolina, in the highest 90% of all the ranked ten-minute squares of the area where adult black sea bass are collected in the NEFSC trawl survey. 2) Inshore, EFH is the estuaries where adult black sea bass were identified as being common, abundant, or highly abundant in the ELMR database for the "mixing" and "seawater" salinity zones. Black sea bass are generally found in estuaries from May through October. Wintering adults (November through April) are generally offshore, south of New York to North Carolina. Temperatures above 43 oF seem to be the minimum requirements. Structured habitats (natural and man-made), sand and shell are usually the substrate preference.

Table 2. Essential Fish Habitat descriptions for federally-managed species/life stages in the U.S. Northeast Shelf Ecosystem that are vulnerable to bottom tending fishing gear.

Species	Life Stage	Geographic Area of EFH	Depth (meters)	Bottom Type
American plaice	juvenile	GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay	45 - 150	Fine grained sediments, sand, or gravel
American plaice	adult	GOM, including estuaries from Passamaquoddy Bay to Saco Bay, ME and from Massachusetts Bay to Cape Cod Bay	45 - 175	Fine grained sediments, sand, or gravel
Atlantic cod	juvenile	GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	25 - 75	Cobble or gravel
Atlantic cod	adult	GOM, GB, eastern portion of continental shelf off SNE, these estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	10 - 150	Rocks, pebbles, or gravel
Atl halibut	juvenile	GOM and GB	20 - 60	Sand, gravel, or clay
Atl halibut	adult	GOM and GB	100 - 700	Sand, gravel, or clay
Barndoor skate	juvenile/ adult	Eastern GOM, GB, SNE, Mid-Atlantic Bight to Hudson Canyon	l0-750, most < 150	Mud, gravel, and sand
Black sea bass	juvenile	GOM to Cape Hatteras, NC, including estuaries from Buzzards Bay to Long Island Sound, Gardiners Bay, Barnegat Bay to Chesapeake Bay, Tangier/ Pocomoke Sound, and James River	1 - 38	Rough bottom, shellfish/ eelgrass beds, manmade structures, offshore clam beds, and shell patches
Black sea bass	adult	GOM to Cape Hatteras, NC, including Buzzards Bay, Narragansett Bay, Gardiners Bay, Great South Bay, Barnegat Bay to Chesapeake Bay, and James River	20 - 50	Structured habitats (natural and manmade), sand and shell substrates preferred
Clearnose skate	juvenile/ adult	GOM, along continental shelf to Cape Hatteras, NC, including the estuaries from Hudson River/Raritan Bay south to the Chesapeake Bay mainstem	0 – 500, most < 111	Soft bottom and rocky or gravelly bottom
Haddock	juvenile	GB, GOM, and Mid-Atlantic south to Delaware Bay	35 - 100	Pebble and gravel
Haddock	adult	GB, eastern side of Nantucket Shoals, and throughout GOM	40 - 150	Broken ground, pebbles, smooth hard sand, and smooth areas between rocky patches
Little skate	juvenile/ adult	GB through Mid-Atlantic Bight to Cape Hatteras, NC; includes estuaries from Buzzards Bay south to mainstem Chesapeake Bay	0-137, most 73 - 91	Sandy or gravelly substrate or mud
Ocean pout	eggs	GOM, GB, SNE, and Mid-Atlantic south to Delaware Bay, including the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay and Cape Cod Bay	<50	Generally sheltered nests in hard bottom in holes or crevices
Ocean pout	juvenile	GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts Bay, and Cape Cod Bay	< 50	Close proximity to hard bottom nesting areas
Ocean pout	adult	GOM, GB, SNE, Mid-Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay, MA Bay, Boston Harbor, and Cape Cod Bay	< 80	Smooth bottom near rocks or algae
Pollock	adult	GOME, GB, SNE, and Mid-Atlantic south to New Jersey and the following estuaries: Passamaquoddy Bay, Damariscotta R., MA Bay, Cape Cod Bay, Long Island Sound	15 – 365	Hard bottom habitats including artificial reefs

Species	Life Stage	Geographic Area of EFH	Depth (meters)	Bottom Type
Red hake	juvenile	GOM, GB, continental shelf off SNE, and Mid-Atlantic south to Cape Hatteras, including the following estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, and Chesapeake Bay	< 100	Shell fragments, including areas with an abundance of live scallops
Red hake	adult	GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras, these estuaries: Passamaquoddy Bay to Saco Bay, Great Bay, MA Bay to Cape Cod Bay; Buzzards Bay to CT River, Hudson River, Raritan Bay, Delaware Bay, and Chesapeake Bay	10 - 130	In sand and mud, in depressions
Redfish	juvenile	GOM, southern edge of GB	25 - 400	Silt, mud, or hard bottom
Redfish	adult	GOM, southern edge of GB	50 - 350	Silt, mud, or hard bottom
Rosette skate	juvenile/ adult	Nantucket shoals and southern edge of GB to Cape Hatteras, NC	33-530, most 74-274	Soft substrate, including sand/mud bottoms
Scup	juvenile/ adult	GOM to Cape Hatteras, NC, including the following estuaries: MA Bay, Cape Cod Bay to Long Island Sound, Gardiners Bay to Delaware inland bays, and Chesapeake Bay	0-38 for juv 2-185 for adult	Demersal waters north of Cape Hatteras and inshore estuaries (various substrate types)
Silver hake	juvenile	GOM, GB, continental shelf off SNE, Mid-Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Casco Bay, ME, MA Bay to Cape Cod Bay	20 – 270	All substrate types
Summer Flounder	juvenile/ adult	GOM to Florida – estuarine and over continental shelf to shelf break	0-250	Demersal/estuarine waters, varied substrates. Mostly inshore in summer and offshore in winter.
Smooth skate	juvenile/ adult	Offshore banks of GOM	31–874, most 110-457	Soft mud (silt and clay), sand, broken shells, gravel and pebbles
Thorny skate	juvenile/ adult	GOM and GB	18-2000, most 111-366	Sand, gravel, broken shell, pebbles, and soft mud
Tilefish	juvenile/ adult	Outer continental shelf and slope from the U.S./Canadian boundary to the Virginia/North Carolina boundary	100 - 300	Burrows in clay (some may be semi-hardened into rock)
White hake	juvenile	GOM, southern edge of GB, SNE to Mid-Atlantic and the following estuaries: Passamaquoddy Bay, ME to Great Bay, NH, Massachusetts Bay to Cape Cod Bay	5 - 225	Seagrass beds, mud, or fine grained sand
Winter flounder	adult	GB, inshore areas of GOM, SNE, Mid- Atlantic south to Delaware Bay and the estuaries from Passamaquoddy Bay, ME to Chincoteague Bay, VA	1 - 100	Mud, sand, and gravel
Winter skate	juvenile/ adult	Cape Cod Bay, GB, SNE shelf through Mid-Atlantic Bight to North Carolina; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 371, most < 111	Sand and gravel or mud
Witch flounder	juvenile	GOM, outer continental shelf from GB south to Cape Hatteras	50 - 450 to 1500	Fine grained substrate
Witch flounder	adult	GOME, outer continental shelf from GB south to Chesapeake Bay	25 - 300	Fine grained substrate
Yellowtail flounder	adult	GB, GOM, SNE and Mid-Atlantic south to Delaware Bay and these estuaries: Sheepscot River and Casco Bay, ME, MA Bay to Cape Cod Bay	20 - 50	Sand or sand and mud