2014 and 2015 Summer Flounder, Scup, and Black Sea Bass Specifications
Environmental Assessment
Initial Regulatory Flexibility Analysis

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Prepared by the
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 2014 and 2015 that are necessary to prevent overfishing and 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 (2014 and 2015).

The proposed actions in this specifications document would only modify the commercial quotas and recreational harvest limits for summer flounder in 2014, establish the summer flounder, scup, and black sea bass commercial quotas and recreational harvest limits for 2015 (Box ES-1), and modify the Winter II possession limit for the scup commercial fishery (Box ES-2). 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 2014 and 2015 fishing years (see section 5.5 for additional discussion).

Specifications were previously implemented for 2014 for all three plan species (77 FR 76942); however, this action proposes to revise the summer flounder commercial quota and recreational harvest limit based on the results of a new stock assessment. In 2014, the no action/*status quo* alternative is equivalent to the previously implemented 2014 specifications. Under the FMP, the no action alternatives for summer flounder, scup, and black sea bass in 2015 are not equivalent to the *status quo*. If the actions proposed for 2015 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 2014. The "true" no action alternative for each fishery in 2015 would result in no specifications and unlimited fishing, which is infeasible and inconsistent with the Magnuson-Stevens Fishery Conservation and Management Act (MSA); therefore, the no action alternatives for 2015 are presented in section 5.5 of this document but not analyzed further. For comparison purposes, the 2015 alternatives in this specifications document are compared to the *status quo* alternatives (baseline) as opposed to the "true" no action alternatives. For 2015, the *status quo* baseline is the combination of previously implemented specifications for 2014 (i.e., the 2014 no action/*status quo* alternative). These previously implemented 2014 measures were analyzed in the specifications Environmental Assessment (EA) prepared in December 2012 (MAFMC 2012) for summer flounder and scup, and the supplemental EA prepared in May 2013 (MAFMC 2013) for black sea bass.

The Council and Atlantic States Marine Fisheries Commission's Summer Flounder, Scup and Black Sea Bass Board (Board) met in December 2013 to adopt 2014 recreational management measures after reviewing more complete data regarding 2013 recreational landings. 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 2014 and 2015 (Box ES-1). For purposes of impact evaluation, alternatives for both 2014 and 2015 are compared to the 2014 no action/status quo alternative, which is equivalent to the previously implemented 2014 specifications. As previously discussed, the "true no action" alternative for each species in 2015 is presented in section 5.5 but is not analyzed. The "most restrictive" alternatives for 2014 and 2015 are included to provide context to the preferred alternatives, and include 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).

Box ES-1. Summary of the 2014 and 2015 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
2014	**Alternative 1** (Preferred)	**Summer flounder**	0.54	10.51	7.01
		Scup	0.90	21.95	7.03
		Black sea bass	0.14	2.17	2.26
	Alternative 2 (Non-Preferred: No Action/*Status quo*)	**Summer flounder**	0.59	11.39	7.59
		Scup	0.90	21.95	7.03
		Black sea bass	0.14	2.17	2.26
	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
2015	**Alternative 1** (Preferred)	**Summer flounder**	0.55	10.74	7.16
		Scup	0.84	20.60	6.60
		Black sea bass	0.14	2.17	2.26
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	0.59	11.39	7.59
		Scup	0.90	21.95	7.03
		Black sea bass	0.14	2.17	2.26
	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

Box ES-2. Summary of the scup commercial fishery alternatives analyzed in this specifications document.	
Alternatives	**Scup Winter II Possession Limit**
Alternative 1 (No Action/*Status quo*)	2,000 lb (increases at 1,500 lb intervals for every 500,000 lb of scup quota transferred from Winter I to Winter II)
Alternative 2 (Preferred)	12,000 lb (increases at 1,500 lb intervals for every 500,000 lb of scup quota transferred from Winter I to Winter II)

2014 Quota Alternatives

Overall, preferred alternative 1 is expected to result in biological impacts on the managed resources and non-target species that range from neutral to slightly positive in 2014, when compared to the no action/status quo (2014 alternative 1; Box ES-3). Alternative 1 represents a decrease in landings limits for summer flounder, and no change for scup black sea bass when compared to the no action/status quo. This alternative 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 2014, given measures that are slightly higher for 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 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.

Preferred alternative 1 is expected to result in habitat impacts that range from neutral to slightly positive in 2014 when compared to the no action/status quo, to the extent that decreased or unchanged quotas result in decreased or unchanged contact time of fishing gear with habitat. Alternative 2, depending upon whether fishing effort increases or decreases and results in increasing or decreasing contact time of fishing gear with habitat, is expected to result in habitat impacts that range from slightly negative to slightly positive in 2014 (2014 alternative 1; Box ES-3). 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 no action/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 1, and alternative 2.

Given the range of potential impacts on Endangered Species Act (ESA)-listed and Marine Mammal Protection Act (MMPA) protected resources, preferred alternative 1 is expected to result in impacts on ESA-listed and MMPA protected resources that range from neutral to slightly positive in 2014, when compared to the no action/status quo (2014 alternative 1; Box ES-3). Non-preferred alternative 2 is expected to result in overall impacts on ESA-listed and MMPA protected resources that range from neutral to slightly negative in 2014. 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 2014, when

compared to the no action/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 1, and alternative 2.

Under preferred alternative 1, it is expected that social and economic impacts will range from negative (due to decreasing quotas for summer flounder) to neutral (due to no change in quota for scup and black sea bass) in 2014, when compared to the no action/status quo (2014 alternative 1; Box ES-3). Under non-preferred alternative 2 (no action/status quo) it is expected that impacts will range from neutral to positive 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 no action/status quo. Ranking these three alternatives from more likely to less likely to result in overall positive impacts, they rank as alternative 2, alternative 1, and alternative 3.

Box ES-3. Overall qualitative summary of the expected impacts of various summer flounder, scup, and black sea bass alternatives considered in this document for 2014 and 2015. 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
2014	**Alternative 1** (Preferred)	**Summer flounder**	0/sl+	0/sl+	0/sl+	-	-
		Scup	0	0	0	0	0
		Black sea bass	0	0	0	0	0
	Alternative 2 (Non-Preferred: No Action/*Status quo*)	**Summer flounder**	0/sl-	0	0	0	0
		Scup	0/sl+	0/sl-	0/sl-	0	0
		Black sea bass	0/sl+	0	0	0/+L	0/+L
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	+	+	+	-	-
		Scup	+	+	+	-	-
		Black sea bass	+	+	+	-	-
2015	**Alternative 1** (Preferred)	**Summer flounder**	0/sl+	0/sl+	0/sl+	-	-
		Scup	0	0	0	0	0
		Black sea bass	0	0	0	0	0
	Alternative 2 (Non-Preferred: *Status quo*)	**Summer flounder**	0	0	0	0	0
		Scup	0	0	0	0	0
		Black sea bass	0	0	0	0	0
	Alternative 3 (Non-Preferred: Most Restrictive)	**Summer flounder**	+	+	+	-	-
		Scup	+	+	+	-	-
		Black sea bass	+	+	+	-	-

2015 Quota Alternatives

Overall, preferred alternative 1 is expected to result in biological impacts on the managed resources and non-target species that range from neutral to slightly positive in 2015, when

compared to the status quo (2015 alternative 1; Box ES-3). Alternative 1 represents a decrease in landings limits for summer flounder, and no change for scup black or sea bass when compared to the status quo. This alternative 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 are neutral in 2015, when compared to the status quo. Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall biological impacts that are positive for 2015, when compared to the status quo. This 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.

Preferred alternative 1 is expected to result in habitat impacts that range from neutral to slightly positive in 2015 when compared to the status quo, to the extent that decreased or unchanged quotas result in decreased or unchanged contact time of fishing gear with habitat. Alternative 2, equivalent to the 2014 no action/status quo alternative, is expected to result in habitat impacts that are neutral in 2015 when compared to the status quo (2015 alternative 2; Box ES-3). Non-preferred alternative 3 is the most restrictive alternative, and is expected to have overall habitat impacts that are positive for 2015, 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 1, and alternative 2.

Given the range of potential impacts on Endangered Species Act (ESA)-listed and Marine Mammal Protection Act (MMPA) protected resources, preferred alternative 1 is expected to result in impacts on ESA-listed and MMPA protected resources that range from neutral to slightly positive in 2015, when compared to the status quo (2015 alternative 1; Box ES-3). Non-preferred alternative 2 is expected to result in overall impacts on ESA-listed and MMPA protected resources that are neutral when compared to the status quo. 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 2015, 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 1, and alternative 2.

Under preferred alternative 1, it is expected that social and economic impacts will range from negative (due to decreasing quotas for summer flounder) to neutral (due to no change in quota for scup and black sea bass) in 2015, when compared to the status quo (2015 alternative 1; Box ES-3). Under non-preferred alternative 2 (status quo) it is expected that social and economic impacts will be neutral when compared to existing impacts. 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 2, alternative 1, and alternative 3.

Research Set-Aside

Under both Research Set-Aside (RSA) alternatives for 2014, RSA would be implemented in 2014. Alternative 1A (no action/*status quo*) proposes that RSA levels in 2014 remain at the levels previously implemented (up to 3% of the previously implemented TAL for each species). Alternative 2B proposes revised 2014 RSA levels for summer flounder, consistent with the preferred quota alternative in 2014 (2014 alternative 1).

For 2014, under either alternative 1A or 1B, all summer flounder, scup, and black sea bass landings count against the overall quotas regardless of the specific level of RSA implemented; therefore, the biological impacts of alternatives 1A and 1B in 2014 would not change relative to 2013. Under both alternatives for 2014, 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.

For 2015, under alternative 2A (No Action/No Research Set-Aside) and alternative 2B (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 2A and 2B in 2015 would not change relative to 2013. However under alternative 2B, 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.

For both 2014 and 2015, under any of the proposed alternatives, all summer flounder, scup, and black sea bass landings count against the overall quotas regardless of whether RSA is implemented, or the specific level of RSA; therefore, the impacts on protected and endangered resources and habitat are not expected to change relative to 2013, as none of the alternatives are 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.

For 2014, under both alternatives 1A and 1B, RSA would be specified. Thus, both alternatives 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.

For 2015, under non-preferred alternative 2A, 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 2B, 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-4.

Box ES-4. Overall qualitative summary of the expected impacts of summer flounder, scup, and black sea bass research set-aside measures considered in this document for 2014 and 2015. 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. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+).

Year	Alternatives	Environmental Dimensions				
		Biological	EFH	Protected Resources	Economic	Social
2014	**Alternative 1A** (No Action/Previously implemented RSA)	+	0	0	0/+	0/+
	Alternative 1B (Preferred; Revised RSA)	+	0	0	0/+	0/+
2015	**Alternative 2A** (No Action/No Research Set-Aside)	0	0	0	0	0
	Alternative 2B (Preferred; Specify RSA/*Status quo*)	+	0	0	0/+	0/+

Scup Winter II Possession Limit

Non-preferred alternative 1 (*status quo*) includes no changes to the Winter II possession limit for the scup commercial fishery, and is expected to result in no changes to fishery effort or the manner in which the commercial Winter II fishery is prosecuted. Thus, alternative 1 is expected to result in neutral impacts to the managed resource, non-target species, habitat, and ESA-listed and MMPA protected species, as well as neutral social and economic impacts.

Preferred alternative 2 proposes to increase the Winter II possession limit for the scup commercial fishery, and is expected to result in biological, habitat, and impacts to ESA-listed and MMPA protected species that are slightly negative to slightly positive when compared to the *status quo*. This is because the increased possession limit under alternative 2 may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential interactions with habitat, non-target species, and ESA-listed and MMPA protected species, resulting in slight positive impacts. However, given that the commercial fishery has not achieved their target in recent years, an increased possession limit may provide an economic incentive for fishermen to take more overall trips or hauls during the Winter II period, potentially resulting in associated impacts to habitat, non-target species, and ESA-listed and MMPA protected species that are slightly negative. Positive social and economic impacts are expected under alternative 2.

Box ES-5. Overall qualitative summary of the expected impacts of scup Winter II possession limit alternatives considered in this document. 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. A "sl" in front of a sign is used to convey a minor effect, such as slight positive (sl+).

Alternatives	Environmental Dimensions				
	Biological	**EFH**	**Protected Resources**	**Economic**	**Social**
Alternative 1 (No Action)	0	0	0	0	0
Alternative 2 (Preferred; Revised RSA)	sl-/sl+	sl-/sl+	sl-/sl+	+	+

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
ACT	Annual Catch Target
ALWTRP	Atlantic Large Whale Take Reduction Plan
AM	Accountability Measure
ASMFC	Atlantic States Marine Fisheries Commission or Commission
BMSY	Biomass at Maximum Sustainable Yield
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
FMSY	Fishing Mortality Rate at Maximum Sustainable Yield
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GARFO	Greater Atlantic Regional Fisheries Office (formerly Northeast Regional Office/NERO)
HPTRP	Harbor Porpoise Take Reduction Plan
IRFA	Initial Regulatory Flexibility Analysis
LNG	Liquefied Natural Gas
LOF	List of Fisheries
MAFMC	Mid-Atlantic Fishery Management Council
MMPA	Marine Mammal Protection Act
MFMT	Maximum Fishing Mortality Threshold
MRFSS	Marine Recreational Fisheries Statistical Survey
MRIP	Marine Recreational Information Program
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
MT	Metric tons
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	Optimum Yield
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RHL	Recreational Harvest Limit
RIR	Regulatory Impact Review
RSA	Research Set-Aside
SARC	Stock Assessment Review Committee

SAW	Stock Assessment Workshop
SBA	Small Business Administration
SSB	Spawning Stock Biomass
SSBMSY	Spawning Stock Biomass at Maximum Sustainable Yield
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

4.1 PURPOSE AND NEED OF THE ACTION

The purpose of this action (specifications document) is to revise commercial quotas and recreational harvest limits for the summer flounder fishery in 2014, and to propose commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries in 2015. 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 the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ). This document was also developed in accordance with 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 and subsequent amendments, available at: http://www.mafmc.org/sf-s-bsb/.

4.2 THE SPECIFICATIONS PROCESS

The MSA requires each Council's Scientific and Statistical Committee (SSC) to provide recommendations for acceptable biological catch (ABC), prevention of 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 Monitoring Committees (MCs) established in the FMP for each managed resource are responsible for developing recommendations for the Council on the management measures necessary to achieve the recommended catch limits, including annual catch targets (ACTs) for each species. A memo from the SSC chairman to the Council chair, dated September 23, 2013 (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 for the October 2013 Council Meeting (available at http://www.mamfc.org) detail the Monitoring Committee recommendations for ACTs that account for management uncertainty, and other recommended changes to management measures for the commercial fishery. An overview of the SSC and MC recommendations is provided below.

The SSC identified an overfishing limit (OFL) for summer flounder of 26.76 million lb (12,138 mt). 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 (as defined in the Council's ABC control rule framework) and recommended an ABC for 2014 of 21.94 million lb (9,950 mt), based on a projected biomass at 82% percent of B_{MSY}, a probability of overfishing (P*) = 0.360, and a lognormal OFL distribution with a coefficient of variation (CV)

[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).

= 60 percent. The ABC for 2015 is calculated by first re-projecting the stock size based on the assumption that the ABC is taken in the preceding year. For 2015, this results in an OFL of 27.06 million lb (12,275 mt), to which the Council risk policy is applied to derive a 2015 ABC of 22.77 million lb (10,329 mt). The sum of the recreational and commercial ACLs are equal to the ABC; therefore, based on the allocation precepts of the FMP and information about each sectors contribution to dead discards from the stock assessment, the 2014 commercial ACL is 12.87 million lb and the recreational ACL is 9.07 million lb. For 2015, the commercial ACL is 13.34 million lb and the recreational ACL is 9.44 million lb. The Monitoring Committee recommended that the recreational and commercial ACTs be set equal to their respective ACLs.

For scup, three-year specifications (2013-2015) were recommended by the Council and Board in 2012. Although this recommendation was for fishing years 2013 through 2015, only the 2013 and 2014 fishing years were analyzed in the Environmental Assessment (specifications document) prepared in Fall 2012, and implemented via final rule on December 31, 2012. Thus, scup specifications for 2015 are presented and analyzed in this document. Based on the recommendations of the SSC and Monitoring Committee, the Council and Board recommended no changes to the previously implemented scup catch and landings limits for 2014 and the previously recommended specifications for 2015. The 2013 ABC for scup was 38.71 million lb (17,557 mt), 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. The 2014 and 2015 scup specifications were derived by applying a constant fishing mortality rate to the 2013 ABC, resulting in a 2014 ABC of 35.99 million lb (16,325 mt), and a 2015 ABC of 33.78 mil lb (15,320 mt). In 2014, the commercial ACL is 28.07 million lb and the recreational ACL is 7.92 million lb, and in 2015, the commercial ACL is 26.34 million lb and the recreational ACL is 7.43 million lb. The Monitoring Committee recommended the recreational and commercial ACTs be set equal to their respective ACLs for both 2014 and 2015.

For black sea bass, specifications for 2013 (revised) and 2014 were recommended by the Council and Board in February of 2013, based on updated recommendations from the SSC following their January 2013 meeting (documentation available at http://www.mafmc.org). The SSC designated black sea bass as a Level 4 stock assessment, and recommended a constant catch level of 5.5 million lb for the ABC in 2013-2014. In October of 2013, the Council and Board recommended extending these same specifications into 2015, based on the September 2013 recommendations of the SSC. For 2013-2015, the black sea bass commercial ACL is 2.60 million lb and the recreational ACL is 2.90 million lb. The Monitoring Committee recommended the recreational and commercial ACTs be set equal to the respective ACLs.

After consideration of the SSC and Monitoring Committee's recommendations, the Council has developed recommendation to the NMFS Greater Atlantic 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 Fisheries Commission (Commission), the Commission's Summer Flounder, Scup, and Black Sea Bass Board typically adopts complementary measures. The Council met jointly with the Board in October 2013 and recommended complementary management measures for 2014 and 2015.

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 2014 and 2015. For 2014, commercial quotas and recreational harvest limits have already been implemented for all three species. However, this action is necessary to revise the 2014 summer flounder specifications, consistent with new best available scientific information from a new stock assessment (NEFSC 2013). Given the interrelated, multi-species nature of the three fisheries, catch and landings limits for scup and black sea bass were included with each alternative for 2014 to allow for a more complete analysis of impacts. The 2014 preferred alternative thus differs from the no action/*status quo* alternative only in the recreational harvest limit and commercial quota for summer flounder. For scup and black sea bass, both the preferred and the no action/*status quo* alternatives in 2014 include the previously implemented commercial quotas and recreational harvest limits. For 2015, the true "no action" alternative is not equivalent to the *status quo* (see sections 5.0 and 5.5 for further discussion), and the baseline against which the alternatives are evaluated (alternative 2; *status quo*) is equivalent to the previously implemented 2014 commercial quotas and recreational harvest limits (the 2014 no action/*status quo* alternative). For both 2014 and 2015, alternative 3 (non-preferred; most restrictive) uses the most restrictive commercial quotas and recreational harvest limits from recent years (2008 measures for summer flounder, 2010 measures for scup, and 2009 measures for black sea bass). A full description of each alternative for 2014 and 2015, including a discussion of a no action alternative, is given in section 5.0. The preferred alternative (specified at the October 2013 Council meeting), a *status quo* alternative, and any additional alternatives under consideration are provided. These recommendations and their impacts are described in section 7.0.

5.0 MANAGEMENT ALTERNATIVES

The alternatives described below modify the specifications for the summer flounder fishery in 2014, and propose specifications for the summer flounder, scup, and black sea bass fisheries in 2015.

For the 2014 fishing year, specifications have been previously implemented for all three species. Based on the results of a 2013 benchmark stock assessment for summer flounder, the Council has recommended revised 2014 summer flounder commercial and recreational ACLs and ACTs (from which commercial quotas and recreational harvest limits are derived). These recommendations are consistent with the recommendations of the Council's SSC and Monitoring Committee. Although the Council did not recommend changes to the previously implemented 2014 scup and black sea bass specifications, alternatives for 2014 include these species for analysis purposes.

For the 2015 fishing year, the Council recommended commercial and recreational ACLs and ACTs for summer flounder, scup, and black sea bass based on recommendations of the Council's SSC and Monitoring Committee (see section 4.1).

The Council additionally recommended an increase in the scup commercial possession limit for the Winter II fishing period (November and December). The Council did not recommend other changes to regulations in place for these fisheries; therefore, any other fishery management measures in place will remain unchanged (*status quo*) for the 2014 and 2015 fishing years (see section 5.5 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 Greater Atlantic Regional Fisheries Office (formerly Northeast Regional Office/NERO) of NMFS: http://www.nero.noaa.gov/nero/regs/.

Because specifications are already in place for summer flounder, scup, and black sea bass for the 2014 fishing year, the 2014 no action alternative is equivalent to the previously implemented 2014 catch and landings limits. However, for 2015, 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. This is because there are currently no quotas and harvest limits for these species in the regulations for 2015, and these measures do not roll over from one year to the next (see section 5.5 for additional discussion). Therefore, for purposes of comparing impacts throughout this document, the proposed alternatives for each species are compared to the no action/*status quo* alternative for 2014, and to the *status quo* alternative (baseline) in 2015 (as opposed to the "true" 2015 no action alternative).

The Council's comprehensive system of catch limits and accountability measures (AMs) was first implemented in 2012, and has been applied in the Council recommendations for 2014 and 2015 contained in this document. This system considers both scientific and management uncertainty, and is designed to ensure that recreational and commercial catches 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 2014 and 2015 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 the non-preferred, most restrictive alternatives, only commercial quotas and recreational harvest limits are provided, as the system of annual catch limits was recently implemented and historical ABCs, ACLs, or ACTs for those years do not exist or cannot be derived. Given that 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 (including 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 2014 and 2015 specifications final rule. Adjustments to the commercial quotas may be made to account for 2013 overages and/or transfers or to account for overages and/or transfers from the 2012 fishery that were not previously accounted for in the 2013 specifications final rule. RSA projects for fishing year 2014 and 2015 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 2014 and 2015 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 2014 summer flounder, scup, and black sea bass alternatives and associated catch and landings limits (million lb).

	Summer Flounder			Scup			Black Sea Bass		
	Alternative 1 (Preferred)	**Alternative 2** (No Action/ *Status Quo*)	**Alternative 3** (Most Restrictive)[b]	**Alternative 1** (Preferred)	**Alternative 2** (No Action/ *Status Quo*)	**Alternative 3** (Most Restrictive)[b]	**Alternative 1** (Preferred)	**Alternative 2** (No Action/ *Status Quo*)	**Alternative 3** (Most Restrictive)[b]
ABC	21.94	22.24	NA	35.99	35.99	NA	5.50	5.50	NA
Recreational ACL	9.07	10.19	NA	7.92	7.92	NA	2.90	2.90	NA
Commercial ACL	12.87	12.05	NA	28.07	28.07	NA	2.60	2.60	NA
Recreational Discards (at ACL)[a] (% of Rec. ACL)	1.84 (20.3%)	2.36 (23.2%)	NA	0.67 (8.5%)	0.67 (8.5%)	NA	0.57 (19.7%)	0.57 (19.7%)	NA
Commercial Discards (at ACL)[a] (% of Comm. ACL)	2.03 (15.8%)	0.31 (2.6%)	NA	5.45 (19.4%)	5.45 (19.4%)	NA	0.37 (14.2%)	0.37 (14.2%)	NA
Recreational ACT	9.07	10.19	NA	7.92	7.92	NA	2.90	2.90	NA
Commercial ACT	12.87	12.05	NA	28.07	28.07	NA	2.60	2.60	NA
pre-RSA Rec. Harvest Limit	7.22	7.83	6.31	7.25	7.25	3.10	2.33	2.33	1.17
pre-RSA Comm. Quota	10.84	11.74	9.46	22.62	22.62	11.01	2.24	2.24	1.13
Rec. RSA	0.22	0.23	0.19	0.22	0.22	0.09	0.07	0.07	0.04
Comm. RSA	0.33	0.35	0.28	0.68	0.68	0.33	0.07	0.07	0.03
Rec. Harvest Limit	**7.01**	**7.59**	**6.12**	**7.03**	**7.03**	**3.01**	**2.26**	**2.26**	**1.14**
Comm. Quota	**10.51**	**11.39**	**9.18**	**21.95**	**21.95**	**10.68**	**2.17**	**2.17**	**1.09**

[a] For summer flounder, projected discards are split based on the prior three-year average percentage of discards by sector. Changes in the estimation methodology for commercial discards in the 2013 stock assessment (SAW/SARC 57) resulted in significant changes to the proportions of discards by sector, which accounts for the difference in the discard split when comparing Alternatives 1 and 2. [b] For Alternative 3 (Most Restrictive), only commercial quotas, recreational harvest limits, and RSA are provided, as the system of annual catch limits was recently implemented and historical ABCs, ACLs, or ACTs for those years do not exist or cannot be derived.

Table 2. Comparison of the 2015 summer flounder, scup, and black sea bass alternatives and associated catch and landings limits (million lb).

	Summer Flounder			Scup			Black Sea Bass		
	Alternative 1 (Preferred)	**Alternative 2** (*Status Quo*)	**Alternative 3** (Most Restrictive)[b]	**Alternative 1** (Preferred)	**Alternative 2** (*Status Quo*)	**Alternative 3** (Most Restrictive)[b]	**Alternative 1** (Preferred)	**Alternative 2** (*Status Quo*)	**Alternative 3** (Most Restrictive)[b]
ABC	22.77	22.24	NA	33.78	35.99	NA	5.50	5.50	NA
Recreational ACL	9.44	10.19	NA	7.43	7.92	NA	2.90	2.90	NA
Commercial ACL	13.34	12.05	NA	26.34	28.07	NA	2.60	2.60	NA
Recreational Discards (at ACL)[a] (% of Rec. ACL)	2.06 (21.8%)	2.36 (23.2%)	NA	0.63 (8.5%)	0.67 (8.5%)	NA	0.57 (19.7%)	0.57 (19.7%)	NA
Commercial Discards (at ACL)[a] (% of Comm. ACL)	2.27 (17.0%)	0.31 (2.6%)	NA	5.11 (19.4%)	5.45 (19.4%)	NA	0.37 (14.2%)	0.37 (14.2%)	NA
Recreational ACT	9.44	10.19	NA	7.43	7.92	NA	2.90	2.90	NA
Commercial ACT	13.34	12.05	NA	26.34	28.07	NA	2.60	2.60	NA
pre-RSA Rec. Harvest Limit	7.38	7.83	6.31	6.80	7.25	3.10	2.33	2.33	1.17
pre-RSA Comm. Quota	11.07	11.74	9.46	21.23	22.62	11.01	2.24	2.24	1.13
Rec. RSA	0.22	0.23	0.19	0.20	0.22	0.09	0.07	0.07	0.04
Comm. RSA	0.33	0.35	0.28	0.64	0.68	0.33	0.07	0.07	0.03
Rec. Harvest Limit	**7.16**	**7.59**	**6.12**	**6.60**	**7.03**	**3.01**	**2.26**	**2.26**	**1.14**
Comm. Quota	**10.74**	**11.39**	**9.18**	**20.60**	**21.95**	**10.68**	**2.17**	**2.17**	**1.09**

[a] For summer flounder, projected discards are split based on the prior three-year average percentage of discards by sector. Changes in the estimation methodology for commercial discards in the 2013 stock assessment (SAW/SARC 57) resulted in significant changes to the proportions of discards by sector, which accounts for the difference in the discard split when comparing Alternatives 1 and 2. [b] For Alternative 3 (Most Restrictive), only commercial quotas, recreational harvest limits, and RSA are provided, as the system of annual catch limits was recently implemented and historical ABCs, ACLs, or ACTs for those years do not exist or cannot be derived.

5.1 Quota Alternatives for 2014 (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 2014. For summer flounder it includes an ABC of 21.94 million lb. This ABC is 82 percent of the OFL, is associated with a 36 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 12.87 million lb, and a recreational ACL and recreational ACT both equal to 9.07 million lb. After deducting discards (1.84 mil lb recreational; 2.03 mil lb commercial), the pre-RSA recreational harvest limit is 7.22 million lb, and the pre-RSA commercial quota is 10.84 million lb. After deducting the Council approved maximum 3 percent RSA for summer flounder in 2014 (541,740 lb total), the adjusted commercial quota is 10.51 million lb and the adjusted recreational harvest limit is 7.01 million lb (Table 1). State commercial shares would range from 48 lb to 2.88 million lb in 2014 (Table 3).

Table 3. 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**	4,998	5,417	4,364
NH	**0.00046**	48	52	42
MA	**6.82046**	716,816	776,788	625,859
RI	**15.68298**	1,648,248	1,786,147	1,439,102
CT	**2.25708**	237,214	257,061	207,114
NY	**7.64699**	803,683	870,922	701,703
NJ	**16.72499**	1,757,761	1,904,823	1,534,719
DE	**0.01779**	0	0	0
MD	**2.0391**	214,305	232,235	187,112
VA	**21.31676**	2,240,347	2,427,783	1,956,069
NC	**27.44584**	2,884,500	3,125,829	2,518,485
Total[a]	**100**	**10,509,790**	**11,389,082**	**9,176,200**

[a]Total quota is the summation of all states having allocation. Delaware has an allocation of zero (0) in 2014 due to an ongoing overage from previous years greater than the quota allocated to Delaware for 2014.

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 (0.67 mil lb recreational; 5.45 mil lb commercial), the pre-RSA recreational harvest limit is 7.25 million lb, and the pre-RSA commercial quota is 22.62 million lb. After deducting RSA for scup in 2014

(896,130 lb total), the commercial quota is 21.95 million lb and recreational harvest limit is 7.03 million lb.

Framework Adjustment 3 (68 FR 62250) 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 2014.

		Adjusted Quota (million lb)		
Period	**Percent Allocation**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Annual	100	21.95	21.95	10.68
Winter I (Jan-April)	45.11	9.90	9.90	4.82
Summer (May-Oct)	38.95	8.55	8.55	4.16
Winter II (Nov-Dec)	15.94	3.50	3.50	1.70

For black sea bass, this alternative includes an ABC of 5.50 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 2.60 million lb, and a recreational ACL and recreational ACT both equal to 2.90 million lb. After deducting discards (0.57 mil lb recreational; 0.37 mil lb commercial), the pre-RSA recreational harvest limit is 2.33 million lb, and the pre-RSA commercial quota is 2.24 million lb. After deducting RSA for black sea bass in 2014 (136,950 lb), the recreational harvest limit is 2.26 million lb and the commercial quota is 2.17 million lb.

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

The 2014 no action/*status quo* alternative includes measures that were previously implemented for summer flounder, scup, and black sea bass for the 2014 fishing year.

For summer flounder, after deducting discards (2.36 mil lb recreational; 0.31 mil lb commercial), the pre-RSA recreational harvest limit is 7.83 million lb, and the pre-RSA commercial quota is 11.74 million lb. After deducting the Council approved maximum 3 percent RSA in 2014 (587,100 lb), the recreational harvest limit is 7.59 million lb and the commercial quota is 11.39 million lb for 2014 (Table 1). The state commercial shares for this alternative would range from 52 lb to 3.13 million lb in 2014 (Table 3). For scup, after deducting discards (0.67 mil lb recreational; 5.45 mil lb commercial), the pre-RSA recreational harvest limit is 7.25 million lb and the pre-RSA commercial quota is 22.62 million lb. After deducting a 2014 RSA of 896,130 lb, the recreational harvest limit is 7.03 million lb and the commercial quota is 21.95 million lb for 2014 (Table 1). The current scup period allocation formula remains unchanged as detailed in Table 4. For black sea bass, after deducting discards (0.57 mil lb recreational; 0.37 mil lb

commercial), the pre-RSA recreational harvest limit is 2.33 million lb, and the pre-RSA commercial quota is 2.24 million lb. After deducting RSA for black sea bass in 2014 (136,950 lb), the recreational harvest limit is 2.26 million lb and the commercial quota is 2.17 million lb (Table 1).

5.1.3 Alternative 3 (Non-Preferred: Most Restrictive)

The most restrictive alternative for 2014 includes the lowest commercial quotas and recreational harvest limits in the summer flounder time series (2008), the lowest in the most recent four years for scup (2010), and the lowest in the time series for black sea bass (2009). For alternative 3, only commercial quotas, recreational harvest limits, and RSA are provided, as the system of annual catch limits was recently implemented and historical ABCs, ACLs, or ACTs for those years do not exist or cannot be derived.

For summer flounder, after deducting the Council approved maximum 3 percent RSA in 2014 (473,100 lb), the commercial quota is 9.18 million lb and the recreational harvest limit is 6.12 million lb. The state commercial shares for this alternative would range from 42 lb to 2.52 million lb in 2014 (Table 3). For scup, after deducting a 2014 RSA of 423,300 lb, the commercial quota is 10.68 million lb and the recreational harvest limit is 3.01 million lb. The current scup period allocation formula remains unchanged as detailed in Table 4. For black sea bass, after deducting a 2014 RSA of 69,000 lb, the commercial quota is 1.09 million lb and recreational harvest limit is 1.14 million lb (Table 1).

5.2 Quota Alternatives for 2015 (Summer Flounder, Scup, and Black Sea Bass)

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 2015. For summer flounder it includes an ABC of 22.77 million lb. This ABC is calculated by assuming that the ABC will be taken in the previous year, using this presumed catch to update estimates of spawning stock biomass and the OFL, and then applying the Council's risk policy to derive the 2015 ABC. The Council and the Council's SSC expect that this alternative will ensure that overfishing does not occur. This alternative also includes a commercial ACL and commercial ACT both equal to 13.34 million lb, and a recreational ACL and recreational ACT both equal to 9.44 million lb. After deducting discards (2.06 mil lb recreational; 2.27 mil lb commercial), the pre-RSA recreational harvest limit is 7.38 million lb, and the pre-RSA commercial quota is 11.07 million lb. After deducting the Council approved maximum 3 percent RSA for summer flounder in 2015 (553,440 lb), the recreational harvest limit is 7.16 million lb and the commercial quota is 10.74 million lb (Table 2). State commercial shares would range from 49 lb to 2.95 million lb in 2015 (Table 5).

For scup, this includes an ABC of 33.78 million lb. This ABC is based on the fishing mortality rate associated with the 2014 ABC as projected for 2015, 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 26.34 million lb, and a recreational ACL and recreational ACT both equal to 7.43 million lb. After deducting discards (0.63 mil lb recreational; 5.11 mil lb commercial), the pre-RSA recreational harvest limit is 6.80 million lb,

and the pre-RSA commercial quota is 21.23 million lb. After deducting the RSA for scup in 2014 (840,990 lb), the recreational harvest limit is 6.60 million lb and the commercial quota is 20.60 million lb (Table 2).

Framework Adjustment 3 (68 FR 62250) 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. 2015 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**	5,106	5,417	4,364
NH	**0.00046**	49	52	42
MA	**6.82046**	732,306	776,788	625,859
RI	**15.68298**	1,683,865	1,786,147	1,439,102
CT	**2.25708**	242,340	257,061	207,114
NY	**7.64699**	821,049	870,922	701,703
NJ	**16.72499**	1,795,745	1,904,823	1,534,719
DE	**0.01779**	0	0	0
MD	**2.0391**	218,936	232,235	187,112
VA	**21.31676**	2,288,759	2,427,783	1,956,069
NC	**27.44584**	2,946,832	3,125,829	2,518,485
Total[a]	**100**	**10,736,897**	**11,389,082**	**9,176,200**

[a]Total quota is the summation of all states having allocation. Delaware has an allocation of zero (0) in 2015 due to an ongoing overage from previous years 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 2015.

		Adjusted Quota (million lb)		
Period	**Percent Allocation**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Annual	100	20.60	21.95	10.68
Winter I (Jan-April)	45.11	9.29	9.90	4.82
Summer (May-Oct)	38.95	8.02	8.55	4.16
Winter II (Nov-Dec)	15.94	3.28	3.50	1.70

For black sea bass, this alternative includes an ABC of 5.50 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 2.60 million lb, and a recreational ACL and recreational ACT both equal to 2.90 million lb. After deducting discards (0.57 mil lb recreational; 0.37 mil lb commercial), the pre-RSA recreational harvest limit is 2.33 million lb, and the pre-RSA commercial quota is 2.24 million lb. After deducting the RSA for black sea bass in 2014 (136,950 lb), the commercial quota is 2.17 million lb and recreational harvest limit is 2.26 million lb (Table 2).

5.2.2 Alternative 2 (Non-Preferred: Status quo)

The 2015 *status quo* alternative for summer flounder, scup, and black sea bass includes the currently implemented measures for 2014, and this alternative is the same as described under 2014 no action/*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 2015 is the same as described under 2014 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 Summer Flounder, Scup, and Black Sea Bass FMP (66 FR 42156) 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 Research Set-Aside (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 research set-aside amount may vary between 0 and 3% of each species' quota. For those species that have both a commercial quota and a recreational harvest limit, the set-aside calculation shall be made from the combined total allowable landing level.

5.3.1 2014 Research Set-Aside Alternatives

5.3.1.1 Alternative 1A (2014 Non-preferred: No-Action)

Under the no action alternative for 2014, RSA would remain at levels previously implemented for summer flounder, scup, and black sea bass in 2014. These RSA amounts are equivalent to 3 percent of the previously implemented 2014 landings levels for each species, resulting in an RSA of 587,100 lb for summer flounder, 896,130 lb for scup, and 136,950 lb for black sea bass.

5.3.1.2 Alternative 1B (2014 Preferred: Research Set-Asides consistent with revised 2014 recommendations)

The Council has recommended that 3-percent of the 2014 summer flounder, scup, and black sea bass quotas, or 541,740 lb (246 mt), 896,130 lb (406 mt), 136,950 lb (62 mt), respectively, be set-aside to fund projects selected under the 2014 Mid-Atlantic RSA Program. Although the project selection and award process has not concluded, 2 projects have been preliminarily selected for funding. If any portion of the RSA quota is not awarded, NMFS will return any un-awarded set-aside amount to the commercial and recreational fisheries either through the 2014 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.

In order to expedite the implementation of the 2014 Mid-Atlantic RSA Program, the environmental impact of this program and one of the selected projects is analyzed in this document. The research activities of Project #1 will be evaluated under a separate NEPA analysis 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 Magnuson-Stevens Act 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.

Federally permitted vessels harvesting RSA 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 and seasonal 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 2014 Mid-Atlantic RSA program will be received through the 2014 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 RSA quota. Vessels harvesting RSA quota would operate within all other regulations that govern the fishery, unless otherwise exempted through a separate permit. Because RSA quota is deducted from the available DAH, 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.

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

<u>Project #1</u>: 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 bottom trawl survey in shallow waters between Martha's Vineyard, MA and Cape Hatteras, NC. The project investigators plan to provide data that will enhance stock assessments for Mid-Atlantic RSA species, including summer flounder, scup, black sea bass, longfin squid, butterfish, Atlantic bluefish, and spiny dogfish 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 five 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 five 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 five general zones will include sites off of Massachusetts, Rhode Island, New York, New Jersey, and Virginia. This configuration 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, 20 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 seasons 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.

5.3.2 2015 Research Set-Aside Alternatives

5.3.2.1 Alternative 2A (2015 Non-preferred: No Research Set-Aside/No-Action)

Under this alternative, no RSA will be implemented for summer flounder, scup, or black sea bass in 2015. Thus, the commercial quotas and recreational harvest limits would not be adjusted downward for the RSAs.

5.3.2.2 Alternative 2B (2015 Preferred: Specify Research Set-Asides)

The Council has recommended that up to 3 percent of the 2015 summer flounder, scup, and black sea combined commercial and recreational landings levels be set-aside to fund projects selected under the 2015 Mid-Atlantic RSA Program. A 3 percent set-aside as applied to the preferred 2015 landings levels is equivalent to 553,440 lb for summer flounder, 840,990 lb for scup, and 136,950 lb, respectively. The project selection and award process for the 2015 program will occur later in 2014.

5.4 Scup Winter II Possession Limit

5.4.1 Alternative 1 (Non-Preferred: No Action/*Status quo*)

The *status quo* alternative consists of a scup commercial Winter II period possession limit of 2,000 lb. If a transfer of quota occurs between Winter I and Winter II, the Winter II possession limit increases at 1,500 lb intervals for every 500,000 lb of scup quota transferred.

5.4.2 Alternative 2 (Preferred)

The preferred alternative consists of an increase in the current Winter II period possession limit to 12,000 lb. The Council did not recommend any changes to the rollover provision described in the *status quo* alternative (Section 5.4.1).

5.5 "True" No-Action Alternatives – (Summer Flounder, Scup, and Black Sea Bass in 2015)

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 2015 specifications for summer flounder, scup, and black sea bass, 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 each fishing year, currently implemented for 2013 and 2014. There are no "roll-over" provisions currently for these three fisheries provided for in the FMP. Thus, if the proposed 2015 summer flounder, scup, or black sea bass specifications are not implemented for one or all of these fisheries by January 1, 2015, that fishery/or fisheries will operate without an identified cap on allowable catch and landings for 2015. Therefore, because of the subtleties in the management program for each FMP species, the no action alternative in 2015 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 2014.

For the purposes of this EA, the no action alternative in 2015 for summer flounder, scup, and black sea bass is defined as follows: (1) no 2015 proposed specifications for the summer flounder, scup, or black sea bass fisheries 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 will be allocated for these species in 2015; and (4) there will be 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 2015 no action alternative, the only regulatory controls on fishing effort and harvests would be the indefinite measures.[1] No commercial quota or recreational harvest limit, which determine the maximum amount of summer flounder, scup, and black sea bass landings allowable before the commercial or recreational fishery are closed, would be implemented for 2015.

The implications of the no action alternative for summer flounder, scup, and black sea bass in 2015 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 alternative in 2015 is not considered reasonable. Therefore, it is not analyzed further in the EA. Therefore, the 2015 alternatives proposed are compared to 2015 alternative 2, which is equivalent to the *status quo* alternative (baseline) as opposed to the "true" no action alternatives described above. For 2015, the *status quo* alternative (baseline) is equivalent to the previously implemented 2014 measures (equivalent to the 2014 "no action/*status quo*" alternative).

[1] Comprehensive descriptions of the regulations as detailed in the CFR are available through the website for the GARFO (formerly 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*) consists of 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 of Amendment 13 to the FMP (MAFMC 2002) and are also outlined by principal port in section 3.4 of that document. Updated information, including landings trends and stock status, is provided below.

Otter trawls are utilized in the commercial fisheries for all three species. In addition, floating traps and pots/traps are used 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; for years prior to 2004) and Marine Recreational Information Program (MRIP; for years 2004 to present) 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, and the landings amounts are listed in Table 7.

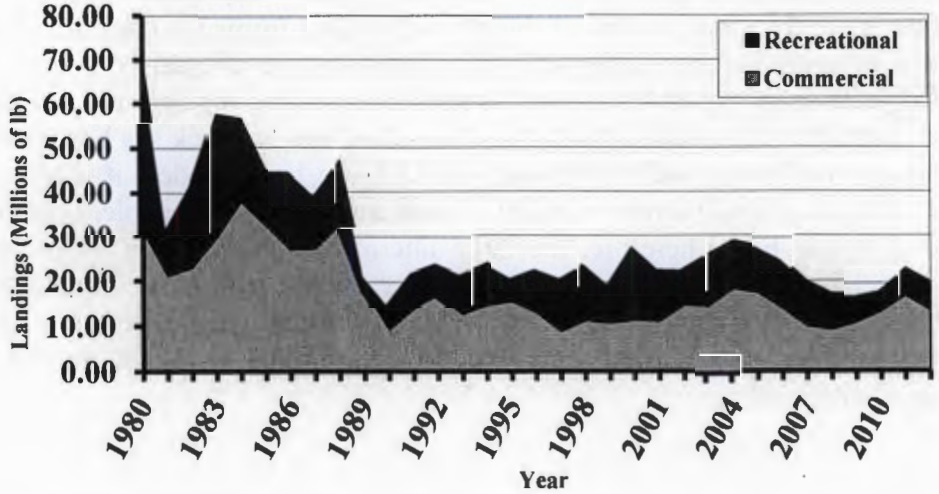

Figure 1. Summer flounder commercial and recreational landings, 1980-2012.

6.1.1.2 Scup

The relative contributions of commercial and recreational scup landings are shown in Figure 2, and the landings amounts are listed in Table 7.

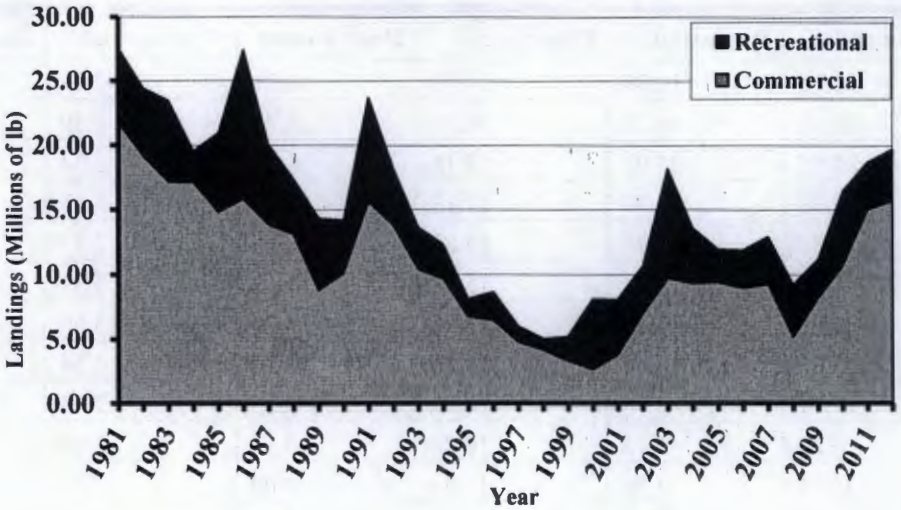

Figure 2. Scup commercial and recreational landings, 1981-2012.

6.1.1.3 Black Sea Bass

The relative contributions of commercial and recreational black sea bass landings are shown in Figure 3, and the landings amounts are listed in Table 7.

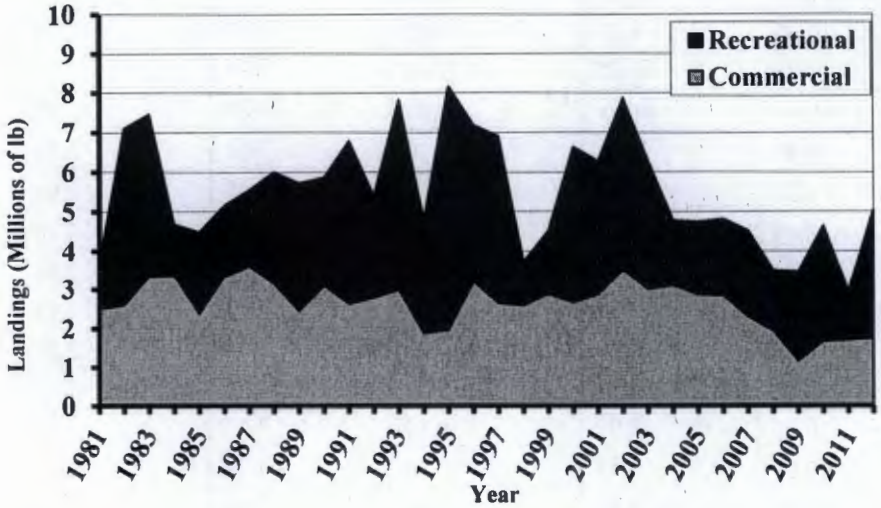

Figure 3. Black sea bass commercial and recreational landings, 1981-2012.

Table 7. Summer flounder, scup, and black sea bass commercial and recreational landings, 1981-2012 (millions of lb).

	Summer Flounder		Scup		Black Sea Bass	
Year	Commercial	Recreational	Commercial	Recreational	Commercial	Recreational
1981	21.06	10.08	21.73	5.81	2.49	1.23
1982	22.93	18.23	19.19	5.21	2.59	4.50
1983	29.55	27.97	17.18	6.25	3.34	4.12
1984	37.77	18.77	17.13	2.42	3.35	1.33
1985	32.35	12.49	14.83	6.09	2.37	2.11
1986	26.87	17.86	15.82	11.61	3.32	1.83
1987	27.05	12.17	13.84	6.20	3.60	1.94
1988	32.38	14.63	13.10	4.27	3.14	2.86
1989	17.91	3.16	8.78	5.56	2.44	3.28
1990	9.26	5.13	10.08	4.14	3.09	2.77
1991	13.72	7.96	15.61	8.09	2.62	4.16
1992	16.60	7.15	13.80	4.41	2.79	2.62
1993	12.60	8.83	10.42	3.20	2.98	4.84
1994	14.52	9.33	9.68	2.63	1.87	2.94
1995	15.38	5.42	6.77	1.34	1.96	6.21
1996	12.92	9.82	6.49	2.16	3.19	3.99
1997	8.81	11.87	4.82	1.20	2.64	4.26
1998	11.19	12.48	4.18	0.88	2.58	1.14
1999	10.63	8.37	3.32	1.89	2.88	1.64
2000	11.21	16.47	2.66	5.44	2.66	3.98
2001	10.96	11.64	3.81	4.26	2.86	3.41
2002	14.49	8.01	7.00	3.62	3.50	4.37
2003	14.22	11.64	9.71	8.48	3.00	3.30
2004	18.14	10.97	9.33	4.24	3.10	1.68
2005	17.25	10.87	9.40	2.54	2.86	1.88
2006	13.81	10.59	8.96	2.93	2.83	1.98
2007	9.90	9.26	9.25	3.65	2.29	2.23
2008	9.13	8.13	5.18	4.04	1.93	1.57
2009	10.69	5.99	8.19	2.94	1.15	2.31
2010	13.07	5.11	10.70	5.74	1.66	2.98
2011	16.56	5.95	15.03	3.66	1.68	1.27
2012	13.31	6.51	15.70	4.17	1.74	3.18

7.1.4 Scup Winter II Possession Limit

Alternative 1 would maintain the *status quo* scup commercial possession limit of 2,000 lb during the Winter II period (November and December) and is therefore expected to result in neutral biological impacts. Preferred alternative 2 proposes an increase in the scup possession limit during the commercial Winter II period to 12,000 lb. The increased possession limit under alternative 2 may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential interactions with non-target species, resulting in slight positive impacts on non-target species. However, given that the commercial fishery has not achieved their target in recent years, an increased possession limit may provide an economic incentive for fishermen to take more overall trips or hauls during the Winter II period, potentially resulting in associated biological impacts that are slightly negative. Therefore, when compared to the *status quo*, alternative 2 would be expected to result in slight negative to slight positive biological impacts.

7.2 Habitat

7.2.1 Quota Alternatives for 2014

When comparing across the 3 alternatives for 2014 that follow, which have potential habitat impacts that range from slight negative to positive, the greatest potential for overall positive habitat impacts are associated with alternative 3 (most restrictive), followed by alternative 1 (preferred), and alternative 2 (no action/*status quo*).

7.2.1.1 Alternative 1 (Preferred 2014)

As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2014. While it is not known with certainty how the small summer flounder commercial quota decrease under alternative 1 (7.7 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 the no action/*status quo* alternative (Table 23; cell B). More specifically, slight positive impacts can be expected 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 remain the same. However, states may modify their summer flounder regulations, potentially decreases the trip limit slightly to prolong the fishing season, in which case the impacts may be neutral.

For scup and black sea bass, specifications under 2014 alternative 1 (preferred) are identical to those under 2014 alternative 2 (no action/*status quo*). Thus, for scup and black sea bass, the habitat impacts of the preferred alternative in 2014 are expected to be neutral when compared to the no action/*status quo* alternative (section 7.2.1.2).

7.2.1.2 Alternative 2 (No Action/Status Quo 2014)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (no action/*status quo*) are identical to those previously implemented for 2014 (Table 24; MAFMC 2012). The habitat impacts of these specifications were analyzed in the specifications EA

prepared in 2012 (MAFMC 2012). As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2014. When previously analyzed, these measures were expected to result in neutral impacts on habitat.

The scup commercial quota and recreational harvest limit under alternative 2 are identical to those previously implemented for 2014 (Table 24). The habitat impacts of these specifications were analyzed in the specifications EA prepared in 2012 (MAFMC 2012). As described above in section 7.1.1.2, scup abundance and availability in 2014 would be expected to be similar to prior years (Table 23). When previously analyzed, these measures were expected to result in neutral to slight negative biological impacts.

The black sea bass commercial quota and recreational harvest limit under alternative 2 are identical to those previously implemented for 2014 (Table 24), and additionally identical to landings limits implemented in 2013. The habitat impacts of these specifications were analyzed in the supplemental EA prepared in the spring of 2013 (MAFMC 2013). As described above in section 7.1.1.3, black sea bass abundance and availability in 2014 would be expected to be similar to prior years (Table 23). When previously analyzed, these measures were expected to result in neutral impacts on habitat.

7.2.1.3 Alternative 3 (Most Restrictive 2014)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.4, 51.3, and 49.8 percent, respectively) relative to the 2014 previously implemented quotas (no action/*status quo*; Table 24). While it is not known with certainty how these substantially lower quotas would 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 the no action/*status quo* alternative (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 Quota Alternatives for 2015

When comparing across the 3 alternatives for 2015 that follow, which have potential habitat impacts that range from neutral to positive, the greatest potential for overall positive habitat impacts are associated with alternative 3 (most restrictive), followed by alternative 2 (*status quo*) and alternative 1 (preferred).

7.2.2.1 Alternative 1 (Preferred 2015)

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 (5.7 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat, given the small decrease in quota, it is expected to have effects on habitat that are neutral to slightly positive when compared to the *status quo* alternative (Table 23; cell B). More specifically, slight positive impacts can be expected because the lower commercial quota is likely to result in less fishing time, during which

gear (predominately bottom trawls) may contact and disturb habitat. This assumes regulations will remain the same. However, states may modify their summer flounder regulations, potentially decreases the trip limit slightly to prolong 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 (6.2 percent; Table 25) will affect fishing effort and resulting fishing gear impacts on habitat. However, the commercial quota proposed is 31.2 percent higher than the 2012 landings (Table 22), and because market conditions are not expected to change, the fishery is expected to have similar landings. Therefore, impacts on habitat are expected to be neutral when compared to the *status quo*.

The black sea bass commercial quota and recreational harvest limit under alternative 2 (*status quo*) are identical to those under the 2014 no action/*status quo* alternative (Table 24). For black sea bass, alternative 1 is expected to result in habitat impacts that are neutral compared to the *status quo*.

7.2.2.2 Alternative 2 (Status Quo 2015)

2015 alternative 2 (*status quo*) is identical to 2014 alternative 2 (no action/*status quo*). The habitat impacts of the *status quo* alternative in 2015 are expected to neutral compared to the 2014 no action/*status quo* alternative (section 7.2.1.2).

7.2.2.3 Alternative 3 (Most Restrictive 2015)

2015 alternative 3 (most restrictive) is identical to 2014 alternative 3 (most restrictive). The habitat impacts of the most restrictive alternative in 2015 are expected to neutral compared to the 2014 no action/*status quo* alternative (section 7.2.1.3).

7.2.3 Research Sea-Aside Measures

For 2014, under alternative 1A, the summer flounder, scup, and black sea bass proposed research set-aside amounts for 2014 would be equivalent to the previously implemented 2014 RSA amounts. Under alternative 1B, proposed research set-aside amounts for 2014 would be equivalent to up to 3% of the new 2014 TAL, revised based on the implemented quota alternative for 2014. For 2015, under alternative 2A, no RSA would be specified in 2015. Under alternative 2B, proposed RSA amounts would be specified at up to 3% of the TAL for each species.

Because all summer flounder, scup, and black sea bass landings count against the 2014 and 2015 overall quotas regardless of whether an RSA is implemented or the specific RSA level, none of the RSA alternatives are 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 1A, 1B, and 2B exemptions would be issued for compensation fishing that would exempt vessels from possession limits, and quota and season 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 seasons 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.

7.2.4 Scup Winter II Possession Limit

Alternative 1 would maintain the *status quo* scup commercial possession limit of 2,000 lb during the Winter II period (November and December) and is therefore expected to result in neutral habitat impacts. Preferred alternative 2 proposes an increase in the scup possession limit during the commercial Winter II period to 12,000 lb. The increased possession limit under alternative 2 may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential gear impacts, resulting in slight positive impacts on habitat. However, given that the commercial fishery has not achieved their target in recent years, an increased possession limit may provide an economic incentive for fishermen to take more overall trips or hauls during the Winter II period, potentially resulting in associated impacts to habitat that are slightly negative. Therefore, when compared to the *status quo*, alternative 2 would be expected to result in slight negative to slight positive habitat impacts.

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.

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 Quota Alternatives for 2014

When comparing across the 3 alternatives for 2014 that follow, which have potential impacts on ESA-listed and MMPA protected species that range from slight negative to positive, the greatest potential for overall positive impacts are associated with alternative 3 (most restrictive), followed by alternative 1 (preferred) and alternative 2 (no action/*status quo*).

7.3.1.1 Alternative 1 (Preferred 2014)

As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2014. While it is not known with certainty how the small summer flounder commercial quota decrease under alternative 1 (7.7 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 the no action/*status quo* alternative (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 prolong the fishing season, in which case the impacts may be neutral.

For scup and black sea bass, specifications under 2014 alternative 1 (preferred) are identical to those under 2014 alternative 2 (no action/*status quo*). Thus, for scup and black sea bass, the impacts on ESA-listed and MMPA protected species under the preferred alternative in 2014 are expected to be neutral when compared to the no action/*status quo* alternative (section 7.3.1.2).

7.3.1.2 Alternative 2 (No Action/Status quo 2014)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (no action/*status quo*) are identical to those previously implemented for 2014 (Table 24; MAFMC 2012). The impacts on ESA-listed and MMPA protected species under these specifications were analyzed in the specifications EA prepared in 2012 (MAFMC 2012). As described above in section 7.1.1.1, summer flounder abundance and availability are likely to remain relatively stable in 2014. When previously analyzed, measures under alternative 2 were expected to result in neutral impacts on ESA-listed and MMPA protected species.

The scup commercial quota and recreational harvest limit under alternative 2 are identical to those previously implemented for 2014 (Table 24). The impacts on ESA-listed and MMPA protected species under these specifications were analyzed in the specifications EA prepared in 2012 (MAFMC 2012). As described above in section 7.1.1.2, scup abundance and availability in 2014 would be expected to be similar to prior years (Table 23). When previously analyzed, these measures were expected to result in neutral to slight negative impacts on ESA-listed and MMPA protected species.

The black sea bass commercial quota and recreational harvest limit under alternative 1 are identical to those previously implemented for 2014 (Table 24), and additionally identical to landings limits implemented in 2013. The impacts on ESA-listed and MMPA protected species under these specifications were analyzed in the supplemental EA prepared in the spring of 2013 (MAFMC 2013). As described above in section 7.1.1.2, black sea bass abundance and availability in 2014 would be expected to be similar to prior years (Table 23). When previously analyzed, these measures were expected to result in neutral impacts on ESA-listed and MMPA protected species.

7.3.1.3 Alternative 3 (Most Restrictive 2014)

Alternative 3 includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.4, 51.3, and 49.8 percent, respectively) relative to the 2014 previously implemented quotas (Table 24). While it is not known with certainty how these substantially lower quotas would 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 the no action alternative (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 Quota Alternatives for 2015

When comparing across the 3 alternatives for 2015 that follow, which have potential impacts on ESA-listed and MMPA protected species 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*).

7.3.2.1 Alternative 1 (Preferred 2015)

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 (5.7 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species, given the small decrease in quota, it is expected to have effects on ESA-listed and MMPA protected species that are neutral to slightly positive when compared to the *status quo* alternative (Table 23; cell B). More specifically, slight positive impacts can be expected because the lower commercial quota is likely to result in less fishing time, during which gear (predominately bottom trawls) may interact with ESA-listed and MMPA protected species. This assumes regulations will remain the same. However, states may modify their summer flounder regulations, potentially decreases the trip limit slightly to prolong 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 (6.2 percent; Table 25) will affect fishing effort and resulting interaction rates with ESA-listed and MMPA protected species. However, the commercial quota proposed is 31.2

percent higher than the 2012 landings (Table 22), and because market conditions are not expected to change, the fishery is expected to have similar landings. Therefore, impacts on ESA-listed and MMPA protected species are expected to be neutral when compared to *status quo*. This is because similar fishery effort is expected, and similar interaction rates expected with ESA-listed and MMPA protected species (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. The black sea bass quotas under the 2015 preferred alternative are identical to those under the *status quo* (Table 25), and therefore would not be expected to alter fishing effort and resulting interaction rates with ESA-listed and MMPA protected species. (Table 23; cell E). Thus, for black sea bass, alternative 1 is expected to result in impacts to ESA-listed and MMPA protected species that are neutral when compared to the *status quo*.

7.3.2.2 Alternative 2 (Status Quo 2015)

2015 alternative 2 (*status quo*) is identical to 2014 alternative 2 (no action/*status quo*). The impacts on ESA-listed and MMPA protected species of the most restrictive alternative in 2015 are thus expected to neutral compared to the 2014 no action/*status quo* alternative (section 7.3.1.2).

7.3.2.3 Alternative 3 (Most Restrictive 2015)

2015 alternative 3 (most restrictive) is identical to 2014 alternative 3 (most restrictive). The impacts on ESA-listed and MMPA protected species of the most restrictive alternative in 2015 are thus expected to neutral compared to the 2014 no action/*status quo* alternative (section 7.3.1.3).

7.3.3 Research Set-Aside

For 2014, under alternative 1A, the summer flounder, scup, and black sea bass proposed research set-aside amounts for 2014 would be equivalent to the previously implemented 2014 RSA amounts. Under alternative 1B, proposed research set-aside amounts for 2014 would be equivalent to up to 3% of the new 2014 TAL, revised based on the implemented quota alternative for 2014. For 2015, under alternative 2A, no RSA would be specified in 2015. Under alternative 2B, proposed RSA amounts would be specified at up to 3% of the TAL for each species.

Because all summer flounder, scup, and black sea bass landings count against the 2014 and 2015 overall quotas regardless of whether an RSA is implemented or the specific RSA level, none of the RSA alternatives 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.

Vessels harvesting RSA quota in support of approved research projects would be issued EFPs authorizing them to exceed Federal possession limits and to fish during Federal quota and season closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting RSA quota.

Vessels harvesting RSA 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. In addition, because recreational fishing seasons were established to prolong recreational fishing opportunities, these exemptions will have no adverse biological effect on the resource. Further, because RSA quota is set-aside prior to setting recreational quotas, these waivers will have no adverse effect on recreational fishing opportunities. 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 seasons 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.

7.3.4 Winter II Possession Limit

Alternative 1 would maintain the *status quo* scup commercial possession limit of 2,000 lb during the Winter II period (November and December) and is therefore expected to result in neutral habitat impacts. Preferred alternative 2 proposes an increase in the scup possession limit during the commercial Winter II period to 12,000 lb. The increased possession limit under alternative 2 may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential interactions with ESA-listed and MMPA protected species, resulting in slight positive impacts to these species. However, given that the commercial fishery has not achieved their target in recent years, an increased possession limit may provide an economic incentive for fishermen to take more overall trips or hauls during the Winter II period, potentially resulting in associated impacts to ESA-listed and MMPA protected species that are slightly negative. Therefore, when compared to the *status quo*, alternative 2 would be expected to result in slight negative to slight positive impacts on ESA-listed and MMPA protected species.

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

A benchmark stock assessment for summer flounder was completed in 2013 at the 57th Northeast Regional Stock Assessment Workshop (SAW 57). The results of this assessment indicate that the summer flounder stock is not overfished and overfishing is not occurring, relative to the updated reference points established in the SAW 57 assessment. The fishing mortality rate (F) in 2012 was estimated at 0.285, below the reference point F_{MSY} = 0.309. Spawning Stock Biomass (SSB) was estimated to be 113.0 million lb, below SSB_{MSY} = 137.6 million lb (NEFSC 2013). The summer flounder stock was determined by NMFS to be rebuilt in November of 2011 and is not subject to a formal rebuilding plan.

6.1.2.2 Scup

The latest assessment update for scup, 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 was estimated to be 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. NMFS considers the scup stock to be rebuilt.

6.1.2.3 Black Sea Bass

The latest assessment update for black sea bass, published in July 2012 (Shepherd 2012), indicated that 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 was estimated at 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 SSB_{MSY} = 24.0 million lb. NMFS considers the black sea bass stock to be rebuilt.

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 remains largely unchanged. 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 been 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 8 provides species formally listed as threatened or endangered under the ESA, with two 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 8). 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. On December 16, 2013, NMFS released a final batch Biological Opinion (BiOp) in response to the recent listing of Atlantic sturgeon. This BiOp addressed the impact of the summer flounder, scup, and black sea bass fisheries, as well as six other Northeast Region fisheries, on sturgeon and other protected species. The BiOp concludes that the

continuation of the summer flounder, scup, and black sea bass fisheries, in combination with the other six fisheries examined, may adversely effect, but is not likely to jeopardize the continued existence of North Atlantic right whales, humpback whales, fin whales, and sei whales, or loggerhead (specifically, the NWA DPS), leatherback, Kemp's ridley, and green sea turtles, any of the five DPSs of Atlantic sturgeon, or GOM DPS Atlantic salmon. The BiOp also concluded that these fisheries are not likely to adversely affect hawksbill sea turtles, shortnose sturgeon, smalltooth sawfish DPS, *Acroporid* corals, Johnson's seagrass, sperm whales, blue whales, designated critical habitat for right whales in the Northwest Atlantic, or designated critical habitat for GOM DPS Atlantic salmon (NMFS 2013).

Table 8. 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*	Endangered
	Hawksbill	*Eretmochelys imbricata*	Endangered
	Loggerhead[1]	*Caretta caretta*	Threatened
Fishes	Shortnose sturgeon	*Acipenser brevirostrum*	Endangered
	Atlantic salmon[2]	*Salmo salar*	Endangered
	Atlantic sturgeon, Gulf of Maine DPS	*Acipenser oxyrinchus*	Threatened
	Atlantic sturgeon, New York Bight DPS	*Acipenser oxyrinchus*	Endangered
	Atlantic sturgeon, Chesapeake Bay DPS	*Acipenser oxyrinchus*	Endangered
	Atlantic sturgeon, Carolina DPS	*Acipenser oxyrinchus*	Endangered
	Atlantic sturgeon, South Atlantic DPS	*Acipenser oxyrinchus*	Endangered
	Cusk	*Brosme brosme*	Candidate
	Dusky shark	*Carchahinus obscurus*	Candidate

Currently, there are two species in the Northeast Region that are candidate species for listing under the ESA (Table 8). These include dusky shark (*Carchahinus obscurus*) and cusk (*Brosme brosme*). 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

[1] Northwest Atlantic distinct population segment (DPS) of loggerhead turtles.
[2] Gulf of Maine distinct population segment (DPS) of Atlantic salmon.

proposed project. The Protected Resources Division of the NMFS Greater Atlantic 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 8, 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. 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 9).

Marine Mammals

Based on NMFS Northeast Fisheries Observer Program (NEFOP) database for the period of January 2008 through December 2012, there were 24 observed interactions with 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), 18 common dolphins were dead (fresh), one common dolphin was alive inside the belly of the trawl net, one unknown dolphin was observed in unknown condition, and one unknown dolphin was alive entangled in gear other than the vessel's fishing gear. In the gill net fishery, two unknown seals were dead in 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 9. Commercial Fisheries Classification based on 2013 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; gray seal; 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; minke 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 2008 through December 2012 indicate there were 17 sea turtle takes during trips where bottom otter trawls or gill nets were used to target summer flounder. Of these 17 takes, 15 were loggerhead turtles, including 10 released alive, 2 resuscitated and released alive, 2 dead (fresh), and one severely decomposed. The remaining interactions included one green sea turtle (resuscitated and released alive), and one unknown hard-shell turtle (dead and 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 are 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. Of the gear types known to incidentally capture Atlantic sturgeon, sink gillnet gear poses the greatest known risk of mortality for sturgeon. Higher levels of sturgeon bycatch in sink gillnet fisheries is associated with depths of less than 40 meters, mesh sizes of greater than 10 inches, and the months of April and May. For otter trawl gear, Atlantic sturgeon bycatch incidence is highest in depths of less than 30 meters and in the month of June, although sturgeon deaths have rarely been reported in the observer gathered otter trawl data (NMFS 2013).

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 (NMFS 2013). This does not mean that there have not been interactions with these gear types, 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.

Sink gill nets infrequently capture summer flounder, scup, and black sea bass. VTR data from 2012 indicate that 0.6 percent of summer flounder, 0.5 percent of scup, and 0.7 percent of black sea bass landings 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.

The majority of summer flounder, scup, and black sea bass are landed using otter trawls. VTR data for 2012 indicate that 97, 96, and 51 percent of the respective summer flounder, scup, and black sea bass landings were taken using bottom otter trawl gear. Bottom trawl 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.

A recent NEFSC study was able to use data from the NEFOP program collected from 2006 to 2010 for various gear types, including bottom otter trawls, and expand the frequency of encounters by using total landings recorded in vessel trip reports. 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 frequencies of encounters on observed trips were expanded using total landings recorded in VTRs, 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 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").

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; estimated mortality rates of Atlantic sturgeon caught in otter trawl gear and gillnet gear is approximately 5% and 20%, respectively (NMFS 2013). 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 Atlantic sturgeon deaths attributable to the otter trawl mesh sizes in the summer flounder, scup, and black sea bass fisheries declined from 2008-2010 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 over the time period analyzed. 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.

As mentioned in Section 6.3, NMFS has listed five Distinct Population Segments (DPS) of Atlantic sturgeon as threatened or endangered (Table 8). As a result of this listing, NMFS reinitiated consultation on seven fisheries, including the summer flounder, scup, and black sea

bass fishery and released a final Biological Opinion (BiOp) in December of 2013. The BiOp conclusion states that the continued operation of the seven fisheries under their respective FMPs over the next ten years may adversely affect, but is not likely to jeopardize, the continued existence of any of the give DPSs of Atlantic sturgeon (NMFS 2013).

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.

Damon-Randall et al. (2013) used NEFOP data in conjunction with genetic testing results 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, 51% from the New York Bight DPS, 13% from the Chesapeake Bay DPS, 2% from the Carolina DPS, and 22% from the South Atlantic DPS. Atlantic sturgeon from Canada comprise 1% 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.

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, 2008-2012; section 6.3.2) and include the Risso's dolphin, common dolphin, loggerhead sea turtle (Northwest Atlantic DPS), green 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.

Green sea turtles are generally found in waters between the northern and southern 20°C isotherms. In the western Atlantic region, the summer developmental habitat encompasses estuarine and coastal waters as far north as Long Island Sound, Chesapeake Bay, and the North Carolina sounds, and south throughout the tropics. Most of the individuals reported in U.S. waters are immature. Juvenile green sea turtles occupy pelagic habitats after leaving the nesting beach. At approximately 20 to 25 cm carapace length, juveniles leave pelagic habitats, and enter benthic foraging areas, shifting to a chiefly herbivorous diet. Known feeding habitats along U.S. coasts of the western Atlantic include shallow lagoons and embayments in Florida, and similar shallow inshore areas elsewhere (NMFS 1998).

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 and common dolphins, 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).

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). Updates to this information and 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 2012 was approximately $30.4 million resulting from commercial landings of 13.3 million lb, with an average ex-vessel price estimated at $2.28/lb. The value of commercial landings of summer flounder from 2010 to 2012 averaged $29.0 million, with an average ex-vessel price of $2.02/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 2010 to 2012 period, summer flounder recreational fishing trips were estimated at 4.5, 4.5, and 4.2 million, respectively (section 8.11.3.1.2).

6.4.1.2 Scup

Commercial scup landings were approximately 15.7 million lb (from ME to Cape Hatteras, NC) and valued at $11.0 million in 2011 ($0.70/lb). The value of commercial landings of scup from 2010 to 2012 averaged $8.7 million, with an average ex-vessel price of $0.63/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 2010 to 2012 period, scup recreational fishing trips were estimated at 0.70, 0.48, and 0.60 million trips, respectively (section 8.11.3.1.2).

6.4.1.3 Black Sea Bass

Commercial black sea bass landings were approximately 1.74 million lb (from ME to Cape Hatteras, NC) and valued at $5.7 million in 2012 ($3.30/lb). The value of commercial landings of black sea bass from 2010 to 2012 averaged $5.5 million, with an average ex-vessel price of $3.20/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 2010 to 2012 period, black sea bass recreational fishing trips were estimated at 0.42, 0.19, and 0.27 million trips, 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 2012 VTR data indicated that 16,029 trips, by four major gear types, caught a total of 11.55 million lb of summer flounder; landing 11.42 million lb and discarding 0.13 million lb. The majority of the trips and catch were made by bottom otter trawls (72.4 percent of trips, 96.8 percent of catch), followed by handlines (9.2 percent of trips, 0.74 percent of catch), gillnets (10.5 percent of trips, 0.76 percent of catch), and scallop dredges (4.4 percent of trips, 0.65 percent of catch). There were six statistical areas (Figure 4), which individually accounted for greater than 5 percent of the summer flounder catch in 2012 (Table 11). Collectively, these six areas accounted for 71 percent of the summer flounder catch. There were five statistical areas, which individually accounted for greater than 5 percent of the trips which caught summer flounder in 2012 (Table 12). Collectively, these five areas accounted for 62 percent of the trips that caught summer flounder and 46 percent of the 2012 summer flounder catch.

6.4.2.2 Scup

NMFS 2012 VTR data indicated that 8,765 trips, by four major gear types, caught a total of 11.6 million lb of scup. Of these, 11.4 million lb of scup were landed, and 0.2 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (67.0 percent of trips, 96.1 percent of catch), followed by hand line "other" (14.8 percent of trips, 1.3

percent of catch), pots and traps (9.3 percent of trips, 1.3 percent of catch), and gillnets (5.7 percent of trips, 0.5 percent of catch). There were five statistical areas, which individually accounted for greater than 5 percent of the scup catch in 2012 (Table 11). Collectively, these five areas accounted for 82.5 percent of the scup catch. There were six statistical areas, which individually accounted for greater than 5 percent of the trips which caught scup in 2012 (Table 12). Collectively, these six areas accounted for 68.8 percent of the trips that caught scup and 78.6 percent of the 2012 scup catch.

6.4.2.3 Black Sea Bass

NMFS 2012 VTR data indicated that 6,946 trips, by four major gear types, caught a total of 1.35 million lb of black sea bass. Of these, 1.25 million lb of black sea bass were landed, and 0.10 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (51.3 percent of trips, 49.2 percent of catch), followed by pots and traps (18.4 percent of trips, 31.0 percent of catch), handline "other" (18.7 percent of trips, 10.1 percent of catch), and gillnets (2.8 percent of trips, 0.6 percent of catch). There were five statistical areas, which individually accounted for greater than 5 percent of the black sea bass catch in 2012 (Table 11). Collectively, these four areas accounted for 60.3 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 2012 (Table 12). Collectively, these seven areas accounted for 65.9 percent of the trips that caught black sea bass and 54.2 percent of the 2012 black sea bass catch.

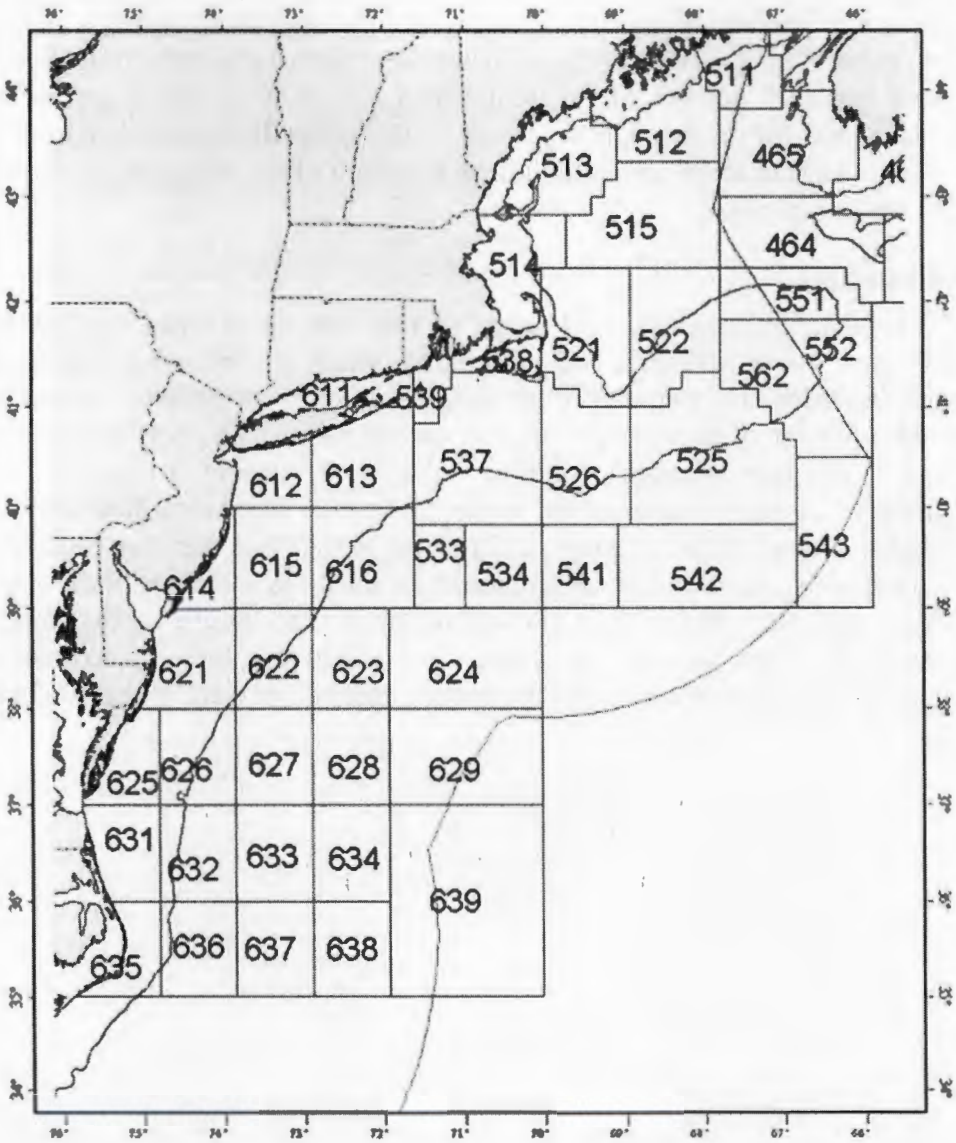

Figure 4. NMFS Northeast statistical areas.

Table 11. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass catch in 2012, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
616	18.55	9.02	16.56
537	18.15	26.79	6.99
613	11.36	18.73	4.90
612	9.79	2.24	2.38
626	6.85	0.02	3.67
622	6.32	0.09	9.20
539	4.60	13.02	4.52
621	3.82	0.06	16.52
615	3.27	1.54	11.05
611	1.90	14.95	2.37

Table 12. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass trips in 2012, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
612	15.91	4.53	11.63
539	14.90	18.92	14.25
613	12.20	10.70	9.72
537	9.84	9.23	9.46
611	8.86	17.74	10.25
149	3.26	6.27	4.03
616	3.19	3.11	5.30
621	2.78	0.15	5.31
538	2.78	5.93	4.71

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), with updated information about the relative importance of these ports presented below. Additional information on ports and communities can be found in "Community Profiles for the Northeast US Fisheries" at http://www.nefsc.noaa.gov/read/socialsci/communityProfiles.html.

2012 NMFS dealer data were used to examine recent landings patterns among ports. The top commercial landings ports for summer flounder, scup, and black sea bass by pounds landed are shown in Table 13.

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 13. Top ports of landing (in lb) for summer flounder (FLK), scup (SCP), and black sea bass (BSB), based on NMFS 2012 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	2,096,432	116	5,398,830	118	145,500	121
NEWPORT NEWS, VA	2,070,498	43	100,542	18	95,007	25
HAMPTON, VA	1,558,804	40	181,654	22	154,533	26
PT. PLEASANT, NJ	1,083,671	45	614,788	25	187,731	42
CHINCOTEAGUE, VA	900,431	38	78,430	11	104,377	16
CAPE MAY, NJ	579,144	53	146,545	25	90,198	40
MONTAUK, NY	573,699	75	2,852,359	94	71,546	86
BELFORD, NJ	480,688	22	191,840	18	9,184	18
STONINGTON, CT	445,142	20	536,666	21	19,969	16
NEW BEDFORD, MA	429,116	80	1,227,978	57	75,869	40
BEAUFORT, NC	362,190	11	C	C	5,619	6
WANCHESE, NC	283,975	16	3,501	3	54,117	15
ENGELHARD, NC	204,792	9	318	3	7,087	7
HAMPTON BAY, NY	160,051	32	493,447	31	18,604	31
MATTITUCK, NY	150,942	4	389,878	4	31,608	3
OCEAN CITY, MD	139,841	25	C	C	140,861	17
WOODS HOLE, MA	138,629	27	66,504	32	57,116	34
HOBUCKEN, NC	116,417	48	---	---	4,684	6
NANTUCKET, MA	107,560	12	22,393	10	C	C
PT. LOOKOUT, NY	67,997	10	171,958	8	---	---
LITTLE COMPTON, RI	65,831	20	219,032	18	37,908	19
NEW LONDON, CT	64,898	8	818,946	11	9,784	6
AMAGANSETT, NY	58,901	3	142,148	3	C	C
TIVERTON, RI	56,967	6	168,726	4	2,085	C
NEWPORT, RI	---	---	244,623	18	10,054	14
FALL RIVER, MA	C	C	C	C	C	C
EAST LYME, CT	---	---	138,092	3	C	C
MATTAPOISET, MA	C	C	123,226	3	C	C
OTHER CONNECTICUT	C	C	C	C	C	C

Table 14. MRIP estimates of 2012 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	6
NH	84	414	0	524	3,195	8,986
MA	75,085	305,504	1,587,005	3,392,550	519,910	1,598,153
RI	103,103	475,511	497,504	1,172,338	102,548	868,761
CT	62,501	363,461	868,474	1,917,444	110,858	1,116,877
NY	509,124	5,191,457	592,237	1,827,516	321,516	2,792,094
NJ	1,130,406	6,658,557	119,961	449,429	734,928	4,552,537
DE	45,476	278,422	85	2,105	40,141	244,628
MD	22,618	146,862	0	0	33,080	323,081
VA	259,972	937,973	1,425	62,863	4,075	887,459
NC	63,136	31,502	1,799	3,831	75,637	2,160,355

6.4.4 Analysis of Permit Data

Federally Permitted Vessels

This analysis estimates that in 2012, there were 1,976 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 870, 725, and 772 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 826, 750, and 808 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 1,976 vessels with at least one federal permit, there were 1,109 that held only commercial permits for summer flounder, scup, and/or black sea bass while there were 777 vessels that held only a recreational permit. The remaining vessels (90) 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), 2012.

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	31	5	18	13	50	13	647	777
FLK Only	287	0	0	1	0	0	2	4	294
SCP Only	42	0	0	1	0	2	0	7	52
BSB Only	111	4	0	1	1	5	0	11	133
FLK/ SCP	76	0	0	0	0	0	0	5	81
FLK/ BSB	46	0	0	0	0	0	0	1	47
SCP/ BSB	120	2	0	0	0	0	0	22	144
FLK/ SCP/ BSB	427	2	0	0	1	0	0	18	448
Column Total	1,109	39	5	21	15	57	15	715	1,976

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 294 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 5 vessels whose only recreational permit was for scup, while 715 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 4, column 4 indicates that there was 1 vessel that held the unique combination of a single commercial permit for black sea bass only and a single recreational permit for black sea bass only. 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, Massachusetts, North Carolina, 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 Pennsylvania, followed by Connecticut, New Jersey, and Florida. In terms of average horse power, the largest recreational vessels are found in Florida, Pennsylvania, North Carolina, Maryland, and Connecticut.

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, 2012. Note: LA= limited access; OA = open access; DAS = days at sea; P/C=party/charter; GOM = Gulf of Maine.

	Commercial Only (n= 1,109)		Party/Charter Only (n= 777)		Commercial and Party/Charter (n= 90)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Ocean Quahog	462	42	9	1	7	8
Surfclam	467	42	8	1	6	7
Scallop - LA DAS	312	28	1	0	0	0
Scallop - ITQ	167	15	3	0	3	3
Scallop - limited entry GOM general category	44	4	2	0	1	1
Scallop - incidental general category	217	20	2	0	1	1
Non-trap Lobster (comm.)	648	58	16	2	21	23
P/C Lobster	0	0	21	3	5	6
Lobster Trap (commercial)	315	28	48	6	29	32
P/C Multi-Species	3	0	604	78	35	39
Commercial Multispecies	9	1	2	0	2	2
Multispecies - OA other than P/C Multispecies	426	38	297	38	40	44
P/C Squid/ Mackerel/ Butterfish	0	0	677	87	71	79
Commercial Squid/ Mackerel/ Butterfish	1,007	91	297	38	71	79

Table 16 (Continued). Federal northeast region permits held by summer flounder, scup, and black sea bass commercial and recreational vessels, 2012.

	Commercial Only (n= 1,109)		Party/Charter Only (n= 777)		Commercial and Party/Charter (n= 90)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Commercial Bluefish	1,049	95	385	50	86	96
P/C Bluefish	6	1	727	94	80	89
Spiny Dogfish	1,024	92	480	62	81	90
Herring - LA all area permit	18	2	0	0	1	1
Herring - LA area 2 & 3	4	0	0	0	0	0
Herring - LA incidental	40	4	0	0	2	2
Herring - OA	802	72	363	47	71	79
Red Crab Incidental	727	66	144	19	43	48
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	964	87	342	44	69	77
Tilefish Commercial (IFQ + incidental categories combined)	894	81	377	49	71	79
Tilefish P/C	2	0	341	44	41	46
Monkfish	501	45	5	1	11	12
Incidental Monkfish	641	58	416	54	76	84

Table 17. Descriptive data from northeast region permit files for commercial vessels, 2012.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	25	7	3	358	17	50	99	23	209	109	1	120	87	1
No. of Permits by Home Port State	25	6	5	377	16	38	103	21	204	119	5	108	81	1
No. of Permits by Principal Port State	27	5	1	363	16	39	91	23	209	116	1	120	98	0
Average Length by Principal Port	59	40	34	55	48	40	62	39	59	44	64	52	66	NA
Average Tonnage by Principal Port	86	17	7	85	30	41	82	27	78	38	109	57	103	NA
Average Horse Power by Principal Port	587	383	500	490	369	268	446	278	516	333	850	409	572	NA
Percent Home Port Equal Principal Port	93	100	100	99	94	95	92	91	93	98	0	88	73	0

Table 18. Descriptive data from northeast region permit files for party/charter vessels, 2012.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	25	35	6	197	33	40	11	35	169	121	16	56	28	5
No. of Permits by Home Port State	22	39	6	198	32	39	17	35	166	120	9	64	28	2
No. of Permits by Principal Port State	21	35	3	197	32	42	15	33	175	122	2	65	33	2
Average Length by Principal Port	46	36	45	35	43	33	42	39	43	46	53	34	41	NA
Average Tonnage by Principal Port	27	16	38	17	29	13	27	23	28	32	47	15	23	NA
Average Horse Power by Principal Port	681	535	933	469	689	402	833	591	631	626	850	435	609	NA
Percent Home Port Equal Principal Port	61	97	100	98	81	93	100	100	93	93	0	92	82	100

Table 19. Descriptive data from northeast region permit files for combination commercial/recreational party/charter vessels, 2012.

	CT	DE	MA	NC	NJ	NY	RI	VA	Other
No. of Permits By Mailing Address State	3	4	14	9	12	33	8	6	1
No. of Permits By Home Port State	1	4	18	8	10	35	6	6	2
No. of Permits by Principal Port State	1	4	14	9	11	34	10	6	1
Average Length by Principal Port	42	53	34	46	52	40	42	42	NA
Average Tonnage by Principal Port	13	38	13	38	34	28	32	21	NA
Average Horse Power by Principal Port	700	775	339	386	588	401	560	614	NA
Percent Home Port Equal Principal Port	100	100	100	89	91	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 270 Federally-permitted dealers who bought summer flounder, scup and/or black sea bass in 2012 from Maine through North Carolina. They were distributed by state as indicated in Table 20. Employment data for these specific firms are not available. In 2012, these dealers from Maine through North Carolina bought approximately $30.4 million worth of summer flounder; $11.0 million worth of scup; and $5.7 million worth of black sea bass. (Note, there were no summer flounder, scup, or black sea bass reported to have been bought in Maine or New Hampshire.)

Table 20. Dealers reporting buying summer flounder, scup, and/or black sea bass, by state (from NMFS commercial landings database) in 2012.

	MA	RI	CT	NY	NJ	DE	MD	VA	NC
Number of Dealers	57	47	12	61	40	3	6	21	23

7.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This EA analyzes the impacts of the alternatives described fully under section 5.0. These alternatives specify commercial quotas and recreational harvest limits for the 2014 and 2015 summer flounder, scup, and black sea bass fisheries that are necessary to ensure overfishing does not occur and ACLs are not exceeded (Table 21). Additionally, alternatives are included to analyze a change in the possession limit for the commercial scup fishery during the Winter II period (November and December). 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 2014 and 2015 fishing years (see section 5.5 for additional discussion).

The Council and Commission's Board met in December 2013 to adopt 2014 recreational management measures after reviewing more complete data regarding 2013 recreational landings. 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 a supplemental EA in early 2014. 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 2014 and 2015 commercial quotas under each alternative is compared to the 2014 previously implemented commercial quota (MAFMC 2012; MAFMC 2013) and 2012 commercial landings, to provide the increase or decrease in quota or harvest limit (as a percentage) that is expected under each of the alternatives (Tables 21 and 22). Similarly, the recreational harvest limit under each alternative is compared to the 2014 previously implemented harvest limit and 2012 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 to changes in regulations. The extent of interactions between fishing gear and habitat and other non-target species, including protected species, is related to fishing effort. The magnitude of change in effort that results from changes in quota and availability is difficult to quantify; however, it is not expected to be significant. Therefore, the following describes the general directionality of impacts in response to these 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		2014			2015		
		Alternative 1 Preferred	Alternative 2 No Action/*Status Quo*	Alternative 3 Most Restrictive	Alternative 1 Preferred	Alternative 2 *Status Quo*	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	10.51	11.39	9.18	10.74	11.39	9.18
	Recreational Harvest Limits	7.01	7.59	6.12	7.16	7.59	6.12
Scup	Commercial Quotas	21.95	21.95	10.68	20.60	21.95	10.68
	Recreational Harvest Limits	7.03	7.03	3.01	6.60	7.03	3.01
Black sea bass	Commercial Quotas	2.17	2.17	1.09	2.17	2.17	1.09
	Recreational Harvest Limits	2.26	2.26	1.14	2.26	2.26	1.14

Note: the 2014 Scup and black sea bass commercial quotas and recreational harvest limits were implemented in December 2012 and are not proposed to change through this action.

Table 22. The percentage difference between the proposed commercial quotas under each alternative and 2012 commercial landings, and the proposed recreational harvest limits under each alternative and the 2012 recreational landings.

Species	Observed Landings	2014			2015		
		Alternative 1 Preferred	Alternative 2 No Action/*Status Quo*	Alternative 3 Most Restrictive	Alternative 1 Preferred	Alternative 2 *Status Quo*	Alternative 3 Most Restrictive
Summer flounder	2012 Commercial Landings	-21.0	-14.4	-31.0	-19.3	-14.4	-31.0
	2012 Recreational Landings	+7.7	+16.6	-6.0	+10.0	+16.6	-6.0
Scup	2012 Commercial Landings	+39.8	+39.8	-32.0	+31.2	+39.8	-32.0
	2012 Recreational Landings	+68.6	+68.6	-27.8	+58.3	+68.6	-27.8
Black sea bass	2012 Commercial Landings	+24.7	+24.7	-37.4	+24.7	+24.7	-37.4
	2012 Recreational Landings	-28.9	-28.9	-64.2	-28.9	-28.9	-64.2

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-target, ESA-listed, and MMPA protected species and fewer gear impacts on habitat. Conversely, an increase in effort may result in a negative impact (-). Similar effort results in neutral impacts (0). The magnitude of negative effects on non-target species resulting from increases in fishing effort in the recreational fishery 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 (e.g., 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.

A general evaluation of effort in response to these two important factors (i.e., quota levels and 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 these two factors. 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 Quota 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 by alternative 1 (preferred), and alternative 2 (no action/*status quo*).

7.1.1.1 Alternative 1 (Preferred 2014)

The summer flounder stock was declared rebuilt in the fall of 2011 (based on 2010 data). The benchmark stock assessment conducted in 2013 indicated that the summer flounder stock was at 82 percent of SSB_{MSY} in 2012, and projected (although not confirmed) to be 91 percent of SSB_{MSY} in 2013 (NEFSC 2013). Because summer flounder SSB decreased in 2012 but is projected to increase again slightly in 2013, 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 (relative to the no action/*status quo*) under alternative 1 (7.7 percent; Table 24) and decrease in recreational harvest limit (7.6 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 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 the no action alternative (Table 23; cell B). For summer flounder, alternative 1 is expected to result in biological impacts that range from neutral to slight positive when compared to the no action/*status quo* alternative.

Table 24. The percentage difference between the proposed commercial quotas and recreational harvest limits under each 2014 alternative and the previously implemented 2014 commercial quotas and recreational harvest limits (no action/*status quo*).

Species	2014 Previously Implemented	2014 Revised		
		Alternative 1 Preferred	Alternative 2 No Action/*Status Quo*	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	-7.7	0.0	-19.4
	Recreational Harvest Limits	-7.6	0.0	-19.4
Scup	Commercial Quotas	0.0	0.0	-51.3
	Recreational Harvest Limits	0.0	0.0	-57.2
Black sea bass	Commercial Quotas	0.0	0.0	-49.8
	Recreational Harvest Limits	0.0	0.0	-49.6

For scup and black sea bass, specifications under 2014 alternative 1 (preferred) are identical to those under 2014 alternative 2 (no action/*status quo*). Thus, for scup and black sea bass, the biological impacts of the preferred alternative in 2014 are expected to be neutral when compared to the no action/*status quo* alternative (section 7.1.1.2).

7.1.1.2 Alternative 2 (No Action/Status Quo 2014)

The summer flounder commercial quota and recreational harvest limit under alternative 2 (no action/*status quo*) are identical to those previously analyzed and implemented for 2014 (Table 24; MAFMC 2012). When previously analyzed, these measures were expected to result in

neutral biological impacts. However, these measures are higher than the revised recommendations by the SSC for ABC (based on the most recent summer flounder stock assessment) and are inconsistent with the Council risk policy on overfishing. As such, slight negative impacts are expected on the summer flounder managed resource under the no action/*status quo* alternative in 2014 given the increased risk of overfishing the stock. It is expected that under the previously implemented 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 are identical to those previously implemented for 2014 (Table 24). The biological impacts of these specifications were analyzed in the specifications EA prepared in 2012 (MAFMC 2012). As described in that analysis, 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 in 2014 would be expected to be similar to prior years (Table 23). Previously implemented specifications for scup are consistent with the ABC recommendations of the SSC and are therefore based on the best scientific information available and intended to prevent overfishing. When previously analyzed, measures under this alternative were expected to result in biological impacts ranging from neutral to slight positive. Fishing effort and interactions with other non-target species are expected to remain relatively stable in 2014 under these previously implemented quotas. Thus, for scup, alternative 2 is expected to result in neutral to slight positive biological impacts.

The black sea bass commercial quota and recreational harvest limit under alternative 2 are identical to those previously implemented for 2014 (Table 24), and additionally are identical to landings limits implemented in 2013. The biological impacts of these specifications were analyzed in the supplemental EA prepared in the spring of 2013 (MAFMC 2013). As described in that analysis, 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). These measures 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. When previously analyzed, these measures were expected to result in neutral to slight positive biological impacts. Fishing effort and interactions with other non-target species are expected to remain relatively stable in 2014 given no change in quotas (Table 23; cell E). Thus, for black sea bass, alternative 2 is expected to result in neutral to slight positive biological impacts.

7.1.1.3 Alternative 3 (Most Restrictive 2014)

Alternative 3, which is analyzed to provide context to the preferred alternative, includes a substantial decrease in the summer flounder, scup, and black sea bass commercial quotas (19.4, 51.3, and 49.8 percent, respectively) and recreational harvest limits (19.4, 57.2, and 49.6 percent, respectively) from 2014 previously implemented specifications (Table 24). This alternative includes quotas and harvest limits substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Positive impacts on the summer

flounder, scup, and black sea bass resource would be expected under 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 neutral to positive, when compared to the no action/*status quo* alternative (Table 23; cell B). Overall, alternative 3 is expected to result in biological impacts that are positive, when compared to the no action/*status quo* alternative.

7.1.2 Quota Alternatives for 2015

When comparing across the 3 alternatives for 2015 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*).

7.1.2.1 Alternative 1 (Preferred 2015)

The decrease in summer flounder commercial quota and recreational harvest limit under alternative 1 (5.7 percent each; Table 25) is 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 2013, 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 compared to the *status quo*. 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 the no action alternative (Table 23; cell B). For summer flounder, alternative 1 is expected to result in biological impacts that range from neutral to slight positive when compared to the no action alternative.

Table 25. The percentage difference between the proposed commercial quotas and recreational harvest limits under each 2015 alternative and the "no action/*status quo*" 2014 commercial quotas and recreational harvest limits (previously implemented 2014 measures).

Species	2014 *Status Quo*	2015		
		Alternative 1 Preferred	Alternative 2 *Status Quo*	Alternative 3 Most Restrictive
Summer flounder	Commercial Quotas	-5.7	0.0	-19.4
	Recreational Harvest Limits	-5.7	0.0	-19.4
Scup	Commercial Quotas	-6.2	0.0	-51.3
	Recreational Harvest Limits	-6.1	0.0	-57.2
Black sea bass	Commercial Quotas	0.0	0.0	-49.8
	Recreational Harvest Limits	0.0	0.0	-49.6

The scup commercial quota decrease under alternative 1 (6.2 percent; Table 25) and decrease in recreational harvest limit (6.1 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 through 2013. 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 in 2012. For 2015, even though the commercial quota under alternative 1 is lower than that previously implemented for 2014 (*status quo*), it is still about 31.2 percent higher than the 2012 observed landings (Table 22). 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 that 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 the *status quo* (Table 23; cell E). Thus,

for scup, alternative 1 is expected to result in biological impacts that are neutral when compared to the *status quo*.

The black sea bass commercial quota and recreational harvest limit under alternative 1 are identical to the *status quo* (Table 25). The measures contained under this alternative 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 2013, is expected to result in neutral impacts on the managed resource overall. Given that the commercial quota and recreational harvest limit under alternative 1 are equivalent to the *status quo*, and that fish availability is expected to be similar in 2014, fishing effort and interactions with other non-target species are expected to remain relatively stable (Table 23; cell E). Thus, these harvest limits are expected to have neutral effects on the incidental catch rates of non-target species when compared to the *status quo* alternative. For black sea bass, alternative 1 is expected to result in neutral biological impacts.

7.1.2.2 Alternative 2 (Status Quo 2015)

2015 alternative 2 (*status quo*) is identical to 2014 alternative 2 (no action/*status quo*). The biological impacts of the *status quo* alternative in 2015 are thus expected to be neutral compared to the 2014 no action/*status quo* alternative (section 7.1.1.2).

7.1.2.3 Alternative 3 (Most Restrictive 2015)

2015 alternative 3 (most restrictive) is identical to 2014 alternative 3 (most restrictive) and is provided to add context to the analyses within this action. The biological impacts of the most restrictive alternative in 2015 are thus expected to neutral compared to the 2014 no action/*status quo* alternative (section 7.1.1.3).

7.1.3 Research Set-Aside

For 2014, under alternative 1A, the summer flounder, scup, and black sea bass proposed research set-aside amounts for 2014 would be equivalent to the previously implemented 2014 RSA amounts. Under alternative 1B, proposed research set-aside amounts for 2014 would be equivalent to up to 3% of the new 2014 TAL, revised based on the implemented quota alternative for 2014. For 2015, under alternative 2A, no RSA would be specified in 2015. Under alternative 2B, proposed RSA amounts would be specified at up to 3% of the TAL for each species.

Because all summer flounder, scup, and black sea bass landings count against the 2014 and 2015 overall quotas regardless of whether an RSA is implemented or the specific RSA level, the biological impacts would not change as the result of adoption of any of these alternatives for 2014 or 2015. Under alternatives 1A, 1B, and 2B, indirect positive effects would be expected from broadening the scientific base upon which management decisions are made.

Under alternatives 1A, 1B, and 2B, 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 any of the

alternatives 1A, 1B, or 2B were adopted. In addition, these alternatives are expected to indirectly benefit the resource as selected projects will likely provide information that will improve resource science and management.

Federally permitted vessels harvesting RSA 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 and season closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting RSA quota. Vessels harvesting RSA quota would operate within all other regulations, unless otherwise exempted through a separate permit. 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. In addition, because recreational fishing seasons were established to prolong recreational fishing opportunities, these exemptions will have no adverse biological effect on the resource. Further, because RSA quota is set-aside prior to setting recreational quotas, these waivers will have no adverse effect on recreational fishing opportunities. 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 5.3.1.2, 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 seasons 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.

Table 26. Status of stock for potential non-target species for all proposed 2014 Mid-Atlantic research set-aside projects as of January 2014 (Source: NMFS/GARFO).

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

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

7.4 Socioeconomic Impacts

7.4.1 Quota 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). Alternative 2 (no action/*status quo*) is expected to result in neutral social and economic impacts.

7.4.1.1 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 the no action/*status quo* alternative. For scup and black sea bass, no revenue change is expected when compared to the no action/*status quo* alternative 2.

If recreational landings for summer flounder and scup are the same in 2013 as in 2012 (6.51 and 4.18 million lb, respectively), the recreational harvest limits under alternative 1 (7.01 and 7.03 million lb, respectively) are expected to constrain recreational landings in 2014 for these species. As such, it is unlikely that more restrictive measures (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2014 when compared to 2013. If black sea bass recreational landings are the same in 2013 as in 2012 (3.18 million lb), the recreational harvest limit under this scenario is not expected to constrain recreational landings in 2014. As such, it is likely that more restrictive black sea bass measures (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required in 2014 when compared to 2013. Specific recreational management measures (for all three species) were determined in December when more complete data regarding 2013 recreational landings became available (section 7.0), and will be analyzed in a separate action. Alternative 1 is likely to lower recreational satisfaction for summer flounder and maintain recreational satisfaction for the scup and black sea bass fisheries when compared to the no action/*status quo* (alternative 2).

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 (No Action/Status Quo 2014)

Alternative 2 contains the no action/*status quo* alternatives for summer flounder, scup, and black sea bass. This alternative is expected to result in neutral impacts as the quotas for the three species are identical to those previously analyzed and implemented for 2014 (MAFMC 2012; MAFMC 2013).

If summer flounder, scup, and black sea bass recreational landings are the same in 2013 as in 2012 (6.51, 4.17, and 3.18 million lb, respectively), the recreational harvest limit under this scenario (7.01, 7.03, and 2.26 million lb for summer flounder, scup, and black sea bass, respectively) are expected to constrain recreational landings in 2014 for summer flounder and scup but not for black sea bass. As such, it is likely that more restrictive measures (i.e., lower possession limits, greater minimum size limits, and/or shorter seasons) will be required for black sea bass in 2014 when compared to 2013. The summer flounder and scup recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2013.

The measures contained under the *status quo* alternative for summer flounder 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 this stock is jeopardized. The scup and black sea bass measures contained under this alternative are consistent with the SSC recommendations for ABC.

7.4.1.3 Alternative 3 (Most Restrictive 2014)

Alternative 3 contains the most restrictive measures for summer flounder, scup, and black sea bass in recent years and is included to provide context to the analyses within this action. As a result of the lower summer flounder, scup, and black sea bass commercial quotas of 19.4, 49.8, and 51.3 percent, respectively, negative economic impacts on the summer flounder, scup, and black sea bass fishery are likely to occur, relative to alternative 2 (no action/*status quo*). However, it is possible that given the potential decrease in 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, scup, and black sea bass may mitigate some of the revenue reductions associated with lower quantities of summer flounder, scup, and black sea bass quota availability under alternative 3.

If recreational landings for these three species are the same in 2013 as in 2012 (6.51 million lb for summer flounder, 4.17 million lb for scup, and 3.18 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 not expected to constrain recreational landings for these species in 2014. As such, it is likely that more restrictive measures (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required for all three species in 2014 when compared to 2013. The summer flounder, scup, and black sea bass recreational harvest limits and measures under this scenario will likely decrease recreational satisfaction for these recreational fisheries, relative to no action/*status quo* alternative 2. It is 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 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 2014.

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 (no action/*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 no action/*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 no action/*status quo* alternative. Lastly, it is expected that black sea bass alternatives 1 (preferred) and 2(no action/*status quo*) would result in the greatest positive social and economic impacts on the black sea bass fishery when compared alternative 3.

7.4.2 Quota Alternatives for 2015

When comparing across the 3 alternatives (for the three species combined) for 2015 that follow, alternative 3 (most restrictive) will result in the greatest potential for overall negative social and economic impacts, followed by alternative 1 (preferred) when compared to the 2014 no action/*status quo*. Alternative 2 would result in similar socioeconomic impacts when compared to 2014 no action/*status quo*.

7.4.2.1 Alternative 1 (Preferred 2015)

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 2014 no action/*status quo* alternative. Each state's summer flounder allocation commercial limits will decrease under these adjusted commercial quotas (Table 5). Overall, the projected decrease in landings in 2015 under alternative 1 for summer flounder will likely result in a small revenue decrease relative to the no action/*status quo alternative*.

While the proposed scup commercial quota and recreational harvest limits under alternative this alternative are lower than under the 2014 no action/*status quo* alternative, they are considerably higher than the 2012 commercial and recreational landings, respectively. In 2012, the commercial quota and recreational harvest limit increased by 37 and 47, respectively, when compared to the limits implemented in 2011. The high 2011-2012 commercial quota and recreational harvest limit values did not constrain the fishery in those years as it had in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2013 to 2015, it would be expected that commercial and recreational landings will likely be close to the 2012 landings. However, there is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2013 to 2015. Therefore, for scup, no revenue change is expected if market conditions do not change when compared to 2012.

For black sea bass, the commercial quota and recreational harvest limits under preferred alternative 1 are equivalent to the *status quo*; therefore, it is expected that the same economic impacts are likely to occur when compared to the no action/*status quo* alternative.

Recreational impacts similar to those described under the alternative 1 for 2014 in section 7.4.1.1 also apply here.

The measures for summer flounder, scup, and black sea bass 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.

7.4.2.2 Alternative 2 (*Status Quo* 2015)

The 2015 *status quo* alternative for summer flounder, scup, and black sea bass include the same measures under the no action/*status quo* 2014 allocations. No socioeconomic impacts (positive or negative) are expected when compared to the 2014 no action/*status quo*.

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 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 is jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recommendations for ABC.

7.4.2.3 Alternative 3 (Most Restrictive 2015)

Alternative 3 contains the most restrictive measures for summer flounder, scup, and black sea bass in recent years. As a result of the lower summer flounder and black sea bass commercial quotas of 19.4 percent and 49.8 percent, respectively, negative economic impacts on the summer flounder and black sea bass fishery are likely to occur, relative to the no action/*status quo* 2014 alternative 2. 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 no action/*status quo* alternative for 2014 (19.4 percent) and the 2012 commercial landings (32.0 percent). It is expected that negative economic impacts on the scup fishery are likely to occur, relative to the 2014 no action/*status quo* alternative.

Recreational impacts similar to those described under 2014 quota scenario 3 (section 7.4.1.3) 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 2015.

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 alternatives 1 (preferred) and 2 (*status quo*) would result in the greatest positive social and economic impacts on the black sea bass fishery, while black sea bass alternative 3 would result in the greatest negative social and economic impacts.

7.4.3 Research Set-Aside

For 2014, under alternative 1A, the summer flounder, scup, and black sea bass proposed research set-aside amounts for 2014 would be equivalent to the previously implemented 2014 RSA amounts (levels described below associated with summer flounder quota alternative 2). Under alternative 1B, proposed research set-aside amounts for 2014 would be equivalent to up to 3% of the new 2014 TAL, revised based on the implemented quota alternative for 2014. 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 2012 ex-vessel prices (summer flounder -- $2.28/lb; scup -- $0.70/lb; and black sea bass -- $3.30/lb), the 2014 RSA for the commercial component of the fishery could be worth as much as $741,114, $803,016, and $647,064 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 $475,083 under alternatives 1 and 2, and $231,210 under alternative 3. Lastly, for black sea bass, the commercial component of the RSA could be worth as much as $221,265 under alternatives 1 and 2 and $111,573 under alternative 3.

For 2015, under alternative 2A, no RSA would be deducted from the combined commercial and recreational landings levels for summer flounder, scup, and black sea bass in 2015. Therefore, the initial commercial quotas and recreational harvest limits for these species would 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 2A, 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 2015 alternative 2B, up to 3% RSA would be deducted from the combined commercial and recreational landings levels for summer flounder, scup, and black sea bass in 2015. The research set-aside quantities associated with each alternative evaluated in this document are shown in Table 27. 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 2015 preferred quota alternative 1. 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 2012 ex-vessel prices (summer flounder -- $2.28/lb; scup -- $0.70/lb; and black sea bass -- $3.30/lb), the 2015 RSA for the commercial component of the fishery could be worth as much as $757,120, $803,016, and $647,064 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 $445,893, $475,083, and $231,083 under alternatives 1, 2, and 3, respectively. Lastly, for black sea bass, the commercial component of the RSA could be worth as much as $221,265 under alternatives 1 and 2, and $111,573 under alternative 3.

Table 27. Pounds of RSA under each alternative evaluated.

Alternatives		2014			2015		
		Research Set-Aside	Commercial RSA	Recreational RSA	Research Set-Aside	Commercial RSA	Recreational RSA
Alternative 1 (Preferred)	**Summer flounder**	541,740	325,050	216,690	553,440	332,070	221,370
	Scup	896,130	678,690	217,440	840,990	636,990	204,000
	Black sea bass	136,950	67,050	69,900	136,950	67,050	69,900
Alternative 2 (Non-Preferred: *Status quo*)[1]	**Summer flounder**	587,100	352,200	234,900	587,100	352,200	234,900
	Scup	896,130	678,690	217,440	896,130	678,690	217,440
	Black sea bass	136,950	67,050	69,900	136,950	67,050	69,900
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

[1] For 2014, Alternative 2 is the no action/*status quo* alternative.

In 2014, the commercial RSAs could result in a potential decrease in summer flounder revenues of $1,158, $1,255, and $1,011 per vessel under evaluated alternatives 1, 2, and 3, respectively. The potential decrease in revenue for scup is $917 per vessel under alternatives 1 and 2 and $446 per vessel under alternative 3. Lastly, the potential decrease in revenue for black sea bass is $376 per vessel under alternatives 1 and 2 and $189 per vessel under alternative 3. The values estimated above assume an equal decrease in revenue among all active vessels in 2012, i.e., the 640, 518, and 589 commercial vessels that landed summer flounder, scup, and black sea bass, respectively, in that year. In 2015 the commercial RSAs could result in a potential decrease in summer flounder, scup, and black sea bass revenues of $1,183, $861, and $376 per vessel under alternative 1. 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 2014 described above.

The adjusted commercial quotas analyzed in sections 7.4 account 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 decrease in quota under alternative 3 (most restrictive alternative) in both 2014 and 2015, 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 these 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 2014 bluefish specifications package.

In 2014, 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 2014 are from 7.01 (with RSA deducted) to 7.22 million lb (without RSA) for alternative 1, from 7.83 to 7.59 million lb under alternative 2, and from 6.31 to 6.12 million lb under alternative 3. For the analyzed scup alternatives, the changes in the recreational harvest limits in 2014 are from 7.25 to 7.03 million lb under alternatives 1 and 2 and from 3.10 to 3.01 million lb under alternative 3. Lastly, for the analyzed black sea bass alternatives, the changes in the recreational harvest limits in 2014 are from 2.33 to 2.26 million lb under alternatives 1 and 2 and from 1.17 to 1.14 million lb under alternative 3. Changes in the recreational harvest limit will also be small in 2015, under the summer flounder, scup, and black sea bass preferred alternative 1, the limit changes from 7.40 to 7.16, from 6.80 to 6.60, and from 2.33 to 2.26 million lb, respectively. The change in other recreational harvest limit combinations would be similar to those in 2014. 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.

7.4.4 Winter II Possession Limit

This alternative was recommended by the Council because of industry interest in increasing the possession limit to 12,000 lb to enable more efficient prosecution of the fishery (i.e., ability to land more fish with fewer trips); given current fuel prices and the increases in commercial quotas in recent years. For the 2011-2012 period combined, 2.5 percent of the trips (154 trips) landed 5,000 or more pounds of scup during the winter II period. Stakeholders have indicated that the increase in the trip limit under alternative 2 would allow vessels fishing during the Winter II period to land larger quantities of scup on a per trip basis thus take advantage of higher scup availability and/or quota. Stakeholders have also indicated that on trips where multiple species are targeted, the potential increase in scup landings on a per trip basis will allow these trips to make extra revenues that will, for example, cover portions of the trips costs (e.g., fuel cost). Furthermore, stakeholders have also indicated that larger amounts of scup landed will contribute to the further development of additional national and international markets. It is expected that the increase in the Winter II possession limit will result in positive socioeconomic benefits as it may enable efficient prosecution of the fishery (i.e., ability to land more fish with fewer trips) when compared to the *status quo* (alternative 1).

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 two years (2015) into the future. This period was chosen because it is the effective length of the action, and 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 Document

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 were considered when determining the combined effects from past, present, and reasonably foreseeable future actions. Each activity that has been considered as part of this cumulative impacts analysis is weighted the same as any other. We lack the resources to quantify whether any one non-fishing activity would result in greater impacts to a particular VEC versus any other (this includes global climate change). 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.

Global Climate Change General

U.S. average temperature has increased by about 1.5°F since 1895; more than 80% of this increase has occurred since 1980. The most recent decade was the nation's hottest on record. U.S. temperatures will continue to rise, with the next few decades projected to see another 2°F to 4°F of warming in most areas. The amount of warming by the end of the century is projected to correspond closely to the cumulative global emissions of greenhouse gases up to that time; between 3°F to 10°F depending on whether emissions are drastically reduced (NCADAC draft report 2013). Global climate change already has had observable effects: glaciers have shrunk, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted, and trees are flowering sooner.

Global climate change will affect all components of marine ecosystems, including human

communities. Physical changes that are occurring and will continue to occur to these systems include sea-level rise, changes in sediment deposition, changes in water circulation, increased frequency, intensity and duration of extreme climate events, changing water chemistry, and warming ocean temperatures. Emerging evidence demonstrates that these physical changes are resulting in direct and indirect ecological responses within marine ecosystems which may alter the fundamental production characteristics of marine systems (Stenseth et. al. 2002). Climate change will potentially exacerbate the stresses imposed by harvesting (fishing) and other non-fishing human activities and stressors (described in this section). Potential mitigation and adaptation strategies to climate change are unknown as the science surrounding predicting, evaluating, monitoring and categorizing these changes is evolving.

It is not currently feasible to link individual project contribution of GHG to global climate change. Determining significant effects of specific proposals on global climate change cannot be made at any scale given the complex nature of climate change. Fisheries and aquaculture activities do make a minor contribution to GHG emissions during harvesting operations, transport, and the processing and storage of fish (FAO intro). When compared to other industries, such as energy production, the contributions by fisheries and aquaculture of GHG is small, if not negligible. Management measures that reinforce efforts to improve sustainability, such as reductions in fishing effort and fleet capacity, would mitigate the carbon emissions contribution of the fishing industry to the global production of GHG. Alternative measures considered that would result in a shift of fishing effort may then increase trip distances and increase GHG emissions.

Some specific impacts of global climate change that have been predicted on each of the VECs for are described in the cumulative impacts analysis, below.

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 two 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; gear requirements	**Indirect Positive** Reduced effort levels; gear requirements	**Indirect Positive** Reduced effort levels; gear requirements	**Indirect Positive** Benefited domestic businesses
P, Pr, RFF Development, Application, and Revision 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
Pr, RFF Omnibus Revised Recreational AMs Implemented	Revisions to recreational accountability measures for all three plan species	**Potentially Neutral** Pending full analysis	**Potentially Neutral** Pending full analysis	**Potentially Neutral** Pending full analysis	**Potentially Neutral** 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

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 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
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 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 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.

Climate change is already impacting fishery resources by shifting distributions, abundances, and phenology of species and the communities that depend on them. For example, cold water species are shifting northward. Some of these shifts are in response to warming waters and some are in response to changes in population abundance and age-structure. Water temperatures are known to exert significant influence different life stages, on reproductive and developmental processes, growth rates, and increase the likelihood of disease. With shifting species distribution, loss of habitat, and changes in mortality, the ability of some fish stocks to respond to harvesting pressure may be reduced, while the ability of some fish stocks may be increased.

These impacts are expected to intensify in the future, increasing the need for a better understanding of which fishery resources are the most vulnerable. NMFS has developed a tool for rapidly assessing and indexing the vulnerability of fish stocks to climate change. The index can help fishery managers identify high vulnerability stocks and more effectively target limited research and assessment resources on stocks of highest concern. The methodology combines a stock's exposure and sensitivity (which includes adaptive capacity) to estimate overall vulnerability. Pilot tests have found the methodology to be robust across temperate and tropical ecosystems. A full assessment will be run in the northeast U.S. for all managed fish and shellfish species in the Spring of 2014 (Nelson et al. in prep).

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 (76 FR 60606) and this process has been carried forward into the 2014 and 2015 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**		
Amendment to revise recreational AMs implemented	**Uncertain – Likely Neutral**		
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 redevelopment 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**		
Amendment to revise recreational AMs implemented	**Uncertain – Likely Neutral**		
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.

Climate change is expected to have an impact on the physical characteristics and habitat aspects of marine ecosystems, and possibly change the very nature of these ecosystems. Increased frequency and intensity of extreme weather events, like hurricanes, may change the physical structure of coastal areas. Water circulation, currents, and the proportion of source waters/freshwater intrusion have been observed to be changing (Ecosystem Status Report, NEFSC, 2011) which influences salinity, water column stratification, transport of nutrients, and food web processes. All of these factors, in addition to others like ocean acidification and changes to water chemistry (Rebuck et al. in prep), threaten living elements of the marine environment, such as corals and shellfish, and may be related to the observed shifts in the planktonic community structure that forms the basis of the marine food web (ecosystem status report).

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**		
Amendment to revise recreational AMs implemented	**Uncertain – Likely Neutral**		
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).

For sea turtles, changes to both their marine and terrestrial environment due to climate change pose a challenge. Recent studies suggest that warming temperatures at nesting beaches could have the strongest impacts on sea turtle populations due to reduced nest success and recruitment (Santidrian-Tomillo et al. 2012; Saba et al. 2012). Additionally, increased severity of extreme weather events may create erosion and damage to turtle nest and nesting sites (Goldenberg et al 2001; Webster et al 2005, IPCC 2007), resulting in a further reduction in nest success and recruitment. These potential declines in the success of nesting could have profound effects on the abundance and distribution of sea turtles. Moreover, warming air temperature can also affect the demography of sea turtle populations because the sex ratio of hatchling sea turtles is determined by the temperature during incubation in nesting beaches. Female offspring are produced at warmer temperatures and thus climate change could lead to a lower ratio of males in the population. Changes in water circulation near nesting beaches could affect the early life history stages of sea turtles by transporting passively-drifting hatchlings to waters that may have

increased predation rates (Shillinger et al. 2012). Furthermore, prey availability and quality may also be affected by climate change but these projections are far less certain.
Marine mammals are subject to impacts from global climate change through climate variability, water temperature changes, changes to ocean currents, changes in impact primary productivity and prey species availability. For example, shifts in zooplankton patch formation, which have already been observed, could affect the feeding opportunities and therefore populations of North Atlantic Right Whales (NEQ website). Susceptibility to disease, changes in toxicant exposure, and decreased reproductive success with rising ocean temperatures and related climate-ecosystem changes is also of concern (Burek et. al, 2008). Species that migrate to feeding grounds in polar regions (including many baleen whale populations) may be more susceptible to climate change in the near-term since conditions in the polar regions are changing more rapidly than in temperate regions.

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**		
Amendment to revise recreational AMs implemented	**Uncertain – Likely Neutral**		
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.

As both the physical and ecological elements of the coastal and marine environments change through the impacts described in this section, there will be increasing challenges for the communities and individuals that depend on healthy and productive coasts and marine fisheries. The dynamics of certain fisheries may change entirely. Human communities also face a variety of other threats from changing climate including to human health concerns, energy, transportation, water resources, and food production.

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**		
Amendment to revise recreational AMs implemented	**Uncertain – Likely 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 2014 and 2015 preferred action, as well as past, present, and future actions.

VEC	Status in 2013	Net Impact of P, Pr, and RFF Actions	Impact of the Preferred Action for 2014 and 2015	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.1)	2014 neutral to slightly positive; 2015 neutral 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)	2014 neutral to slightly positive; 2015 neutral to slightly positive (Sections 7.1)	**None**
Habitat	Complex and variable (Section 6.2)	Neutral to positive (Sections 7.5.4 and 7.5.5.3)	2014 neutral to slightly positive; 2015 neutral to slightly positive (Sections 7.1)	**None**
Protected Resources	Complex and variable (Section 6.3)	Positive (Sections 7.5.4 and 7.5.5.4)	2014 neutral to slightly positive; 2015 neutral to slightly positive (Sections 7.1)	**None**
Human Communities	Complex and variable (Section 6.4)	Positive (Sections 7.5.4 and 7.5.5.5)	2014 negative to neutral; 2015 negative to neutral (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 (OY) 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, management measures, 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). Therefore, this action is not expected to be significant or to affect ESA-listed or

MMPA protected species or critical habitat in any manner not considered in previous consultations on the fisheries.

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 2014 and 2015 for the summer flounder, scup and black sea bass fisheries, and proposes an increase to the scup Winter II possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 for 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II

possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter II possession limit. 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 2014 and 2015 summer flounder, scup, and black sea bass fisheries 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.

Harold C Mear — 4/16/14

Regional Administrator for GARFO, 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 September 17-19, 2013, in Baltimore, MD, the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee Meeting held on September 19, 2013, in Baltimore, MD, and during the MAFMC meeting held on October 8-10, 2013 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 2014 and 2015 for the summer flounder, scup, and black sea bass fisheries, and proposes an increase to the scup commercial Winter II possession limit. 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, GARFO, 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 GARFO is conducted by those with expertise in fisheries management and policy, habitat conservation, protected resources, and compliance with the applicable law. Final approval of the specifications document and clearance of the rule is conducted by staff at NOAA Fisheries Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

8.8 Paperwork Reduction Act

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

8.9 Impacts of the Plan Relative to Federalism/EO 13132

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

8.10 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 2014 and 2015, and increase the scup commercial Winter II possession limit. A full description of each alternative, including a discussion of a no action alternative, is given in section 5.0. In 2014, negative economic impacts are anticipated as a result of this action due to quota decrease in summer flounder (7.9 percent) when compared to 2013. For scup and black sea bass neutral economic impacts are anticipated when compared to 2013. In 2015, negative economic impacts are anticipated as a result of this action due to quota decrease in summer flounder (5.7 percent) when compared to the 2014 no action/*status quo* alternatives. Furthermore, neutral economic impacts are expected for scup and black sea bass when compared to 2014 no action/*status quo* alternatives. 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 2014 and 2015 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. The purpose of this action (specifications document) is to revise commercial quotas and recreational harvest limits for the summer flounder fishery in 2014, and to implement commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries in 2015. In addition, this action would increase the commercial Winter II scup possession limit.This analysis supports a more thorough analysis (RFA) which will be completed for the commercial specifications for the FMP species in 2014 and 2015. 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. The Council and Commission's Board met in December 2013 to adopt 2014 recreational management measures when more complete data regarding 2013 recreational landings became 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 harvesting sector, as a firm with receipts (gross revenues) of up to $5.0 and $19.0 million for shellfish and for finfish business, respectively. A small business in the recreational fishery is a firm with receipts of up to $7.0 million. The proposed measures regarding the 2014 and 2015 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 2012 there were 1,976 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 summer flounder could potentially affect all summer flounder permit holders, however, active participants are more likely to be affected in the near term.

In 2012, there were 1,199 vessels that held a valid commercial summer flounder, scup, and/or black sea bass permits. However, not all of those vessels are active participants in either fishery. According to the dealer data, 852 vessels landed summer flounder, scup, and/or black sea bass in 2012.

Some of the vessels with summer flounder, scup, or black sea bass permits may be considered to be part of the same firm because they may have the same owners. Firms are classified as finfish, shellfish, or for hired firms based on the activity which they derive the most revenue.

Using the $5 million cutoff for shellfish firms and the $19 million cutoff for finfish firms, there are 986 entities that are small and 6 that are large assuming average revenues for the 2010-2013 period. The majority of the permitted vessels readily fall within the definition of small business.

Table 35 describes the number of small entities that are active in the summer flounder, scup, and black sea bass fisheries, their average revenues, and their average summer flounder, scup, and black sea bass.[1] In general terms, the active summer flounder, scup, and black sea bass fishery participants derive a small share of gross receipts from the summer flounder, scup, and black sea bass fisheries.

Table 35: Small entities average revenues and summer flounder (FLK), scup (SCP), and black sea bass (BSB) revenues, 2010-2012.

Revenue (millions of dollars(M))	Count of Firms	Average Gross Receipts	Average FLK, SCP, BSB Receipts	FLK, SCP, and BSB Receipts as a Proportion of Gross Receipts
<0.5M	821	$75,685,525	$16,040,291	21.2%
0.5-1M	67	$47,482,424	$8,316,231	17.5%
1-2M	533	$73,899,839	$5,530,499	7.49%
2-6M	33	$110,644,761	$2,175,027	2.0%
6-19M	6	$48,994,222	$2,568,495	5.24%
>19 M	6	$134,399,297	$858,503	0.7%
Total	**986**	$491,106,068	$35,489,045	7.2%

[1]While all of the for-hired (party/charter) firms fall within the definition of small business according to the 2010-2012 average revenues. Some of the for-hired firms also landed summer flounder, scup, and/or black sea bass commercially in the 2010-2012 period. If the contribution of summer flounder, scup, and black sea bass commercial receipts is more than 50 percent of the total, the for-hire firm is considered a commercial operation and is included in Table 35.

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 852 commercial vessels that are active participants (Table 36). 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 the spring. 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 2012. 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 36, 340 commercial vessels did not hold a valid Federal permit for summer flounder, scup, or black sea bass during calendar year 2012.

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 2012, 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 themselves 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 36. Numbers of vessels landing scup, black sea bass and/or summer flounder in 2012.

Landings Class	Landings Combinations	Commercial Vessels (#)
1	Scup Only	34
2	Black Sea Bass Only	81
3	Summer Flounder Only	187
4	Scup/Black Sea Bass	97
5	Scup/Summer Flounder	42
6	Black Sea Bass/Summer Flounder	66
7	Scup/Black Sea Bass/Summer Flounder	345
	Total	852

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 were examined in combination. For example, for 2014, 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 (and also no action alternative for 2014) for summer flounder, scup, and black sea bass (this quota scenario includes measures that were previously implemented for all three species for the 2014 fishing year); and quota scenario 3 would include the most restrictive alternative (also non-preferred) for summer flounder, scup, and black sea bass, which is based on the lowest quota for each species in recent years. The same quota scenario mix is also used to analyze the 2015 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 2012. 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 36) 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 2012. This estimate provides the base from which subsequent quota changes and their associated effects on vessel revenues were compared. Since 2012 is the last full year of data available (partial year data from 2013 could miss seasonal fisheries), it was chosen as the base year for the analysis. As such, 2012 data were used as a proxy for 2013.

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 2014 for all three species versus the base quota year 2013.[2] For 2015, proportional reduction between 2015 measures and the no action/*status quo* adjusted quotas for 2014 (measures that were previously implemented for all three species for the 2014 fishing year); was used to assess revenue changes. RSA estimates were employed to adjust the 2014 and 2015 quotas (section 5.0). For the purpose of estimating the 2014 and 2015 quotas and revenue changes, the following assumptions were made: a) the industry will fully harvest, and not exceed the 2013 quotas; and b) the entire summer flounder, and black sea bass quota allocations will be taken in 2014 and 2015. While the proposed scup commercial quota and recreational harvest limits under alternatives 1 and 2 in 2014 and alternative 1 in 2015 are lower than the base line quotas from which those years are compared against, they are considerably higher than the 2012 commercial and recreational landings, respectively. In 2012, the commercial quota and recreational harvest limit increased by 37 and 47 percent, respectively, when compared to the limits implemented in 2011. The high 2011-2012 commercial quota and recreational harvest limit values did not constrain the fishery

[2] In the socioeconomic discussion presented in section 7.0 of the EA (NEPA), the 2014 measures were compared against the no action/*status quo* adjusted quotas for 2014. This was done because specifications are already in place for summer flounder, scup, and black sea bass for the 2014 fishing year, the 2014 no action alternative is equivalent to the previously implemented 2014 catch and landings limits. However, in the analysis conducted in this section, the 2014 quota scenarios were compared against the 2013 base quota year instead of the no action/*status quo* adjusted quotas for 2014 as this would allow for a more detailed economic analysis of potential impacts. By comparing the 2014 quota scenarios versus the 2013 base quota year, we capture potential revenue changes more accurately as the 2014 quota scenarios for all three species combined are compared against the base year for which we have revenue information available. The implications of doing this are minimal as the potential changes in quotas under the two procedures are small. For example, the potential reduction in summer flounder commercial landings and recreational harvest limit under the procedure used when comparing 2014 quota scenarios against the 2013 base year is approximately 0.2 and 0.5 percent higher, respectively, than when comparing the 2014 quota scenarios against the no action/*status quo* adjusted quotas for 2014. As such, the impacts are considered near identical.

in those years as it occurred in previous years when the commercial quota and recreational harvest limits were considerably lower. Unless market conditions change substantially in 2013 to 2015, it would be expected that commercial and recreational landings will likely be close to the 2012 landings. There is no indication that the market environment for commercially and recreationally caught scup will change considerably in years 2013 to 2015. As such, for cases that show a future allocation that is higher than the 2012 landings, it is assumed that future landings (e.g., 2014 and 2015) would be equal to the 2012 landings. However, for cases that show a future allocation smaller than their 2012 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 2014 and 2015 revenues from all species to the 2013 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.

8.11.2 Description of Quota and Non-Quota Alternatives

8.11.2.1 Quota Alternatives

2014 Alternatives

Section 5.0 contains a full description of the commercial quotas and recreational harvest limits under consideration for 2014 and 2015. 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 no action/*status quo* harvest levels for all three species that were previously implemented for the 2014 fishing year. The combined measures contained under the no action/*status quo* alternative for summer flounder 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 the stock is jeopardized. The scup and black sea bass measures contained under this alternative are consistent with the SSC recommendations 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 2014 includes the lowest commercial quotas and recreational harvest limits in the summer flounder time series (2008), the lowest in the most recent four 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 2014 and are expected to result in the greatest negative social and economic impacts in 2014.

2015 Alternatives

Quota scenario 1 includes preferred harvest levels for summer flounder, scup, and black sea bass. 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, i.e., the currently implemented measures for 2014. This alternative is the same as described under 2014 no action/*status quo* alternative 2. The measures contained under the no action/*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 is jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recommendations for ABC.

Quota scenario 3 includes the most restrictive harvest levels and this alternative is the same as described under 2014 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 2015.

8.11.2.2 Non-Quota Alternatives

Research Set-Aside

For 2014, under alternative 1A, the summer flounder, scup, and black sea bass proposed research set-aside amounts for 2014 would be equivalent to the previously implemented 2014 RSA amounts. Alternative 1B is equivalent to Alternative 1A, with the exception of the research set-aside amounts for summer flounder. Under Alternative 1B, the proposed research set-aside amounts for summer flounder in 2014 would be equivalent to up to 3% of the new 2014 TAL, revised based on the implemented quota alternative for 2014.

For 2015, under alternative 2A, no RSA would be specified in 2015. Under alternative 2B, proposed RSA amounts would be specified at up to 3% of the TAL for each species. Using the proposed 2015 quotas, that would result in 2.8% less RSA available than in 2014.

Winter II Possession Limit

Under alternative 1 (*status quo*), there would be no change to the scup possession limit for the Winter II commercial season. The *status quo* alternative includes a scup commercial Winter II period possession limit of 2,000 lb. If a transfer of quota occurs between Winter I and Winter II, the Winter II possession limit increases at 1,500 lb intervals for every 500,000 lb of scup quota transferred.

Alternative 2 (preferred) includes an increase in the current Winter II period possession limit to 12,000 lb. There would be no changes to the provision increasing the possession limit as quota is rolled over between Winter I and Winter II.

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 2012 dealer data and participation. In addition to this, 2012 permit files were used to describe permit holders in these fisheries. It is important to mention that revenue changes for 2014 and 2015 are dependent upon previous landings and overages. The Council recommended adjusted commercial quotas and recreational harvest limits were not adjusted for 2013 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 2014 specifications late in 2013 when the data are more complete. Likewise, for 2015, any overages and/or final transfers of quota among states will be addressed based on updated 2014 information in subsequent rulemaking.

For the analyses themselves, reductions are estimated by examining the total revenue earned by an individual vessel in 2012 (as a proxy for 2013), and comparing it to its potential revenue in 2014 and 2015, given the changes in fishing opportunity (harvest levels) from 2013 to 2014 and from 2014 to 2015, respectively. In addition, changes in ex-vessel gross revenues associated with the potential change in quotas in 2014 and 2015 assume static (2012) 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 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. 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 10.51, 21.95, and 2.17 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 7.01, 7.03, and 2.26 million lb for flounder, scup, and black sea bass, respectively.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 7.9 and 8.1 percent decrease, respectively, in allowable commercial landings and recreational harvest limit relative to the 2013 allocations. The scup specifications would result in a 6.7 and 6.9 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in no change 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 2012.

8.11.3.1.1 Commercial Impacts

The results of the threshold analysis are presented in Table 37. The analysis of the harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 5 percent or less (relative to 2013) for 212 vessels and 5-9 percent for 428 vessels. In addition, 212 vessels are projected to have no revenue change.

Table 37. 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 (Preferred)				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	34	0	0	34	0	0	0	0	0	0	0
2	BSB Only	81	0	0	81	0	0	0	0	0	0	0
3	FLK Only	187	173	0	0	14	173	0	0	0	0	0
4	SCP/BSB	97	0	0	97	0	0	0	0	0	0	0
5	SCP/FLK	42	28	0	0	14	28	0	0	0	0	0
6	BSB/FLK	66	42	0	0	24	42	0	0	0	0	0
7	SCP/BSB/FLK	345	185	0	0	160	185	0	0	0	0	0
	Totals	852	428	0	212	212	428	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 38). "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 or greater by home state ranged from 1 in each Delaware and Pennsylvania to 74 in each New Jersey (Table 38).

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 38. 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	11	9	0	1	1	9	0	0	0	0	0
DE	3	1	0	2	0	1	0	0	0	0	0
MA	84	64	0	14	6	64	0	0	0	0	0
MD	11	6	0	2	3	6	0	0	0	0	0
NC	70	64	0	4	2	64	0	0	0	0	0
NH	4	2	0	1	1	2	0	0	0	0	0
NJ	107	74	0	19	14	74	0	0	0	0	0
NY	94	11	0	18	65	11	0	0	0	0	0
PA	3	1	0	0	2	1	0	0	0	0	0
RI	89	44	0	11	34	44	0	0	0	0	0
VA	34	23	0	9	2	23	0	0	0	0	0
OTHER[a]	5	2	0	0	0	2	0	0	0	0	0
NOT KNOWN[b]	340	127	0	131	82	127	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 2012, but did not hold any of the requisite Federal permits in 2012. 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 428 vessels showing revenue reduction of 5 percent or greater, 301 are identified as holders of federal summer flounder, scup, or black sea bass permits. The 301 vessels holding various combinations of summer flounder, scup, and black sea bass permits are described in Table 39. It is most common for vessels to have permits for all three species combined, summer flounder only, scup and summer flounder combined, and black sea bass and summer flounder combined.

Table 39. Combinations of 2012 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 2014.

	All 3	FLK only	BSB only	SCP only	SCP/ BSB	SCP/ FLK	BSB/ FLK	None*
Commercial	182	53	9	6	7	23	21	127

* "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 or greater hold permits in other fisheries (Table 40). In particular, most vessels have bluefish (commercial), skates, dogfish, squid-mackerel-butterfish (commercial), tilefish commercial (IFQ and incidental category combined), 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, Massachusetts, North Carolina, and Rhode Island (Table 41).

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 or greater range, vessels in those states are likely to land in their home port state (67-100 percent; Table 41). 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 Virginia, North Carolina, Massachusetts, and New Jersey (Table 41). 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 or greater range are concentrated in New Jersey, North Carolina, Massachusetts, and Rhode Island (Table 42). Within these states, the most impacted counties (largest number of impacted vessels) are: Ocean and Cape May in New Jersey; Dare, Hyde, and Carteret in North Carolina; Bristol in Massachusetts; and Washington in Rhode Island. Some individual ports with 5 or more impacted vessels in these counties are: Cape May (Cape May county, NJ); Barnegat/Barnegat Light and Point Pleasant (Ocean county, NJ); Swan Quarter (Hyde county, NC); Wanchese (Dare county,

NC); and Beaufort (Carteret county, NC); New Bedford (Bristol county, MA); and Point Judith (Washington county, RI). 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 40. Other 2012 permits held by the 301 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 2014.

	Northeast Region Permit Status	Number of Vessels	Percent of Permitted Vessels
Commercial	Multispecies	2	1
	Multispecies - Open access other than P/C Multispecies	87	29
	Surfclam	162	54
	Quahog	161	53
	Scallop - Limited access (Days-at-sea)	82	27
	Scallop - ITQ	79	26
	Scallop - Limited entry - Gulf of Maine general category	10	3
	Scallop - incidental general category	89	30
	Tilefish Commercial (IFQ + incidental categories combined)	254	84
	Herring - Limited access all areas	5	2
	Herring - Limited access area 2 and 3	2	1
	Herring - Limited access incidental	16	5
	Herring - Open access	227	75
	Lobster, trap gear	78	26
	Lobster, non-trap gear	211	70
	Squid/Mackerel/Butterfish	284	94
	Bluefish	297	99
	Dogfish	285	95
	Atl. Deep-Sea Red Crab - Incidental	202	67
	Skate	297	99
	Monkfish - Limited Access	153	51
	Monkfish - Incidental	141	47
Recreational	Squid/Mackerel/Butterfish	5	2
	Bluefish	8	3
	Tilefish	4	1
	Multispecies	1	<1

Table 41. Descriptive information for the commercial vessels showing revenue reductions in the 5 percent or more range (in 2014) based on 2012 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	ME	NC	NH	NJ	NY	RI	VA	Other
# Permits by Home Port State	9	64	6	0	64	2	74	11	44	23	4
# Permits by Principal Port State	10	57	6	1	51	3	78	10	48	36	2
# Permits by Mailing Address State	12	54	5	3	55	3	77	5	47	35	4
Avg. Length in Feet by Principal Port	58	65	56	49	74	46	62	58	54	78	NA
Avg. GRT by Principal Port	73	98	38	38	110	40	79	65	61	130	NA
Avg. Vessel Horsepower	503	495	404	365	507	314	536	425	395	629	NA
% of Vessels where Home Port State = Principal Port State	92	100	100	---	67	92	100	89	89	100	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 2012 ex-vessel prices (summer flounder -- $2.28/lb; scup -- $0.70/lb; and black sea bass -- $3.30/lb), the 2014 quotas associated with this scenario would decrease summer flounder revenues by approximately $2.1 million relative to the quota implemented in 2013. In addition, no revenue changes are expected for black sea bass. 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 2012. 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 (640), the average decrease in revenue associated with the decrease in quota is approximately $3,206. 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.

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 may be expected that if more trips are taken, the increase in gross revenues may be overstating the economic impacts.

Table 42. Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 1 (preferred; in 2014; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2012 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	5
Connecticut	New London	New London	3
		Stonington	3
		Various (3 ports)	3
Massachusetts	Bristol	New Bedford	32
		Various (1 port)	2
	Barnstable	Woods Hole	3
		Various (3 ports)	5
	Suffolk	Boston	11
	Plymouth	Scituate	3
		Various (3 ports)	4
New Jersey	Cape May	Cape May	28
		Various (4 ports)	4
	Ocean	Barnegat/Barnegat Light	15
		Point Pleasant	8
		Point Pleasant Beach	3
		Toms River	3
		Various (1 port)	1
	Monmouth	Belford	10
		Various (2 ports)	2
New York	Suffolk	New York	6
		Various (3 ports)	4

Table 42 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 1 (preferred; in 2014; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2012 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
Rhode Island	Washington	Point Judith	21
		Wakefield	4
		Narragansett	3
		Various (2 ports)	2
	Newport	Newport	5
		Little Compton	3
		Tiverton	3
		Various (1 port)	2
North Carolina	Hyde	Swan Quarter	11
		Engelhard	4
	Dare	Wanchese	15
		Various (2 ports)	2
	Pamlico	Lowland	5
		Various (2 ports)	2
	Craven	New Bern	8
	Carteret	Beaufort	10
		Various (1 port)	1
	Beaufort	Aurora	3
		Belhaven	4
Virginia	City of Norfolk	Norfolk	3
	City of Newport News	Newport News	5
	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 on occasion exceeded the recreational harvest limits during the 1993-2012 time period, ranging from 5 percent in 1993 to 122 percent in 2000. For the last five years combined, recreational landings have been 25 percent (10.71 million lb) below the recreational limit. For 2011 and 2012, recreational landings were 49 percent (5.62 million lb) and 27 percent (2.30 million lb) below the limits for those years, respectively (Table 43).

Table 43. Number of summer flounder recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2015.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb)	Recreational Landings 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	4,239,440	8.59[c]	6.61
2013	NA	7.63[c]	NA
2014	---	7.01[c,d]	---
2015	---	7.16[c,d]	---

[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 a flat trend from the early 1990s to the late 2000s (from Maine through North Carolina combined). However, for the 2003 to 2012 period, the trend shows a slight decrease. Summer flounder recreational trips averaged 5.0 million for the 1991-2012 period, ranging from 3.8 million in 1992 to 6.1 million in 2001. On average, for the 2008-2012 period, summer flounder recreational fishing trips were estimated at 4.5 million trips; ranging from 4.9 million in 2008 to 4.3 million in 2012 (Table 43).

If summer flounder recreational landings are the same in 2013 as in 2012 (6.51 million lb), the recreational harvest limit under this scenario is not expected to be exceeded 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 recreational harvest limit under this scenario will likely maintain recreational satisfaction for the summer flounder recreational fishery, relative to 2013.

Scup recreational landings declined over 89 percent for the period 1991 to 1998, then increased by 518 percent from 1998 to 2000 (Table 44). 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 landings 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 2012 period. Recreational landings decreased in 2005 and 2006 to 2.54 and 2.93 million lb respectively. In 2007 through 2012, scup recreational landings increased to 3.65, 4.04, 2.94, 5.74, 3.66, and 4.01 million lb, respectively. The number of trips for which recreational anglers targeted scup has shown an upward trend from the entire time series (1991-2012); however, from 2008 to 2012, the trend is flat. Scup recreational trips averaged 0.57 million lb for the 1991 to 2012 period, ranging from 0.20 million lb in 1997 to 0.97 million lb in 2003. On average, for the 2008-2012 period, scup recreational fishing trips were estimated at 0.57 million, ranging from 0.70 million in 2010 to 0.48 million in 2011. In 2012, the number recreational fishing trips that targeted scup was estimated at 0.60 million (Table 44).

If scup recreational landings are the same in 2013 as in 2012 (4.17 million lb), the recreational harvest limit under this scenario is expected to constrain recreational landings in 2014. The scup recreational harvest limit under this scenario will likely maintain recreational satisfaction for the scup recreational fishery when compared to 2013.

Table 44. Number of scup recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2015.

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	603,127	8.45[d]	4.17
2013	NA	7.55[c]	NA
2014	---	7.03[c,d]	---
2015	---	6.60[c,d]	---

[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 2003-2012, 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 1.17 million lb (103 percent) and 1.15 million lb (63 percent) above the recreational limit implemented that year, respectively. In 2011, recreational landings were 27 percent (0.46 million pounds) below the implemented limit. However, in 2012, recreational landings were 150 percent (1.98 million lb) above the limit implemented that year.

Black sea bass recreational trips averaged 0.27 million for the 1991-2012 period, ranging from 0.14 million in 1999 to 0.42 million in 2010. On average, for the 2008-2012 period, black sea bass recreational fishing trips were estimated at 0.31 million; ranging from 0.42 million in 2010 to 0.19 million in 2011 (Table 45).

If black sea bass recreational landings are the same in 2013 as in 2012 (3.18 million lb), the recreational harvest limit under this scenario is not expected to constrain recreational landings in 2014. 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 2014 when compared to 2013.

As mentioned above, the specific management measures for these recreational fisheries will be analyzed in a separate action later this spring.

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 43 to 45). 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 2003 to 2012, the trend is downward. On average, for the 1990-2012 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 2011 and 2012, 22 and 21 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. On average, for the 1990-2012 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 (2003-2012), 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 2012, 1.3 million party/charter trips were taken in the Northeast region.

Table 45. Number of black sea bass recreational fishing trips, recreational harvest limit, and recreational landings from 1991 to 2015.

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	1.78[c]	1.27
2012	267,934	1.32[c]	3.18
2013	NA	2.26[c]	NA
2014	---	2.26[c,d]	---
2015	---	2.26[c,d]	---

[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 2012 period. On average, for the 1990 to 2012 period, 3.5 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 (2003-2012), the number of anglers participating in marine recreational trips in both regions combined has ranged from 3.6 in 2012 to 5.1 million in 2007 (averaging 4.2 million). In 2012, 3.6 million anglers fished in both sub-regions combined.

8.11.3.1.3 Other Non-Quota 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 2014 and 2015 commercial quotas and recreational harvest limits and the commercial Winter II scup possession limit. Changes to other commercial management measures were not recommended for 2014 and 2015 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 2014 and 2015 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 are expected to be minimal. The commercial set-aside could be worth as much as $741,114, $475,083, and $221,265 for summer flounder, scup, and black sea bass based on 2012 prices, respectively, under quota scenario 1. Assuming an equal reduction among all active vessels (i.e., 640, 518, and 589 commercial vessels that landed summer flounder, scup, and black sea bass in 2012, respectively), this may mean a reduction of $1,158, $917, and $376 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.

Effects of the Winter II Possession Limit

This alternative was recommended by the Council because of industry interest in increasing the possession limit to 12,000 lb to enable more efficient prosecution of the fishery (i.e., ability to

land more fish with fewer trips); given current fuel prices and the increases in commercial quotas in recent years. For the 2011-2012 period combined, 2.5 percent of the trips (154 trips) landed 5,000 or more pounds of scup during the winter II period. Stakeholders have indicated that the increase in the trip limit under alternative 1B would allow vessels fishing during the Winter II period to land larger quantities of scup on a per trip basis thus take advantage of higher scup availability and/or quota. Stakeholders have also indicated that on trips where multiple species are targeted, the potential increase in scup landings on a per trip basis will allow these trips to make extra revenues that will, for example, cover portions of the trips costs (e.g., fuel cost). Furthermore, stakeholders have also indicated that larger amounts of scup landed will contribute to the further development of additional national and international markets. It is expected that the increase in the Winter II possession limit will result in positive socioeconomic benefits as it may enable efficient prosecution of the fishery (i.e., ability to land more fish with fewer trips) when compared to the *status quo* (alternative 1B).

8.11.3.2 Quota Scenario 2 (No Action/*Status Quo* 2014)

This quota scenario examines the impacts on industry that would result from the no action/*status quo* landings limits for summer flounder, scup, and black sea bass (this quota scenario includes measures that were previously implemented for all three species for the 2014 fishing year). This scenario contains commercial quotas of 11.39, 21.95, and 2.17 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational harvest limits of 7.59, 7.03, and 2.26 million lb for flounder, scup, and black sea bass, respectively. The overall measures under this alternative would provide similar overall fishing opportunities for the black sea bass fisheries in 2014 when compared to 2013 and near identical for the summer flounder fisheries. 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 2012.

8.11.3.2.1 Commercial Impacts

The results of the threshold analysis are presented in Table 46. The analysis of the harvest levels under this alternative indicate that across all vessel classes, a total of 525 vessels are projected to incur in revenue losses in the order of 5 percent or less. In addition, 115 vessels are projected to incur in revenue gains and 212 vessels are projected to have no revenue change.

Table 46. Threshold analysis of revenue impacts for participating vessels associated with the 2014 combined summer flounder, scup, and black sea bass quota under scenario 2 (no action/*status quo*). "FLK" is summer flounder, "BSB" is black sea bass, and "SCP" is scup.

Quota Scenario 2 (No Action/*Status Quo*)				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	34	0	0	34	0	0	0	0	0	0	0
2	BSB Only	81	0	0	81	0	0	0	0	0	0	0
3	FLK Only	187	0	14	0	173	0	0	0	0	0	0
4	SCP/BSB	97	0	0	97	0	0	0	0	0	0	0
5	SCP/FLK	42	0	11	0	31	0	0	0	0	0	0
6	BSB/FLK	66	0	6	0	60	0	0	0	0	0	0
7	SCP/BSB/FLK	345	0	84	0	261	0	0	0	0	0	0
	Totals	852	0	115	212	525	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 47). "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 losses of 5 percent or greater by home state ranged from 1 vessel in Delaware to 87 vessels in New Jersey.

Table 47. 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	11	0	0	1	10	0	0	0	0	0	0
DE	3	0	0	2	1	0	0	0	0	0	0
MA	84	0	0	14	70	0	0	0	0	0	0
MD	11	0	0	2	9	0	0	0	0	0	0
NC	70	0	0	4	66	0	0	0	0	0	0
NH	4	0	0	1	3	0	0	0	0	0	0
NJ	107	0	1	19	87	0	0	0	0	0	0
NY	94	0	66	18	10	0	0	0	0	0	0
PA	3	0	0	0	3	0	0	0	0	0	0
RI	89	0	2	11	76	0	0	0	0	0	0
VA	34	0	1	9	24	0	0	0	0	0	0
OTHER[a]	2	0	0	0	2	0	0	0	0	0	0
NOT KNOWN[b]	340	0	45	131	164	0	0	0	0	0	0
Total	852	0	115	212	525	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 2012, but did not hold any of the requisite Federal permits in 2012. 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. 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 2012 ex-vessel prices (summer flounder -- $2.28/lb; scup -- $0.70/lb; and black sea bass -- $3.30/lb), the 2014 coastwide quota associated with this scenario would decrease summer flounder revenues by approximately $45,600 relative to the quota implemented in 2013. In addition, no revenue changes are expected for black sea bass. 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 2012. As such, no change in revenue is expected for scup under this scenario.

Assuming the coastwide decrease in summer flounder ex-vessel gross revenues under this scenario was distributed equally among the vessels that landed summer flounder and are projected to incur in revue losses of 5 percent or less (525), the average decrease in revenue associated with the decrease in quota is approximately $87.

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 2013 as in 2012 (6.51, 4.17, and 3.18 million lb, respectively), the recreational harvest limit under this scenario (7.01, 7.03, and 2.26 million lb for summer flounder, scup, and black sea bass, respectively) are expected to constrain recreational landings in 2014 for summer flounder and scup, but not for black sea bass. 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 for black sea bass in 2014 when compared to 2013. The summer flounder and scup recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2013.

8.11.3.2.3 Other Non-Quota 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 $803,016, $475,083, and $221,265 for summer flounder, scup, and black sea bass based on 2012 prices, respectively, under quota scenario 2. Assuming an equal reduction among all active vessels (i.e., 640, 518, and 589 commercial vessels that landed summer flounder, scup, and black sea bass in 2012, respectively), this may mean a reduction of $1,255, $917, and $376 per individual vessel for summer flounder, scup, and black sea bass, respectively.

Effects of the Winter II Possession Limit

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

8.11.3.3 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.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 19.5 and 19.8 percent decrease, respectively, in allowable commercial landings and recreational harvest limit relative to the 2013 allocations. The scup specifications would result in a 54.6 and 60.1 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 49.8 and 49.6 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 48. 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 239 vessels, 20-29 percent for 227 vessels, 30-39 for 98 vessels, 40-49 for 175 vessels, and equal or greater to 50 percent for 113 vessels. The number of vessels with revenue reduction of ≥ 5 percent by home state ranged from 3 in Delaware to 107 in New Jersey (Table 49).

Table 48. 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	34	34	0	0	0	0	0	0	0	0	34
2	BSB Only	81	81	0	0	0	0	0	0	0	81	0
3	FLK Only	187	187	0	0	0	0	187	0	0	0	0
4	SCP/BSB	97	97	0	0	0	0	0	0	0	32	65
5	SCP/FLK	42	42	0	0	0	0	14	19	6	1	2
6	BSB/FLK	66	66	0	0	0	0	14	28	9	15	0
7	SCP/BSB/FLK	345	345	0	0	0	0	24	180	83	46	12
	Totals	852	852	0	0	0	0	239	227	98	175	113

Table 49. 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	11	11	0	0	0	0	0	7	2	0	2
DE	3	3	0	0	0	0	0	1	0	2	0
MA	84	84	0	0	0	0	40	23	4	9	8
MD	11	11	0	0	0	0	5	0	1	5	0
NC	70	70	0	0	0	0	35	28	2	5	0
NH	4	4	0	0	0	0	2	0	0	0	2
NJ	107	107	0	0	0	0	32	35	16	23	1
NY	94	94	0	0	0	0	14	30	16	23	11
RI	89	89	0	0	0	0	8	26	32	14	9
PA	3	3	0	0	0	0	1	0	1	1	0
VA	34	34	0	0	0	0	19	4	1	10	0
OTHER[a]	2	2	0	0	0	0	1	1	0	0	0
NOT KNOWN[b]	340	340	0	0	0	0	82	72	23	83	80
Total	852	852	0	0	0	0	239	227	98	175	113

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

[b]Vessels have shown landings of either of those three species in 2012, but did not hold any of the requisite Federal permits in 2012. 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 852 vessels showing revenue reduction of 5 percent or greater, 512 are identified as holders of Federal summer flounder, scup, or black sea bass permits. The 512 vessels holding various combinations of summer flounder, scup, and black sea bass permits are described in Table 50. It is most common for vessels to have permits for all three species combined, scup and black sea bass combined, fluke only, and black sea bass only.

Table 50. Combinations of 2012 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	280	57	47	12	63	27	26	340

* "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 or greater hold permits in other fisheries (Table 51). In particular, most vessels have bluefish (commercial), dogfish, squid-mackerel-butterfish (commercial), skates, and tilefish commercial (IFQ and incidental combined). 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, Rhode Island, Massachusetts, 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 52).

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 or greater range, vessels in those states are likely to land in their home port state (74-100 percent; Table 52). 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, New Jersey, and Massachusetts (Table 52). 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 or greater range are concentrated in New Jersey, New York, Rhode Island, Massachusetts, and North Carolina (Table 53). Within these states, the most impacted counties (largest number of impacted vessels) are: Ocean and Cape May in New Jersey; Suffolk and New York in New York; Washington and Newport in Rhode Island; Bristol, Suffolk, Barnstable and Plymouth in Massachusetts; 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/Barnegat Light and Point Pleasant (Ocean county, NJ); Montauk, Shinnecock, and Hampton Bays (Suffolk county, NY); New York (New York county, NY); Point Judith and Wakefield (Washington county, RI); Newport, Sakonnet Point, and Little Compton (Newport county, RI); New Bedford (Bristol county, MA); Boston (Suffolk county, MA); Scituate (Plymouth county, MA); 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 51. Other 2012 permits held by the 512 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 2014.

	Northeast Region Permit Status	Number of Vessels	Percent of Permitted Vessels
Commercial	Multispecies	3	1
	Multispecies - Open access other than P/C Multispecies	157	31
	Surfclam	210	41
	Quahog	209	41
	Scallop - Limited access (Days-at-sea)	93	18
	Scallop - ITQ	101	20
	Scallop - Limited entry - Gulf of Maine general category	12	2
	Scallop - incidental general category	123	24
	Tilefish Commercial (IFQ + incidental categories combined)	418	82
	Herring - Limited access all areas	10	2
	Herring - Limited access area 2 and 3	4	1
	Herring - Limited access incidental	29	6
	Herring - Open access	372	73
	Lobster, trap gear	166	32
	Lobster, non-trap gear	299	58
	Squid/Mackerel/Butterfish	461	90
	Bluefish	502	98
	Dogfish	479	94
	Atl. Deep-Sea Red Crab - Incidental	323	63
	Skate	455	89
	Monkfish - Limited Access	213	42
	Monkfish - Incidental	265	52
Recreational	Multispecies	12	2
	Squid/Mackerel/Butterfish	27	5
	Bluefish	37	7
	Tilefish	21	4
	Lobster	2	<1

Table 52. Descriptive information for the commercial vessels showing revenue reductions in the 5 percent or more range (in 2014) based on 2012 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	PA	RI	VA	ME	Other
# Permits by Home Port State	11	3	84	11	70	4	107	94	3	89	34	0	2
# Permits by Principal Port State	12	3	73	11	57	5	113	91	0	98	48	1	1
# Permits by Mailing Address State	14	4	67	10	61	6	113	85	1	99	47	3	2
Avg. Length in Feet by Principal Port	60	47	59	52	71	45	60	46	--	54	67	49	N/A
Avg. GRT by Principal Port	78	17	82	35	102	34	73	42	--	61	104	38	N/A
Avg. Vessel Horsepower	519	552	456	402	479	307	530	371	--	442	567	365	N/A
% of Vessels where Home Port State = Principal Port State	93	100	100	100	82	83	96	100	100	88	74	100	N/A

Table 53. Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under scenario 3 (most restrictive; in 2014; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2012 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	9
		Various (1 port)	1
Connecticut	New London	New London	5
		Stonington	3
		Various (3 ports)	3
Pennsylvania	Philadelphia	Philly	3
New Hampshire	Rockingham	Rye	3
		Various (1 ports)	1
Massachusetts	Bristol	New Bedford	32
		Fairhaven	3
		Various (4 ports)	4
	Barnstable	Woods Hole	3
		Chatham	3
		Various (3 ports)	5
	Suffolk	Boston	17
	Essex	Various (2 ports)	3
	Plymouth	Scituate	5
		Various (4 ports)	5
	Dukes	Various (2 ports)	3
New Jersey	Atlantic	Atlantic City	3
		Various (1 port)	1
	Cape May	Cape May	39
		Sea Isle City	5
		Various (2 ports)	2

Table 53 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under scenario 3 (most restrictive; in 2014; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2012 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 Jersey	Ocean	Barnegat/Barnegat Light	19
		Point Pleasant	15
		Point Pleasant Beach	4
		Toms River	3
		Various (1 port)	1
	Monmouth	Belford	11
		Various (4 ports)	5
New York	Suffolk	Montauk	45
		Shinnecock	8
		Hampton Bays	5
		Various (8 ports)	10
	Nassau	Freeport	6
		Various (3 ports)	4
	New York	New York	17
		Various (1 port)	1
Rhode Island	Washington	Point Judith	51
		Wakefield	5
		Narragansett	4
		Various (5 ports)	5
	Newport	Newport	10
		Sakonnet	5
		Little Compton	5
		Tiverton	4

Table 53 (Continued). Distribution of commercial vessels showing revenue reductions in the 5 percent or more range under quota scenario 3 (most restrictive; in 2014; holding permits for summer flounder, scup, and black sea bass) by state, county and home port, from 2012 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
North Carolina	Hyde	Swan Quarter	11
		Engelhard	4
	Dare	Wanchese	19
		Various (3 ports)	4
	Pamlico	Lowland	5
		Various (2 ports)	2
	Craven	New Bern	8
	Carteret	Beaufort	10
	Beaufort	Belhaven	5
		Aurora	3
Virginia	City of Norfolk	Norfolk	7
		Various (1 port)	2
	City of Newport News	Newport News	5
	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 2014 quotas associated with this scenario would decrease summer flounder and black sea bass revenues by approximately $5.08 and $3.56 million, respectively, relative to the quota implemented in 2013 (assuming the same ex-vessel prices presented above). For scup, the 2014 quota would represent a revenue reduction of $3.51 million relative to the 2012 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 (640), scup (518), and black sea bass (589) in 2012, the average decrease in revenue associated

with the decrease in quota is approximately $7,944, $6,784, and $6,051, 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 $12.16 million decrease (assuming 2012 ex-vessel prices). If this is distributed among the 852 vessels that landed summer flounder, scup, and black sea bass in 2012, the average decrease in revenue is approximately $14,275/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 2014 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 2013 as in 2012 (6.51 million lb), the recreational harvest limit under this scenario (6.12 million lb) is not expected to constraint recreational landings in 2014. 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 2014 when compared to 2013. However, due to the fact that the recreational harvest limit under this alternative is only 6 percent below the 2012 recreational landings, it is possible that relatively similar levels of recreational satisfaction for the summer flounder recreational fishery will likely be maintain, relative to 2013.

If scup and black sea bass recreational landings are the same in 2013 as in 2012 (4.17 and 3.18 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 2014. 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 2014 when compared to 2013. 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 2013.

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 summer flounder, scup, and black sea bass may restrict the recreational fishery for 2014, 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 summer flounder, 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 2014 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 Non-Quota 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 social and economic impacts of this research should be minimal. The commercial RSA component for summer flounder could be worth as much as $647,064 or $1,011 per individual vessel; $231,210 or $446/vessel for scup; and $111,573 or $189/vessel for black sea bass.

Effects of the Winter II Possession Limit

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

8.11.3.4 Quota Scenario 1 (Preferred 2015)

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 10.74, 20.60, 2.17 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 7.16, 6.60, and 2.26 million lb for flounder, scup, and black sea bass, respectively.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 5.7 percent decrease in both allowable commercial landings and recreational harvest limit relative to the 2014 no action/*status quo* allocations. The scup specifications would result in a 6.2 and 6.1 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in no change 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 2015 would be close to the landings realized in 2012.

8.11.3.4.1 Commercial Impacts

The results of the threshold analysis are presented in Table 54. The analysis of the harvest levels under this scenario indicate that the economic impacts from expected revenue losses on the order of 5 percent or less (relative to 2014) for 276 vessels and 5-9 percent for 364 vessels. In addition, 212 vessels are projected to have no revenue change. The projected revenue reduction under this alternative is slightly lower than under alternative 1 in 2014 due to the fact that the potential summer flounder landings reduction in 2015 when compared to 2014 is 2.2 percent lower than the projected landings reduction in 2014 when compared to 2013.

Table 54. Threshold analysis of revenue impacts for participating vessels associated with the 2015 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 (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	34	0	0	34	0	0	0	0	0	0	0
2	BSB Only	81	81	0	81	0	0	0	0	0	0	0
3	FLK Only	187	187	0	0	0	187	0	0	0	0	0
4	SCP/BSB	97	0	0	97	0	0	0	0	0	0	0
5	SCP/FLK	42	28	0	0	14	28	0	0	0	0	0
6	BSB/FLK	66	36	0	0	30	36	0	0	0	0	0
7	SCP/BSB/FLK	345	113	0	0	232	113	0	0	0	0	0
	Totals	852	364	0	212	276	364	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 55). "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 or greater by home state ranged from 1 in each Delaware and Pennsylvania to 54 in each Massachusetts, North Carolina, and New Jersey (Table 55).

It is expected that the combination of permits held by the impacted entities under this quota scenario would be similar to that under quota scenario 1 for 2014 presented in section 8.11.3.1 (Tables 39 to 40). In addition, it is also expected that the descriptive information and geographic

distribution of the impacted vessels under this quota scenario would be similar to that under quota scenario 1 for 2014 (Tables 41 and 42).

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 2015 quotas associated with this scenario would decrease summer flounder revenue by approximately $1.5 million relative to the relative to the 2014 no action/*status quo* allocations. In addition, no revenue changes are expected for black sea bass. 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 2015 would be close to the landings realized in 2012. As such, no change in revenue is expected for scup under this scenario.

Table 55. Review of revenue impacts under quota scenario 1 (preferred; associated with the 2015 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	11	3	0	1	7	3	0	0	0	0	0
DE	3	1	0	2	0	1	0	0	0	0	0
MA	84	54	0	14	16	54	0	0	0	0	0
MD	11	5	0	2	4	5	0	0	0	0	0
NC	70	54	0	4	12	54	0	0	0	0	0
NH	4	2	0	1	1	2	0	0	0	0	0
NJ	107	54	0	19	34	54	0	0	0	0	0
NY	94	19	0	18	57	19	0	0	0	0	0
PA	3	1	0	0	2	1	0	0	0	0	0
RI	89	20	0	11	58	20	0	0	0	0	0
VA	34	22	0	9	3	22	0	0	0	0	0
OTHER[a]	2	2	0	0	0	2	0	0	0	0	0
NOT KNOWN[b]	340	127	0	131	82	127	0	0	0	0	0
Total	852	364	0	212	276	364	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 2012, but did not hold any of the requisite Federal permits in 2012. 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 (640), the average decrease in revenue associated with the decrease in quota is approximately $2,316 per vessel. The changes in ex-vessel gross revenues associated with the potential changes in quotas in 2015 versus 2014 no action/*status quo* allocations 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.

Similar recreational impacts as those described under the quota scenario 1 for 2014 in section 8.11.3.1.2 also apply here.

8.11.3.4.3 Other Non-Quota Impacts

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

The impacts of these non-quota management measures described in 2014 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 social and economic impacts of this research should be minimal. The commercial RSA component for summer flounder could be worth as much as $757,120 or $1,183 per individual vessel; $445,893 or $861/vessel for scup; and $221,265 or $376/vessel for black sea bass.

Effects of the Winter II Possession Limit

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

8.11.3.5 Quota Scenario 2 (*Status Quo* 2015)

This scenario contains commercial quotas of 11.39, 21.95, and 2.17 million lb for summer flounder, scup, and black sea bass, respectively. This scenario also specifies recreational landings limits of 7.59, 7.03, and 2.26 million lb for flounder, scup, and black sea bass, respectively.

8.11.3.5.1 Commercial Impacts

The results of the threshold analysis are presented in Table 56. The analysis of the harvest levels under this alternative indicates that across all vessel classes, a total of 852 vessels were projected to incur no revenue change.

Table 56. Threshold analysis of revenue impacts for participating vessels associated with the 2015 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 (*status quo*)				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	34	0	0	34	0	0	0	0	0	0	0
2	BSB Only	81	0	0	81	0	0	0	0	0	0	0
3	FLK Only	187	0	0	187	0	0	0	0	0	0	0
4	SCP/BSB	97	0	0	97	0	0	0	0	0	0	0
5	SCP/FLK	42	0	0	42	0	0	0	0	0	0	0
6	BSB/FLK	66	0	0	66	0	0	0	0	0	0	0
7	SCP/BSB/FLK	345	0	0	345	0	0	0	0	0	0	0
	Totals	852	0	0	852	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 57). "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 no change in revenue by home state ranged from 3 in Delaware to 107 in New Jersey (Table 57).

Table 57. Review of revenue impacts under quota scenario 2 (*status quo*; associated with the 2015 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	11	0	0	11	0	0	0	0	0	0	0
DE	3	0	0	3	0	0	0	0	0	0	0
MA	84	0	0	84	0	0	0	0	0	0	0
MD	11	0	0	11	0	0	0	0	0	0	0
NC	70	0	0	70	0	0	0	0	0	0	0
NH	4	0	0	4	0	0	0	0	0	0	0
NJ	107	0	0	107	0	0	0	0	0	0	0
NY	94	0	0	94	0	0	0	0	0	0	0
PA	3	0	0	3	0	0	0	0	0	0	0
RI	89	0	0	89	0	0	0	0	0	0	0
VA	34	0	0	34	0	0	0	0	0	0	0
OTHER[a]	2	0	0	2	0	0	0	0	0	0	0
NOT KNOWN[b]	340	0	0	340	0	0	0	0	0	0	0
Total	852	0	0	852	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 2012, but did not hold any of the requisite Federal permits in 2012. 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.

8.11.3.5.2 Recreational Impacts

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

Similar recreational impacts as those described under the quota scenario 2 for 2014 in section 8.11.3.2.2 also apply here.

8.11.3.5.3 Other Non-Quota 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 2014 alternative 2 are expected here.

Effects of the Winter II Possession Limit

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

8.11.3.6 Quota Scenario 3 (Most Restrictive 2015)

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 2014 quota scenario 3.

Under this scenario, the summer flounder specifications would result in an aggregate of approximately 19.4 percent decrease in each allowable commercial landings and recreational harvest limit relative to the 2014 no action/*status quo* allocations. The scup specifications would result in a 51.3 and 57.2 percent decrease, respectively, in allowable commercial landings and recreational harvest limit. The black sea bass specifications would result in a 49.8 and 49.6 percent decrease, respectively, in allowable commercial landings and recreational harvest limit.

8.11.3.6.1 Commercial Impacts

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 2014 no action/*status quo* allocations) for 256 vessels, 20-29 percent for 219 vessels, 30-39 for 96 vessels, 40-49 for 193 vessels, and equal or greater to 50 percent for 88 vessels (Table 58). The number of vessels with revenue reduction of ≥ 5 percent by home state ranged from 3 in Delaware to 107 in New Jersey (Table 59).

Table 58. Threshold analysis of revenue impacts for participating vessels associated with the 2015 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	34	34	0	0	0	0	0	0	0	0	34
2	BSB Only	81	81	0	0	0	0	0	0	0	81	0
3	FLK Only	187	187	0	0	0	0	187	0	0	0	0
4	SCP/BSB	97	97	0	0	0	0	0	0	0	49	48
5	SCP/FLK	42	42	0	0	0	0	20	13	6	2	1
6	BSB/FLK	66	66	0	0	0	0	19	24	8	15	0
7	SCP/BSB/FLK	345	345	0	0	0	0	30	182	82	46	5
	Totals	857	852	0	0	0	0	256	219	96	193	88

Table 59. Review of revenue impacts under quota scenario 3 (most restrictive; associated with the 2015 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	11	11	0	0	0	0	1	7	1	0	2
DE	3	3	0	0	0	0	0	1	0	2	0
MA	84	84	0	0	0	0	46	18	3	10	7
MD	11	11	0	0	0	0	5	1	0	5	0
NC	70	70	0	0	0	0	38	26	1	5	0
NH	4	4	0	0	0	0	2	0	0	0	2
NJ	107	107	0	0	0	0	35	35	13	23	1
NY	94	94	0	0	0	0	10	32	18	25	9
PA	3	3	0	0	0	0	1	0	1	1	0
RI	89	89	0	0	0	0	10	28	32	13	6
VA	34	34	0	0	0	0	18	5	1	10	0
OTHER[a]	2	2	0	0	0	0	2	0	0	0	0
NOT KNOWN[b]	340	340	0	0	0	0	88	66	26	99	61
Total	852	852	0	0	0	0	256	219	96	193	88

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

[b]Vessels have shown landings of either of those three species in 2012, but did not hold any of the requisite Federal permits in 2012. 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 2015 quotas associated with this scenario would decrease summer flounder and black sea bass revenues by approximately $5.04 and $3.56 million, respectively, relative to the 2014 no action/*status quo* allocations. For scup, the 2015 quota would represent a revenue reduction of $3.51 million relative to the 2012 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 (640), scup (518), and black sea bass (589) in 2012, the average decrease in revenue associated with the decrease in quota is approximately $7,873, $6,784, and $6,051 per vessel, 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 $12.12 million decrease (assuming 2012 ex-vessel prices). If this is distributed among the 852 vessels that landed summer flounder, scup, and black sea bass in 2011, the average decrease in revenue is approximately $14,222 per 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 expected to be similar to those described under the 2014 quota scenario 3 (also most restrictive 2014 alternative; Tables 50-53). In addition, the community profiles developed under 2014 alternative 3 (section 8.11.5) are also applicable to this alternative.

8.11.3.6.2 Recreational Impacts

Recreational impacts similar to those described under 2014 quota scenario 3 (section 8.11.3.3.2) are expected here.

8.11.3.6.3 Other Non-Quota Impacts

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

The impacts of these non-quota management measures described in 2014 quota scenario 1 above (section 8.11.3.1.3) also apply here.

Effects of the RSA

Similar impacts as those described under 2014 alternative 3 are expected here.

Effects of the Winter II Possession Limit

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

8.11.4 Summary of Impacts

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 limits implemented in 2013 (for black sea bass they are equal). Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario is distributed equally among the vessels that landed summer flounder in 2012, the average decrease in revenue associated with the decrease in quota is approximately $3,206 per vessel. While the scup commercial quota under this alternative is lower than the limit implemented in 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 2012 landings, assuming that current market conditions continue. The commercial analysis of the proposed harvest levels under this scenario would incur in losses of 5-9 percent for 428 vessels and 5 percent or less for 212 vessels relative to 2013. In addition, 212 vessels are projected to have no revenue change.

The recreational harvest limits for summer flounder and scup for 2014 are lower when compared to the limits implemented in 2013; for black sea bass, the limit is equal. However, the proposed recreational harvest limits will likely maintain recreational satisfaction for the summer flounder and scup fisheries given recent recreational landings in these fisheries. However, the black sea bass recreational harvest limit under this scenario is not expected to constraint recreational landings for black sea bass in 2014 given recent recreational landings in the fishery because the 2013 landings are projected to exceed the 2014 recreational harvest limit. 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 2014 when compared to 2013 for the black sea bass recreational fisheries. The black sea bass recreational harvest limit under this scenario will likely decrease recreational satisfaction for this fishery, relative to 2013.

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 short-term negative economic impacts when compared to quota scenario 2 (no action/*status quo*).

*Quota Scenario 2 (*No Action/*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 implemented in 2014. The analysis of the commercial harvest level under this alternative indicate that the economic impacts ranged from expected revenue decrease in the order of 5 percent or less for 525 vessel to

revenue gains for 115 vessels. In addition, 212 vessels are projected to have no revenue change. Note that even though the summer flounder quota under alternative 2 is the *status quo* measure, the overall 2014 summer flounder quota is 0.2 percent lower than the adjusted quota implemented in 2013 due to changes in the discard estimates between those two time periods. In addition, the 2014 quota for New York shows an increase in fishing opportunity between 2014 and 2013 (approximately 3.4 percent commercial quota increase) due to the fact that the 2013 quota for that state was reduced due to overages that occurred in 2012. More specifically, about 32,000 pounds of summer flounder were deducted for that state in 2013 due to 2012 overages. As such, all states except New York show a slight quota reduction in 2014 when compared to 2013. The potential summer flounder revenue increase associated with this quota scenario is small (about 3.3 percent) and positively impact vessels that land summer flounder only or in a combination of summer flounder with scup and/or black sea bass mostly in the state of New York.

The recreational harvest limits for the summer flounder and scup are nearly identical to the limits implemented in 2013.

If summer flounder and scup recreational landings are the same in 2013 as in 2012, then the recreational harvest limits under this scenario are not expected to be exceeded in 2014 for summer flounder and scup. However, for black sea bass, it is not expected that the proposed recreational harvest limit will constrain recreational landings given recent recreational landing patterns. 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 for black sea bass in 2014 when compared to 2013. The summer flounder and scup recreational harvest limits under this scenario will likely provide similar recreational satisfaction for these fisheries, relative to 2013.

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 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 this stock is jeopardized. The scup and black sea bass measures contained under this alternative are consistent with the SSC recommendations for ABC. Overall, it is expected that this scenario would incur in similar socioeconomic impacts when compared to 2013. 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 2014)

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 2013. 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 239 vessels, 20-29 percent for 227 vessels, 30-39 percent for 98 vessels, and equal or greater to 50 percent for 113 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 2012, the average decrease in revenue associated with the decrease in quota is approximately $7,944, $6,784, and $6,051, respectively.

The recreational harvest limits under this scenario are not expected to constraint recreational landings for summer flounder, scup and black sea bass in 2014 given recent recreational landings in these fisheries. 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 2014 when compared to 2013 for all three species. The summer flounder, scup, and black sea bass recreational harvest limits under this scenario will likely decrease recreational satisfaction for these recreational fisheries, relative to 2013. It is anticipated that these measures will result in decrease in the demand for party/charter boat trips or affect angler participation in a negative manner.

Given the substantial decrease in quota under alternative 3 (most restrictive alternative) in 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 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 2014 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 2014 (and 2015 below; i.e., overages) that were not accounted for here.

Effects of the Winter II Possession Limit

The effect of the increase in the Winter II possession limit 2014 and beyond is expected to result in positive socioeconomic benefits as it may enable efficient prosecution of the fishery (i.e., ability to land more fish with fewer trips). Stakeholders have also indicated that larger amounts of scup landed will contribute to the further development of additional national and international markets. In addition, stakeholders have also indicated that on trips where multiple species are targeted, the potential increase in scup landings on a per trip basis will allow these trips to make extra revenues that will, for example, cover portions of the trips costs (e.g., fuel cost).

Quota Scenario 1 (Preferred 2015)

In sum, the proposed commercial quota and recreational harvest limit for summer flounder and scup under quota scenario 1 are lower than the no action/*status quo* 2014 allocations (black sea bass they are identical). While the scup commercial quota under this alternative is lower than the limit for 2014, 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 2015 would be close to 2012 landings assuming that current market conditions continue. The commercial analysis of the proposed harvest levels under this scenario would incur in combined losses of 5-9 percent for 364 vessels and 5 percent or less for 276 vessels relative to no action/*status quo* 2014 allocations. In addition, 212 vessels are projected to have no revenue change. Assuming the decrease in summer flounder ex-vessel gross revenues under this scenario is distributed equally among the vessels that landed summer flounder in 2012, the average decrease in revenue associated with the decrease in quota is approximately $2,316/vessel.

The recreational harvest limits for summer flounder and scup for 2015 are lower when compared to the limits under no action/*status quo* 2014 allocations; for black sea bass the limit is the same. The proposed recreational harvest limits will, nevertheless, likely maintain recreational satisfaction for the summer flounder and scup fisheries, given recent recreational landings in these fisheries. However, the black sea bass recreational harvest limit under this scenario is not expected to constraint recreational landings for black sea bass in 2015 given recent recreational landings in the fishery. 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 2015 for the black sea bass recreational fisheries. The black sea bass recreational harvest limit under this scenario will likely decrease recreational satisfaction for this fishery.

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, scup, and black sea bass 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. It is expected that they will result in positive impacts on the managed resource and the socioeconomic aspects of the fisheries.

Quota Scenario 2 (Status Quo 2015)

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 under the no action/*status quo* 2014 allocations. The proposed commercial quota and recreational harvest limit for summer flounder and scup under quota scenario 2 are higher than the preferred 2014 allocation (for black sea bass they are the same). While the scup commercial quota under alternative 2 is the same as the limit under the 2014 no action/*status quo* scenario, 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 2015 would be close to 2012 landings, assuming that current market conditions continue. The analysis of the commercial harvest levels for all three species under this alternative indicates that across all vessel classes, a total of 852 vessels were projected to incur no revenue change.

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 is jeopardized. The black sea bass measures contained under this alternative are consistent with the SSC recommendations for ABC.

Quota Scenario 3 (Most Restrictive 2015)

In sum, the proposed commercial quotas and recreational harvest limits for all three species under quota scenario 3 are lower than the limits under the 2014 no action/*status quo* scenario. 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 2014 no action/*status quo* allocations) for 256 vessels, 20-29 percent for 219 vessels, 30-39 for 96 vessels, 40-49 for 193 vessels, and equal or greater to 50 percent for 88 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 $7,873, $6,784, and $6,051/vessel, respectively.

RSA and recreational impacts similar to those described under 2014 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 2015.

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 are 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 27 counties were identified as likely to be impacted in 2014 under quota scenario 3 (most restrictive scenario): Sussex, DE; Worcester, MD; New London, CT; Philadelphia, PA; Rockingham, NH; Bristol, Barnstable, Suffolk, and Plymouth, MA; 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 Newport News, City of Hampton, and York, VA. Counties not included in this analysis (e.g., Essex and Dukes, MA; Atlantic, NJ; Accomac, VA; Fairfield, CT, Kent, RI, Nantucket, MA; City of Virginia Beach, Virginia Beach and City of Suffolk, VA) 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 2012 permit application.

Table 60 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 60 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 60 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 60. Counties identified as having >= 5 commercial vessels showing revenue reductions of 5 percent or more as a consequence of the most restrictive quota scenario (2014 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	Bristol	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	Plymouth	481,059	231,023	8,362.61	287	.06%	18	.01%
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 Newport News	180,305	114,024	4,248.24	0	0%	548	.41%
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	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 2014, relative to the 2014 no action alternative, the commercial quota would decrease by 7.7 percent for summer flounder, and remain unchanged (from 2014 previously implemented levels) for scup and black sea bass. Under the preferred measures for 2015, relative to the 2014 no action alternative, the commercial quota would decrease by 5.7 percent and 6.2 percent for summer flounder and scup, respectively, and remain unchanged for black sea bass. 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 2014 and 2015, 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.

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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 GARFO 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 that are vulnerable to bottom tending fishing gear in the U.S. Northeast Shelf Ecosystem.

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	10-750, 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