2012 Summer Flounder, Scup, and Black Sea Bass Recreational Specifications Supplemental Environmental Assessment

Supplemental Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis

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

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1.0 EXECUTIVE SUMMARY

This supplemental environmental assessment (SEA) updates the previously approved environmental assessment (EA; attached) that analyzed the catch limits, commercial quotas, recreational harvest limits, and management measures (called specifications) for summer flounder, scup, and black sea bass for the 2012 fishing year. This document is not a stand-alone document, but rather a SEA, intended to be utilized in conjunction with the attached, approved EA (interim rule December 30, 2011; 76 FR 82189). Unless otherwise noted, the initial EA prepared for this action and attached to this SEA remains applicable. Therefore, sections addressed in this supplement should be considered within the context of the full EA.

At the time the EA was prepared, the specific recreational measures designed to achieve the recreational harvest limits could not be analyzed. Recreational data availability is lagged and analyses of recreational measures require the most up-to-date information to determine the specific recreational measures. Therefore, this SEA is necessary to analyze specific recreational measures (i.e., possession limits, minimum fish size, and/or seasonal limits) that will achieve the 2012 recreational harvest limits for the three species. The following summarizes the social and economic impacts associated with the additional alternatives addressed in this SEA. The biological, habitat, and ESA listed and MMPA protected impacts were previously address in the EA and remain unchanged.

Alternative 1 - No Action

The no action alternative (alternative 1) includes the no action recreational measures for summer flounder, scup, and black sea bass. For summer flounder, the no action includes the non-preferred coastwide alternative to be implemented in the EEZ if conservation equivalency is not implemented (i.e., no action is taken). These measures include an 18.0-inch TL minimum fish size, a 2-fish per person possession limit, and open season from May 1 through September 30, 2012. The scup measures include a 10.5-inch TL minimum fish size, a 10-fish per person possession limit, and open seasons of June 6 through September 26 for the 2012 recreational fishery. The black sea bass measures include a coastwide 12.5-inch TL minimum fish size, 25-fish per person possession limit, and open season of May 22 through October 11 and November 1 through December 31 for the 2012 recreational fishery. Under this alternative, it is not likely that the new measures would have a significant negative impact on the social and economic environment for summer flounder, scup, and black sea bass. This alternative has the greatest potential for slight negative impacts when comparing across the three alternatives because the summer flounder coastwide measure may be constraining for some states. However, it is expected that those fishermen who fished for summer flounder, scup, and black sea bass in 2011 will continue to do so in 2012.

Alternative 2 - Preferred

Under the preferred alternative, the Council and Commission recommended summer flounder conservation equivalency measures to achieve the 2012 recreational harvest

limit. These measures would allow states to implement state-specific measures that are conservation equivalent to the coastwide management measures. For scup, the Council and Commission recommended a 10.5-inch TL minimum fish size, a 20-fish per person possession limit, and open season of January 1 to December 31, for the 2012 recreational measures. The Council and Commission also voted to recommend a 12.5-inch TL minimum fish size, 15-fish per person possession limit from January 1 to February 29 and a 12.5-inch TL minimum fish size, 25-fish per person possession limit from May 19 to October 14 and November 1 to December 31 for the 2012 black sea bass recreational measures. Under this alternative, it is not likely that the new measures would have a significant negative impact on the social and economic environment for summer flounder, scup, and black sea bass. This alternative has the least potential for slight negative impacts when comparing across the three alternatives and impacts because the the preferred measures are responsive to the current needs and dynamics of the recreational fishery and there may be increased fishing opportunity for summer flounder, scup, and black sea bass.

Alternative 3 - Status Quo

For summer flounder, the measures under the status quo alternative include conservation equivalency. The scup and black sea bass measures under the status quo alternative are the same as the no action measures described above for these species. Under this alternative, it is not likely that the new measures would have a significant negative impact on the social and economic environment for summer flounder, scup, and black sea bass. This alternative is expected to have intermediate impacts when compared across the aletrnatives. However, it is expected that those fishermen who fished for summer flounder, scup, and black sea bass in 2011 will continue to do so in 2012.

Cumulative Impacts

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

Conclusions

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

2.0 LIST OF ACRONYMS

ABC	Acceptable Biological Catch
ACL	Annual Catch Limit
AM	Accountability Measure
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission or Commission
CEQ	Council on Environmental Quality
CPUE	Catch Per Unit Effort
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EO	Executive Order
ESA	Endangered Species Act of 1973
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
IMPLAN	Impact Analysis for Planning
I/O	Input-Ouput
IQA	Information Quality Act
IRFA	Initial Regulatory Flexibility Analysis
M	Natural Mortality Rate
MAFMC	Mid-Atlantic Fishery Management Council
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Statistical Survey
MRIP	Marine Recreational Information Program
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PRA	Paperwork Reduction Act
PREE	Preliminary Regulatory Economic Evaluation
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review

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SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

4.0 INTRODUCTION AND BACKGROUND OF SPECIFICATION PROCESS

4.1 Purpose and Need of the Action

This action is needed to establish management measures for the 2012 fishing year that will achieve recreational harvest limits for summer flounder, scup, and black sea bass in Federal waters and for vessels in possession of a Federal fisheries permit. The purpose of this action is to propose measures (i.e., recreational fish size limits, possession limits, and/or fishing seasonal limits) that would constrain recreational landings in 2012 to the annual recreational harvest limits for summer flounder, scup, and black sea bass. In addition, specific to the summer flounder fishery, the purpose of this document is to provide an alternative whereby states through the Atlantic States Marine Fihseries Commission (ASMFC; Commission) process may determine and implement appropriate state-specific management measures, whose combined effects must achieve the same level of conservation as would Federal coastwide measures developed to adhere to the overall recreational harvest limit (i.e., “conservation equivalency”).

At the time the EA was prepared, the specific recreational measures designed to achieve the recreational harvest limits could not be analyzed. Recreational data availability is lagged and analyses of recreational measures require the most up-to-date information to determine the specific recreational measures. Therefore, this SEA is necessary to analyze specific recreational measures (i.e., recreational fish size limits, possession limits, and/or fishing seasonal limits) that will achieve the 2012 recreational harvest limits for the three species and enables more detailed evaluation of the impacts of these measures on the affected environment that would not have been possible earlier in the process.

4.2 Methods of Analysis

This SEA, in conjunction with the 2012 Summer flounder, Scup, and Black Sea Bass Specifications (the "EA"), analyzes the possession limits, fish size limits, and/or seasonal limits that will most likely achieve the 2012 recreational harvest limits for summer flounder, scup, and black sea bass. It is an assessment of the impact of various alternatives on the environment relative to the no action, as required by NEPA. A full description of each alternative, including discussion of a no action alternative, is given for each species in section 5.0 of the EA. The following discussion details the changes in management measures, if any, that would most likely be required to achieve the 2012 recreational harvest limits for summer flounder, scup, and black sea bass. Data from the Marine Recreational Fisheries Statistics Survey (MRFSS) are the primary sources of recreational landings information used in these analyses. The catch from MRFSS is provided for two month “waves” (i.e., wave 1 = January and February, wave 2 = March and April) with 6 waves per year.

While catch data from Marine Recreational Information Program (MRIP), an improved recreational data collection system, became available in February, it has not yet been

fully integrated into the management systems for summer flounder, scup, and black sea bass. It is not feasible to incorporate these data extensively into use for setting the 2012 recreational measures for summer flounder, scup, and black sea bass because MRIP data: 1) have not been incorporated into the stock assessment modeling and projections, 2) were not used to derive the recreational harvest limits for the 2012 fishing year, and 3) were not used in the analyses to derive appropriate recreational minimum size, season, and possession limits. The incorporation of these data through all levels of the scientific and management processes will be an extensive undertaking, and require much of the 2012 fishing year to prepare for its use in 2013. As such, MRIP data have been used in a few of the descriptive data tables provided in this SEA (only where noted), but the majority of analyses are MRFSS based. It should also be noted that the coastwide estimates for landings under MRIP do not differ substaintially from MRFSS for summer flounder, scup, and black sea bass; however, the extent to which these small changes affect the stock assessments time series and subsequent yield calculations remains to be seen.

The 2012 summer flounder recreational harvest limit is 8.76 million lb, as published in interim rule (December 30, 2011; 76 FR 82189). The recreational harvest limit implemented for 2012 is lower than the 2011 recreational harvest limit of 11.58 million lb. Based on 2011 MRFSS data for waves 1-5 (January through October) and the proportions of landings by wave in 2010, summer flounder recreational landings for 2011 are projected to be 5.61 million lb. Under conservation equivalency through the Commission's process, states develop state-specific or regional measures that meet state-specific or regional recreational harvest targets (Table 1). A state is required to adjust measures if a reduction in landings is required.

The 2012 scup recreational harvest limit is 8.45 million lb, as published in interim rule. The recreational harvest limit is higher than the 2011 recreational harvest limit of 5.74 million lb. Based on 2011 MRFSS data for waves 1-5 and the proportions of landings by wave in 2010, scup recreational landings for 2011 are projected to be 3.51 million lb. Assuming the same level of fishing effort in 2012 when compared to 2011, a coastwide reduction in landings would not be required to achieve the 2012 recreational harvest limit for scup.

The 2012 black sea bass recreational harvest limit is 1.32 million lb, as published in interim rule. This harvest limit is lower than the 2011 recreational harvest limit of 1.83 million lb. Based on 2011 MRFSS data for waves 1-5 and the proportions of landings by wave in 2010, black sea bass recreational landings for 2011 are projected to be 0.99 million lb. Assuming the same level of fishing effort in 2012 when compared to 2011, a coastwide reduction in landings would not be required to achieve the 2012 recreational harvest limit for black sea bass.

5.0 MANAGEMENT ALTERNATIVES

This section provides a description of all considered recreational measures alternatives. The combination of recreational measures for summer flounder, scup, and black sea bass

are provided under the no action alternative, preferred alternative, and status quo alternative. Further discussion and evaluation of these alternatives is found in section 7.0 of the SEA. The alternatives under consideration are summarized in box 5.0 and described in more detail in the following sections that follow (sections 5.1-5.3):

Box 5.0. Summary of the recreational management measures proposed under each alternative.

	Summer Flounder	Scup	Black Sea Bass
Alternative 1 (No action)	18.0 inch-TL, 2 fish, open season May 1- September 30, 2012 (coastwide)	10.5 inch-TL, 10 fish, open season June 6 - September 26 (coastwide)	12.5 inch-TL, 25 fish, open May 22 - October 11 and November 1 - December 31 (coastwide)
Alternative 2 (Preferred)	conservation equivalency (state-by-state) and precautionary default of 20.0 inch-TL, 2 fish, May 1- September 30, 2012	10.5 inch-TL, 20 fish, open season January 1 - December 3 (coastwide)	January 1 - February 29 with 12.5 inch-TL, 15 fish, and open season from May 19 - October 14 and November 1 - December 31 with 12.5 inch-TL, 25 fish (coastwide)
Alternative 3 (Status quo)	conservation equivalency (state-by-state) and precautionary default of 20.0 inch-TL, 2 fish, May 1- September 30, 2012	10.5 inch-TL, 10 fish, open season June 6 - September 26 (coastwide)	12.5 inch-TL, 25 fish, open May 22 - October 11 and November 1 - December 31 (coastwide)

The "no action" management measures for the 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, possession limits, seasons, and reporting requirements. As such, the scup and black sea bass measures proposed under the no action and status quo are the same. For summer flounder, if no action is taken, the recreational measures for 2012 would result in the application of the summer flounder coastwide measure adopted in 2011. Therefore, if conservation equivalency is approved for 2012, the coastwide measures would become the interim measures in place after conservation equivalency expires on December 31, 2011, until new measures are implemented for the 2012 fishing year.

The implication of the no action alternative for summer flounder, scup, and black sea bass is substantial. For summer flounder, while coastwide measures may be consistent with the recreational harvest limit, these measures may be more restrictive than necessary and are inconsistent with the Council and Commission intent to provide states with the flexibility to respond to geographic difference in the fishery when conservation equivalency was adopted. In addition, the no action measures for scup and black sea bass would not allow for extension of the season and allow for increased fishing access, while still constraining landings to the recreational harvest limit.

Therefore, the no action alternative is inconsistent with the goals and objectives of the FMP, as well as its implementing regulations, and measures that are not responsive to the current fishery conditions. The "true" no action alternatives are not considered reasonable; therefore, they are not analyzed further in the SEA.

5.1 Alternative 1 - No Action

Under the no action alternative, summer flounder measures include a non-preferred coastwide alternative to be implemented in the EEZ if conservation equivalency is not implemented (i.e., no action is taken). These measures include an 18.0-inch TL minimum fish size, a 2-fish per person possession limit, and open season from May 1 through September 30 for 2012. Based on examination of 2011 landings and state regulations, the same coastwide measures proposed for 2011 could constrain landings to the recreational harvest limit on a coastwide basis in 2012. Relative to the current regulations, these measures would be a more restrictive measure for some states, and less restrictive for others. In addition, if conservation equivalency is approved for 2012, the coastwide measures would become the interim measures in place after conservation equivalency expires on December 31, 2011, until new measures are implemented for the 2012 fishing year.

The scup measures under the no action alternative include a 10.5-inch (total length) TL minimum fish size, a 10-fish per person possession limit, and open seasons of June 6 through September 26 for the 2012 recreational fishery. Scup landings that were produced by applying these same regulations in 2011 based on MRFSS waves 1-5 are projected to be 3.51 million lb, which is lower than the 2011 recreational harvest limit of 5.74 million lb, and lower than the 2012 harvest limit of 8.45 million lb.

The black sea bass measures under the no action alternative include a coastwide 12.5-inch TL minimum fish size, 25-fish per person possession limit, and open season of May 22 through October 11 and November 1 through December 31 for the 2012 recreational fishery. Black sea bass landings that were produced by applying these same regulations in 2011 based on MRFSS waves 1-5 are projected to be 0.99 million lb, which is lower than the 2011 recreational harvest limit of 1.83 million lb, and lower than the 2012 harvest limit of 1.32 million lb.

5.2 Alternative 2 - Preferred

Under the preferred alternative, the Council and Commission voted to recommend summer flounder conservation equivalency measures to achieve the 2012 recreational harvest limit. These measures would allow states to implement conservation equivalent management measures. Under conservation equivalency, individual states through the Commission process recommend measures to NMFS that are conservation equivalent to the coastwide measures. NMFS then adopts those measures under the provisions in Framework 2 to the FMP. Information about the Commission's guidelines and process,

state-specific management measures, and state-specific harvest targets are included for information purposes only.

Under the Commission's conservation equivalency plan requirements, state-specific reductions in landings may be associated with the 2012 coastwide recreational harvest limit of 8.76 million lb. The required reductions are determined by comparing the harvest limits for each state, which is based on the number of fish landed in 1998, with the number of fish projected to have been landed in 2011 based on waves 1-5 (Table 1).

To constrain recreational landings to the overall recreational harvest limit, the Commission established conservation equivalency guidelines that require each state to determine and implement an appropriate possession limit, size limit, and closed season to achieve the landings target for each state. Under Framework 6 to the FMP, regional conservation equivalency could be applied. This involves states forming voluntary regions and pooling their recreational harvest limits and landings such that they develop identical regulations for all the states within the region that meet the pooled regional 2012 recreational harvest limit.

The Commission requires each state to submit its conservation equivalency proposal by January 15, 2012 (Table 2). The Commission's Summer Flounder Technical Committee evaluates the proposals and advises the Commission's Summer Flounder, Scup, and Black Sea Bass Board of each proposal's consistency with respect to achieving the coastwide recreational harvest limit. After the Technical Committee evaluation, the Board will meet to approve or disapprove each state's proposal. During the comment period for the proposed rule, the Commission will notify NMFS as to which state proposals have been approved or disapproved. If, at the final rule stage, the Commission recommends and NMFS accepts conservation equivalency, then NMFS would waive the Federal recreational measures that would otherwise apply in the Exclusive Economic Zone (EEZ). Federally permitted vessels, as well as vessels fishing in the EEZ, would be subject to the recreational fishing measures implemented by the state in which they land.

The FMP requires that the Council and Commission specify precautionary default measures when conservation equivalency is recommended as the preferred alternative. These would be the measures required to be implemented by a state that either does not submit a summer flounder management proposal or for states whose measures do not achieve the required reduction. For 2012, the precautionary default measures include a 20.0-inch TL minimum fish size, a 2-fish per person possession limit, and open season from May 1 through September 30 for 2012.

The precautionary default measures need to be set at or below the level of reduction needed for the state with the highest reduction level to ensure it is constraining for all states. No state is required to reduce coastwide landings in 2012. Therefore, the Council and Commission, using the advice of the Monitoring Committee, determined that a 20-inch TL minimum size, 2-fish possession limit, and open season of May 1 to September 30 should be sufficiently restrictive to prevent a state from not implementing measures as required under conservation equivalency for 2012. The Commission would allow states

that had been assigned the precautionary default measures to resubmit revised management measures. In this case, the Commission would notify NMFS of any resubmitted proposals that were approved after publication of the final rule implementing the recreational specifications. Afterwards, NMFS would publish a notice in the Federal Register to notify the public of any changes to a state's management measures.

The scup landings in 2011 based on waves 1-5 are projected to be 3.51 million lb, which is lower than the 2012 recreational harvest limit of 8.45 million lb. Landings would not have to be reduced to achieve the 2012 harvest limit. Changes in the possession limits, size limits, and fishing seasons have been considered to achieve the harvest limit (Tables 3 and 4). For scup, the Council and Commission voted to recommend a 10.5-inch TL minimum fish size, a 20-fish per person possession limit, and open season of January 1 to December 31, for the 2012 recreational measures. These measures, which include a small liberalization of possession limit and extend the non-peak tails of the fishing season, would not be expected to result in the landings greater than the 2012 recreational harvest limit. These recommendations are consistent with the recommenations of the Monitoring Committee for extending the season.

The black sea bass landings in 2011 based on waves 1-5 are projected to be 0.99 million lb, which is lower than the 2012 recreational harvest limit of 1.32 million lb. Landings would not have to be reduced to achieve the 2012 harvest limit. Changes in the possession limits, size limits, and fishing seasons have been considered to achieve the harvest limit (Tables 5 and 6). The Council and Commission voted to recommend a 12.5-inch TL minimum fish size, 15-fish per person possession limit from January 1 to February 29 and a 12.5-inch TL minimum fish size, 25-fish per person possession limit from May 19 to October 14 and November 1 to December 31 for the 2012 black sea bass recreational measures. This alternative is not expected to exceed the recreational harvest limit for 2012.

5.3 Alternative 3 - Status Quo

For summer flounder, the measures under the status quo alternative include conservation equivalency and a precautionary default measure of a 20.0-inch TL minimum fish size, a 2-fish per person possession limit, and open season from May 1 through September 30 for 2012. These measures would allow states to implement state-specific measures, the sum of which are considered equivalent to the Federal management measures. The process for development conservation equivalent measures for summer flounder is described in detail under alternative 2. Conservation equivalency has been applied every year for summer flounder since 2002 (Table 7), and the 2011 measures resulted in a rangle of minimum sizes from 15.0-inch TL to 20.5-inch TL, possession limits from 1 to 8-fish, and varied seasons, which did not result in state-specific harvest limits being exceeded (Tables 8 and 9).

The scup measures under the status quo alternative include a 10.5-inch TL minimum fish size, a 10-fish per person possession limit, and open seasons of June 6 through September 26 for the 2012 recreational fishery, which are the same measures in place since 2010

(Table 10). Scup landings that were produced by applying these same regulations in 2011 based on MRFSS waves 1-5 are projected to be 3.51 million lb, which is lower than the 2011 recreational harvest limit of 5.74 million lb, and lower than the 2012 harvest limit of 8.45 million lb. In 2011, states also implemented state-specific measures for scup (Table 11).

The black sea bass measures under the status quo alternative include a coastwide 12.5-inch TL minimum fish size, 25-fish per person possession limit, and open season of May 22 through October 11 and November 1 through December 31 for the 2012 recreational fishery. Black sea bass landings that were produced by applying these same regulations in 2011 based on MRFSS waves 1-5 are projected to be 0.99 million lb, which is lower than the 2011 recreational harvest limit of 1.83 million lb, and lower than the 2012 harvest limit of 1.32 million lb. States also implemented state-specific black sea bass measures in 2011 that varied substantially from the Federal measures in 2011 (Tables 12 and 13).

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

The affected environment and fisheries, as defined in Section 6.0 of the attached EA, are incorporated by reference in this SEA. Conisistent with the EA, summer flounder, scup, and black sea bass are not overfished and overfishing is not occurring. Updates on the status of the stock occur quarterly and are available on the following website:
http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm

Interactions of the managed resources with non-target species, Endangered Species Act (ESA) listed and Marine Mammal Protection Act (MMPA) protected resources, as well as interactions with Essential Fish Habitat, are described in the EA's affected environment section, and remain unchanged, except for the discussion below regarding Atlantic sturgeon. The following supplements the description of the social and economic environment in section 6.5 of the EA with more detailed information about the recreational fisheries for summer flounder, scup, and black sea bass.

Atlantic Sturgeon

This text updates section 6.3 of the EA regarding the status of Atlantic sturgeon. 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, Waldman et al. 1996, Kynard and Horgan 2002, Dadswell 2006, ASSRT 2007). Tracking and tagging studies have shown that subadult 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. 2004a, 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. 2004b, ASMFC 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. 2004b, ASMFC 2007, Dunton et al. 2010). Information on population sizes for each Atlantic sturgeon DPS is very limited. Based on the best available information, NMFS has concluded that bycatch, vessel strikes, water quality and water availability, dams, lack of regulatory mechanisms for protecting the fish, and dredging are the most significant threats to Atlantic sturgeon.

Comprehensive information on current abundance of Atlantic sturgeon is lacking for all of the spawning rivers (ASSRT 2007). Based on data through 1998, an estimate of 863 spawning adults per year was developed for the Hudson River (Kahnle et al. 2007), and an estimate of 343 spawning adults per year is available for the Altamaha River, GA, based on data collected in 2004-2005 (Schueller and Peterson 2006). Data collected from the Hudson River and Altamaha River studies cannot be used to estimate the total number of adults in either subpopulation, since mature Atlantic sturgeon may not spawn every year, and it is unclear to what extent mature fish in a non-spawning condition occur on the spawning grounds. Nevertheless, since the Hudson and Altamaha Rivers are presumed to have the healthiest Atlantic sturgeon subpopulations within the United States, other U.S. subpopulations are predicted to have fewer spawning adults than either the Hudson or the Altamaha (ASSRT 2007). It is also important to note that the estimates above represent only a fraction of the total population size as spawning adults comprise only a portion of the total population (e.g., this estimate does not include subadults and early life stages).

On February 6, 2012, NMFS listed the Gulf of Maine distinct population segment of Atlantic sturgeon as threatened, and listed the New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs of Atlantic sturgeon as endangered (77 FR 5880 and 75 FR 5914). Atlantic sturgeon are known to be captured in sink gillnet, drift gillnet, and otter trawl gear (Stein et al. 2004a, ASMFC TC 2007). Of these gear types, sink gillnet gear poses the greatest known risk of mortality for bycaught sturgeon (ASMFC TC 2007). There were no observed reports of interactions between longline gear and Atlantic sturgeon. As this available information indicates, interactions between the recreational fishery and protected resources are rare.

Recreational Fishery Trends

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 from Maine through North Carolina indicates that summer flounder recreational fishing trips reported by anglers targeting summer flounder ranges from 4.2 to 6.1 million trips from 1994 to 2011 (Table 14). Approximately 77 percent of the summer flounder landed recreationally are by private fishermen or fishermen with boat rentals, followed by 14 precent in the party/charter mode, and 9 percent by shore-based fishermen (Table 15). A detailed description of the economic aspects of the commercial and recreational fisheries for summer flounder was presented in section 3.3.1 of Amendment 13. Additional economic analysis regarding this fishery, as well as the scup and black sea bass fishery, is presented in section 7.0 of this SEA and in the Regulatory Impact Review/Initial

Regulatory Flexibility Analysis (RIR/IRFA) section. Information regarding fishing trends for summer flounder, scup, and black sea bass are also presented in section 4.3 of the SEA RIR/IRFA.

Scup has increased in importance to the recreational fishery since 1997, likely in concurrence with increasing stock size. Estimation of primary species sought as reported by anglers in recent intercept surveys from Maine through North Carolina indicates that scup trips increased from a low of 0.20 million trips in 1997 to a high of 0.98 million trips in 2003 (Table 16). For 2002 through 2011, the number of recreational fishing trips reported by anglers targeting scup ranges from 0.48 to 0.98 million trips. Approximately 73 percent of the scup landed are by private fishermen or fishermen with boat rentals, followed by 17 precent in the party/charter mode, and 10 percent by shore-based fishermen (Table 15). A detailed description of the economic aspects of the commercial and recreational fisheries for scup was presented in section 3.3.2 of Amendment 13.

Black sea bass remains an important component of the recreational fishery. Estimation of primary species sought as reported by anglers in recent intercept surveys from Maine through North Carolina indicates that black sea bass trips increased from a low of 0.14 million trips in 1999 to a high of 0.42 million trips in 2010 (Table 18). In 2011, the number of recreational fishing trips reported by anglers targeting black sea bass was 0.17 million trips. Approximately 41 percent of the black sea bass landed recreationally are by private fishermen or fishermen with boat rentals, followed by 56 precent in the party/charter mode, and 3 percent by shore-based fishermen (Table 19). A detailed description of the economic aspects of the commercial and recreational fisheries for black sea bass is presented in section 3.3.3 of Amendment 13.

Port and Community Description

The recreational summer flounder, scup, and black sea bass fisheries are important to many communities along the East Coast. Recent summer flounder, scup, and black sea bass landing patterns among ports are presented in section 6.5 of the EA. A brief description of the relative importance of summer flounder, scup, and black sea bass recreational landings at the state level follows. The ports and communities that are dependent on summer flounder, scup, and black sea bass are fully described in Amendment 13 (section 3.4).

Data are not available to identify to what extent communities are dependent upon these recreational fisheries. The MRFSS program does not identify port and community level data. Vessel Trip Report (VTR or “logbook”) data can be analyzed at the port-level for party/charter boat landings; however, it may not be representative of the importance of the entire summer flounder, scup, and black sea bass recreational fisheries to ports given it is limited to one mode and does not include information from state-only permitted party/charter vessels.

According to MRFSS estimates, the top five states from Maine through North Carolina in 2010 that landed summer flounder were New Jersey, New York, Virginia, Rhode Island,

and North Carolina (Table 20). The top five states that landed scup in 2010 were New York, Connecticut, Massachusetts, New Jersey, and Rhode Island (Table 20). These states accounted for nearly 100% of the total recreational scup landings in 2010. The top five states that landed black sea bass in 2010 were Massachusetts, New Jersey, New York, Rhode Island, and North Carolina (Table 20).

Analysis of Recreational Permit Data

A full description and analysis of the vessels permitted to participate in the commercial and recreational fisheries for summer flounder, scup, and black sea bass are presented in section 6.5.2 of the EA and are incorporated by reference in this SEA. VTR data indicate that 355 permitted party/charter vessels reported landings of summer flounder, scup, and black sea bass in 2010.

Marine Recreational Descriptive Statistics

In 2005 the marine fishing population in the Northeast U.S. was estimated to be predominantly male (77.2%), of non-Hispanic origin (95.1%) and consisted of mainly White anglers (90.7%; Table 21) according to Steinback et al. (2009). The median annual household income was found to be $50,000 – $74,999, median education category was one or more years of college, no degree (i.e., some college) and the median age category was 45 – 54. These characteristics closely approximated those found in other studies of recreational anglers (see Roe 2003 and U.S. EPA 2004).

In contrast to the marine recreational fishing population, Steinback et al. (2009) estimated the non-fishing population to be mostly female (61.3%). Non-Hispanic, White, individuals dominated the non-fishing population, similar to the fishing population, but the percentage of non-Hispanics (89.3%) and Whites (78.2%) in the non-fishing population were lower than in the fishing population. The non-fishing population was comprised of a greater percentage of Hispanic, Black and Asian individuals. The median annual household income, education and age distribution of the non-fishing population was the same as for the fishing population. However, overall, the non-fishing population had lower household incomes and earned fewer advanced degrees than the fishing population.

To evaluate the importance of self-caught marine resources in the Northeast U.S., Steinback et al. (2009) asked a series of questions concerning fishing trip purpose and the use of self-caught marine resources. When asked about the purpose of fishing trips taken during the last two months, a majority of anglers (72.2%) stated that trips were taken solely for recreational purposes (Table 22). Another 13.2% of anglers stated that the purpose of their trips was mostly for recreation, and 11.7% of anglers stated that their trips were for both recreation and food or income. Less than 3% said their fishing trips were taken all or mostly for food or income purposes. The authors used the information on fishing trip purpose to create two angler categories. The first category consisted of anglers who stated that their fishing trips were taken solely for recreation (72.2%); the second category consisted of anglers who stated their fishing trips were taken for reasons

other than pure recreation (27.8%). When these percentages were projected to the entire coastal resident population of anglers in 2005 (4.4 million participants) about 3.18 million anglers were estimated to fish solely for recreation and 1.22 million were estimated to fish for reasons other than pure recreation on at least some fishing trips (i.e., fish for food and/or income).

7.0 SUPPLEMENTAL ENVIRONMENTAL IMPACTS AND REGULATORY ECONOMIC EVALUATION OF ALTERNATIVES

This SEA analyzes the impacts of the specific recreational management measures considered for the year 2012 specifications for summer flounder, scup, and black sea bass, relative to the no action measures for each species and supplements the analyses of the EA. The Council and Commission met in December 2011 to adopt specific recreational management measures using data that was not available earlier in the year when the EA was prepared. As stated in the FMP, the recreational specifications may alter the fishing season, minimum fish size, and the possession limit to achieve the recreational harvest limit.

The discussion below supplements the impacts analyses in the EA and includes an updated analysis on the impacts to newly-listed Atlantic sturgeon.

7.1 Supplemental Discussion on Impacts to the Biological, Habitat, and Protected Resources

The biological, habitat, and ESA listed and MMPA protected resource impacts from the overall level of recreational fishing that would be allowed under the specifications established for fishing year 2012 were analyzed in the EA. None of the alternatives considered in this supplemental EA change the overall level of fishing that may take place for the summer flounder, scup, or black sea bass recreational fisheries in fishing year 2012. The recreational measures proposed in this document are bound by the recreational harvest limits established by the interim rule and analyzed in the attached EA and are intended to ensure that those levels are not exceeded.

7.1.1 Biological Impacts

The measures proposed under each of the alternatives described in section 5.0 do not increase the overall level of fishing on, and by extension, impact to, the target and non-target species, as the level of fishing was already analyzed in the EA. The biological impacts from the proposed recreational harvest measure alternatives in this document are unchanged from the EA. For summer flounder, the recreational harvest limit implemented by the interim final rule was expected to have impacts than range from neutral to positive biological impacts. The scup recreational harvest limit implemented by the interim final rule was expected to have impacts ranging from slightly negative to positive biological impacts. The black sea bass recreational harvest limit implemented by

the interim final rule was expected to have neutral to positive biological impacts. All alternatives presented for minimum fish length, possession limits and season are similar, and unlikely to change fishing effort or behavior in manner that impacts target or non-target species. Therefore, each of the alternatives has a neutral biological impact.

7.1.2 Habitat Impacts

The primary gear used in the recreational summer flounder, scup, and black sea bass fisheries is hook and line. Although the specific effects of these gear types on various bottom habitats are poorly understood, any potential habitat impacts associated with their use are minimal. All alternatives presented for minimum fish length, possession limits and season length are similar and unlikely to change fishing effort or behavior in manner that impacts habitat. Therefore, each of the alternatives has a neutral impact on habitat.

7.1.3 Protected Resources Impacts, Including Atlantic Sturgeon

The commercial Northeast/Mid-Atlantic bottom longline/hook-and-line fishery is classified in the 2011 List of Fisheries as a Category III gear, which has a remote likelihood of, or no known incidental mortality and serious injury of marine mammals. There were no observed reports of interactions between longline gear and marine mammals in fishing year (FY) 2009 and FY 2010. Similarly, documented interactions of sea turtles and Atlantic sturgeon do not involve hook and line gear. As this available information indicates, interactions between the recreational hook and line fishery and protected resources are rare. Given that recreational fishery effort would not be expected to change under the any of the alternatives described in section 5.0, impacts to protected resources, including Atlantic sturgeon, would be expected to be negligible.

Formal consultation on the Summer Flounder, Scup and Black Sea Bass fishery was reinitiated on February 9, 2012. NMFS has determined that there will not be any irreversible or irretrievable commitment of resources under section 7(d) of the ESA during the consultation period that would have the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures. NMFS has also determined that the continued authorization of this fishery during the consultation period, including the authorization of the fishery to operate under the measures proposed in this action, is not likely to jeopardize the continued existence of ESA-listed species or result in the destructive or adverse modification of critical habitat. NMFS will implement any appropriate measures outlined in the BO to mitigate harm to Atlantic sturgeon.

7.2 Supplemental Discussion on Impacts to the Human Communities

7.2.1 Alternative 1 - No Action Alternative Socioeconomic Impacts

This no action alternative includes the no action recreational measures for summer flounder, scup, and black sea bass, as described in section 5.0 of this SEA. There are no data available at the port or community level that shows the dependence of the party/charter boat fishery, the private/rental boat fishery, or the shore fishery on summer flounder, scup, and black sea bass. Information to assess the impacts on businesses dependent on these anglers (e.g. bait shops, hotels, restaurants, etc.) is also limited.

On average (2002-2010), approximately 90%, 96%, and 35% of the harvested summer flounder, scup, and black sea bass (by number), respectively, came from state waters (Table 23). Projected data from MRFSS indicate that anglers fished 26.8 million days in 2011 in the Northeast Region (Maine through North Carolina). Party/charter anglers comprised about 6% (1.59 million) of the angler fishing days in 2010, 51% (13.64 million) for the private/rental mode, and 43% (11.58 million) for shore mode (Table 24).

A description by port of importance to the commercial summer flounder, scup, and black sea bass fisheries is presented in Amendment 13. In addition to this, demographic and economic information on marine recreational fishing participants by region is presented in section 6.5 of the EA. There is a distinction to be made between negative impacts to individuals and negative impacts to the larger communities. If the number of affected individuals in a community is large (i.e., large numbers of recreational anglers in a community) the degree of impacts on individuals and communities would be expected to be the same. However, where the number of recreational anglers in a community is proportionally small, the degree of impacts on individuals and communities would differ. In this situation, some individual fishermen and their families could find the final recreational management measures for 2012 to have significant impacts, whereas the larger communities and towns in which they live would not. The economic diversity of a community may enable a community to be sustained, although the recreational fishing sector might be adversely impacted. On the other hand, small, remote and less economically diverse communities that are more dependent upon recreational fishing are less likely to be sustained through restrictive regulations.

Impacted trips were defined as trips taken in 2011 that landed at least one fish smaller than the summer flounder, scup, or black sea bass minimum size regulations, or landed more summer flounder, scup, or black sea bass than the possession limit allowed, or landed summer flounder, scup, or black sea bass during the closed seasons. The analysis concluded that the measures under the no action alternative could affect 2.67% of the party/charter boat trips, 1.61% of the private/rental boat trips, and 0.06% of the shore trips (Table 25).

There is very little information available to empirically estimate how sensitive the affected anglers might be to the proposed fishing regulations. It is possible there will be an overall reduction in the demand for summer flounder fishing trips, particularly for certain states under the coastwide measures. Anglers that choose to reduce their effort in 2012 in response to the new regulations 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. Headboat businesses that rely at least partially on summer flounder anglers fishing for food would likely be faced with reduced passenger loads in response to the low bag limit proposed under the coastwide measures (2 fish). The measures under this alternative for scup and black sea bass are the same as 2011. Therefore, it is not likely that the new measures would have a significant negative effect on the overall number of recreational fishing trips in the North and Mid-Atlantic regions. It is expected that most anglers that fished for scup or black sea bass during 2011 would continue to do so in 2012 under the new limits. Although, significant impacts are not expected, this alternative would be expected to have the greatest small (Table 25) impact when compared across the three alternatives, because of the potentially more restrictive coastwide summer flounder measures for some states.

The economic impacts of the proposed measures under this and other alternatives are further discussed in section 7.4 of the SEA.

7.2.2 Alternative 2 - Preferred Alternative Socioeconomic Impacts

This Council-preferred alternative includes the preferred recreational measures for summer flounder, scup, and black sea bass, as recommended by the Council and as described in section 5.0 of this SEA.

Conservation equivalency summer flounder recreational management measures would allow each state to develop specific recreational measures to allow the fishery to operate in each state during critical fishing periods while still achieving conservation goals. This would enable the summer flounder fishery to operate in a way that minimizes to the extent practicable potential adverse economic effects in specific states. The Board will either approve or disapprove each state's measures in February 2012 (Table 2). A quantitative analysis of the state-specific measures is provided here since the measures have yet to be adopted by the states.

The impacts of recreational management measures on the demand for trips and the social impacts of recreational measures on ports and communities described in section 7.1.1.4 of the EA also apply here.

Harvesting measures adopted under conservation equivalency in 2012 are not expected to be more restrictive for states when compared to the 2011 measures; as such there is not likely to be a decline in the demand for summer flounder fishing trips in those states. The Council and Board recommended precautionary default measures for Federal permit holders landing summer flounder in states that do not submit approved conservation equivalency measures. The precautionary default measures consist of a 20.0-inch TL minimum fish size, a 2-fish possession limit, and closed seasons during January 1 through April 30 and October 1 through December 31. It is expected that states will avoid the impacts of the precautionary default measures by establishing conservation equivalency measures. Because states have a choice, it is more rational for the states to

adopt the conservation equivalency measures that result in fewer adverse economic impacts than to adopt the much more restrictive precautionary default measures.

Impacted trips were defined as described above under alternative 1. The analysis concluded that the measures under the preferred alternative could affect 1.66% of the party/charter boat trips, 1.49% of the private/rental boat trips, and 0.03% of the shore trips (Table 25).

There is very little information available to empirically estimate how sensitive the affected anglers might be to the proposed fishing regulations. It is possible there will be an increase in the demand for summer flounder fishing trips under state-specific measues. The discussion under alternative 1 about effort transfer among species also applies here. It is possible that anglers may take advantage of the increased fishing opportunities for summer flounder as many other groundfish fisheries measures have become more restrictive and transfer effort to summer flounder. The measures under this alternative for scup and black sea bass may provide an increase in demand for fishing trips in 2012. Particularly for scup, and to a lesser extent for black sea bass, there is the potential for a transfer in fishing effort to scup as more opportunity will be available under the more liberal (extended) fishing season in 2012. Therefore, it is not likely that the new measures would have a significant negative effect on the overall number of recreational fishing trips in the North and Mid-Atlantic regions. It is expected that most anglers that fished for scup or black sea bass during 2011 would continue to do so in 2012 under the new limits, and anglers may have increased opportunity under less restrictive measures. The measures under this alternative would be expected to have the least potential for small negative impacts (Table 25) across the three alternatives because this alternative addresses the current dynamics and needs of the recreational fishery.

7.2.3 Alternative 3 - Status Quo Alternative Socioeconomic Impacts

This status quo alternative includes the status quo recreational measures for summer flounder, scup, and black sea bass, as described in section 5.0 of this SEA. The description of the expected impacts of summer flounder conservation equivalency measures under alternative 2 also apply here.

Impacted trips were defined as described above under alternative 1. The analysis concluded that the measures under the status quo alternative could affect 2.84% of the party/charter boat trips, 1.81% of the private/rental boat trips, and 0.06% of the shore trips (Table 25).

There is very little information available to empirically estimate how sensitive the affected anglers might be to the proposed fishing regulations. It is possible there would be an increase in the demand for summer flounder fishing trips under state-specific measues. The discussion under alternative 1 about effort transfer among species also applies here. It is possible that anglers may take advantage of the increased fishing opportunities for summer flounder as many other groundfish fisheries measures have become more restrictive and transfer effort to summer flounder. The measures under this

alternative for scup and black sea bass are the same as 2011. Therefore, it is not likely that the new measures would have a significant negative effect on the overall number of recreational fishing trips in the North and Mid-Atlantic regions. It is expected that most anglers that fished for scup or black sea bass during 2011 would continue to do so in 2012 under the new limits. The measures under this alternative would be expected to have the intermediary impacts (Table 25) when compared across the three alternatives.

7.3 Cumulative Impacts of Preferred Alternatives

The information presented in section 7.5 of the EA, which described the affected environment, geographic and temporal scope of the valued ecosystem components (VECs), and past, present, and reasonably forseeable furture actions, is incorporated by reference in this SEA. As discussed above, this action does not increase fishing effort, and by extension impacts from the recreational fishery, beyond those analyzed in the EA. As such, no additional cumulative impacts would be expected. Further, no other changes to the list actions that would impact the summer flounder, scup, and black sea bass fisheries have been made.

7.3.1 Socioeconomic Cumulative Impacts

The following supplements the CEA socioeconomic discussion of the EA with additional information about the recreational fishery relative to the proposed action in this SEA. National Standard 8 requires that management measures take into account the fishing communities. The ports and communities that are dependent on summer flounder, scup, and black sea bass are fully described in Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP (section 3.4.2). The top commercial landings ports for summer flounder, scup, and black sea bass by pounds landed and related data for the recreational fisheries are described in section 6.0 of this SEA and the EA. However, due to the nature of the recreational database (MRFSS), desegregating the data to less than state levels will reduce the precision of those estimates. Harvest estimates are always progressively less precise at lower levels of stratification; annual estimates are more precise than bimonthly estimates, coastal estimates are more precise than regional estimates, and regional estimates are more precise than state estimates. Because of the loss in precision described above, port-level recreational data are not shown.

The ports and communities involved in these fisheries would positively benefit from the proposed management measures presented in this document. With regard to the specific recommendations proposed in this document (i.e., size limits, possession limits, and seasons), impact to the affected biological and physical and socioeconomic environment are described in section 7.0 of this SEA and the EA. These impacts would be felt most strongly in the social and economic dimension of the environment. Direct economic and social benefit from improved fishery efficiency is most likely to affect participants in the summer flounder, scup, and black sea bass fisheries.

Although the management measures established by the Council for summer flounder, scup, and black sea bass are implemented on a species-by-species basis to examine the overall impacts of the proposed actions, the measures must be considered simultaneously. Projected data from MRFSS indicate that 26.81 million fishing trips were taken in the Northeast Region (Maine-North Carolina) in 2010 (Table 24).

Affected Effort

Angling effort from year to year is difficult to predict due to numerous influential factors (multiple covariates); therefore, for purposes of examining fishing impacts, it was assumed that angler effort in 2012 will be the same as that estimated for 2011. Fishing impacts were examined by estimating the number of recreational fishing trips in 2011 that would have been affected by the 2012 management measures proposed for all three species. All 2011 fishing trips that would have been constrained by the proposed 2012 measures in the Northeast Region were considered to be "affected" trips. To date, the first five waves of preliminary MRFSS effort data are available for 2010 (January - October). Wave six effort estimates for 2009 (November - December) were used as proxies for wave six 2010 effort.

The measures proposed under alternatives 1, 2, and 3, are predicted to affect party/charter trips the most and the shore based trips the least (Table 25). See section 7.1 to 7.3 of this SEA for addition description of impacts on angling effort.

Short-term regional economic impacts

An input-output model was employed to assess the potential economic losses (sales, income, and employment) associated with implementation of the proposed management alternatives to businesses that support marine recreational fishing activities in the Northeast Region. Reductions in sales, income, and employment could occur in the Northeast Region if the affected anglers reduce fishing effort, and hence, expenditures, in response to the new regulations. Since it is unknown how anglers' trip taking behavior will change upon implementation of the proposed regulations, economic losses were estimated for two hypothetical scenarios: (1) a 10% reduction in the number of fishing trips that are predicted to be affected by implementation of the management measures in the Northeast Region; and (2) a 25% reduction in the number of fishing trips that are predicted to be affected in the Northeast Region.

Reductions in anglers' trip-related purchases would have a direct effect on the sales, income, and employment of businesses that supply goods and services to saltwater fishermen. Businesses providing these goods and services must also purchase goods and services and hire employees, which in turn, would affect the sales, income, and employment of many additional businesses.

Three levels of economic impacts result from purchases by saltwater fishermen: (1) direct, (2) indirect, and (3) induced. Direct effects occur when anglers spend money at retail and service-oriented fishing businesses (e.g., purchases of ice at convenience stores

or access fees paid to owners of for-hire vessels). Indirect effects occur as the retail and service sectors purchase fishing supplies from wholesale trade businesses and manufacturers and pay operating expenditures (e.g., the retailer must purchase fishing rods from the manufacturer or wholesaler and pay electric bills). These secondary industries must then, in turn, purchase additional supplies and this cycle of industry to industry purchasing continues until the amount remaining within the region of interest is negligible. Finally, induced effects result when employees of the direct and indirect sectors make purchases from retailers and service establishments in the normal course of household consumption (e.g., convenience store employees spend money on groceries and pay federal and state taxes). The summation of direct, indirect, and induced effects are total effects.

Data and Methods

Input-output (I/O) analysis is the most common approach available for determining the direct, indirect, and induced effects associated with an overall change in economic activity in a particular region. For the analysis presented here, a ready-made regional I/O modeling system called IMPLAN Pro (Impact Analysis for Planning) was used to determine the economic losses associated with the hypothetical reductions in fishing trips under each of the three alternatives. The IMPLAN Pro system is a widely used, nationally recognized tool that provides detailed purchasing information for 440 industrial sectors and a user-friendly media for customizing I/O models to specific applications (Minnesota IMPLAN Group, Inc. 2001).

Angler expenditures in the Northeast Region by state and mode for marine fishing were obtained from Gentner and Steinback (2008). These expenditure data were produced from extensive surveys of marine recreational fishermen in the Northeast Region in 2006 (Table 26). The surveys were conducted as part of the MRFSS. Average fishing trip expenditures were provided for each state and mode of fishing (i.e., private boat, party/charter, and shore) in the Northeast region in 2006. Trip-related expenditure categories shown in the report included private and public transportation, auto rentals, grocery store purchases, restaurants, lodging, boat fuel, boat and equipment rentals, party/charter fees, party/charter crew tips, catch processing, access and parking, bait, ice, tackle used on trip, tournament fees and gifts/souvenirs. In addition to trip-related expenditures, Gentner and Steinback (2008) also estimated anglers' expenditures for semi-durable items (e.g., rods, reels, lines, clothing, etc.) and durable goods (e.g., motor boats, vehicles, etc.). However, expenditures for these items are not likely to change after implementation of the proposed regulations since semi-durable and durable items can be used for many fishing trips. Thus, in the analysis presented here, it is assumed that the proposed management measures will only affect anglers' trip-related expenditures.

The economic losses associated with reductions in angler expenditures were estimated by applying the product of the estimated number of affected trips and the average trip expenditure estimates from Gentner and Steinback (2008) to the appropriate IMPLAN sector multipliers in each state. The multipliers measure the direct, indirect, and induced relationships between industries and households. Input-output models require all values

to be in producer prices (manufacturer prices) so each of the angler expenditure categories was associated with its corresponding IMPLAN producing sector. In IMPLAN, margins are used to convert the retail-level prices paid by anglers into the appropriate producer values. Margins ensure that the correct value is assigned to products as they move from producers, to wholesalers, through the transportation sectors, and finally on to retail establishments.

Potential economic losses are estimated for sales, income, and employment. Sales reflect the aggregate reductions in total dollar sales generated from expenditures by anglers in the Northeast Region. Income represents the aggregate reductions in wages, salaries, benefits, and proprietary income generated from angler expenditures across the coastal states in the Northeast Region. Employment includes both full-time and part-time workers and is expressed as aggregate reductions in total jobs across states.

Results

The projected regional economic losses associated with the hypothetical reductions in affected marine recreational fishing trips are shown in Tables 27 (assumes a 10% reduction in affected trips) and 28 (assumes a 25% reduction in affected trips). In total, the projected sales, income, and employment losses to the Northeast Region vary substantially across combinations of alternatives. For a 10% reduction in affected fishing trips, total losses to the Northeast region range from $1.7 million to $2.3 million in sales, $561 thousand to $777 thousand in income, and between 34 and 44 jobs (Table 27). The estimated losses are approximately 2.5 times higher if a 25% reduction in affected trips is assumed to occur (Table 28).

Across all alternatives, approximately 50% of the total sales, income, and employment losses are projected to be generated by anglers fishing from private/rental boats. Losses associated with reductions in party/charter effort comprise approximately 40% of potential region-wide reductions, while the remaining 10% is associated with shore mode effort changes. This large disparity in losses between the private boat mode and the shore and party/charter mode is generally due to the fact that the measures proposed under all combinations of alternatives are projected to affect substantially more private/rental boat trips and party/charter trips than shore trips. The Northeast landings database (VTR Data) indicates that a total of 355 party/charter vessels participated in the summer flounder, scup, and/or black sea bass fisheries in the Northeast in 2010 (Table 29).

Summary

The measures proposed under all alternatives would affect a portion of the recreational fishing trips that catch summer flounder, scup, and black sea bass. Unfortunately, although we can generally predict how many trips would be affected by the proposed measures, it is unknown how anglers' trip taking behavior would change in response to the additional restrictions. If the measures result in an overall reduction in angler effort, expenditures associated with these trips would be foregone, and reductions in sales, income, and employment would occur for businesses that supply goods and services to

saltwater fishermen. In addition, the sales, income, and employment of many businesses that supply the directly affected businesses could also decline. On the other hand, if the proposed measures do not induce a change in overall angler effort, total angler expenditures would remain unchanged, and there would be no effect on supporting businesses.

Given the uncertainty surrounding how anglers will respond to the proposed measures, total potential reductions in sales, income, and employment to businesses in the coastal states of the Northeast Region are estimated for two hypothetical scenarios: (1) a 10% reduction in the number of fishing trips that are predicted to be affected by implementation of the management measures; and (2) a 25% reduction in the number of fishing trips that are predicted to be affected. Losses are estimated for all three alternatives that could be analyzed.

The projected economic losses shown in this assessment do not capture losses borne by individual anglers. The input-output approach followed in this analysis projects the change in goods and services produced by different businesses that are linked to purchases by marine anglers, but it does not provide estimates of angler welfare losses. These welfare losses are generally defined as the additional value above opportunity costs (usually taken to be expenditures of time and money) that anglers would be willing to pay to fish.

Long-term Cumulative Effects

Long-term effects of each of these management alternatives are clear: the summer flounder, scup, and black sea bass would continue to be managed sustainably as a result of the accumulated effects of these measures applied over time. Although the long-term effects of these alternatives are less clear or quantifiable from a social and economic perspective, rebuilt stocks would presumably provide anglers with the ability to increase catch and possibly keep rates resulting in higher overall welfare benefits to anglers and the Nation as a whole.

Impacts Associated with Future Management Actions

While the measures to achieve managed these resources sustainably are expected to result in positive economic benefits to anglers and to businesses that support marine recreational activities in the long-term, some effects of short-term declines in revenues, jobs, and income may be irreversible, prohibiting economic growth during later years when the resources have been rebuilt. For instance, if party/charter boat anglers reduce their trip taking behavior as the industry is further restricted to meet rebuilding requirements; gentrification could begin to replace segments of the party/charter boat industry and the related land-based infrastructure. The process of gentrification transforms working harbors into upscale areas primed for recreation and tourism, replacing infrastructure that supports the party/charter industry and shore and private boat anglers (i.e., bait and tackle shops) with waterfront housing, entertainment, and dining establishments or other facilities. Among the businesses and industry support structures

that may be eliminated through gentrification are party/charter operations, bait and tackle suppliers, provisioners of food, ice, fuel, and boat rental businesses, etc. As shoreline property prices rise, the economic viability of these industries is becoming increasingly strained. If fishing regulations result in lower angler participation, the possibility exists that this infrastructure may be permanently replaced by new entities with alternative functions. Hall-Arber et al. (2001) noted that "if the facilities as well as the stocks are not protected, once the biophysical capital rebounds, communities that are dependent on [these] facilities...will not be able to take advantage of the improved stock conditions to generate fisheries capital for the region and nation." These structural changes to the economy and physical composition of fishing communities are accompanied by delocalization, or the loss of localized community character and culture (Hall-Arber et al. 2001). Long-standing traditions and close-knit alliances that unite fishing communities and families may cease to exist.

The management alternatives proposed for 2012 do not introduce measures that specifically seek to mitigate these problems of infrastructure loss and the changing culture of fishing communities. However, if the catch and landings limits established in the FMP continue to be achieved over the long-term, it is not expected that recreational fishing opportunities for summer flounder, black sea bass, and scup would be significantly impacted. If recreational landings are estimated to exceed the annual targets, the fishery may be closed to minimize overages, overages may be deducted, and management measures are adjusted to reduce the harvest in the following year to the specified level.

Reasonably foreseeable future Federal actions include additional or revised fishing regulations, both for the summer flounder, scup, and black sea bass fisheries and for other species that marine recreational fishermen target. For example, future regulations implemented under the Northeast Multispecies FMP may induce party/charter boat operators to switch from targeting Atlantic cod and haddock on some of their trips to targeting summer flounder, scup, or black sea bass. Additional Federal actions could also have indirect impacts on recreational fishing communities reliant on these species. Federal decisions on offshore petroleum access and the placement of inshore/offshore wind farms, for example, could have either a positive or negative effect on landings and access to summer flounder, scup, and black sea bass stocks.

7.3.2 Conclusions

None of the proposed management measures in this SEA would have significant cumulative effects on the target species or non-target species individually or in conjunction with other anthropogenic activities. The proposed actions, together with past, present, and future actions, are expected to result in positive cumulative impacts on the biological, physical, and human components of the environment. As long as management continues to prevent overfishing for all three species, the fisheries and their associated communities will prosper.

This action builds on actions taken in the original FMP, subsequent amendments, and the annual specification process for the 2012 fishing year. Based on the information and analyses presented in this SEA, when considered in conjunction with the EA (section 7.0), there are no significant cumulative effects associated with the proposed summer flounder, scup, and black sea bass recreational specifications.

8.0 APPLICABLE LAWS

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

Section 301 of the MSA requires that FMPs contain conservation and management measures that are consistent with the ten National Standards. The actions taken in this specification document are confined to processes defined within the FMP; therefore, as actions within the FMP have been deemed consistent with the National Standard, these specification actions are similarly consistent. The most recent FMP Amendments address how the management actions implemented comply with the National Standards. First and foremost, the Council continues to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving, on a continuing basis, the optimum yield for summer flounder, scup, and black sea bass and the U.S. fishing industry. 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.

9.2 NEPA (FONSI)

Finding of No Significant Impact

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. The Council-preferred action is alternative 2. In addition, the Council on Environmental Quality 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?

The proposed action in this SEA for summer flounder, scup, and black sea bass is not expected to jeopardize the sustainability of any target species that may be affected by the action, as described in section 7.0 of the SEA. As specified in the FMP, this proposed action is intended to constrain recreational landings to prevent catch and landings limits from being exceeded for summer flounder, scup, and black sea bass.

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

The proposed action in this SEA is not expected to jeopardize the sustainability of any non-target species. The proposed alterntive is designed to constrain recreational landings to the recreational harvest limit specified through the FMP for the 2012 fishing year. The alternative contains only changes to existing recreational management measures for summer flounder, scup, and black sea bass, including the minimum recreational fish size, recreational possession limit and recreational season for each of the species.

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 5.0 of the SEA is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMP. The area affected by the proposed action in the summer flounder, scup, and black sea bass fisheries has been identified as EFH for species managed by the Northeast Multispecies; Atlantic Sea Scallop; Spiny Dogfish; Atlantic Mackerel, Squid, and Butterfish; Atlantic Surfclam and Ocean Quahog; Bluefish; Atlantic Billfish; Spiny Dogfish; Monkfish; Atlantic Tunas, Swordfish and Sharks; Calico Scallop; Wreckfish; King and Spanish Mackerel; Atlantic Coast Red Drum; Shrimp; Stone Crab; Snapper-Grouper of the South Atlantic; Coral and Coral Reefs of the Gulf of Mexico and the South Atlantic; and Coastal Migratory Pelagic Resources of the Gulf of Mexico and the South Atlantic FMPs. The primary gear utilized in the recreational harvest of summer flounder, scup, and black sea bass is hook and line gear (rod and reel or handlines). Although the specific effects of these gear types on various bottom habitats are poorly understood, any potential habitat impacts associated with their use are minimal. Furthermore, the proposed action does not include any major changes to existing management measures and will not result in significant impacts to the environment or to EFH (section 6.2 of the EA).

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

The proposed action in this SEA is not expected to have a substantial adverse impact on public health or safety. The alternatives only contain changes to existing management measures (i.e., recreational minimum fish size, recreational possession limit and recreational seasons). Management alternatives have been selected to achieve the recreational harvest limits and to provide a reasonable balance among size limits, seasons and possession limits, so as not to compromise public health or safety.

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

The proposed action in this SEA is not reasonably expected to have an adverse impact on ESA endangered or threatened species, marine mammals, or critical habitat for these species. The interaction between protected species and the gear used in the recreational summer flounder, scup, and black sea bass fisheries is minimal. As stated in section 6.3 of the EA, the activities to be conducted under the proposed annual recreational specifications are within the scope of the FMP and do not change the basis for the determinations made in previous consultations.

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 in this SEA is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. As specified in the FMP, this proposed action is intended to reduce recreational landings to achieve the catch and landings limits for summer flounder, scup, and black sea bass. The alternatives contain only changes to existing recreational management measures for summer flounder, scup, and black sea bass, including the minimum recreational fish size, recreational possession limit and recreational season for each of the species. Bycatch of non-target species in the recreational fishery using rod and reel or handline is not expected to be substantial. The proposed action will likely ensure biodiversity and ecosystem stability over the long-term as summer flounder, scup, and black sea bass are sustainably managed.

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

As discussed in section 7.0 of the SEA, the proposed action is not expected to result in significant social or economic impacts, or in significant natural or physical environmental effects. Therefore, there are no significant social or economic impacts interrelated with significant natural or physical environmental impacts.

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

Measures contained in this SEA are not expected to be controversial. The proposed action would implement measures for the upcoming fishing year to achieve the recreational

harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. The proposed action is based on measures contained in the FMP, which have been in place for many years.

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 the proposed annual management measures for the upcoming fishing year to achieve the recreational harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. These recreational fisheries are not known to be prosecuted in any unique areas such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas. Therefore, the proposed action is not expected to have a substantial impact on any of these 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 SEA. The proposed action merely revises the annual management measures for the upcoming fishing year to prevent catch and landings limits from being exceeded for summer flounder, scup, and black sea bass specified in their respective management plans. The measures contained in this action are not expected to have highly uncertain, 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 7.4 of this SEA, 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 positive impacts overall. The proposed action together with past and 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 SEA. The proposed action merely revises the annual management measures for the upcoming fishing year to achieve the recreational harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. These summer flounder, scup, and black sea bass recreational fisheries are not known to be prosecuted in any areas that might affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause the loss

or destruction of significant scientific, cultural or historical resources. Therefore, the proposed action is not expected to affect any of these areas.

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

This action proposes annual management measures for the upcoming fishing year to achieve the recreational harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. There is no evidence or indication that these fisheries have ever resulted in the introduction or spread of nonindigenous species. None of the specifications are expected to alter fishing methods or activities in the recreational fishery. Therefore, it is highly unlikely that the proposed specifications 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 the annual management measures for the upcoming fishing year to achieve the recreational harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. None of the specifications are expected to alter fishing methods or activities in the recreational fishery. The proposed action is based on measures contained in the FMP, which have been in place for many years. None of these specifications result in significant effects or do they represent a decision in principle about a future consideration.

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 proposes annual management measures for the upcoming fishing year to achieve the recreational harvest limits for summer flounder, scup, and black sea bass in 2012, as specified through the FMP. None of the specifications are 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 section 8.0 of the EA and SEA).

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 proposed action in this SEA is not expected to result in cumulative adverse effects that could have a substantial effect on target or non-target species, including information related to the impact of the proposed action on Atlantic sturgeon, which has been listed under ESA. All of the alternatives that are being considered are designed to achieve the recreational harvest limit specified through the FMP for the 2012 fishing year. The alternatives contain only changes to existing recreational management measures for summer flounder, scup, and black sea bass, including the minimum recreational fish size, recreational possession limit and recreational season for each of the species. Furthermore,

bycatch of target and non-target species in the recreational fishery using rod and reel or handline is not expected to be substantial. Therefore, the proposed action is not expected to result in any cumulative adverse effects to target or non-target species.

DETERMINATION

In view of the information presented in this SEA and the analysis contained in the supporting EA prepared for the 2012 Summer Flounder, Scup, and Black Sea Bass Recreational Specifications, it is hereby determined that the proposed action for summer flounder, scup, and black sea bass in this SEA will not significantly impact the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

Regional Administrator for NERO, NMFS, NOAA — *Date* 5/8/12

9.3 Administrative Procedure Act

The following supplements the description of the process and opportunity for public comment described in the EA under APA (section 8.0). The public had the opportunity to review and comment specifically on recreational management measures during the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee Meeting December 7, 2011 and during the MAFMC Council meeting held on December 13-15, 2011. 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).

9.4 Section 515 (Data Quality Act)

Utility of Information Product

This action proposes recreational management measures in 2012 for the summer flounder, scup, and black sea bass fisheries. This document includes: A description of the recreational alternatives considered, the Council-preferred action and rationale for selection. As such, this document enables the implementing agency (NMFS) to make a decision on implementation of annual specifications (i.e., management measures) and this document serves as a supporting document for the proposed rule.

The action contained within this SEA was developed to be consistent with the FMP, MSA, and other applicable laws, through a multi-stage process that was open to review by affected members of the public. In addition to the opportunity for comment during the development of the EA, the public had the opportunity to review and comment on

recreational management measures during the during the Summer Flounder, Scup, and Black Sea Bass Monitoring Committee Meeting December 7, 2011 and during the MAFMC Council meeting held on December 13-15, 2011. 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).

Integrity of Information Product

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

Objectivity of Information Product

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

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

9.5 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.

10.0 LITERATURE CITED

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http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf

11.0 LIST OF PREPARERS OF THE ENVIRONMENTAL ASSESSMENT

The summer flounder, scup and black sea bass specifications were submitted to NMFS by MAFMC. This specifications package was prepared by Jessica Coakley (MAFMC staff), and Dr. Scott Steinback (NEFSC) who provided the analysis of permit data and conducted the socioeconomic analyses.

Additional copies of this document are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901.

12.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this specifications document, the Council consulted with the NMFS, New England and South Atlantic Fishery Management Councils, Fish and Wildlife Service, and the states of Maine through North Carolina through their membership on the Mid-Atlantic and New England Fishery Management Councils. To ensure compliance with NMFS formatting requirements, the advice of NMFS NERO personnel was sought, including Moira Kelly, Michael Ruccio, Michael Pentony, and Sarah Thompson Biegel.

REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS

1.0 Introduction

The National Marine Fisheries Service (NMFS) requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions that either implement a new Fishery Management Plan (FMP) or significantly amend an existing plan. This RIR is part of the process of preparing and reviewing FMPs and provides a comprehensive review of the changes in net economic benefits to society associated with proposed regulatory actions. This analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problems. The purpose of this analysis is to ensure that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. This RIR addresses many items in the regulatory philosophy and principles of Executive Order (EO) 12866.

Also included is an Initial Regulatory Flexibility Analysis (IRFA) to evaluate the economic impacts of the alternatives on small business entities. This analysis is undertaken in support of a complete analysis for SEA to the 2012 EA specifications for summer flounder, scup, and black sea bass.

2.0 Evaluation of EO 12866 Significance

2.1 Description of the Management Objectives

A complete description of the purpose and need and objectives of this action is found under section 4.0 of the SEA (which supplements section 4.1 the EA). This action is taken under the authority of the Magnuson-Stevens Act and regulations at 50 CFR part 648.

2.2 Description of the Fishery

A description of the summer flounder, scup, and black sea bass fisheries is presented in section 6.0 of the EA and supplemented in section 6.0 of this SEA. A description of ports and communities is found in Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP. An analysis of permit data is found in section 6.4 of the EA. Additional characterization of these fisheries is presented in sections 6.0 of the SEA.

2.3 A Statement of the Problem

A statement of the problem for resolution is presented under section 4.0 of the SEA.

2.4 A Description of Each Alternative

A full description of the three alternatives analyzed in this section is presented in section 5.0 of the SEA. A full description of the recreational harvest limit derivation process is presented in sections 4.3 and 5.0 of the EA. A brief description of each alternative is presented below for reference purposes.

2.5 RIR Impacts

The proposed action in this SEA does not constitute a significant regulatory action under E.O. 12866 for the following reasons. First, it will not have an annual effect on the economy of more than $100 million. The measures considered in this regulatory action will not affect gross revenues or indirect and induced effects generated by the party/charter, private/rental, or other sectors offering goods and services to anglers engaged in the summer flounder, scup, and black sea bass fisheries to the extent that an annual $100 million economic impact will occur in any of these fisheries individually or combined.

Projected data from MRFSS indicate that 26.81 million fishing trips were taken in the Northeast Region (Maine-North Carolina) in 2010. It is estimated that the number of trips by fishing mode was 1.59 million party/charter boat trips, 13.64 million private/rental boat trips, and 11.58 million shore trips (Table 24).

Assuming angler effort in 2012 will be the same as that estimated for 2011, fishing impacts were first examined by estimating the number of recreational fishing trips in 2010 that would have been "affected" by the proposed 2012 management measures. Section 7.4 of the SEA (i.e., socioeconomic discussion) delineates the procedures and data bases used to determine the number of affected trips. Next, an input-output model was employed to address potential direct, indirect, and induced short-term economic losses in sales, income, and employment in the Northeast Region. If the proposed measures result in an overall reduction in angler effort, expenditures associated with these trips will be foregone, and reductions in sales, income, and employment will occur for businesses that supply goods and services to saltwater fishermen. In addition, the sales, income, and employment of many businesses that supply the directly affected businesses could also decline. All three alternatives that could be analyzed for summer flounder, scup, and black sea bass were included in the assessment.

Since no empirical information is available to determine how anglers' trip taking behavior will change upon implementation of the proposed regulations, economic losses were estimated under two hypothetical scenarios: (1) a 10% reduction in the number of fishing trips that are predicted to be affected by implementation of the management measures in the Northeast Region in 2012; and (2) a 25% reduction in the number of fishing trips that are predicted to be affected in the Northeast Region in 2012. These analyses are described in detail in section 7.4 of the SEA (i.e., socioeconomic discussion).

The projected regional economic losses associated with the hypothetical reductions in affected marine recreational fishing trips are shown in Tables 27 (assumes a 10% reduction in affected trips) and 28 (assumes a 25% reduction in affected trips). In total, the projected sales, income, and employment losses to the Northeast Region vary substantially across the alternatives. For a 10% reduction in affected fishing trips, total losses to the Northeast region range from $1.6 million to $2.3 million in sales, $561 thousand to $777 million in income, and between 34 and 44 jobs (Table 27). The estimated losses are approximately 2.5 times higher if a 25% reduction in affected trips is assumed to occur (Table 28).

Across all alternatives, approximately 50% of the total sales, income, and employment losses are projected to be generated by anglers fishing from private/rental boats. Losses associated with reductions in party/charter effort comprise approximately 40% of potential region-wide reductions, while the remaining 10% is associated with shore mode effort changes. This large disparity in losses between the private boat mode and the shore and party/charter mode is generally due to the fact that the measures proposed under all combinations of alternatives are projected to affect substantially more private/rental boat trips and party/charter trips than shore trips.

Long-term biological effects of each of these management alternatives are clear: summer flounder, scup, and black sea bass will continue to be managed sustainably as a result of the accumulated effects of these measures applied over time. Although the long-term effects of these alternatives are less clear or quantifiable from a social and economic perspective, rebuilt stocks would presumably provide anglers with the ability to increase catch and possibly keep rates resulting in higher overall welfare benefits to anglers and the Nation as a whole. Therefore, this action should not adversely affect, in the long-term, competition, jobs, the environment, public health or safety, or state, local, or tribal government communities. Second, this action should not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency. No other agency has indicated that it plans an action that will affect the summer flounder, scup or black sea bass fisheries in the EEZ. However, future regulations implemented under the Northeast Multispecies FMP may induce party/charter boat operators to switch from targeting Atlantic cod and haddock on some of their trips to targeting summer flounder, scup, or black sea bass. Although this switching behavior is not predicted to be significant, this may have a negative effect on fishery management objectives and cause increased competition within party/charter fishing communities dependent on summer flounder, scup, and black sea bass. Third, this action will not materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of their participants. And, fourth, the proposed action does not raise novel legal or policy issues arising out of legal mandates or the President's priorities.

3.0 Paperwork Reduction Act of 1995

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 business,

state and local governments, and other persons as well as to maximize the usefulness of information collected by the Federal government.

The Council is not proposing measures under this regulatory action that require review under PRA. There are no changes to existing reporting requirements previously approved under OMB Control Nos. 0648-0202 (Vessel permits), 0648-0229 (Dealer reporting) and 0648-0212 (Vessel logbooks).

4.0 Initial Regulatory Flexibility Analysis

4.1 Impacts on Regulated Small Entities

The Regulatory Flexibility Act (RFA) requires the Federal rule maker 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: (A) certify that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities; or (B) prepare an IRFA. The Small Business Administration (SBA) defines a small business in the commercial fishing and recreational fishing activity, as a firm with receipts (gross revenues) of up to $4.0 and $7.0 million, respectively.

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 of the SEA. A statement of the problem for resolution is presented under section 4.0 of the SEA.

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 of the SEA. This action is taken under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and regulations at 50 CFR part 648.

Estimate of the Number of Small Entities

This rule would apply to the following small entities: summer flounder, scup or black sea bass party/charter permit holders, as well as those actively participating in the recreational fisheries in state waters. While permit holders represent the universe of entities whose normal activities might be directly affected by these regulations, not all permit holders choose to fish in a given year. Those who actively participate, i.e., land fish, would be the group of permit holders that are directly impacted by the regulations. Latent fishing power (in the form of unfished permits) represents a real and considerable force to alter the impacts on a fishery, but vessels actively participating in the fishery are dependent upon a particular species. It is impossible to predict how many - or who - will or will not participate in these fisheries in 2012.

Data from the Northeast permit application database indicates that in 2010 there were 880 recreational vessels permitted to take part in the summer flounder, scup, and/or black sea bass fisheries in the EEZ. The Northeast landings database (VTR Data) indicates that a total of 355 party/charter vessels participated in the summer flounder, scup, and/or black sea bass fisheries in the Northeast in 2010 (Table 29).

Recordkeeping and Reporting

As stated in section 3.0 of the RIR/IRFA, this proposed action does not propose new reporting or recordkeeping measures. There are no changes to existing reporting requirements. Currently, all summer flounder, scup or black sea bass federally-permitted dealers must submit weekly reports of fish purchases. The owner or operator of any vessel issued a moratorium vessel permit for summer flounder, scup or black sea bass, must maintain on board the vessel, and submit, an accurate daily fishing log report for all fishing trips, regardless of species fished for or taken. The owner of any party or charter boat issued a summer flounder, scup or black sea bass permit other than a moratorium permit and carrying passengers for hire must submit an accurate daily fishing log report for each charter or party fishing trip that lands summer flounder, scup, or black sea bass, unless such a vessel is also issued another permit that requires regular reporting, in which case a fishing log report is required for each trip regardless of species retained.

Conflict with Other Federal Rules

This proposed action will not duplicate, overlap, or conflict with any other Federal rules.

4.2 Significant Alternatives to the Proposed Rule

There is no need to further mitigate economic impacts on small entities because the Council selected the alternative determined to result in the least severe impacts without compromising the biological health of the stocks.

The analysis conducted did not include the specific state measures under conservation equivalency for summer flounder because the states have not yet been adopted specific management measures. Nevertheless, it is expected that the since conservation equivalent recreational management measures would allow each state to develop specific summer flounder recreational measures that allow the fishery to operate in each state during critical fishing periods while still achieving conservation goals while mitigating potential adverse economic effects in specific states. Therefore, it is likely that the measures developed under the preferred alternative would have lower overall adverse effects in 2012 than any of the other combinations that were analyzed. Specifications of recreational fish size limits, possession limits, and open fishing seasons is constrained by the conservation objectives of the FMP, and implemented at 50 CFR part 648 under the authority of the Magnuson-Stevens Act. The Council did not consider alternatives that would compromise the biological health of the stocks.

4.3 General Fishing Trends

A detailed description of the fishery for summer flounder, scup, and black sea bass is presented in section 6.0 of the SEA and the EA. The information presented below is intended to further characterize recent fishing trends for the summer flounder, scup, and black sea bass fisheries.

Summer Flounder

Summer flounder recreational data indicate that for the 2009 and 2010 recreational landings were less than the recreational harvest limits (Table 14). The total number of recreational trips, where summer flounder was the primary target species, has fluctuated throughout the 1994 to 2010 period from 4.2 million trips in 1999 to 6.1 million trips in 2001 from Maine through North Carolina. Overall, summer flounder directed fishing trips have remained relatively stable since 2003 (Table 14).

The proposed recreational harvest limit for 2012 is 8.76 million lb (see discussion in section 4.2). This recreational harvest limit is lower than the recreational harvest limit implemented in 2011 (11.58 million lb) and higher than the projected recreational landings for 2011 (5.61 million lb; Table 49). The proposed recreational management measures are necessary to prevent anglers from exceeding the recreational harvest limit in 2012.

Scup

Scup recreational landings have declined for the period 1994 through 1998 (Table 16). The number of directed fishing trips has also declined over the same time period. This decrease in the recreational fishery has occurred both with and without any recreational measures being in place, and is perhaps a result of the stock being over-exploited and at a low biomass level. In addition, it is possible that party/charter boats may had 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.

Recreational harvest limits in the scup fishery were first implemented in 1997. For 2009 and 2010, recreational landings are projected to be greater than the recreational harvest limits (Table 16). The total number of recreational trips, where scup was the primary target species, has fluctuated throughout the 1994 to 2010 period from 0.20 million trips in 1997 to 0.98 million trips in 2003 from Maine through North Carolina. Overall, scup directed fishing trips have remained relatively since 2004 (Table 16).

The recreational harvest limit for 2012 is 8.45 million lb. This limit is higher than the recreational harvest limit implemented in 2011 (5.74 million lb) and higher than the projected recreational landings in 2011 (3.51 million lb; Table 16). The scup recreational management measures are necessary to prevent anglers from exceeding the recreational harvest limit in 2011.

Black Sea Bass

Black sea bass recreational data indicate that for the 2009 and 2010 recreational landings were higher than the recreational harvest limits (Table 18). For 2011, recreational landings are projected to be lower than the recreational harvest limit of 1.32 million lb. The total number of recreational trips, where black sea bass was the primary target species, has fluctuated throughout the 1994 to 2010 period from 0.14 million trips in 1999 to 0.42 million trips in 2010 from Maine through North Carolina (Table 18).

The proposed recreational harvest limit for 2012 is lower than the limit established in 2011 (1.84 million lb) and higher than the projected recreational landings in 2011 (0.99 million lb; Table 18). The proposed recreational management measures are necessary to prevent anglers from exceeding the recreational harvest limit in 2012.

Expenditures for Recreational Fishing

During 2006, social and economic data from marine recreational fishermen in the Northeast Region were gathered through an economic add-on to NMFS' MRFSS (Gentner and Steinback 2008). As part of this survey, anglers were asked to delineate trip expenditures and purchases of durable equipment used primarily for saltwater recreational fishing. Results of the survey were used to project the potential losses associated with the proposed 2012 regulations.

Survey results indicate that the average trip expenditure in the Northeast Region in 2006 was $39.14 for anglers fishing from a private/rental boat, $55.39 for shore anglers, and $107.13 for anglers that fished from a party/charter boat (Table 45). Trip expenditures included the following consumable items: (1) public and private transportation; (2) food, drink, and refreshments from grocery stores; (3) meals at restaurants; (4) auto rental; (5) lodging; (6) boat fuel; (7) boat or equipment rental; (8) charter fees; (9) charter crew tips; (10) catch processing; (11) access and parking; (12) bait; (13) ice; (14) tackle used on trip; (15) tournament fees; and (16) gifts/souvenirs. Expenditures on durable items such as rods, reels, special fishing clothing, etc., were also estimated in the Gentner and Steinback report but are not included in the subsequent analysis. Although expenditures on durable items may also be affected by the proposed regulations, the extent of the impact would be difficult to quantify since these items could be used for many trips.

5.0 Analysis of Impacts of Proposed Measures

This analysis will present information relative to the impacts of this proposed action on small entities. Specifically, assessments of potential changes in gross revenues for the three alternatives proposed in this action were conducted for federally permitted party/charter vessels in each state in the Northeast.[1] Estimates of the impacts upon

[1] The management measures proposed for summer flounder conservation equivalency have yet to be adopted so the potential losses under these measures could not be analyzed in conjunction with the measures proposed for scup and black sea bass. Since conservation equivalency allows each state to tailor specific recreational fishing measures to the needs of their state, while still achieving conservation goals, it

profitability are not provided because data on costs and revenues for party/charter vessels are not available at this time. As such, potential changes in gross revenues for party/charter vessels participating in these fisheries were estimated by employing various assumptions which are described below. The effects of these actions were analyzed by employing quantitative approaches to the extent possible. Where quantitative data were not available, qualitative analyses were conducted. The MAFMC invites public comment on this IRFA, and the qualitative and quantitative aspects of it in particular.

Impacts were examined by first estimating the number of angler trips aboard party/charter vessels in each state in 2011 that would have been affected by the proposed 2012 management measures. All 2011 party/charter fishing trips that would have been constrained by the proposed 2012 measures in each Northeast state were considered to be "affected" trips. To date, the first five waves of MRFSS effort data are available for 2011. Wave six effort estimates for 2010 (November - December) were used as a proxies for wave six 2011 effort. Therefore, wave six effort estimates for 2011 were assumed to be the same as in 2010.

Unfortunately, no empirical information is available to determine how sensitive the "affected" anglers might be to the proposed management changes. If the proposed measures discourage trip-taking behavior among some of the affected anglers, economic losses may accrue to the party/charter boat industry in the form of reduced access fees. On the other hand, if the proposed measures do not have a negative impact on the value or satisfaction the affected anglers derive from their fishing trips then party/charter revenues would remain unaffected by this action. In an attempt to bound the potential changes in gross revenues to the party/charter boat industry in each state, economic losses were estimated under two hypothetical scenarios: (1) a 10% reduction in the number of fishing trips that are predicted to be affected by implementation of the management measures in the Northeast Region in 2010; and (2) a 25% reduction in the number of fishing trips that are predicted to be affected in the Northeast Region in 2011.

Total economic losses to party/charter vessels were then estimated by multiplying the number of potentially affected trips in each state in 2011, under the two hypothetical scenarios, by the estimated average access fee paid by party/charter anglers in the Northeast region in 2011 ($64.94).[2] The recreational fishing expenditure data used in this analysis was presented in detail in section 7.5.6 of the EA (i.e., socioeconomic discussion). Finally, total economic losses for 2011 were divided by the number of federally permitted party/charter vessels that participated in the summer flounder, scup, and/or, black sea bass in each state (according to homeport state in the Northeast logbook database) to obtain an estimate of the average projected gross revenue loss per party/charter vessel in 2012.

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is likely that the measures developed for summer flounder conservation equivalency when considered in combination with the measures proposed for scup and black sea bass would have lower overall adverse effects than any of the measures that were analyzed.

[2] The 2006 party/charter average expenditure estimate ($57.76; Table 45) was adjusted to its 2011 equivalent using the Bureau of Labor's Consumer Price Index.

Results

All three management alternatives that propose measures for summer flounder, scup, and black sea bass could affect party/charter boat revenues to some extent in all of the northeast coastal states except for Maine (Tables 30 through 32). The estimated average party/charter losses vary considerably across the alternatives in each state. For instance, in New York, average gross revenue losses range from $458 per vessel up to $1,095 per vessel in 2012 (assuming a 10% reduction in affected effort). Across states, average gross revenue losses range from a low of $15 per vessel in Delaware to $9,154 in North Carolina. Average gross revenue losses per vessel under each of the alternatives were generally highest in North Carolina and Massachusetts.

Actual losses will likely be even lower than described above for several reasons. First, since the management measures proposed under the preferred alternative were selected to balance fishery and stakeholder needs, and for summer flounder conservation equivalency allows each state to tailor specific recreational fishing measures to the needs of their state, while still achieving conservation goals, it is likely that the measures developed under the preferred alternative would have lower overall adverse effects in 2012 than any of the other combinations that were analyzed.

Secondly, the universe of party/charter vessels that participates in the summer flounder, scup, and black sea bass fisheries is likely to be even larger than presented in this analysis. Party/charter vessels that do not possess a Federal summer flounder, scup, or black sea bass permit because they only fish in state waters are not represented in this assessment. Considering that 90% and 96% of the landings of summer flounder and scup in 2010, respectively, were caught in state waters (Table 23) it is probable that some party/charter vessels fish only in state waters and, thus, do not hold Federal permits for these species. Therefore, the party/charter losses shown in this assessment would be spread over a greater number of vessels resulting in lower estimated losses per vessel.

Lastly, economic losses are estimated under two hypothetical scenarios: (1) a 10% reduction in the number of fishing trips that are predicted to be affected by implementation of the management measures in the Northeast Region in 2012; and (2) a 25% reduction in the number of fishing trips that are predicted to be affected in the Northeast Region in 2012. Reductions in fishing effort of this magnitude in 2012 are not likely to occur given the fact that the proposed measures do not prohibit anglers from keeping at least some of the fish they catch or the fact that there are alternative species to harvest. Steinback at al. (2009) estimate that only up to about 28% of marine anglers fishing in the Northeast US fish primarily to bring home fish to eat. The remaining 72% of anglers were found to fish purely for recreational purposes and therefore likely place little importance on being able to keep fish. Findings of this study generally concur with previous studies that found non-catch reasons for participating in marine recreational fishing were rated much higher than keeping fish for food. In combination with alternative target species available to anglers, the findings of the Steinback et al.(2009) and many other peer-reviewed studies suggest that at least some of the potentially affected anglers would not reduce their effort when faced with the proposed landings restrictions.

TABLES

Table 1. Summer flounder landings (number in thousands) by state for 1998, the 2011 projected landings (number in thousands), and the 2012 target (number in thousands) under the Council-preferred and NMFS proposed recreational harvest limit of 8.76 million lb. The percent reduction necessary to achieve the 2012 recreational harvest limit in the Commission's conservation equivalency system relative to 2011 landings is also presented.

State	1998	2012 Target[a]	2011[b]	% Reduction
MA	383	153	43	0
RI	395	158	143	0
CT	261	104	63	0
NY	1,230	492	288	0
NJ	2,728	1091	788	0
DE	219	88	95	8
MD	206	82	29	0
VA	1,165	466	269	0
NC	391	156	65	0

[a] Based on a 60% reduction in 1998 landings and mean weight of 3.14 lb per fish.
[b] Projected using proportion from 2010 MRFSS data and 2011 MRFSS wave 1-5 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, December 13, 2011).

Table 2. Procedures for establishing summer flounder recreational management measures, modified to include voluntary multi-state conservation equivalency.

August
Council/Commissions's Board recommend recreational harvest limit.
October
MRFSS data available for current year through wave 4.
November
Monitoring Committee meeting to develop recommendations to Council:
Overall % reduction required.
Use of coastwide measures or state conservation equivalency.
**Precautionary default measures.
**Coastwide measures.
December
Council/Board meeting to make recommendation to NMFS
State Conservation Equivalency
or
Coastwide measures.

State Conservation Equivalency Measures

Late December
Commission staff summarizes and distributes state-specific and multi-state conservation equivalency guidelines to states.

Early January
Council staff submits recreational measure package to NMFS. Package includes:
- Overall % reduction required.
- Recommendation to implement conservation equivalency and precautionary default measures (Preferred Alternative).
-Coastwide measures (Non-preferred Alternative).

States submit conservation equivalency proposals to ASMFC.

January 15
ASMFC distributes state-specific or multi-state conservation equivalency proposals to Technical Committee.

Late January
ASMFC Technical Committee meeting:
-Evaluation of proposals.
-ASMFC staff summarizes Technical Committee recommendations and distributes to Board.

February
Board meeting to approve/disapprove proposals and submits to NMFS within two weeks, but no later than end of February.

March 1 (on or around)
NMFS publishes proposed rule for recreational measures announcing the overall % reduction required, state-specific or multi-state conservation equivalency measures and precautionary default measures (as the preferred alternative), and coastwide measures as the non-preferred alternative.

March 15
During comment period, Board submits comment to inform whether conservation equivalency proposals are approved.

April
NMFS publishes final rule announcing overall % reduction required and one of the following scenarios:
-State-specific or multi-state conservation equivalency measures with precautionary default measures, or -Coastwide measures.

Coastwide Measures

Early January
Council staff submits recreational measure package to NMFS. Package includes:
-Overall % reduction required.
-Coastwide measures.

February 15
NMFS publishes proposed rule for recreational measures announcing the overall % reduction required and Coastwide measures.

April
NMFS publishes final rule announcing overall % reduction required and Coastwide measures.

**Precautionary default measures - measures to achieve at least the % required reduction in each state, e.g., one fish possession limit and 15.5 inch bag limit would have achieved at least a 41% reduction in landings for each state in 1999.
**Coastwide measures - measure to achieve % reduction coastwide.

Table 3. The effect of various size and possession limits on 2011 scup recreational landings. The tables contain the proportional reduction in number of scup landed assuming regulations are 100% effective. Note: Reduction is calculated as the difference between the values associated with the current regulations and those being evaluated.

Bag	10.5	11	11.5	12.0	12.5	13.0	13.5	14	14.5
1	0.8013	0.8293	0.8866	0.9042	0.9337	0.9788	0.9880	0.9951	0.9978
2	0.6683	0.7322	0.8242	0.8594	0.9043	0.9741	0.9865	0.9943	0.9973
3	0.5655	0.6633	0.7864	0.8446	0.8967	0.9705	0.9858	0.9940	0.9971
4	0.5034	0.6295	0.7663	0.8306	0.8922	0.9698	0.9852	0.9939	0.9970
5	0.4610	0.6088	0.7508	0.8172	0.8881	0.9692	0.9847	0.9938	0.9968
6	0.4332	0.5886	0.7360	0.8100	0.8849	0.9689	0.9845	0.9938	0.9968
7	0.4150	0.5754	0.7247	0.8083	0.8845	0.9687	0.9844	0.9938	0.9968
8	0.3975	0.5627	0.7192	0.8069	0.8841	0.9685	0.9843	0.9938	0.9968
9	0.3831	0.5532	0.7168	0.8058	0.8839	0.9682	0.9843	0.9938	0.9968
10	0.3789	0.5493	0.7147	0.8051	0.8838	0.9681	0.9843	0.9938	0.9968
15	0.3602	0.5351	0.7074	0.8031	0.8837	0.9680	0.9843	0.9938	0.9968
20	0.3439	0.5253	0.7046	0.8025	0.8837	0.9680	0.9843	0.9938	0.9968
25	0.3329	0.5199	0.7035	0.8024	0.8837	0.9680	0.9843	0.9938	0.9968
30	0.3266	0.5162	0.7030	0.8024	0.8837	0.9680	0.9843	0.9938	0.9968
35	0.3223	0.5151	0.7030	0.8024	0.8837	0.9680	0.9843	0.9938	0.9968
40	0.3195	0.5149	0.7030	0.8024	0.8837	0.9680	0.9843	0.9938	0.9968

Table 4. a) Average percent of scup landed (in number) by wave, based on 1996-2000 MRFSS landings data and b) projected reduction in scup landings (in number) associated with closing one day per wave, based on 1996-2000 MRFSS landings data.

a.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0	0.0	37.4	31.5	31.1	0.0
RI	0.0	0.0	4.9	48.1	45.7	1.3
CT	0.0	0.0	8.2	49.6	42.2	0.0
NY	0.0	0.0	22.0	27.7	48.8	1.5
NJ	0.0	0.3	0.0	3.0	78.6	18.1
DE	0.0	0.0	0.0	9.0	89.9	1.1
MD	0.0	0.0	0.0	46.2	0.0	53.8
VA	0.0	0.0	0.0	0.0	87.8	12.2
NC	0.0	3.3	40.9	31.3	24.5	0.0
Coast	0.0	0.4	12.6	27.4	49.8	9.8

b.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0	0.0	0.61	0.51	0.51	0.0
RI	0.0	0.0	0.08	0.78	0.75	0.02
CT	0.0	0.0	0.13	0.80	0.69	0.00
NY	0.0	0.0	0.36	0.45	0.80	0.02
NJ	0.0	0.01	0.0	0.05	1.29	0.30
DE	0.0	0.0	0.0	0.15	1.47	0.02
MD	0.0	0.0	0.0	0.74	0.0	0.88
VA	0.0	0.0	0.0	0.0	1.44	0.20
NC	0.0	0.05	0.67	0.50	0.40	0.0
Coast	0.0	0.01	0.21	0.44	0.82	0.16

Table 5. a) Average percent of black sea bass landed (in number) by wave, 2006-2008, based on 2006-2008 MRFSS landings data, and b) projected reduction in black sea bass landings (in number) associated with closing one day per wave, based on 2006-2008 MRFSS landings data.

a.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0000	0.0000	28.1811	23.0679	48.7510	0.0000
RI	0.0000	0.0089	4.8779	32.6440	56.1700	6.2992
CT	0.0000	0.0000	8.0453	81.4640	1.0744	9.4164
NY	0.0000	0.0000	24.7302	39.0254	29.5265	6.7179
NJ	0.0000	0.3806	55.4295	14.9938	27.1842	2.0119
DE	0.0000	3.3517	47.8969	22.2969	24.2147	2.2398
MD	0.0000	0.6348	56.9196	15.1858	20.7386	6.5212
VA	0.0000	5.9458	51.8987	18.1779	15.3821	8.5955
NC	7.7935	10.9996	30.9160	26.0337	6.8825	17.3746
Coast	0.5841	1.5038	42.9023	22.5721	27.8707	4.5671

b.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0000	0.0000	0.4620	0.3721	0.7992	0.0000
RI	0.0000	0.0001	0.0800	0.5265	0.9208	0.1033
CT	0.0000	0.0000	0.1319	1.3139	0.0176	0.1544
NY	0.0000	0.0000	0.4054	0.6294	0.4840	0.1101
NJ	0.0000	0.0062	0.9087	0.2418	0.4456	0.0330
DE	0.0000	0.0549	0.7852	0.3596	0.3970	0.0367
MD	0.0000	0.0104	0.9331	0.2449	0.3400	0.1069
VA	0.0000	0.0975	0.8508	0.2932	0.2522	0.1409
NC	0.1321	0.1803	0.5068	0.4199	0.1128	0.2848
Coast	0.0099	0.0247	0.7033	0.3641	0.4569	0.0749

Table 6. The effect of various size and possession limits on 2011 black sea bass recreational landings. The table contains the proportional reduction in number of black sea bass landed assuming the regulations were 100% effective. Note: Reduction is calculated as the difference between the values associated with the current regulations and those being evaluated.

	Size (TL)			
Bag	**12.5**	**13**	**13.5**	**14**
1	0.5555	0.6065	0.6828	0.7142
2	0.3864	0.4714	0.5765	0.6292
3	0.3016	0.4127	0.5412	0.6044
4	0.2449	0.3858	0.5214	0.5929
5	0.2156	0.3701	0.5068	0.5851
6	0.2001	0.3556	0.4964	0.5806
7	0.1863	0.3423	0.4879	0.5806
8	0.1736	0.3300	0.4824	0.5805
9	0.1655	0.3249	0.4810	0.5805
10	0.1581	0.3198	0.4796	0.5805
11	0.1564	0.3182	0.4783	0.5804
12	0.1550	0.3168	0.4770	0.5804
13	0.1537	0.3155	0.4757	0.5804
14	0.1523	0.3141	0.4744	0.5804
15	0.1510	0.3128	0.4731	0.5804
20	0.1508	0.3128	0.4731	0.5804
25	0.1507	0.3128	0.4731	0.5804

Table 7. Summary of Federal management measures for the summer flounder recreational fishery, 1993-2012.

Measure	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Harvest Limit (m lb)	8.38	10.67	7.76	7.41	7.41	7.41	7.41	7.41	7.16	9.72
Landings (m lb)	8.84	9.35	5.42	9.86	11.89	12.52	8.39	16.52	11.66	8.03
Possession Limit	6	8	6/8	10	8	8	8	8	3	[b]
Size Limit (TL in)	14	14	14	14	14.5	15	15	15.5	15.5	[b]
Open Season	5/15 - 9/30	4/15 - 10/15	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	5/29 - 9/11	5/10 - 10/2	4/15 - 10/15	[b]
Measure	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Harvest Limit (m lb)	9.28	11.21	11.98	9.29	6.68	6.22	7.16	8.59	11.58	8.76 [c]
Landings (m lb)	11.66	11.00	10.68	11.72	9.86	7.92	6.33	4.95	5.61[a]	-
Possession Limit	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Size Limit (TL in)	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Open Season	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]

[a] Projected using proportion from 2010 MRFSS data and 2011 MRFSS wave 1-5 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, December 13, 2011). [b] State-specific conservation equivalency measures.

Table 8. Conservation equivalent summer flounder recreational management measures by state, 2011.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	17.5	5 fish	May 22-September 30
Rhode Island	18.5	7 fish	May 1-December 31
Connecticut*	18.5	3 fish	May 15-September 5
***At 40 designated Shore sites in CT**	17.0	1 fish	May 15-September 5
New York	20.5	3 fish	May 1-September 30
New Jersey	18.0	8 fish	May 7-September 25
Delaware	18.0	4 fish	January 1-October 23
Maryland	18.0	3 fish	April 16-November 30
PRFC	17.5	4 fish	All year
Virginia	17.5	4 fish	All year
North Carolina	15.0	6 fish	All Year

Table 9. Projected summer flounder recreational landings (number in thousands) relative to targets, by state for 2011.

State	2011 Target	2011 Landings[a,b]	Overage (+%)/ Underage (-%) Relative to 2011 Target
MA	187	43	-77
RI	193	143	-26
CT	128	63	-51
NY	602	288	-52
NJ	1335	788	-41
DE	107	95	-11
MD	101	29	-71
VA	570	269	-53
NC	191	65	-66

[a] Projected using proportion from 2010 MRFSS data and 2011 MRFSS wave 1-4 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, December 13, 2011).
[b] Because prior year proportions are used, for states with more restrictive seasons in 2011, landings will be overestimated, and for those with less restrictive measures landings will be underestimated.

Table 10. Summary of Federal management measures for the scup recreational fishery, 1997-2012.

Measure	1997	1998	1999	2000	2001	2002	2003	2004	2005
Harvest Limit (m lb)	1.95	1.55	1.24	1.24	1.76	2.71	4.01	3.99	3.96
Landings (m lb)	1.20	0.88	1.89	5.44	4.26	3.62	8.48	4.24	2.54
Possession Limit	-	-	-	-	50	20	50	50	50
Size Limit (in TL)[b]	7	7	7	-	9	10	10	10	10
Open Season	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	8/15 - 10/31	7/1 - 10/2	1/1-2/28 and 7/1-11/30	1/1-2/28 and	1/1-2/28 and

Measure	2006	2007	2008	2009	2010	2011	2012
Harvest Limit (m lb)	3.99	2.74	1.83	2.59	3.01	5.74	8.31
Landings (m lb)	2.95	3.65	4.04	2.94	5.55	3.51[a]	-
Possession Limit	50	50	15	15	10	10	-
Size Limit (in TL)[b]	10	10	10.5	10.5	10.5	10.5	-
Open Season	1/1-2/28 and 9/18-11/30	1/1-2/28 and 9/18-11/30	1/1-2/28 and 10/1-10/31	1/1-2/28 and 10/1-10/31	6/6 - 9/26	6/6 - 9/26	-

[a] Projected using proportion from 2010 MRFSS data and 2011 MRFSS wave 1-5 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, December 13, 2011).

Table 11. Scup recreational management measures by state, 2011.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts (party/charter)	11	40 fish from May 15 to June 18; 10 fish from June 19 to September 17	May 15- Sept. 17
Massachusetts (private angler)	10.5	10 fish; private vessels with five or more persons aboard are prohibited from possessing more than 50 scup per day	May 24-Sept.26
Rhode Island (party/charter)	11	10 fish June 8 to September 6; 40 fish September 7 to October 11	June 8-Oct.11
Rhode Island (private angler)	10.5	10 fish	May 24-Sept.26 (extended to Dec. 31)
Connecticut (party/charter)	11	10 fish June 8 to September 6; 40 fish September 7 to October 11	June 8-Oct. 11
Connecticut (private angler)	10.5	10 fish	May 24-Sept. 26 (extended to Dec. 31)
New York (party/charter)	11	10 fish June 8 to September 6; 40 fish September 7 to October 11	June 8-Oct. 11
New York (private angler)	10.5	10 fish	May 24-Sept.26 (extended to Dec. 31)
New Jersey	9	50 fish	Jan 1-Feb 28 and July 1 – Dec. 31
Delaware	8	50 fish	All Year
Maryland	8	50 fish	All Year
Virginia	8	50 fish	All Year
North Carolina	8	50 fish	All Year

Table 12. Summary of management measures for the black sea bass recreational fishery, 1996-2012.

Measure	1996	1997	1998	1999	2000	2001	2002	2003
Harvest Limit (m lb)	-	-	3.15	3.15	3.15	3.15	3.43	3.43
Landings (m lb)	4.0	4.3	1.2	1.7	4.0	3.4	4.3	3.3
Possession Limit	-	-	-[a]	-[a]	-[a]	25	25	25
Size Limit (TL inches)	9	9	10	10	10	11	11.5	12
Open Season	1/1 - 12/31	1/1-12/31	1/1-7/30 and 8/16-12/31	1/1-12/31	1/1-12/31	1/1-2/28 and 5/10-12/31	1/1-12/31	1/1-9/1 and 9/16-11/30

Measure	2004	2005	2006	2007	2008	2009	2010	2011	2012
Harvest Limit (m lb)	4.01	4.13	3.99	2.47	2.11	1.14	1.83	1.83	1.32
Landings (m lb)	2.6	2.6	2.7	2.9	2.0	2.3	3.0	1.0[b]	-
Possession Limit	25	25	25	25	25	25	25	25	-
Size Limit (TL inches)	12	12	12	12	12	12.5	12.5	12.5	-
Open Season	1/1-9/7 and 9/22-11/30	1/1-12/31	1/1-12/31	1/1-12/31	1/1-12/31	1/1-10/5	5/22-10/11 and 11/1-12/31	5/22-10/11 and 11/1-12/31	-

[a] There was no Federal possession limit but some states implemented a 20 fish possession limit in these years [b] Projected using proportion from 2010 MRFSS data and 2011 MRFSS wave 1-5 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, December 13, 2011).

Table 13. Black sea bass recreational management measures by state, 2011.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	14	10 fish	May 22 - Oct. 11
Rhode Island	13	12 fish	July 11- Dec. 31
Connecticut	13	25 fish	July 1 - Oct. 11 and Nov. 1 - Dec. 31
New York	13	10 fish	June 13 - Oct. 1 and Nov. 1 - Dec. 31
New Jersey	12.5	25 fish	May 28 - Sept. 11 and Nov. 1 - Dec.31
Delaware	12.5	25 fish	May 22 - Oct. 11 and Nov. 1 - Dec. 31
Maryland	12.5	25 fish	May 22 - Oct. 11 and Nov. 1 - Dec. 31
PRFC	12.5	25 fish	May 22 - Oct. 11 and Nov. 1 - Dec. 31
Virginia	12.5	25 fish	May 22 - Oct. 11 and Nov. 1 - Dec.31
North Carolina (North of Cape Hatteras)	12.5	25 fish	July 1 to September 25 and November 1 to December 31

Table 14. Number of coastwide summer flounder recreational fishing trips, recreational harvest limit, recreational landings, and historical performance from 1994 to 2012.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb) [b]	Recreational Landings of Summer Flounder (million lb)[c]	Overage (+%)/ Underage (-%)
1994	5,769,037	10.67	9.35	-12
1995	4,683,754	7.76	5.42	-30
1996	4,478,460	7.41	9.86	+33
1997	5,595,636	7.41	11.89	+60
1998	5,268,926	7.41	12.52	+69
1999	4,219,909	7.41	8.39	+13
2000	5,802,215	7.41	16.52	+123
2001	6,130,383	7.16	11.66	+63
2002	4,564,011	9.72	8.03	-17
2003	5,715,530	9.28	11.66	+26
2004	5,227,182	11.21	11.00	-2
2005	5,947,713	11.98	10.68	-11
2006	5,477,806	9.29	11.72	+26
2007	5,789,397	6.68	9.86	+48
2008	5,427,176	6.21	7.92	+28
2009	4,818,629	7.16	6.33	-12
2010	4,643,619	8.59	4.95	-42
2011	4,582,954[d]	11.58	5.61[e]	NA
2012	NA	8.76	NA	NA

[a] Estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Scott Steinback, NMFS/NER/NEFSC.
[b] Recreational harvest limits from 2003-2011 are adjusted for research set-aside.
[c] From Maine through North Carolina.
[d] Estimated from preliminary 2011 MRFSS data.
[e] Projected using 2010 data and 2011 waves 1-5.
NA = Data not available.

Table 15. The number of summer flounder landed from Maine through North Carolina by mode, 1981-2010.

	Mode		
Year	**Shore**	**Party/Charter**	**Private/Rental**
1981	3,155,294	1,362,252	5,073,504
1982	1,139,461	5,936,006	8,426,402
1983	3,984,098	3,574,383	13,486,009
1984	1,380,082	2,495,733	13,706,579
1985	786,185	1,152,247	9,127,759
1986	1,246,513	1,608,907	8,780,696
1987	432,976	1,150,109	6,336,306
1988	955,063	1,134,353	7,922,585
1989	183,876	141,320	1,408,578
1990	263,071	413,240	3,125,036
1991	572,933	597,610	4,998,445
1992	275,939	375,245	4,356,611
1993	346,924	1,013,464	5,147,941
1994	452,289	836,362	5,427,621
1995	241,906	267,348	2,817,073
1996	208,727	659,876	6,160,284
1997	256,535	930,633	5,997,945
1998	332,219	360,883	6,309,987
1999	217,970	300,816	3,604,141
2000	574,053	648,773	6,597,290
2001	229,619	329,800	4,747,841
2002	161,423	261,554	2,857,550
2003	206,891	389,373	3,981,568
2004	204,572	465,633	3,722,081
2005	135,630	498,789	3,472,122
2006	155,860	315,935	3,562,400
2007	98,969	499,328	2,510,675
2008	79,339	172,076	2,110,886
2009	79,797	176,997	1,572,783
2012	62,762	160,124	1,287,824
% of Total	9	14	77

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division (MRIP: February 27, 2012).

Table 16. Number of coastwide scup recreational fishing trips, recreational harvest limit, recreational landings, and historical performance from 1994 to 2012.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb)[b]	Recreational Landings of Scup (million lb)[c]	Overage (+%)/ Underage (-%)
1994	435,625	None	2.63	NA
1995	242,956	None	1.34	NA
1996	241,322	None	2.16	NA
1997	198,754	1.95	1.20	-38
1998	213,842	1.55	0.88	-43
1999	231,596	1.24	1.89	+52
2000	485,039	1.24	5.44	+339
2001	484,604	1.77	4.26	+141
2002	481,716	2.71	3.62	+34
2003	983,952	4.01	8.48	+111
2004	585,170	4.01	4.24	+6
2005	518,947	3.96	2.54	-36
2006	514,303	4.15	2.95	-29
2007	580,753	2.74	3.65	+33
2008	648,548	1.83	4.04	+121
2009	481,779	2.59	2.94	+14
2010	757,462	3.01	5.55	+84
2011	485,264[d]	5.74	3.51[e]	NA
2012	NA	8.45	NA	NA

[a] Estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Scott Steinback, NMFS/NER/NEFSC.
[b] Recreational harvest limits from 2003-2011 are adjusted for research set-aside.
[c] From Maine through North Carolina.
[d] Estimated from preliminary 2011 MRFSS data.
[e] Projected using 2010 data and 2011 waves 1-5.
NA = Data not available.

Table 17. The number of scup landed from Maine through North Carolina by mode, 1981-2010.

	Mode		
Year	**Shore**	**Party/Charter**	**Private/Rental**
1981	772,162	1,056,593	7,256,991
1982	833,427	1,395,329	4,226,957
1983	2,227,113	2,996,892	3,612,789
1984	1,299,566	227,735	4,530,009
1985	1,121,593	329,306	9,362,672
1986	1,898,860	3,228,151	19,698,269
1987	522,310	583,977	8,809,697
1988	698,339	1,137,625	4,227,092
1989	882,602	1,033,595	7,261,548
1990	434,743	1,302,791	6,305,463
1991	1,628,583	2,250,041	9,403,917
1992	1,003,648	1,017,369	5,744,024
1993	284,525	1,762,459	3,616,650
1994	230,918	918,217	3,132,383
1995	222,397	837,572	1,359,239
1996	120,597	451,615	2,399,995
1997	141,367	454,365	1,327,695
1998	117,056	165,702	929,147
1999	197,876	821,995	2,230,778
2000	550,951	1,140,132	5,552,865
2001	766,084	768,894	3,563,840
2002	505,079	1,309,169	1,832,593
2003	858,699	1,329,585	7,264,027
2004	776,634	1,509,084	4,867,979
2005	394,888	165,760	2,030,620
2006	321,081	605,951	2,507,108
2007	352,618	516,256	3,879,849
2008	385,583	868,771	2,232,589
2009	209,882	1,122,189	1,801,987
2010	383,464	1,280,211	3,484,602
% of Total	10	17	73

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division (MRIP: February 27, 2012).

Table 18. Number of coastwide black sea bass recreational fishing trips, recreational harvest limit, recreational landings, and historical performance from 1994 to 2012.

Year	Number of Fishing Trips[a]	Recreational Harvest Limit (million lb)[b]	Recreational Landings of Black Sea Bass (million lb)[c]	Overage (+%)/ Underage (-%)
1994	253,888	None	3.55	None
1995	313,537	None	6.82	None
1996	231,090	None	4.64	None
1997	310,898	None	4.78	None
1998	137,734	3.15	1.51	-52
1999	136,452	3.15	1.95	-38
2000	255,789	3.15	4.30	+37
2001	293,191	3.15	3.99	+27
2002	283,537	3.43	4.66	+36
2003	299,791	3.43	3.69	+8
2004	234,860	4.01	2.61	-35
2005	197,096	4.13	2.60	-37
2006	292,415	3.99	2.69	-33
2007	376,947	2.47	2.89	+17
2008	246,151	2.11	2.00	-5
2009	312,120	1.14	2.31	+103
2010	417,803	1.83	2.99	+63
2011	168,761[e]	1.84	0.99[e]	NA
2012	NA	1.32	NA	NA

[a] Estimated number of recreational fishing trips (expanded) where the primary target species was black sea bass, Maine through North Carolina. Source: Scott Steinback, NMFS/NER/NEFSC.
[b] Recreational harvest limits from 2003-2011 are adjusted for research set-aside.
[c] From Maine through North Carolina.
[d] Estimated from preliminary 2011 MRFSS data.
[e] Projected using 2010 data and 2011 waves 1-5.
NA = Data not available

Table 19. The number of black sea bass landed from Maine through North Carolina by mode, 1981-2010.

	Mode		
Year	**Shore**	**Party/Charter**	**Private/Rental**
1981	624,216	1,711,453	1,019,766
1982	106,731	8,481,531	3,961,528
1983	251,803	4,388,533	1,876,929
1984	127,773	1,757,742	2,532,112
1985	210,521	2,703,267	2,787,903
1986	1,034,808	16,767,035	4,952,352
1987	86,164	1,204,915	3,033,172
1988	161,547	1,758,434	2,703,012
1989	240,575	2,251,737	2,991,513
1990	292,020	2,319,798	2,017,395
1991	267,108	2,602,760	3,331,671
1992	49,352	2,207,200	2,164,276
1993	64,561	4,735,024	1,807,922
1994	260,715	2,096,555	1,722,223
1995	276,762	5,436,560	1,622,809
1996	74,135	2,754,203	1,353,782
1997	15,049	4,087,835	1,177,087
1998	14,569	840,035	629,402
1999	22,021	663,426	958,706
2000	178,307	1,818,050	1,988,987
2001	20,798	1,871,550	1,487,918
2002	20,087	2,088,652	1,568,072
2003	13,737	2,124,997	1,510,512
2004	10,194	824,923	1,610,491
2005	14,588	696,192	1,169,379
2006	50,382	820,447	975,950
2007	16,973	969,771	967,225
2008	10,504	500,564	1,120,684
2009	26,601	486,488	1,560,272
2010	11,374	566,445	2,126,410
% of Total	3	56	41

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division (MRIP: February 27, 2012).

Table 20. State contribution (as a percentage) to total recreational landings of summer flounder, scup, and black sea bass (MRIP Type A+B1 in number of fish), from Maine through North Carolina, 2010.

State	Summer Flounder	Scup	Black Sea Bass
Maine	0.0	0.0	0.0
New Hampshire	0.0	0.0	0.0
Massachusetts	3.0	18.0	30.1
Rhode Island	7.9	7.7	6.9
Connecticut	2.3	21.1	0.7
New York	22.3	38.7	23.3
New Jersey	36.8	14.4	29.4
Delaware	3.6	0.0	0.9
Maryland	1.7	0.0	1.5
Virginia	17.3	0.1	1.3
North Carolina	5.1	0.0	6.0
Total	**100%**	**100%**	**100%**

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division (February 27, 2012).

Table 21. Demographic Characteristics of Marine Anglers in the Northeast U.S.

	% of fishing participants	% of non-participants
Sex		
Male	77.2	38.7
Female	23.7	61.3
Ethnicity		
Spanish/Hispanic/Latino	5.9	10.7
Non Spanish/Hispanic/Latino	95.1	89.3
Race		
White	90.7	78.2
Black, African American	5.5	13.9
American Indian/Alaska Native	1.3	1.8
Asian	<1	4.2
Native Hawaiian/Pacific Islander	<1	<1
Some other race	<1	<1
Two or more races	1.1	1.5
Household Income		
Under $15,000	2.6	7.1
$15,000 to $34,999	10.6	18.9
$35,000 to $49,999	16.2	19.5
$50,000 to $74,999	22.6	20.1
$75,000 to $99,999	18.2	14.9
$100,000 to $149,999	18.1	12.7
Over $150,000	11.6	6.8
Education		
Less than high school	7.6	10.0
High school graduate	26.4	28.1
Some college, no degree	16.4	13.5
Associate degree	9.7	8.2
Bachelor degree	23.2	22.0
Graduate or professional degree	16.8	16.2
Age		
15 to 24	7.8	11.3
25 to 34	12.2	14.4
35 to 44	23.1	18.9
45 to 54	26.9	19.6
55 to 64	17.9	14.7
65 to 74	8.9	10.3
Over 75	3.2	10.7

Source: Steinback et al., 1999.

Table 22. Purpose of Marine Recreational Fishing in the Northeast

	Percent	Number of anglers in 2005 (thousands)
Purpose of recreational fishing trips		
All for food or income	2.1	92.4
Mostly for food or income	<1.0	34.3
Both for recreation and for food or income	11.7	514.8
Mostly for recreation	13.2	580.8
All for recreation	72.2	3,176.8

Source: Steinback et al., 2009.

Table 23. Percentage of summer flounder, scup, and black sea bass recreational landings (MRIP Type A+B1 in number of fish) by year and area, Maine through North Carolina. These area information are self-reported based on the area where the majority of fishing activity occurred per angler trip.

	Summer Flounder		Scup		Black Sea Bass	
Year	**State <= 3 mi**	**EEZ > 3 mi**	**State <= 3 mi**	**EEZ > 3 mi**	**State <= 3 mi**	**EEZ > 3 mi**
2002	89.5	10.5	91.6	8.4	21.7	78.3
2003	91.7	8.3	95.2	4.8	21.6	78.4
2004	87.9	12.1	94.8	5.2	23.1	76.9
2005	81.5	18.5	98.2	1.8	26.6	73.4
2006	90.2	9.8	93.6	6.4	30.4	69.6
2007	88.9	11.1	98.3	1.7	31.6	68.4
2008	96.5	3.5	96.2	3.8	52.6	47.4
2009	90.9	9.1	98.1	1.9	63.0	37.0
2010	92.4	7.6	95.8	4.2	63.4	36.6
Avg.	89.7%	10.3%	95.8%	4.2%	35.3%	64.7%

Table 24. Total estimated angler effort (fishing trips) by state, in 2011[1].

State	Party/Charter	Private/Rental	Shore
ME	18,228	249,570	276,200
NH	72,035	170,866	53,970
MA	180,854	1,337,611	1,365,559
RI	39,895	530,891	483,874
CT	33,730	906,258	393,589
NY	376,511	2,435,260	1,429,463
NJ	434,787	2,478,876	2,276,730
DE	8,227	525,184	446,356
MD	135,748	1,402,938	1,182,532
VA	32,444	1,682,539	987,960
NC	257,816	1,917,268	2,686,903
Total	1,590,275	13,637,260	11,583,136

[1] Values were estimated from preliminary MRFSS data.
Source: Scott Steinback, NMFS/NER/NEFSC

Table 25. Projected 2012 effort effects of combined management measures under each alternative, by mode (2011 catch and effort estimates were used to project 2012 effects).

	Party/Charter			Private/Rental			Shore		
	Affected Trips	**Total Trips**	**% of Total Trips**	**Affected Trips**	**Total Trips**	**% of Total Trips**	**Affected Trips**	**Total Trips**	**% of Total Trips**
Alternative 1[a]	42,484	1,590,275	2.67	219,109	13,637,260	1.61	7,072	11,583,136	0.06
Alternative 2[b]	26,475	1,590,275	1.66	203,111	13,637,260	1.49	4,038	11,583,136	0.03
Alternative 3[b]	45,173	1,590,275	2.84	246,417	13,637,260	1.81	7,392	11,583,136	0.06
Alternative 2[b]									
Alternative 3[c]									

[a]Fluke no action, scup no action, bsb no action
[b]Fluke preferred, scup preferred, bsb preferred
[c]Fluke status quo, scup status quo, bsb status quo

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 26. Average daily trip expenditures by recreational fishermen in the Northeast region by mode, in 2006.

Expenditures	$		
	Party/Charter	Private/Rental	Shore
Private transportation	13.88	11.03	12.94
Public transportation	0.26	0.07	0.40
Auto rental	0.27	0.02	0.10
Food from grocery stores	7.40	4.92	7.33
Food from restaurants	8.70	3.42	9.28
Lodging	10.0	2.64	14.90
Boat fuel	0	9.54	0
Boat or equipment rental	0.05	0.19	0.03
Charter fees	57.76	0	0
Charter crew tips	3.0	0	0
Catch processing	0.02	0	0
Access and parking	0.44	1.11	1.32
Bait	0.31	3.42	3.25
Ice	0.39	0.59	0.39
Tackle used on trip	1.87	2.04	3.98
Tournament fees	1.10	0.04	0.02
Gifts and souvenirs	1.67	0.10	1.45
Total	107.13	39.14	55.39

Table 27. Regional economic losses of combined management measures assuming a 10% reduction in the number of affected trips (2012 $'s).

	Party/Charter			Private/Rental			Shore			Total		
	Sales	Income	Jobs	Sales	Income	Jobs	Sales	Income	Jobs	Sales	Income	Jobs
	(thousand dollars)			(thousand dollars)			(thousand dollars)			(thousand dollars)		
Alternative 1[a]	852	289	15	1,214	397	1	64	22	25	2,129	708	40
Alternative 2[b]	531	180	13	1,125	368	0	36	12	20	1,692	561	34
Alternative 3[c]	906	307	16	1,365	446	1	67	23	27	2,337	777	44

[a]Fluke no action, scup no action, bsb no action
[b]Fluke preferred, scup preferred, bsb preferred
[c]Fluke status quo, scup status quo, bsb status quo

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 28. Regional economic losses of combined management measures assuming a 25% reduction in the number of affected trips (2012 $'s).

	Party/Charter			Private/Rental			Shore			Total		
	Sales	Income	Jobs	Sales	Income	Jobs	Sales	Income	Jobs	Sales	Income	Jobs
	(thousand dollars)			(thousand dollars)			(thousand dollars)			(thousand dollars)		
Alternative 1[a]	2,130	723	36	3,034	992	2	160	54	61	5,323	1,770	100
Alternative 2[b]	1,327	451	34	2,812	920	1	91	31	49	4,231	1,402	84
Alternative 3[c]	2,264	769	41	3,412	1,116	2	167	57	68	5,843	1,942	111

[a]Fluke no action, scup no action, bsb no action
[b]Fluke preferred, scup preferred, bsb preferred
[c]Fluke status quo, scup status quo, bsb status quo

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 29. Summary of Landings Combinations by Vessels Reporting Party/Charter Trips (Calendar Year 2010 VTR Data).

State	Landed Fluke, BSB, and Scup	Landed BSB Only	Landed BSB and Scup	Landed BSB and Fluke	Landed Scup Only	Landed Fluke Only	Landed Fluke and Scup	Total
ME	0	0	0	0	0	0	0	0
NH	0	2	0	0	0	0	0	2
MA	8	3	6	2	3	1	1	24
RI	20	2	0	8	1	5	3	39
CT	9	0	1	0	2	3	1	16
NY	65	1	10	18	1	9	5	109
NJ	41	8	4	49	1	18	1	122
DE	4	4	0	9	0	2	0	19
MD	1	3	0	2	0	0	0	6
VA	1	4	0	6	0	4	0	15
NC	0	2	0	0	0	1	0	3
Total	149	29	21	94	8	43	11	355

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 30. Combined effects of summer flounder no action, scup no action, and black sea bass no action management measures under alternative 1 - affected party/charter effort and the average estimated gross revenue loss per party/charter vessel (federally permitted) in each state in the Northeast Region (ME-NC).

State	MRFSS Projected Total Estimated Angler Effort in 2012 Aboard Party/Charter Boats	Estimated Percent of Angler Party/Charter Effort Subject to Measures	Estimated Angler Trips Aboard Party/Charter Boats Subject to Measures	Number of Participating Federally Permitted Party/Charter Vessels (VTR 2010)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 10% Reduction in Affected Effort ($'s)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 25% Reduction in Affected Effort ($'s)
ME	18,228	0.0%	0	0	$0	$0
NH	72,035	0.0%	0	2	$0	$0
MA	180,854	3.9%	7,112	24	$1,924	$4,811
RI	39,895	9.3%	3,714	39	$618	$1,546
CT	33,730	3.5%	1,187	16	$482	$1,204
NY	376,511	4.9%	18,377	109	$1,095	$2,737
NJ	434,787	1.7%	7,342	122	$391	$977
DE	8,227	0.6%	50	19	$17	$43
MD	135,748	0.1%	142	6	$153	$384
VA	32,444	1.0%	331	15	$143	$359
NC	257,816	1.6%	4,229	3	$9,154	$22,885

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 31. Combined effects of summer flounder preferred, scup preferred, and black sea bass preferred management measures under alternative 2 - affected party/charter effort and the average estimated gross revenue loss per party/charter vessel (federally permitted) in each state in the Northeast Region (ME-NC).

State	MRFSS Projected Total Estimated Angler Effort in 2012 Aboard Party/Charter Boats	Estimated Percent of Angler Party/Charter Effort Subject to Measures	Estimated Angler Trips Aboard Party/Charter Boats Subject to Measures	Number of Participating Federally Permitted Party/Charter Vessels (VTR 2010)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 10% Reduction in Affected Effort ($'s)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 25% Reduction in Affected Effort ($'s)
ME	18,228	0.0%	0	0	$0	$0
NH	72,035	0.0%	0	2	$0	$0
MA	180,854	3.0%	5,421	24	$1,467	$3,667
RI	39,895	10.8%	4,302	39	$716	$1,791
CT	33,730	1.7%	584	16	$237	$592
NY	376,511	2.0%	7,688	109	$458	$1,145
NJ	434,787	1.5%	6,366	122	$339	$847
DE	8,227	0.5%	44	19	$15	$38
MD	135,748	0.1%	132	6	$143	$358
VA	32,444	1.0%	327	15	$142	$354
NC	257,816	0.6%	1,609	3	$3,483	$8,708

Source: Scott Steinback, NMFS/NER/NEFSC.

Table 32. Combined effects of summer flounder status quo, scup no action, and black sea bass status quo management measures under alternative 3 - affected party/charter effort and the average estimated gross revenue loss per party/charter vessel (federally permitted) in each state in the Northeast Region (ME-NC).

State	MRFSS Projected Total Estimated Angler Effort in 2012 Aboard Party/Charter Boats	Estimated Percent of Angler Party/Charter Effort Subject to Measures	Estimated Angler Trips Aboard Party/Charter Boats Subject to Measures	Number of Participating Federally Permitted Party/Charter Vessels (VTR 2010)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 10% Reduction in Affected Effort ($'s)	Average Estimated Gross Revenue Loss per Party/Charter Vessel in 2012 Assuming a 25% Reduction in Affected Effort ($'s)
ME	18,228	0.0%	0	0	$0	$0
NH	72,035	0.0%	0	2	$0	$0
MA	180,854	3.9%	7,112	24	$1,924	$4,811
RI	39,895	11.7%	4,686	39	$780	$1,951
CT	33,730	3.5%	1,187	16	$482	$1,204
NY	376,511	4.9%	18,377	109	$1,095	$2,737
NJ	434,787	2.1%	9,037	122	$481	$1,203
DE	8,227	0.7%	59	19	$20	$50
MD	135,748	0.1%	151	6	$163	$408
VA	32,444	1.0%	334	15	$145	$362
NC	257,816	1.6%	4,229	3	$9,154	$22,886

Source: Scott Steinback, NMFS/NER/NEFSC.

2012 Summer Flounder, Scup, and Black Sea Bass Specifications Environmental Assessment

December 2011

National Marine Fisheries Service

Prepared in collaboration with the
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ADDENDUM

Several additions have been made to this document following submission from the Mid-Atlantic Fishery Management Council (Council) to NOAA's National Marine Fisheries Service (NMFS) for review. These additions were made in response to new stock assessment information for summer flounder and scup.

Background and Need of Additional Environmental Analysis

Need: New stock assessment information for summer flounder and scup, introduced in the middle of the normal specification process, has caused unforeseen complications in the environmental impact analysis, consistency review, and rulemaking processes to implement summer flounder and scup specifications for 2012. NMFS has added this new information to the Environmental Assessment (EA)[1]. This is necessary to convey the updated stock information for summer flounder and scup and to relay new NMFS preferred summer flounder and scup specification alternatives based on the updated stock information for both species. In addition, this updated information includes impact analyses associated with the NMFS preferred alternatives for summer flounder and scup.

Background: The Council took final action to recommend 2012 summer flounder and scup specifications (i.e., commercial management measures and catch levels or "quotas") in August 2011. Council staff, in collaboration with the Northeast Fisheries Science Center's Social Sciences Branch, constructed the necessary analyses to support its recommendations and satisfy applicable requirements (e.g., National Environmental Policy Act). These analyses were conveyed in an EA, also referred to as the specifications document, in early October 2011. NMFS initiated a review of this EA for consistency with the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP) and applicable law. Shortly after these reviews began, stock assessment updates for summer flounder and scup became available from the Northeast Fisheries Science Center (Tiercero 2011a and 2011b).

The updated assessments, published in late October, utilize updated catch and survey data through 2010. The updated summer flounder assessment shows that the stock fully rebuilt in 2010, ending the stock rebuilding program that had been in place since 2000. However, both assessments revised the estimated 2011 and 2012 spawning stock biomass (SSB), fishing mortality (F), and, for 2012, the overfishing limits (OFL) for both species. These new estimates indicate the Council's preferred 2012 summer flounder (Alternative 2) and scup (Alternative 2A) alternatives submitted to NMFS were no longer appropriate as both would result in overfishing if fully utilized. Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), NMFS cannot knowingly authorize catch levels that result in overfishing.

Shortly after the release of the updated assessments, the Council indicated that it would reconvene its Scientific and Statistical Committee (SSC) and species-specific monitoring committees (MC) so that these groups may make use of the updated stock information and revisit 2012 catch recommendations for summer flounder and scup. These groups met in

[1] 2012 Summer Flounder, Scup, and Black Sea Bass Specifications, Environmental Assessment

early December 2011; the SSC will provide advice on Acceptable Biological Catch (ABC) levels that address scientific uncertainty in the stock assessments, and the MCs will advise the Council on management uncertainties that can be addressed by offsetting the Annual Catch Target (ACT) from the Annual Catch Level (ACL), consistent with the implementing regulations for both species. The Council will use this advice during its December 13-15, 2011, meeting and subsequently make new summer flounder and scup specification recommendations to NMFS. It is likely that Council staff will require some time to analyze the Council's revised recommendations. It remains to be seen if the Council will supplement this specifications document/EA or develop a new EA to recommend revised summer flounder and scup specifications to NMFS. The Council will also recommend 2012 recreational management measures at the December Council meeting.

The fishing year for both summer flounder and scup begins on January 1, 2012. There are no specification "roll-over" provisions or other measures in the FMP that will ensure that some catch constraints are in place on January 1, 2012, if NMFS does not conduct rulemaking prior to that date. Because the Federal analysis requirements, review, and rulemaking processes have unavoidable time constraints, it will not be possible for NMFS to wait until the Council has convened in December and makes new summer flounder and scup recommendations for 2012 to initiate rulemaking that will ensure measures are in place at the start of the fishing year. In addition to the practical complications that would arise from a lack of quotas in place at the start of the fishing year on January 1, this would also be inconsistent with both the FMP and MSA.

To ensure that some catch constraints are in place at the start of the fishing year on January 1, NMFS provided impact analysis information for summer flounder alternative 4 (NMFS preferred) and scup alternative 4 (NMFS preferred) in this document. These alternatives contain ACLs and ACTs generated using the updated October stock assessment information.

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 2012 commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries that are necessary to prevent overfishing, ensure annual catch limits (ACLs) are not exceeded, and in the case of summer flounder, ensure rebuilding occurs on schedule

This specifications document was developed in accordance with all applicable laws and statutes as described in section 8.0 and document details all management alternatives for summer flounder, scup, and black sea bass fisheries evaluated for a one year period (2012). Under the FMP, the no action alternatives for summer flounder, scup, and black sea bass are not equivalent to the *status quo*. If the actions proposed in this document are not taken, some current management measures will remain in place, but the overall management program will not be identical to that of 2011. For comparison purposes, the alternatives in this specifications document are compared to the *status quo* alternatives (base line) as opposed to the "true" no action alternatives. The base line condition is the

adjusted quotas for 2011 (quotas adjusted for research set-aside (RSA) and/or overages/quotas restorations). For clarity, the comparison of the *status quo* across years begins by deriving the total catch. In the regulatory process, the estimated discards are removed from the total catch level to derive the commercial quotas, recreational harvest limits, and research set-asides (i.e., landing limits within the respective fisheries). As a result, the landing limits in the comparison of *status quo* alternatives will have nominal differences between the 2011 implemented limits and the 2012 limits, owing to slight year-to-year differences in estimated discard levels. Because the landing limits are the most familiar components for all involved or interested in the summer flounder, scup, and black sea bass fisheries, this slightly irregular *status quo* comparison approach is utilized to provide a more meaningful context to the analyses.

The proposed actions in this specifications document would only modify the 2012 commercial quotas and recreational harvest limits (i.e., recreational quota) for summer flounder, scup, and black sea bass and change the scup commercial Winter I possession limit (Box ES-1). Changes to other fishery management measures (i.e., minimum fish size, mesh size, possession limits, and other gear regulations) are not recommended for 2012. Therefore, other fishery management measures would remain *status quo* for the 2012 fishing year (see section 5.5 for additional discussion). The Council and Atlantic States Marine Fisheries Commission's Summer Flounder, Scup and Black Sea Bass Board (Board) will meet in December 2011 to adopt 2012 recreational management measures when more complete data regarding 2011 recreational landings are available. A supplement to this Environmental Assessment (EA) will analyze the impacts of recreational management measures (i.e., minimum size, possession limits, and fishing seasons) 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 2012. For purposes of impact evaluation, *status quo* alternatives are compared to 2011 condition, while all other alternatives are compared to the *status quo* alternative.

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

		Research Set-Aside	Commercial Quota	Recreational Harvest Limit
Summer Flounder	**Alternative 1** (Council Preferred: Least Restrictive)	0.95	18.37	12.26
	Alternative 2 (Non-Preferred: *Status quo* (No Action))	0.88	17.16	11.44

	Alternative 3 (Non-Preferred: Most Restrictive)	0.47	9.18	6.12
	Alternative 4 (NMFS Preferred)	0.68	13.14	8.76
Scup	**Alternative 1A** (Preferred: Least Resrictive)	1.36	33.40	10.53
	Alternative 2A (Non-Preferred: *Status quo* (No Action))	0.80	20.05	5.66
	Alternative 3A (Non-Preferred: Most Restrictive)	0.34	8.28	2.56
	Alternative 4A (NMFS Preferred)	1.11	27.50	8.31
	Alternative 1B (Council and NMFS Preferred)	Increase the Winter I commercial fishing period possession limit to 50,000 lb		
	Alternative 2B (Non-Preferred: *Status quo* (No Action))	Winter I commercial fishing period possession limit is 30,000 lb		
Black Sea Bass	**Alternative 1** (Non-Preferred: Least Restrictive)	0.25	3.90	4.06
	Alternative 2 (Council and NMFS Preferred: *Status quo* (No Action))	0.09	1.71	1.32
	Alternative 3 (Non-Preferred: Most Restrictive)	0.69	1.09	1.14

Summer Flounder

Council preferred alternative 1 is expected to result in negative biological impacts overall on the managed resource and non-target species in 2012, when compared to the *status quo* (alternative 2; Box ES-2). Alternative 1 represents an increase in landings limits when compared to the *status quo*, and, though consistent with the initial recommendations of the Council's Science and Statistical Committee (SSC), this alternative would result in overfishing the stock in 2012, as indicated by the most recent stock assessment update (Tierciero 2011a). Non-preferred alternative 2 is expected to result in neutral to positive biological impacts overall on the managed resource and non-target species 2012, when compared to 2011. This alternative proposes measures that are slightly lower then those considered under alternative 1. Under this alternative, it may be less likely that overfishing will occur. Non-preferred alternative 3 is expected to have neutral to positive biological impacts overall on the managed resource and non-target species 2012, when compared to the *status quo*. This most restrictive alternative may be more restrictive than necessary. Alternative 4 is expected to result in neutral to positive biological impacts overall on the managed resource and non-target species in 2012. This is a reduction of catch.

Ranking these four TAL alternatives from more likely to less likely to prevent overfishing and achieve rebuilding, they rank as alternative 3, alternative 4, alternative 2, and alternative 1.

Box ES-2. Overall qualitative summary of the expected impacts of various summer flounder, scup, and black sea bass alternatives considered in this document (2012). 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. A (u) is used when there is some uncertainty whether the impact will be null or as specified (+ or -).

		Biological	EFH	Protected Resources	Economic	Social
Summer Flounder	**Alternative 1** (Council Preferred: Least Restrictive)	-	0/sl+(u)	0/sl+(u)	sl+	sl+
	Alternative 2 (Non-Preferred: *Status quo* (No Action))	0/+	0/sl+(u)	0/sl+(u)	0/sl-(u)	0/sl-(u)
	Alternative 3 (Non-Preferred: Most Restrictive)	0/+	0/+(u)	0/+(u)	-	-
	Alternative 4 (NMFS Preferred)	0/+	0/sl+(u)	0/sl+(u)	sl+	sl+
Scup	**Alternative 1A** (Council Preferred: Least Resrictive)	-	0/-(u)	0/-(u)	+	+
	Alternative 2A (Non-Preferred: *Status quo* (No Action))	0/+	0	0	0/-(u)	0/-(u)
	Alternative 3A (Non-Preferred: Most Restrictive)	0/+	0/+(u)	0/+(u)	-	-
	Alternative 4A (NMFS Preferred)	sl-/+	0/-(u)	0/-(u)	+	+
	Alternative 1B (Council and NMFS Preferred)	0/sl+	0/sl+	0/sl+	+	+
	Alternative 2B (Non-Preferred: *Status quo* (No Action))	0	0	0	0/-(u)	0/-(u)
Black Sea Bass	**Alternative 1** (Non-Preferred: Least Restrictive)	-	0/-(u)	0/-(u)	+S/-L	+S/-L
	Alternative 2 (Council and NMFS Preferred: *Status quo* (No Action))	0/+	0	0	0/-(u)	0/-(u)
	Alternative 3 (Non-Preferred: Most Restrictive)	0/+	0/+(u)	0/+(u)	-	-

Given the range of potential habitat impacts, depending upon whether fishing effort increases or decreases, these four summer flounder alternatives are expected to have effects on habitat and EFH that range from no change to slight positive (as expected under alternatives 1, 2 and 4), to no change to positive through decreased effort (as expected under alternatives 3), when compared to existing impacts.

Given the range of potential impacts on ESA listed and MMPA protected resources, depending upon whether fishing effort increases or decreases, these four alternatives are expected to have effects on ESA listed and MMPA protected resources that range from no change to slight positive (as expected

under alternatives 1, 2and 4), to No change to positive (as expected under alternatives 3), when compared to existing impacts. These positive impacts are uncertain.

Under alternative 1, it is expected that slight positive social and economic impacts may occur because of the increase in total landings (in 2012), relative to the *status quo*. Given that the commercial quotas and recreational harvest levels under alternative 2 (*status quo*) are only slightly lower when compared to 2011, it is expected there will be neutral to slight negative social and economic impacts. Under alternative 3, it is expected that negative social and economic impacts may occur because of the substantially lower landings limits under this alternative, relative to the *status quo*. Slightly negative to negative social and economic impacts may occur under the alternative 4 measures as the landing limits are lower than the *status quo*; however, the limits under alternative 4 are higher and would have less negative impact than alternative 3 measures.

Scup

The Council preferred alternative 1A is expected to result in overall slightly negative to negative biological impacts on the managed resource and non-target species in 2012, when compared to the *status quo* (Box ES-2). Even though alternative 1A represents an increase in landings limits when compared to the *status quo*, and, though consistent with the initial recommendations of the Council's Science and Statistical Committee (SSC), this alternative would result in overfishing the stock in 2012, as indicated by the most recent stock assessment update (Tierciero 2011a). Non-preferred alternative 2A (*status quo*) is expected to result in neutral biological impacts on the managed resource and non-target species in 2012, when compared to 2011 because the measures are similar. Non-preferred alternative 3 is expected to result in overall neutral to positive biological impacts on the managed resource and non-target species in 2012, when compared to the *status quo*. This most restrictive alternative may be more restrictive than necessary. Alternative 4 is expected to result in neutral to positive biological impacts overall on the managed resource and non-target species in 2012. Ranking these four alternatives from more likely to less likely to prevent overfishing and achieve rebuilding, they rank as alternative 3A, alternative 4A, alternative 2A, and alternative 1A.

Given the range of potential habitat impacts, depending upon whether fishing effort increases or decreases, these four alternatives are expected to have effects on habitat and EFH that range from the same to negative (as expected under alternative 1A and 4A), the same to positive (as expected under alternative 3A), and neutral impacts under alternative 2A, when compared to existing impacts.

Given the range of potential impacts on ESA listed and MMPA protected species, depending upon whether fishing effort increases or decreases, these three alternatives are expected to have effects on ESA listed and MMPA protected species that range from the same to negative (as expected under alternative 1A and 4A), the same to positive (as expected under alternatives 3A and 4A), and neutral impacts under alternative 2A, when compared to existing impacts.

Under alternative 1A, it is expected that slight positive social and economic impacts may occur because of the increase in total landings (in 2012), relative to the *status quo*. Given that the commercial quotas and recreational harvest levels under alternative 2A (*status quo*) are only slightly lower when compared to 2011, it is expected there will be neutral to slight negative (uncertain)

social and economic impacts. Under alternative 3A, it is expected that negative social and economic impacts may occur because of the substantially lower landings limits under this alternative, relative to the *status quo*. Slightly negative to negative social and economic impacts may occur under the alternative 4A measures as the landing limits are lower than the *status quo*; however, the limits under alternative 4A are higher and would have less negative impact than alternative 3A measures.

The Council and NMFS preferred alternative 1B is expected to result in neutral to slight positive biological impacts, habitat (EFH) and ESA listed and MMPA protected species, when compared to the *status quo* alternative 2B. Because alternative 2B does not represent a change in possession limits, the biological, habitat (EFH) and ESA listed and MMPA protected species impacts are expected to be neutral. Positive social and economic impacts are expected under alternative 1B; whereas, neutral to slight negative impacts are expected under alternative 2B (*status quo).*

Black Sea Bass

The non-preferred alternative 1 is expected to result in overall negative biological impacts on the managed resource and non-target species in 2012, when compared to *status quo* (Box ES-2). The measures under alternative 1 are not consistent with the SSC recommendations. Council and NMFS preferred alternative 2 is expected to result in overall neutral to positive biological impacts on the managed resource and non-target species in 2012, when compared to 2011. This alternative is consistent with the SSC recommendations. Non-preferred alternative 3 is expected to result neurtral to positive impacts on the managed resource and non-target species in 2012, when compared to *status quo*. This most restrictive alternative may be more restrictive than necessary given the advice of the SSC. Ranking these three TAL alternatives from more likely to less likely to prevent overfishing and achieve rebuilding, they rank as alternative 3, alternative 2, and alternative 1.

Given the range of potential habitat impacts, depending upon whether fishing effort increases or decreases, these three alternatives are expected to have effects on habitat and EFH that range from the same (as expected under alternative 2 *status quo*) to impacts that are the same to positive (as expected under alternative 3), to impacts that are the same to negative (as expected under alternative 1), when compared to existing impacts.

Given the range of potential impacts on ESA listed and MMPA protected species, depending upon whether fishing effort increases or decreases, these three alternatives are expected to have effects on ESA listed and MMPA protected species that range from the same (as expected under alternative 2 *status quo*) to impacts that are the same to positive (as expected under alternative 3), to impacts that are the same to negative (as expected under alternative 1), when compared to existing impacts.

Alternative 1 would allow for the largest positive social and economic impacts in the short-term when compared to *status quo*. However, due to the potential negative impact to the stock associated with these landings levels, potential negative social and economic impacts could occur in the long-term. Given that the commercial quotas and recreational harvest levels under Council and NMFS preferred alternative 2 (*status quo*) are slightly lower than those in 2010, it is expected there will be neutral to negative social and economic impacts. Alternative 3 will likely results in negative social and economic impacts on the black sea bass fishery compared to the *status quo*.

Research Set-aside

Under both RSA alternative 1 (No Action/No Research Set-Aside) and alternative 2 (Specify RSA/*status quo*), all summer flounder, scup, and black sea bass landings count against the overall quotas regardless of whether or not an RSA is implemented; therefore, the biological impacts of alternatives 1 and 2 in 2012 would not change relative to 2011. However under alternative 2, which specifies RSA amounts for each FMP species, there could be indirect positive effects as new data or other information pertaining to these fisheries are obtained for management and/or stock assessment purposes.

The impacts of both alternative 1 and alternative 2 on protected and endangered resources and habitat are not expected to change relative to 2011. Because all landings count against the overall quota regardless of which alternative is implemented, neither alternative is expected to change the level of fishing effort. The quotas themselves are determined through action taken in other alternatives within this document, and are not expected to cause effort to be redistributed by gear type, or change the manner in which these fisheries are prosecuted. Under non-preferred alternative 1, there will be no RSA deducted from the overall TALs for each FMP species. In fisheries where the entire quota is taken and the fishery is prematurely closed (i.e., the quota is constraining), the economic and social costs of the program are shared among the non-RSA participants in the fishery. Since no RSA is implemented under this alternative, there are no direct economic or social costs as described above. Under preferred alternative 2, specifying the RSA would result in indirect positive effects from the collaborative efforts among the public, research institutions, and government in broadening the scientific base upon which management decisions are made. There may also be other small indirect positive impacts such as reduced discarding of RSA landed fish during season closures and efficney of operations. Qualitative summaries of the impacts of the RSA alternatives under consideration are provided in Box ES-3.

Box ES-3. Overall qualitative summary of the expected impacts of summer flounder, scup, and black sea bass research set-aside measures considered in this document (2012). 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 (u) is used when there is some uncertainty whether the impact will be null or as specified (+ or -).

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

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 NMFS preferred 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 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 NEPA; therefore, a "Finding of No Significant Impact" is determined.

2.0 LIST OF ACRONYMS

ABC	Annual Biological Catch
ACL	Annual Catch Limit
ALWTRP	Atlantic Large Whale Take Reduction Plan
AM	Accountability Measure
ASAP	Age Structured Assessment Program
ASMFC	Atlantic States Marine Fisheries Commission or Commission
CEA	Cumulative Effects Assessment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CV	Coefficient of Variation
CZMA	Coastal Zone Management Act
DPS	Distinct Population Segment
DPSWG	Data Poor Stocks Working Group
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EFP	Exempted Fishing Permit
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act of 1973
F	Fishing Mortality Rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
HPTRP	Harbor Porpoise Take Reduction Plan
IRFA	Initial Regulatory Flexibility Analysis
LNG	Liquified Natural Gas
LOF	List of Fisheries
LWTRP	Large Whale Take Reduction Plan
MAFMC	Mid-Atlantic Fishery Management Council
MMPA	Marine Mammal Protection Act
MFMT	Maximum Fishing Mortality Threshold
MRFSS	Marine Recreational Fisheries Statistical Survey
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NAO	National Oceanic and Atmospheric Administration Administrative Order
NEFSC	Northeast Fisheries Science Center
NEFOP	Northeast Fisheries Observer Program
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Overfishing Limit
OY	Optimal Yield
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
RSA	Research Set-Aside
SARC	Stock Assessment Review Committee
SAW	Stock Assessment Workshop
SCALE	Statistical Catch-at-Length Model
SFA	Sustainable Fisheries Act
SBA	Small Business Administration
SSB	Spawning Stock Biomass

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

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ENVIRONMENTAL ASSESSMENT

4.0 INTRODUCTION AND BACKGROUND OF SPECIFICATION PROCESS

4.1 PURPOSE AND NEED OF THE ACTION

The purpose of this action (specifications document) is to implement 2012 commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries that prevent overfishing, ensure annual catch limits (ACLs) are not exceeded, and in the case of summer flounder, ensure rebuilding occurs on schedule. This specifications document was developed in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA[2]) and NEPA, the former being the primary domestic legislation governing fisheries management in the U.S. EEZ, and the summer flounder, scup, and black sea bass fishery management plan FMP. Failure to specify management measures that constrain catch to prevent overfishing for summer flounder, scup, and black sea bass in 2012 would be inconsistent with the National Standards under the MSA. The management regime and objectives of the fishery are detailed in the FMP, including any subsequent amendments, and are available at: http://www.mafmc.org.

The MSA requires each Council's Scientific and Statistical Committee (SSC) to provide recommendations for acceptable biological catch (ABC), preventing overfishing, and maximum sustainable yield. The Council's catch limit recommendations for the upcoming fishing year(s) cannot exceed the ABC recommendation of the SSC. In addition, the FMP established Monitoring Committees (MC) for each managed resource which develops recommendations for the Council on the management measures necessary to achieve the recommended catch limits, including recommedations for annual catch targets (ACTs). A memo from the SSC chairmen to the Council chair, dated August 2, 2011 (available at http://www.mamfc.org), provides details on the derivation of ABC for each managed resource and highlights the specific sources of scientific uncertainty that were of particular relevance to the SSC deliberation. Briefing materials from the MC chair to the Council chair for the August 2011 Council Meeting (available at http://www.mamfc.org), details the Committee recommendations for ACTs that account for management uncertainty, and other recommended changes to management measures for the commercial fishery. An overview is provided here.

NMFS identified an OFL for summer flounder of 31.59 million lb. The OFL is the maximum amount of catch that can be removed from the stock without causing overfishing, and is derived using the maximum fishing mortality threshold (MFMT) rate as applied to the stock size. NMFS identified summer flounder as a Level 3 stock and recommended an ABC for 2012 of 25.58 million lb, based on a biomass greater than 100 percent of B_{MSY}, a probability of overfishing (P*) = 0.4, and a lognormal OFL distribution with a coefficient of variation (CV) = 100 percent. 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 commercial ACL is 14.00 million lb under NMFS' preferred

[2] 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).

Alternative 4 and the recreational ACL is 11.58 million lb. The Monitoring Committee recommended the recreational and commercial ACT be set equal to the respective ACLs.

NMFS identified an OFL for scup of 50.48 million lb. NMFS identified scup as a Level 3 stock and recommended an ABC for 2012 of 40.88 million lb, based on a biomass greater than 100 percent of B_{MSY}, a probability of overfishing (P*) = 0.4, and a lognormal OFL distribution with a CV = 100 percent. Under NMFS preferred Alternative 4A, the commercial ACL is 31.89 million lb, and the recreational ACL is 8.99 million lb. The Monitoring Committee recommended the recreational and commercial ACT be set equal to the respective ACLs.

The SSC did not endorse the stock assessment calculated OFL for black sea bass of 7.83 million lb. The SSC identified black sea bass as a Level 4 stock and recommended an ABC for 2012 of 4.50 million lb, based on significant sources scientific uncertainty and specific concerns about the reliability of the black sea bass assessment and the OFL (see Aug. 2, 2010 memo for more details). The commercial ACL is 1.98 million lb and the recreational ACL is 2.52 million lb. The Monitoring Committee recommended the commercial ACT be set equal to the commercial ACL; however, they recommended the recreational ACT be set less than the recreational ACL at to 1.86 million lb address management uncertainty.

After consideration of the SSC and Monitoring Committee's recommendations, the Council developed recommendations to the NMFS Northeast Regional Administrator, with those alternatives recommended by the Council identified in this specifications document as "Council preferred." The Regional Administrator will review the Council's 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 Commission, the Commission's Board typically adopts complementary measures. The Council met jointly with the Board in August 2011 and recommended complementary management measures for the three species for 2012.

In the interim between submission of this document from the Council to NMFS and the review by the Regional Administator, new stock assessment information for both summer flounder and scup have become available. The revised assessment information for these species has resulted in a need for additional analyses and alternatives for appropriate 2012 summer flounder and scup specifications.

This specifications document serves a dual purpose. It conveys the Council recommendations (i.e., Council 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 EA examines the impacts of each proposed action on the affected environment. The aspects of the affected 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 2012 only. A full description of each of these alternatives, including a discussion of a no action alternative, is given in section 5.0. The preferred alternative (specified at the August 2011 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 proposed summer flounder, scup, and black sea bass alternatives described below modify the specifications for these fisheries in 2012. The Council recommended commercial and recreational ACLs and ACTs, from which commercial quotas and recreational harvest limits are derived for the 2012 fishing year (Council preferred), based on the Council's SSC advice on ABCs and scientific uncertainty and Monitoring Committee's advice on ACTs and management uncertainty (see section 4.1). The Council preferred alternatives for summer flounder and scup are based on stock assessment information available in July 2011. NMFS has inserted another specification alternative (NMFS preferred) for both summer flounder and scup. These alternatives were derived in the same manner as the Council preferred; however, the NMFS alternatives make use of the October 2011 stock assessment updates for both species. In addition, the Council recommended an increase in the scup commercial possession limit for the Winter I fishing period. 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 2012 fishing year (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 Northeast Regional Office (NERO) of NMFS: http://www.nero.noaa.gov/nero/regs/.

Under the management programs for summer flounder, scup, and black sea bass, detailed in the FMP, the no action alternative is not equivalent to the *status quo* alternative (see section 5.5 for additional discussion). Therefore, for purposes of comparing impacts throughout this document, the proposed alternatives for each species are compared to the *status quo* alternative (baseline) as opposed to the "true" no action alternative. Therefore, the alternatives for summer flounder, scup, and black sea bass are compared to summer flounder alternative 2, scup alternative 2A, and black sea bass alternative 2, respectively.

The comprehensive system of catch limits and accountability measures to be implemented in 2012, considers both scientific and management uncertainty, and is designed to ensure recreational and commercial catch do not exceed the recreational and commercial ACLs, the sum of which are equal the ABC. The amount of total catch, both landings and discards, produced in these fisheries in 2012 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 Table 1. For some of the non-preferred alternatives, only commercial quotas and recreational harvest limits are provided, as the system of annual catch limits is recently implemented and the history of implementation for those other catch limits (i.e., ABCs, ACLs, or ACTs) does not exist or cannot be derived (Table 1). Given changes in the underlying commercial quotas and recreational

harvest limits are the focus of the impacts analysis, a meaningful comparison can be done without those other levels being provided for non-preferred alternatives.

For each of the quota alternatives, commercial quotas and state shares and recreational harvest limits are provisional and may be adjusted (i.e., by state for summer flounder, period for scup, or coastwide for black sea bass) by NMFS in the final 2012 specifications. Adjustments to the commercial quotas may be made to account for 2011 overages and/or transfers or to account for overages and/or transfers from the 2010 fishery that were not previously accounted for in the 2011 specifications final rule. RSA projects for fishing year 2012 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 Table 1. The actual 2012 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 summer flounder, scup, and black sea bass alternatives which modify catch and landings limits for 2012 (million lb).

		ABC	Commercial ACL/ Recreational ACL	Commercial ACT/ Recreational ACT	Maximum RSA (3%)	Commercial Quota	Recreational Harvest Limit
Summer Flounder	**Alternative 1** (Council Preferred: Least Restrictive)	35.55	19.59/15.96	19.59/15.96	0.95	18.37	12.26
	Alternative 2 (Non-Preferred: *Status quo*)	33.95	NA	NA	0.88	17.16	11.44
	Alternative 3 (Non-Preferred: Most Restrictive)	NA	NA	NA	0.47	9.18	6.12
	Alternative 4 (NMFS Preferred)	25.58	14.00/11.58	14.00/11.58	0.68	13.14	8.76
Scup	**Alternative 1A** (Council Preferred Least Restrictive)	53.35	41.61/11.74	41.61/11.74	1.36	33.40	10.53
	Alternative 2A (Non-Preferred: *Status quo*)	51.70	NA	NA	0.80	20.05	5.66
	Alternative 3A (Non-Preferred: Most Restrictive)	NA	NA	NA	0.34	8.28	2.56
	Alternative 4A (NMFS Preferred)	40.88	31.89/8.99	31.89/8.99	1.11	27.50	8.31
Black Sea Bass	**Alternative 1** (Non-Preferred: Least Restrictive)	NA	NA	NA	0.25	3.90	4.06
	Alternative 2 (Council and NMFS Preferred: *Status quo*)	4.50	1.98/2.52	1.98/1.86	0.09	1.71	1.32
	Alternative 3 (Non-Preferred: Most Restrictive)	NA	NA	NA	0.07	1.09	1.14

5.1 Summer Flounder

5.1.1 Alternative 1 (Council Preferred: Least Restrictive)

Alternative 1 is the least restrictive summer flounder alternative, which includes an ABC of 35.55 million lb. This alternative was derived using stock assessment information from July 2011. When compared to the updated assessment information published in October 2011, the measures in Alternative 1 are expected to result in overfishing the summer flounder stock in 2012 if the associated catch limit is fully attained. This alternative also includes a commercial ACL and commercial ACT both equal to 19.59 million lb, and a recreational ACL and recreational ACT both equal to 15.96 million lb. After deducting discards and the Council approved maximum 3 percent RSA for summer flounder in 2012 (947,400 lb), the commercial quota is 18.37 million lb and recreational harvest limit is 12.26 million lb. State commercial shares would range from 85 lb to 5.04 million lb in 2011 (Table 2).

Table 2. 2012 Summer flounder commercial fishery state by state allocations for coastwide quota alternatives 1-4[a].

		Quota Allocation (lb)			
State	**Percent**	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**
ME	**0.04756**	8,738	8,160	4,365	6,247
NH	**0.00046**	85	79	42	60
MA	**6.82046**	1,253,041	1,170,211	625,991	895,936
RI	**15.68298**	2,881,246	2,690,785	1,439,406	2,060,116
CT	**2.25708**	414,666	387,255	207,158	296,490
NY	**7.64699**	1,404,890	1,312,022	701,851	1,004,509
NJ	**16.72499**	3,072,682	2,869,567	1,535,043	2,196,995
DE	**0.01779**	3,268	3,052	1,633	2,337
MD	**2.0391**	374,619	349,856	187,151	267,856
VA	**21.31676**	3,916,273	3,657,393	1,956,482	2,800,170
NC	**27.44584**	5,042,295	4,708,982	2,519,018	3,605,286
Total [a]	**100**	18,371,800	17,157,360	9,178,140	13,136,001

[a]Total quota is the summation of all states having allocation. Delaware had an allocation of zero (0) in 2012 due to an overage of about 50,000 lb.

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

The *status quo* alternative for summer flounder includes an ABC of 33.95 million lb. This is the same ABC implemented in 2011. After deducting discards and the Council approved maximum 3 percent RSA for summer flounder in 2012 (884,400 lb), the commercial quota is 17.16 million lb and the recreational harvest limit is 11.44 million lb for 2012. The state commercial shares for this alternative would range from 79 lb to 4.71 million lb in 2012 (Table 2).

5.1.3 Alternative 3 (Non-Preferred: Most Restrictive)

The most restrictive summer flounder alternative includes a commercial quota of 9.18 million lb and a recreational harvest limit of 6.12 million lb. This quota and harvest limit was adjusted for a maximum 3 percent RSA for summer flounder in 2012 (473,100 lb). This alternative is based on 2008 specifications, which were the most restrictive implemented since the FMP was developed. This alternative is expected to have the lowest likelihood of overfishing, when compared to alternatives 1 and 2. The state commercial shares for this alternative would range from 42 lb to 2.52 million lb in 2012 (Table 2).

5.1.4 Alternative 4 (NMFS Preferred)

This alternative, the second most restrictive alternative, includes an ABC of 25.58 million lb. This ABC is 81 percent of the October 2011 revised OFL; thus, the scientific uncertainty offset from OFL is 19 percent. This ABC is associated with a 40-percent probability of overfishing the summer flounder stock, consistent with the Council's risk policy. NMFS expects that this ABC would ensure summer flounder are not subject to overfishing or overfished in 2012.

Consistent with the Council's recommended approach, the sum of the commercial and recreational sector ACLs would equal the ABC. In addition, NMFS has maintained the Council's initially recommended approach of setting ACT equal to ACL (i.e., no management uncertainty offset). Under Alternative 4, the commercial sector ACL and ACT are both 14.00 million lb, and the recreational sector ACL and ACT are both 11.58 million lb. The assessment model was used to project 2012 discards by utilizing total catch fishery selectivity, discard fractions-at-age, and separate landings and discards mean weights-at-age to apportion the catch (ABC) into landings and discards. After removal of the estimated discards and the Council-recommended maximum RSA of 3 percent, the RSA under Alternative 4 is 677,128 lb, the commercial quota is 13.14 million lb, and the recreational harvest limit is 8.76 million lb.

5.2 Scup

5.2.1.1 Alternative 1A (Council Preferred: Least Restrictive)

Alternative 1A is the least restrictive scup alternative, which includes an ABC of 53.35 million lb. This alternative was derived using stock assessment information from July 2011. When compared to the updated assessment information published in October 2011, the measures in Alternative 1 are expected to result in overfishing the scup stock in 2012 if the associated catch limit is fully attained. This alternative also includes a commercial ACL and commercial ACT both equal to 41.61 million lb, and a recreational ACL and recreational ACT both equal to 11.74 million lb. After deducting discards and the Council approved maximum 3 percent RSA for scup in 2012 (1,358,700 lb), the commercial quota is 33.40 million lb and recreational harvest limit is 10.53 million lb.

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

opportunities to land those scup are not lost for the fishing year. The current scup period allocation formula remains unchanged as detailed in Table 3.

Table 3. Comparison (in million lb) of the commercial scup quota alternatives, by period, for 2012.

		Adjusted Quota (million lb)			
Period	**Percent Allocation**	**Alternative 1A**	**Alternative 2A**	**Alternative 3A**	**Alternative 4A**
Annual	100	33.40	20.05	8.28	27.50
Winter I (Jan-April)	45.11	15.07	9.04	3.74	12.41
Summer (May-Oct)	38.95	13.01	7.81	3.23	10.71
Winter II (Nov-Dec)	15.94	5.32	3.20	1.32	4.38

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

The *status quo* alternative 2A for scup includes an ABC of 51.70 million lb. This is the same ABC implemented in 2011. After deducting discards and the Council approved maximum 3 percent RSA for scup in 2012 (795,000 lb), the commercial quota is 20.05 million lb and the recreational harvest limit is 5.66 million lb for 2012. The current scup period allocation formula remains unchanged as detailed in Table 3.

5.2.1.3 Alternative 3A (Non-Preferred: Most Restrictive)

The most restrictive scup alternative 3A includes a commercial quota of 8.28 million lb and a recreational harvest limit of 2.56 million lb. This quota and harvest limit was adjusted for a maximum 3 percent RSA for scup in 2012 (335,400 lb). This alternative is based on 2009 specifications, which were the most restrictive implemented in the most recent 3 years. This alternative is expected to have the lowest likelihood of overfishing, when compared to alternatives 1 and 2. The current scup period allocation formula remains unchanged as detailed in Table 3.

5.2.4 Alternative 4A (NMFS Preferred)

This alternative, the second most restrictive alternative, includes an ABC of 40.88 million lb. This ABC is 81 percent of the October 2011 revised OFL; thus, the scientific uncertainty offset from OFL is 19 percent. This ABC is associated with a 40-percent probability of overfishing the summer flounder stock, consistent with the Council's risk policy. NMFS expects that this ABC would ensure scup are not subject to overfishing or overfished in 2012.

Consistent with the Council's recommended approach, the sum of the commercial and recreational sector ACLs would equal the ABC. In addition, NMFS has maintained the

Council's initially recommended approach of setting ACT equal to ACL (i.e., no management uncertainty offset). Under Alternative 4A, the commercial sector ACL and ACT are both 31.89 million lb, and the recreational sector ACL and ACT are both 8.99 million lb. The assessment model was used to project 2012 discards by utilizing total catch fishery selectivity, discard fractions-at-age, and separate landings and discards mean weights-at-age to apportion the catch (ABC) into landings and discards. After removal of the estimated discards and the Council-recommended maximum RSA of 3 percent, the RSA under Alternative 4A is 1.11 million lb, the commercial quota is 27.51 million lb, and the recreational harvest limit is 8.30 million lb.

5.2.2.1 Alternative 1B (Council and NMFS Preferred)

Alternative 1B is the preferred alternative and includes an increase in the current scup commercial Winter I period possession limit for scup to 50,000 lb. This alternative was recommended by the Council because industry interest in increasing the possession limit to 50,000 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.

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

The *status quo* alternative 2B includes a scup commercial Winter I period possession limit for scup of 30,000 lb. This is the same Winter I possession limit that has been implemented each year since 2006.

5.3 Black Sea Bass

5.3.1 Alternative 1 (Non-Preferred: Least Restrictive)

Alternative 1 is the least restrictive black sea bass alternative and includes a commercial quota of 3.90 million lb and a recreational harvest limit of 4.06 million lb. This quota and harvest limit was adjusted for a maximum 3 percent RSA for black sea bass in 2012 (246,000 lb). This alternative is based on 2005 specifications, which were the least restrictive implemented since the FMP was developed. The combined quota and harvest limit under this alternative is higher than the ABC recommendations of the SSC (which are catch recommendations that include both landings and discards).

5.3.2 Alternative 2 (Council and NMFS Preferred: *Status quo* (No Action))

Alternative 2 is the *status quo* preferred black sea bass alternative, which includes an ABC of 4.50 million lb. The ABC recommended to address significant sources of scientific uncertainty and specific concerns about the reliability of the black sea bass assessment and the OFL, 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 set equal to 1.98 million lb. The Council accounted for management uncertainty in projected discards estimates when establishing catch targets for the recreational fishery; therefore, the recreational ACL is 2.52 and

recreational ACT is 1.86 million lb. After deducting discards and the Council approved maximum 3 percent RSA for black sea bass in 2012 (93,600 lb), the commercial quota is 1.71 million lb and recreational harvest limit is 1.32 million lb.

5.3.3 Alternative 3 (Non-Preferred: Most Restrictive)

The most restrictive black sea bass alternative 3 includes a commercial quota of 1.09 million lb and a recreational harvest limit of 1.14 million lb. This quota and harvest limit was adjusted for a maximum 3 percent RSA for black sea bass in 2012 (69,000 lb). This alternative is based on 2009 specifications, which were the most restrictive implemented since the FMP was developed. This alternative is expected to have the lowest likelihood of overfishing, when compared to alternatives 1 and 2.

5.4 Research Set-Aside Measures

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

In addition, the Mid-Atlantic RSA Program assures that research endeavors selected and funded under this program will receive the peer review and analysis necessary to be utilized in improving the management of public fisheries resources. The annual RSA amount may vary between 0 and 3 percent of each 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 landing levels.

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

Under this alternative, no RSA will be implemented for summer flounder, scup, or black sea bass in 2012. Thus, the commercial quotas and recreational harvest limits would not be adjusted downward for the RSAs when established.

5.4.2 Alternative 2 (Council and NMFS Preferred: Specify Research Set-Asides/*Status quo*)

The Council has recommended that 3 percent of the 2012 summer flounder, scup, and black sea combined commercial and recreational landings levels, 677,128, 1,107,756, and 93,600 lb, respectively, be set-aside to fund projects selected under the 2012 Mid-Atlantic RSA Program. Although the project selection and award process for the 2012 Mid-Atlantic RSA Program has not concluded, 3 projects have been preliminarily selected for funding. If any portion of the RSA is not awarded, NMFS will return any un-awarded set-aside amount to the commercial fishery either through the 2012 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.

Project #1: The proposed project is a scup and black sea bass survey of hard-bottom sites in Southern New England that are not sampled by current state and federal finfish trawl surveys. Unvented fish pots will be fished on each site from June through October. 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 the NMFS and state agencies.

Scup and black sea bass will be collected from each site utilizing standard fish pots made with coated wire mesh. Pots will be unvented and therefore have the capability to retain all size classes of scup and black sea bass. The sampling protocol will require that the commercial vessels take 30 pots to each sampling site once during each four-week sampling cycle. Pots will be left to fish for one to two days at each site. All scup and black sea bass will be measured utilizing the standard NMFS sea sampling protocols. At the conclusion of each sampling cycle, pots will be removed from the water. This same sampling format will be followed every four weeks from June 15 through October 15 for five complete cycles. The survey area includes waters around Martha's Vineyard, Buzzard's Bay, and Rhode Island Sound.

Research vessels for Project #1 would require an exemption fishery permit (EFP) for exemption from minimum scup and black sea bass pot vent size requirements to ensure that scup length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would 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.

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

Black sea bass will be collected from four general zones along the coast utilizing black sea bass pots (43½" long, 23" wide, and 16" high) made with 1½ x 1½ inch coated wire mesh, single mesh entry head, and single mesh inverted parlor nozzle. The four general zones will include one in Massachusetts, one south of Rhode Island, one south of New Jersey, and one south of Virginia. This particular configuration is being proposed as it generally corresponds to the northern and southern core range of the species, and each is an area in which a major black sea

bass fishery takes place. In each of these general zones four individual sampling sites will be selected, each of which will be one square mile in size.

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

Like Project #1, research vessels for Project #2 would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota.

Project #3: Because the research activities of Project #3, for which the NEPA and Endangered Species Act analysis occurred through a separate EA completed April 20, 2010, and a Section 7 Consultation completed April 13, 2010, additional environmental review under this EA is not necessary.

For informational purposes, Project #3 would conduct a spring and fall monitoring (trawl) survey in shallow waters between Martha's Vineyard, MA and Cape Hatteras, NC. The project investigators plan to provide stock assessment data for Mid-Atlantic RSA species, including summer flounder, scup, black sea bass, *Loligo* squid, butterfish, and Atlantic bluefish, and assessment-quality data for weakfish, Atlantic croaker, spot, several skate and ray species, smooth dogfish, horseshoe crab, and several unmanaged but important forage species.

In order to expedite the implementation of the 2012 Mid-Atlantic RSA Program, the environmental impact of this program and the selected projects are analyzed in this document in section 7.0. With the exception of the research activities of Project #3, for which the NEPA and ESA analysis occurred through a separate EA completed April 20, 2010, and a Section 7 Consultation completed April 13, 2010, this document analyzes all research activities, compensation fishing activities, and regulatory exemptions with respect to the summer flounder, scup, and black sea bass FMP. The Magnuson-Stevens Act requires that interested parties are provided an opportunity to comment on all proposed exempted fishing permits. Potential

environmental impacts of this program on *Illex* squid, *Loligo* squid, butterfish, Atlantic mackerel, and Atlantic bluefish are addressed in those respective 2012 specification documents. Additional consultation and analysis with respect to NEPA, ESA, the Magnuson-Stevens Act, and other applicable law may be necessary if the statement of work changes or additional exemptions are requested.

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

Section 5.03(b) of NOAA Administrative Order (NAO) 216-6, "Environmental review procedures for implementing the National Environmental Policy Act," states that "an Environmental Assessment (EA) must consider all reasonable alternatives, including the preferred action and the no action alternative." Consideration of the "no action" alternative is important because it shows what would happen if the proposed action is not taken. Defining exactly what is meant by the "no action" alternative is often difficult. The President's Council on Environmental Quality (CEQ) has explained that there are two distinct interpretations of the "no action:" One interpretation is essentially the *status quo*, i.e., no change from the current management; and the other interpretation is when a proposed project, such as building a railroad facility, does not take place. In the case of the proposed 2012 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 the 2011 fishing year. There are no "roll-over" provisions currently for these three fisheries provided for in the FMP. Thus, if the proposed 2012 summer flounder, scup, or black sea bass specifications are not implemented for one or all of these fisheries by January 1, 2012, that fishery/or fisheries will operate without an identified cap on allowable catch and landings. Therefore, because of the subtleties in the management program for each FMP species the no action alternative is not equivalent to *status quo*. If the action that results in setting the proposed specifications for any/or all of these fisheries is not taken, some current measures will remain in place, but the overall management program for those fisheries will not be identical to that of 2011.

For the purposes of this EA, the no action alternatives for summer flounder, scup, and black sea bass are defined as follows: (1) no 2012 proposed specifications for the summer flounder, scup, or black sea bass fishery will be published; (2) the indefinite management measures (minimum sizes, bag limits, possession limits, permit and reporting requirements, etc.) for each of these species remain unchanged; (3) no RSA allocated to research in 2012; and (4) no specific cap on the allowable annual catch (i.e., ACLs) and landings in each of these fisheries (i.e., no commercial quotas or recreational harvest limits). Under the no action alternatives, the only

regulatory controls on fishing effort and harvests would be the indefinite[3] measures. A commercial quota and recreational harvest limit, which determines the maximum amount of summer flounder, scup, and black sea bass landings allowable before the commercial or recreational fishery are closed, would not be implemented for 2012.

The implications of the no action alternatives for summer flounder, scup, and black sea bass are substantial. These alternatives do not allow NMFS to specify and implement ACLs, commercial quotas, and recreational harvest limits for these fisheries, as required in the regulations at 50 CFR part 648, for the upcoming fishing year. Monitoring the landings, and taking action as necessary to prevent the state and federal caps from being exceeded, as applicable, is essential for management of these fisheries and forms the backbone of the current quota-based management systems under the FMP. The no action alternative is inconsistent with the goals and objectives of the FMP, as well as its implementing regulations, and may result in overfishing or cause the ACLs for summer flounder, scup, and/or black sea bass to be exceeded. By not preventing overfishing and/or allowing the ACLs to be exceeded, it is also inconsistent with the MSA. Therefore, the alternatives for summer flounder, scup, and black sea bass are compared to summer flounder alternative 2, scup alternative 2A, and black sea bass alternative 2, respectively, which are the *status quo* alternatives (base line) as opposed to the "true" no action alternatives described above. In addition, scup alternative 1B is compared to *status quo* alternative 2B.

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

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

6.1 Description of the Managed Resource

6.1.1 Description of the Fisheries

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

The commercial and recreational fisheries for summer flounder, scup, and black sea bass are fully described in section 3.3.2 of Amendment 13 to the FMP (MAFMC 2002) and are also outlined by principal port in section 3.4.2 of that document. Otter trawls are utilized in the commercial fisheries for all three species. In addition, floating traps and pots/traps are utilized to capture scup and black sea bass, respectively. An overview of commercial and recreational fisheries landings for each of the FMP species is provided below. The commercial landings are based on Dealer Weighout Data, as of May 27, 2010, and South Atlantic General Canvass Data as of June 28, 2010; recreational landings are based on Marine Recreational Fisheries Statistical Survey (MRFSS) data. Additional information of the fisheries can be found in Council meeting materials available at: http://www.mafmc.org.

6.1.1.1 Summer Flounder

Commercial and recreational summer flounder landings show the relative contributions of each to total landings in Figure 1.

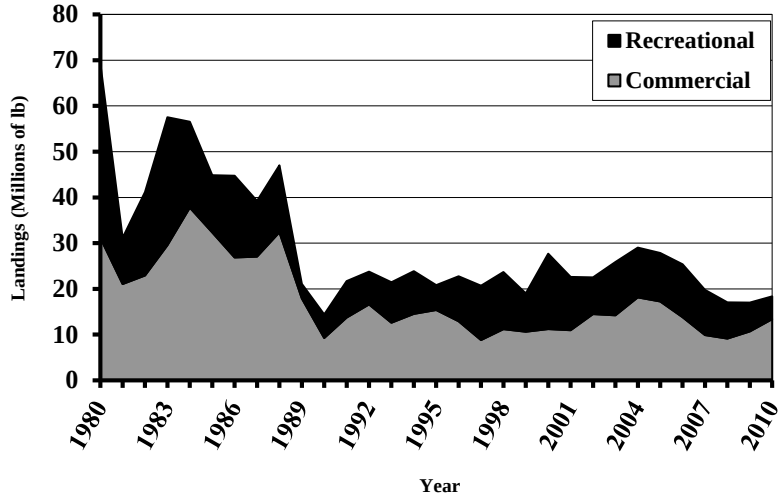

Figure 1. Summer flounder commercial and recreational landings, 1980-2010.

6.1.1.2 Scup

Commercial and recreational scup landings show the relative contributions of each to total landings in Figure 2.

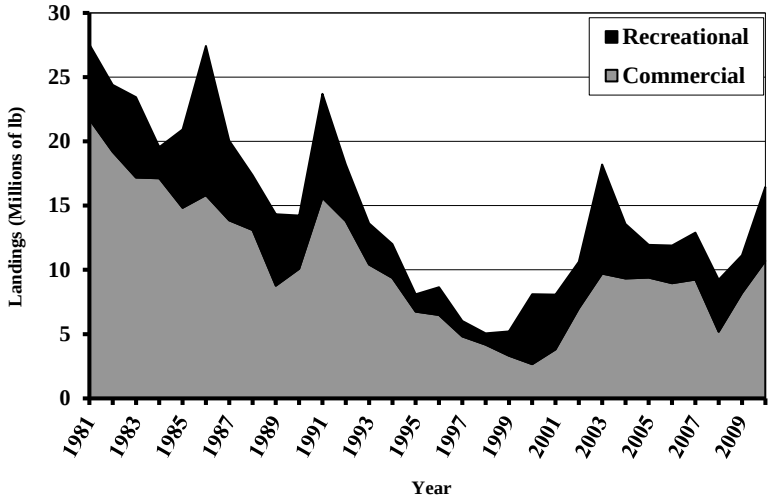

Figure 2. Scup commercial and recreational landings, 1981-2010.

6.1.1.3 Black Sea Bass

Commercial and recreational black sea bass landings show the relative contributions of each to total landings in Figure 3.

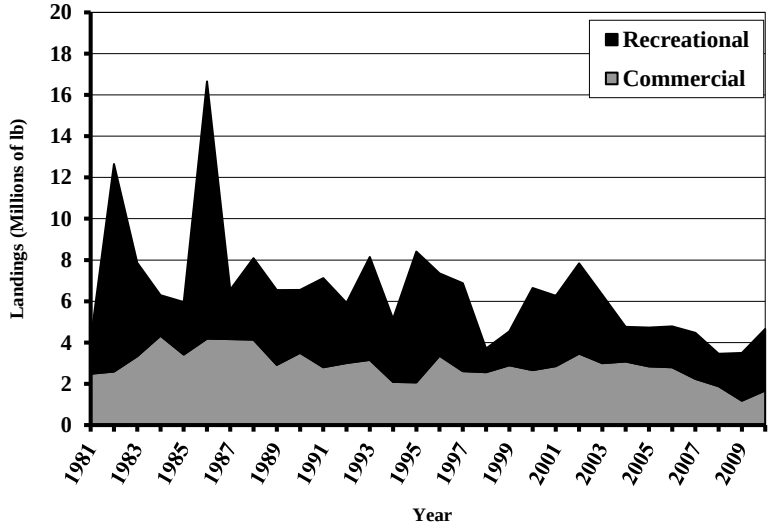

Figure 3. Black sea bass commercial and recreational landings, 1981-2010.

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) panelist reports, and Data Poor Stocks Working Group (DPSWG) reports and peer-review panelist reports are available online at the NEFSC website: http://www.nefsc.noaa.gov. EFH Source Documents, which include details on stock characteristics and ecological relationships, are available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

6.1.2.1 Summer Flounder

The assessment update published in October 2011 (Tiercero 2011) indicated that the summer flounder stock was not overfished or subject to overfishing in 2010, relative to the reference points established in the SAW 47 assessment. The October stock assessment update indicated that fishing mortality (F) for 2010 was estimated to be 0.216, below the reference point F_{MSY} = 0.310. Spawning Stock Biomass (SSB) was estimated to be 132.72 million lb, above SSB_{MSY} = 132.40 million lb. Thus, the stock is rebuilt and no longer subject to the formal rebuilding program in place since 2000.

6.1.2.2 Scup

The assessment update published in October 2011 (Terceiro 2011) indicated that the scup stock is not overfished and overfishing is not occurring relative to the biological reference points. F in 2010 = 0.040, below the reference point F_{MSY} = 0.177. SSB in 2010 was estimated to be 410 million lb, more than double the SSB_{MSY} level of 202.9 million lb.

6.1.2.3 Black Sea Bass

Based on the June 2011 update (Shepherd 2011), the stock is not overfished and overfishing is not occurring, relative to the DPSWG biological reference points. F in 2010 = 0.41, an increase from F = 0.32 in 2009. This point estimate of F in 2010 is very close to the reference point of F_{MSY} = 0.42. SSB in 2010 is 30.7 million lb, about 111 percent of SSB_{MSY} = 27.6 million lb.

6.1.3 Non-Target Species

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

6.2 Habitat (Including Essential Fish Habitat)

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

6.2.1 Physical Environment

Detailed information on the affected physical and biological environments inhabited by the managed resources is available in Stevenson et al. (2006). 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 EFH designation definitions by life history stage for summer flounder, scup, and black sea bass are available at the following website: http://www.nero.noaa.gov/hcd/list.htm.

6.2.3 Fishery Impact Considerations

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

The FMP limits recreational specifications for summer flounder, scup, and black sea bass to minimum fish size requirements, possession limits, and restrictions on the open fishing season. The principal gears used in the recreational fishery for summer flounder are rod and reel and handline. The potential adverse impacts of these gears on EFH for any of the federally-managed species in the region are minimal (Stevenson et al. 2006).

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 4 provides species formally listed as threatened or endangered under the ESA with one additional species proposed for listing, and two candidate species, that occur within the management units for summer flounder, scup, and black sea bass.

On October 6, 2010, NMFS proposed listing five populations of Atlantic sturgeon along the U.S. East Coast as either threatened or endangered species (Table 4). The Gulf of Maine Distinct Population Segments (DPS) of Atlantic sturgeon is proposed to be listed as threatened, and the New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs of Atlantic sturgeon are proposed as endangered. A final listing rule is pending. Cuskis also a candidate species for listing under the ESA (Table 4). Candidate species receive no substantive or procedural

protection under the ESA (i.e., conference provisions requirement of the ESA applies only if a candidate species is proposed for listing); however, NMFS recommends that project proponents consider implementing conservation actions to limit the potential for adverse effects on candidate species from any proposed project. The Protected Resources Division of the NMFS Northeast Regional Office has initiated review of recent stock assessments, bycatch information, and other information for the candidate species. Any conservation measures deemed appropriate for these species will follow the information from these reviews.

Section 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 4, including their environment, ecological relationships and life history information including recent stock status, is available at: http://www.nero.noaa.gov/prot_res/.

Table 4. 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	Northern 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[4]	*Caretta caretta*	Threatened
Fishes	Shortnose sturgeon	*Acipenser brevirostrum*	Endangered
	Atlantic salmon	*Salmo salar*	Endangered
	Smalltooth sawfish	*Pristis pectinata*	Endangered
	Atlantic sturgeon	*Acipenser oxyrinchus*	Threatened
	Cusk	*Brosme brosme*	Candidate

6.3.1 Recreational Fisheries Interactions

[4] Northwest Atlantic populations of the loggerhead sea turtle DPS.

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

6.3.2 Commercial Fisheries Interactions

A description of the areas fished commercially for summer flounder, scup, and black sea bass (i.e., area affected by the proposed action) is given in section 6.4.2. The commercial fisheries for summer flounder, scup, and black sea bass are primarily prosecuted with otter trawls, otter trawls and floating traps, and otter trawls and pots/traps, respectively. 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 5).

Marine Mammals

Based on NMFS Northeast Fisheries Observer Program (NEFOP) database for the period of January 2008 through December 2010, there were 3 observed interactions between marine mammals in the Mid-Atlantic bottom trawl fishery and gill net (fixed or anchored) fisheries, where summer flounder, scup, or black sea bass were the fishing trip targets. Specifically, where summer flounder was the primary trip target, one Risso's dolphin was dead (fresh) in the bottom trawl fishery and two unknown seals were dead (unknown) in the gill net fishery. There have been no observed interactions of fin and humpback whales with the Atlantic mixed species trap/pot fishery; however, the lobster trap/pot fishery has been involved in entanglements with large cetaceans.

Table 5. Commercial Fisheries Classification based on 2011 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, and white-sided dolphins; short- and long-finned pilot whales
		Northeast bottom trawl	Cat. II	common and white-sided dolphins; harbor porpoise; harbor and harp seals; short and long-finned pilot whale
	scup and black sea bass	Atlantic mixed species trap/pot fishery	Cat. II	fin whale and humpback whale (classified by analogy due to lobster pot entanglements)

Sea Turtles

The NEFOP database for the period of January 2008 through December 2010 indicate there were 12 sea turtle takes (all loggerhead) where summer flounder was the species being targeted during trips where bottom otter trawls were used. While other turtle species take have not occurred during this time period, the trawl fishery has taken green, Kemp's ridley, and leatherback turtles in prior years. These 12 takes involved 7 loggerheads turtles released alive, 3 loggerheads released alive and resuscitated, and 2 loggerheads were dead (fresh).

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, that could be implemented under the ESA.

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

Atlantic Sturgeon

Atlantic sturgeon is known to interact frequently with commercial gillnet and trawl gears. Atlantic sturgeon from any of the five DPSs could occur in areas where the summer flounder, scup, and black sea bass fisheries operate, and the species has been captured as bycatch in gear

targeting summer flounder, scup, and black sea bass (Stein et al. 2004, ASMFC TC 2007). Of these gear types known to incidentally capture Atlantic sturgeon, sink gillnet gear poses the greatest known risk of mortality for sturgeon (ASMFC TC 2007). Sturgeon deaths were rarely reported in the observer gathered otter trawl data (ASMFC TC 2007). However, the level of mortality after release from the gear is unknown (Stein et al. 2004). A review of the NEFOP database for the years 2001-2006 indicated sturgeon bycatch occurred in statistical areas abutting the coast from Massachusetts (statistical area 514) to North Carolina (statistical area 635) (ASMFC TC 2007). Based on the available data, participants in an ASMFC bycatch workshop concluded that Atlantic sturgeon encounters tended to occur in waters less than 50 m throughout the year, although seasonal patterns exist (ASMFC TC 2007). Stein et al (2004), based on a review of the NEFOP data from 1989-2000, found clinal variation in the bycatch rate of sturgeon in sink gillnet gear with lowest rates occurring off of Maine and highest rates off of North Carolina for all months of the year. In an updated analysis, the NEFSC was able to use data from the NEFOP database to provide updated actual and estimated bycatch capture and observed mortality data for years 2006-2010. Data were limited by observer coverage to waters outside the coastal boundary and north of Cape Hatteras, NC. The Atlantic sturgeon included in the data set were those identified by Federal observers as Atlantic sturgeon, as well as those categorized as unknown sturgeon. Because the data included unknown sturgeon classifications, the data may overestimate occurrence and mortality of Atlantic sturgeon occurring as bycatch in Northeastern fisheries. The frequency of encounters on observed trips were expanded by total landings recorded in vessel trip reports (VTR) as this provides a near census of the total commercial landings and allows disaggregation of the data by gear and mesh sizes. The data were combined into divisions statistical area aggregations, quarter, gear type (otter trawl, fish and sink gillnet) and mesh categories. Mesh sizes were categorized for otter trawl as small (<5.5”) or large (greater than or equal to 5.5”).

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

Amendment 13 analyses indicated that sink gill nets infrequently capture summer flounder, scup, and black sea bass. Data indicate that 0.5 percent of summer flounder, 0.14 percent of scup, and 0.37 percent of black sea bass total landings from the 10-year period encompassing the 1990s occurred from sink gillnets. These are likely incidental captures of the three FMP species while targeting other species with sink gillnets. It should be noted that some VTRs do indicate that summer flounder, scup, or black sea bass are the primary target species for a small portion of

sink gillnet trips. The overall magnitude of sink gillnet use by the summer flounder, scup, and black sea bass fisheries is very low and, as such, the impact on Atlantic sturgeon is believed to be minimal despite information that indicates that mortality associated with sink gill nets is higher than other gear types. Thus, the remaining focus of the potential interactions and impacts to Atlantic sturgeon with respect to the summer flounder, scup, and black sea bass fisheries are limited to discussion of otter trawls.

Bottom trawls use in the summer flounder, scup, and black sea bass fisheries occurs in the same temporal and spatial areas in which Atlantic sturgeon are known to occur. Information from Amendment 13 to the FMP indicated that bottom trawl use for summer flounder, scup, and black sea bass occurs most heavily in statistical areas 612 (Raritan Bay/upper Hudson Canyon), 621 (ocean waters adjacent to the mouth of Delaware Bay), 624 (offshore waters, lower reaches of Hudson Canyon), 625 and 631(ocean waters adjacent to the mouth of Chesapeake Bay), and 635 (ocean waters adjacent to Cape Hatteras, NC). Additional effort occurs throughout the mid-Atlantic bight, southern New England, and along the 182 m (100 fathom) isobath up to the southern flank of George's Bank. However, literature indicates otter trawl effort in waters deeper than 50 m (27 fathoms) are less likely to encounter Atlantic sturgeon. This includes statistical area 624, which is the deeper reaches of the southeastern end of Hudson Canyon. Statistical areas 612 and 621 for large mesh and areas 625, 631, and 635 for small mesh otter trawls account for the majority of observed otter trawl Atlantic sturgeon takes recorded in the NEFOP data (Table 6).

Table 6. Atlantic sturgeon encounters in observed large and small mesh otter trawl trips, 2006-2010.

Large mesh otter trawl

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

small mesh otter trawl

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

Source: NEFOP database, April 8, 2011.

The information presented in Table 7 shows that the number of estimated annual takes of Atlantic sturgeon in otter trawls by both mesh sizes. These estimated numbers were derived utilizing the estimation methods (i.e., expansion by VTR data) and input data (i.e., NEFOP, 2006-2010) previously described and, as such, represent a theoretical range of encounters and mortality based on the best available information. The data suggest that the majority of Atlantic sturgeons encountered by otter trawl gear are released alive. However, there is no information available to quantify potential affects to the animals post-release. It should be noted that the management structure for the summer flounder, scup, and black sea bass fisheries has remained constant across this time period: The regulatory mesh size requirements for the three species have remained 5.5" for summer flounder (when fishing without an exemption for smaller mesh), 5.0" for scup, and 4.5" mesh for black sea bass. The number of deaths attributable to the otter trawl mesh sizes in the summer flounder, scup, and black sea bass fisheries has declined in the two most recent years, despite substantial increases to the summer flounder and scup landing levels and comparable levels over the most recent years for black sea bass. The landing levels in 2008 for the three FMP species was at or near the lowest levels in the most recent 10 year period, yet that year yielded the highest amount of observed Atlantic sturgeon mortality. This suggests that landing levels alone and the assumed changes in effort that may follow do not correlate well to increases in Atlantic sturgeon mortality from bycatch in the summer flounder, scup, and black sea bass fisheries.

Table 7. Estimated Atlantic Sturgeon Encounters in Otter Trawl Gear based upon NEFOP data, 2006-2010.

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

Source: NEFOP database, April 8, 2011

Based on the available information, it is not possible at this time to attribute the known Atlantic sturgeon mortalities to the DPS(s) from which these fish originated. However, given the migratory nature of sub-adult and adult Atlantic sturgeon, it is expected that these mortalities represent takes from multiple DPSs.

One of the factors cited in NMFS' proposed listing for the five DPSs of Atlantic sturgeon is bycatch. The ASMFC analysis concluded that to remain stable or grow, populations of Atlantic sturgeon can sustain only very low anthropogenic sources of mortality. It is apparent, therefore, that should the proposed listing be finalized, reductions in bycatch mortality and the other sources of anthropogenic mortality may be required in order to recover Atlantic sturgeon. Final listing determinations for the Atlantic sturgeon DPSs are currently pending. If final listing rules are published, they will likely become effective 30 days after publication. With the publication of a final listing rule, a Section 7 consultation would be required. Through that consultation

process, the effects of the summer flounder, scup, and black sea bass fisheries on Atlantic sturgeon populations would be estimated and analyzed.

At this point, while Atlantic sturgeon remains a proposed species, the question is whether the 2012 specifications enacted for the summer flounder, scup, and black sea bass fisheries (inclusive of the increased scup harvest allowance) are likely to jeopardize the continued existence of the proposed species. Based upon the incidences of occurrence in the summer flounder, scup, and black sea bass trawl fisheries, the primary gear type utilized for these species that has known interactions and bycatch mortality for Atlantic sturgeon, the continued operation of the fisheries are unlikely to jeopardize the proposed Atlantic sturgeon DPSs. The number of interactions with the summer flounder, scup, and black sea bass fisheries that will occur between now and the time a final listing determination will be made is not likely to cause an appreciable reduction in survival and recovery. Nor is it expected that the interactions that occur for the 2012 fishing year will cause appreciable reduction in survival and recovery of Atlantic sturgeon.

Serious injuries and mortalities of Atlantic sturgeon in commercial fishing gear are a likely concern for the long-term persistence and recovery of the DPSs and was a primary reason cited for the proposals to list the DPSs under the ESA. If final listing determinations are issued, the existing Section 7 consultation for the summer flounder, scup, and black sea bass fisheries would be reinitiated consistent with the requirement to reinitiate formal consultation where discretionary Federal agency involvement or control of the action has been retained and a new species is listed that may be affected by the action. During the reinitiation, the effects of the summer flounder, scup, and black sea bass fisheries on the five DPSs would be fully examined and any bycatch reduction requirements would be addressed, as needed, based on the outcome and recommendations resulting from the reinitiation.

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 3 years, 2008-2010; section 6.3.2) and include Risso's dolphin, seals (unknown species; pinnipeds), loggerhead sea turtles (Northwest Atlantic DPS), 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 loggerhead sea turtle occurs throughout the temperate and tropical regions of the Atlantic, Pacific and Indian Oceans (Dodd 1998). 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 2007b). 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. Additional information on loggerhead turtles and other sea turtle species (Table 4) 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 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). Additional information on the Risso's dolphin and other small cetaceans (Table 4) 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, Waldman et al. 1996, Kynard and Horgan 2002, Dadswell 2006, 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 (Table 4) can be found at: http://www.nmfs.noaa.gov/pr/species/fish/.

6.4 Human Communities and Economic Environment

6.4.1 Fishery Descriptions

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

6.4.1.1 Summer Flounder

The ex-vessel value of summer flounder landings in 2010 was approximately $26.93 million resulting from commercial landings of 13.41 million lb, with an average ex-vessel price estimated at $2.01/lb. The value of commercial landings of summer flounder from 2008 to 2010 averaged $23.21 million, with an average ex-vessel price of $2.07/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 2008 to 2010 period, summer flounder recreational fishing trips were estimated at 5.4, 4.8, and 4.6 million, respectively (section 8.11.3.1.2).

6.4.1.2 Scup

Commercial scup landings were approximately 10.70 million lb (from ME to Cape Hatteras, NC) and valued at $7.03 million in 2010 ($0.66/lb). The value of commercial landings of scup from 2008 to 2010 averaged $6.36 million, with an average ex-vessel price of $0.79/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 2008 to 2010 period, scup recreational fishing trips were estimated at 0.65, 0.48, and 0.76 million, respectively (section 8.11.3.1.2).

6.4.1.3 Black Sea Bass

Commercial black sea bass landings were approximately 1.64 million lb (from ME to Cape Hatteras, NC) and valued at $5.06 million in 2010 ($3.08/lb). The value of commercial landings

of black sea bass from 2008 to 2010 averaged $5.21 million, with an average ex-vessel price of $2.90/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 0.38 million in 2007. For the 2008 to 2010 period, summer flounder recreational fishing trips were estimated at 0.25, 0.31, and 0.42 million, respectively (section 8.11.3.1.2).

6.4.2 Description of the Areas Fished

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

6.4.2.1 Summer Flounder

NMFS 2010 VTR data indicated that 17,899 trips, by five major gear types, caught a total of 11.66 million lb of summer flounder; landing 11.40 million lb and discarding 0.26 million lb. The majority of the trips and catch were made by bottom otter and beam trawls (75.3 percent of trips, 96.8 percent of catch), followed by handline “other” (10.9 percent of trips, 1.3 percent of catch), gillnets (8.9 percent of trips, 0.8 percent of catch), scallop dredges (3.8 percent of trips, 0.8 percent of catch), and pots and traps (0.8 percent of trips, less than 0.1 percent of catch). There were seven statistical areas (Figure 4), which individually accounted for greater than 5 percent of the summer flounder catch in 2010 (Table 8). Collectively, these seven areas accounted for 76 percent of the summer flounder catch. There were six statistical areas, which individually accounted for greater than 5 percent of the trips which caught summer flounder in 2010 (Table 9). Collectively, these six areas accounted for 79 percent of the trips that caught summer flounder and 39 percent of the 2010 summer flounder catch.

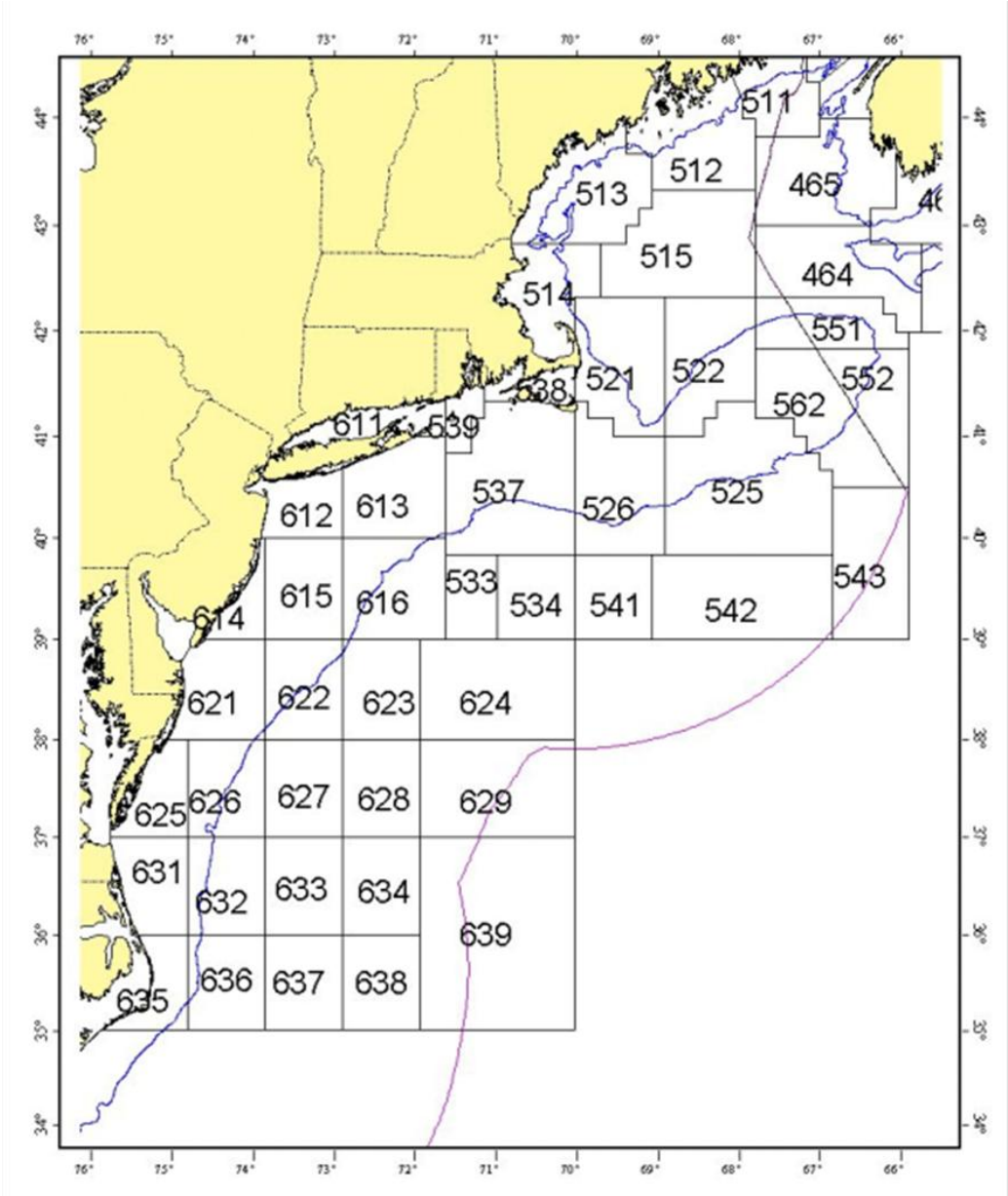

Figure 4. NMFS Northeast statistical areas.

Table 8. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass catch in 2010, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
616	15.60	36.30	11.25
537	13.22	16.22	3.17
626	12.48	0.18	5.98
622	11.09	4.78	19.98
612	10.02	1.49	3.25
621	7.71	0.97	16.8
613	5.70	9.45	6.34
611	3.69	7.15	3.90
539	3.43	12.88	5.20
538	2.56	6.82	6.19
615	2.03	0.05	5.19
631	1.31	0	2.95

Table 9. Statistical areas that accounted for at least 5 percent of the summer flounder, scup, or black sea bass trips in 2010, NMFS VTR data.

Statistical Area	Summer Flounder (percent)	Scup (percent)	Black Sea Bass (percent)
539	16.69	23.42	19.53
611	16.34	27.52	16.97
612	14.29	5.78	14.00
613	13.92	14.52	14.73
537	10.11	9.87	5.40
538	7.20	10.49	6.51
616	4.37	5.34	5.25

6.4.2.2 Scup

NMFS 2010 VTR data indicated that 10,283 trips, by six major gear types, caught a total of 8.36 million lb of scup. Of these, 8.02 million lb of scup were landed, and 0.34 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (69.6 percent of trips, 94.7 percent of catch), followed by hand line "other" (13.9 percent of trips, 1.4 percent of catch), pots and traps (10.7 percent of trips, 2.6 percent of catch), gillnets (5.7 percent of trips, 0.4 percent of catch), weir (less than 0.1 percent of trips, 0.6 percent of catch), and mid-water otter trawls (less than 0.1 percent of trips, less than 0.1 percent of catch). There were six statistical areas, which individually accounted for greater than 5 percent of the scup catch in 2010 (Table 8). Collectively, these six areas accounted for 89 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 2010 (Table 9). Collectively, these seven areas accounted for 97 percent of the trips that caught scup and 90 percent of the 2010 scup catch.

6.4.2.3 Black Sea Bass

NMFS 2010 VTR data indicated that 7,745 trips, by four major gear types, caught a total of 1.34 million lb of black sea bass. Of these, 1.25 million lb of black sea bass were landed, and 0.09 million lb were discarded. The majority of the trips and catch were made by bottom otter and beam trawls (55.6 percent of trips, 48.6 percent of catch), followed by pots and traps (27.3 percent of trips, 42.8 percent of catch), handline “other” (12.7 percent of trips, 7.4 percent of catch), and gillnets (4.7 percent of trips, 0.6 percent of catch). There were eight statistical areas, which individually accounted for greater than 5 percent of the black sea bass catch in 2010 (Table 8). Collectively, these eight areas accounted for 76.9 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 2010 (Table 9). Collectively, these seven areas accounted for 82 percent of the trips that caught black sea bass and 39 percent of the 2010 black sea bass catch.

6.4.3 Port and Community Description

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

To examine recent landings patterns among ports, 2010 NMFS dealer data are used. The top commercial landings ports for summer flounder, scup, and black sea bass by pounds landed are shown in Table 10.

Table 10. Top ports of landing (in lb) for summer flounder (FLK), scup (SCP), and black sea bass (BSB), based on NMFS 2010 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	1,903,088	119	3,325,155	124	149,479	118
WANCHESE, NC	1,090,717	29	62,341	10	47,389	24
HAMPTON, VA	974,182	51	234,342	27	104,320	27
NEWPORT NEWS, VA	1,112,470	54	121,251	15	43,509	18
PT. PLEASANT, NJ	894,537	47	1,013,549	27	122,147	39
CAPE MAY, NJ	522,203	53	303,381	17	94,053	32
BEAUFORT, NC	536,044	15	14,905	5	33,334	12
ORIENTAL, NC	623,748	18	2,460	5	11,168	8
ENGELHARD, NC	645,600	17	22,158	8	19,681	11
MONTAUK, NY	567,331	74	1,312,337	76	62,228	67
BELFORD, NJ	497,724	21	226,530	18	19,507	19
NEW BEDFORD, MA	330,081	89	590,901	52	75,797	34
CHINCOTEAGUE, VA	481,368	33	57,632	13	77,943	9
HAMPTON BAYS, NY	298,758	35	463,570	39	31,040	34
LOWLAND, NC	261,310	4	C	C	10,425	3
STONINGTON, CT	537,424	26	461,507	25	32,785	23
OCEAN CITY, MD	221,290	18	19,153	6	150,476	17
BARNEGAT LIGHT/LONG BEACH, NJ	189,671	40	6,789	6	10,346	9
WOODS HOLE, MA	100,491	18	17,161	18	3,977	15
NEWPORT, RI	106,729	25	282,102	18	15,063	24
MATTITUCK, NY	110,277	4	146,185	6	67,687	4
LITTLE COMPTON, RI	70,336	23	525,166	24	62,834	24
PT. LOOKOUT, NY	70,144	10	354,154	7	4,511	10
NANTUCKET, MA	102,990	14	24,270	14	250	8
FALMOUTH, MA	121,090	21	44,378	26	37,701	24
AMAGANSETT, NY	C	C	132,345	3	8,577	3

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 11. 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 MRFSS 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 11. MRFSS estimates of 2010 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	41	0	0	0	0
NH	0	0	0	0	0	971
MA	43,847	184,990	842,221	2,378,794	482,391	1,169,210
RI	84,525	300,058	438,282	1,012,182	145,875	334,015
CT	39,857	481,990	1,006,289	2,154,693	14,783	104,803
NY	259,827	6,340,068	1,859,594	3,855,889	605,863	2,176,071
NJ	577,007	11,248,697	553,051	1,014,374	548,353	3,650,206
DE	72,102	844,636	0	283	22,448	274,169
MD	39,243	1,668,894	25	52	42,210	957,129
VA	275,309	2,735,301	4,343	33,249	20,306	488,361
NC	92,337	111,191	5,077	6,494	151,225	1,466,053

6.4.4 Analysis of Permit Data

Federally Permitted Vessels

This analysis estimates that in 2010, there were 2,176 vessels with one or more of the following three commercial or recreational federal Northeast permits: summer flounder, scup, and black sea bass (Table 12). A total of 936, 789, and 830 federal commercial permits for summer flounder, scup, and black sea bass, respectively, had been issued to Northeast region fishing vessels (Table 12). For party/charter operators, a total of 940, 836, and 902 federal permits were issued for summer flounder, scup, and black sea bass, respectively (Table 12).

These three fisheries (summer flounder, scup, and black sea bass) have vessels permitted as commercial, party/charter for participation in recreational fisheries, or both. Of the 2,176 vessels

with at least one Federal permit, there were 1,194 that held only commercial permits for summer flounder, scup, and/or black sea bass while there were 880 vessels that held only a recreational permit. The remaining vessels (102) held some combination of recreational and commercial permits (Table 12). 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 12.

Table 12. Summary of number of vessels holding federal commercial and/or recreational permit combinations for summer flounder (FLK), scup (SCP) and black sea bass (BSB), 2010.

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	44	7	17	15	61	12	724	880
FLK Only	308	1	0	0	0	0	2	4	315
SCP Only	47	0	0	1	0	2	0	7	57
BSB Only	122	4	0	2	1	5	0	11	145
FLK/ SCP	89	0	0	0	0	0	1	4	94
FLK/ BSB	45	0	0	0	0	1	0	1	47
SCP/ BSB	127	4	0	0	0	1	0	26	158
FLK/ SCP/ BSB	456	3	0	0	1	0	0	20	480
Column Total	1,194	56	7	20	17	70	15	797	2,176

Row sums in Table 12 indicate the total number of vessels that have been issued some unique combination of commercial permits. For example, there were 308 vessels whose only commercial permit was for summer flounder. By contrast, there were 456 vessels that held all three commercial permits. Column totals in Table 12 indicate the total number of vessels that have been issued some unique combination of federal recreational permits. For example, there were 7 vessels whose only recreational permit was for scup, while 797 vessels held all three recreational permits. Each cell in Table 12 reports the total number of vessels that have a unique

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

In addition to summer flounder, scup, and black sea bass, there are a number of alternative commercial or recreational fisheries for which any given vessel might possess a federal permit. The total number of vessels holding any one or more of these other permits is reported in Table 13.

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, Rhode Island, New York, North Carolina, and Virginia (Table 14). The fewest permits are held by Pennsylvania, Florida, and Delaware vessels. In terms of average tonnage, the largest commercial vessels are found in Pennsylvania, followed by Virginia, Connecticut, North Carolina, Massachusetts, and New Jersey. In terms of average length, the largest commercial vessels are found in Virginia, Pennsylvania, and North Carolina followed by Connecticut, New Jersey, Massachusetts, and Rhode Island. In terms of average horse power, the largest commercial vessels are found in Pennsylvania followed by Connecticut, Virginia, Florida, and New Jersey.

For party/charter vessels (Table 15), 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, Florida, New York, North Carolina, and Maryland. In terms of average horse power, the largest recreational vessels are found in North Carolina, Florida, Pennsylvania, Virginia, and Maryland.

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, and Rhode Island (Table 16). 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 13. Federal northeast region permits held by summer flounder, scup, and black sea bass commercial and recreational vessels, 2010. Note: LA= limited access; OA = open access; DAS = days at sea; P/C=party/charter; GOM = Gulf of Maine.

	Commercial Only (n= 1,194)		Party/Charter Only (n= 880)		Commercial and Party/Charter (n= 102)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Ocean Quahog	505	42	15	2	11	11
Surfclam	511	43	14	2	9	9
Scallop - LA DAS	305	26	0	0	0	0
Scallop - ITQ	186	16	4	0	4	4
Scallop - limited entry GOM general category	60	5	8	1	4	4
Scallop - incidental general category	222	19	2	0	1	1
Non-trap Lobster (comm.)	707	59	21	2	24	24
P/C Lobster	0	0	23	3	5	5
Lobster Trap (commercial)	344	29	64	7	30	29
P/C Multi-Species	3	0	685	78	40	39
Commercial Multispecies	13	1	4	0	1	1
Multispecies - OA other than P/C Multispecies	461	39	328	37	45	44
P/C Squid/ Mackerel/ Butterfish	0	0	752	85	77	75
Commercial Squid/ Mackerel/ Butterfish	1,086	91	335	38	77	75

Table 13 (Continued). Federal northeast region permits held by summer flounder, scup, and black sea bass commercial and recreational vessels, 2010.

	Commercial Only (n= 1,194)		Party/Charter Only (n= 880)		Commercial and Party/Charter (n= 102)	
Northeast Permits	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**	**Vessels (No.)**	**Percent of Total**
Commercial Bluefish	1,125	94	426	48	96	94
P/C Bluefish	7	1	818	93	90	88
Spiny Dogfish	1,093	92	518	59	84	82
Herring - LA all area permit	17	1	0	0	0	0
Herring - LA area 2 & 3	4	0	0	0	0	0
Herring - LA incidental	42	4	0	0	2	2
Herring - OA	854	72	408	46	73	72
Red Crab Incidental	772	65	161	18	44	43
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	1,032	86	371	42	75	74
Tilefish Commercial (IFQ + incidental categories combined)	947	79	437	50	78	76
tilefish P/C	2	0	308	35	36	35
Monkfish	532	45	8	1	9	9
Incidental Monkfish	668	56	472	54	83	81

Table 14. Descriptive data from northeast region permit files for commercial vessels, 2010.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	25	7	3	392	19	60	103	28	210	123	1	127	94	3
No. of Permits by Home Port State	28	6	5	422	17	48	107	24	200	130	6	113	87	1
No. of Permits by Principal Port State	29	5	1	413	17	46	98	26	204	127	1	125	102	3
Average Length by Principal Port	60	40	41	53	47	35	64	39	58	44	64	53	67	NA
Average Tonnage by Principal Port	87	17	26	78	29	33	83	25	76	38	109	61	103	NA
Average Horse Power by Principal Port	585	383	535	458	360	225	496	261	512	347	850	435	568	NA
Percent Home Port Equal Principal Port	97	100	100	99	94	98	91	92	93	98	0	88	76	0

Table 15. Descriptive data from northeast region permit files for party/charter vessels, 2010.

	CT	DE	FL	MA	MD	ME	NC	NH	NJ	NY	PA	RI	VA	Other
No. of Permits by Mailing Address State	30	37	9	226	35	35	15	34	197	124	24	64	43	7
No. of Permits by Home Port State	23	43	10	228	38	35	20	34	197	127	12	69	4	3
No. of Permits by Principal Port State	26	42	4	226	38	38	19	33	209	125	3	72	42	3
Average Length by Principal Port	47	36	46	35	43	34	44	38	42	45	48	34	41	NA
Average Tonnage by Principal Port	29	16	40	17	29	15	29	20	26	30	34	16	25	NA
Average Horse Power by Principal Port	690	520	954	450	707	410	958	461	607	560	723	444	717	NA
Percent Home Port Equal Principal Port	81	93	100	97	89	89	95	97	92	95	0	93	93	100

Table 16. Descriptive data from northeast region permit files for combination commercial/recreational vessels, 2010.

	CT	DE	MA	NC	NJ	NY	RI	VA	Other
No. of Permits By Mailing Address State	3	5	16	8	14	37	9	8	2
No. of Permits By Home Port State	0	5	21	7	12	39	6	8	3
No. of Permits by Principal Port State	1	5	16	8	13	37	11	8	3
Average Length by Principal Port	42	48	34	43	51	40	41	42	NA
Average Tonnage by Principal Port	13	34	14	31	37	28	30	23	NA
Average Horse Power by Principal Port	700	677	319	396	553	428	538	568	NA
Percent Home Port Equal Principal Port	0	100	100	88	92	100	55	100	100

With the exception of the states of Pennsylvania and Virginia, 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 14).

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 15). With the exception of the states of Connecticut and 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 16).

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

Dealers

There were 263 Federally-permitted dealers who bought summer flounder, scup and/or black sea bass in 2010 from Maine through North Carolina. They were distributed by state as indicated in Table 17. Employment data for these specific firms are not available. In 2010, these dealers from Maine through North Carolina bought approximately $26.9 million worth of summer flounder; $7.0 million worth of scup; and $5.2 million worth of black sea bass.

Table 17. Dealers reporting buying summer flounder, scup, and/or black sea bass, by state (from NMFS commercial landings database) in 2010.

	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Other
Number of Dealers	55	42	10	61	34	3	4	25	28	1

7.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

This EA analyzes the impacts of the alternatives described fully under section 5.0 which specify 2012 commercial quotas and recreational harvest limits for the summer flounder, scup, and black sea bass fisheries that are necessary to ensure overfishing does not occur and ACLs are not exceeded (Table 18). In addition, this section analyzes the impacts of a change in the scup commercial possession limit to 50,000 lb for the Winter I fishing period (scup alternatives 1B and 2B). 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 2012 fishing year (see section 5.5 for additional discussion). The Council and Commission's Board will meet in December 2011 to adopt 2012 recreational management measures when more complete data regarding 2011 recreational landings are available. Therefore, while the impacts of recreational harvest limits are addressed in this EA, the impacts of the specific recreational management measures to implement that harvest limit will be analyzed in a supplement to this EA in early 2012. 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).

Table 18. Summary of the commercial quotas and recreational harvest limits, for each of the quota-based alternatives.

		Alternative 1 Least Restrictive	Alternative 2 Status Quo	Alternative 3 Most Restrictive	Alternative 4 Second Most Restrictive
Summer Flounder	**Commercial Quota**	18.37	17.16	9.18	13.14
	Recreational Harvest Limit	12.26	11.44	6.12	8.76
Scup[1]	**Commercial Quota**	33.40	20.05	8.28	27.50
	Recreational Harvest Limit	10.53	5.66	2.56	8.31
Black Sea Bass	**Commercial Quota**	3.90	1.71	1.09	Not applicable
	Recreational Harvest Limit	4.06	1.32	1.14	Not applicable

[1] For scup, alternatives 1A-4A are represented in this table. Scup alternatives 1B and 2B address the commercial Winter I possession limit (see section 5.0 for additional description of those alternatives).

For purposes of comparing each of the alternatives, the proposed 2012 commercial quota under each alternative is compared to the 2011 commercial quota and 2010 commercial landings, to provide the increase or decrease in quota or harvest limit (as a percentage) that is expected under each of the alternatives (Table 19). Similarly, the recreational harvest limit under alternative is compared to the 2011 harvest limit and 2010 recreational landings.

Table 19. The percentage difference in 2012 commercial quota and recreational harvest limit for each alternative, when compared to the respective fishery 2011 commercial quota and recreational harvest limit and 2010 commercial and recreational landings.

			Alternative 1 Least Restrictive	Alternative 2 Status Quo	Alternative 3 Most Restrictive	Alternative 4 Second Most Restrictive
Summer Flounder	2011	Commercial Quota	+6.2	-0.8	-46.9	-23.5
		Recreational Harvest Limit	+5.9	-1.2	-47.2	-23.4
	2010	Commercial Landings	+37.3	+28.3	-31.4	-1.8
		Recreational Landings	+146.7	+130.2	+23.1	+76.3
Scup[1]	2011	Commercial Quota	+64.0	-1.5	-59.3	+85.4
		Recreational Harvest Limit	+83.4	-1.4	-55.4	+99.1
	2010	Commercial Landings	+212.1	+87.4	-22.6	+131.3
		Recreational Landings	+83.4	-1.4	-55.4	+44.8
Black Sea Bass	2011	Commercial Quota	+128.1	<0.1	-36.3	Not applicable
		Recreational Harvest Limit	+128.1	-25.8	-36.0	Not applicable
	2010	Commercial Landings	+132.1	+1.8	-35.1	Not applicable
		Recreational Landings	+36.2	-55.7	-61.7	Not applicable

[1]For scup, alternatives 1A-4A are represented in this table. Scup alternatives 1B and 2B address the commercial Winter I possession limit (see section 5.0 for additional description of those alternatives).

Changes in quota can result in changes in fishing effort. The direction and magnitude of change is dependent on factors such as fish abundance/availability and how the fishery responds regulations changes. The extent of interactions between fishing gear and habitat and other non-

target species, including protected species, is related to fishing effort. The magnitude of change in effort that results from changes in quota is difficult to quantify; therefore, following describes the general directionality of impacts in response to two factors (Table 20).

Table 20. 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	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.	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.	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	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.	Fishing effort may remain the same given the quota has not changed and availability is expected to be similar.	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	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.	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.	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 encounter rates with non-targets or ESA listed and MMPA protected species and fewer habitat gear impacts, and an increase in effort may result in a negative impact (-). Similar effort result in neutral impacts (0). The magnitude of negative effects of increases in fishing effort in the recreational fishery on non-target species may be offset by the use of ethical angler practices, which include using proper catch and release techniques and use of gear which minimizes mortality (i.e., circle or j hooks) on non-target species. In addition, in the commercial fishery may avoid non-target species, particularly those that cannot be landed because commercial fishermen do not find it lucrative to spend additional fuel costs and resources sorting/processing species that the commercial vessels do not have permits to land or a market to sell.

While a general evaluation of effort in response to these two important factors (i.e., quota levels, fish availability) is generalized in Table 10; however, fishing effort does not always respond as expected (increase or decrease) as a result of consideration of only the quota or fish availability. Fishing demand models are used to forecast the demand for trips as well as to determine the value that commercial fishermen or recreational anglers place on the various factors that affect their behavior. Models can attempt to predict how changes in fishing site characteristics (travel costs, catch rates, available species, etc.), fishery management policies, and other characteristics affect the demand for fishing trips. Limited data is available to address many of these factors. This makes evaluation of changes in fishing behavior difficult and complex and therefore makes it difficult to predict how fishing effort will change each year.

7.1 Biological Impacts

7.1.1 Summer Flounder

Summer flounder is no longer under a rebuilding schedule as the stock was above SSB_{MSY} in 2010 (Terceiro 2011; section 6.1). Updated stock information (Terceiro 2011) indicates that the Council's initial recommendations for 2012 catch levels under alternative 1 would likely result in overfishing. NMFS preferred alternative 4, containing catch levels calculated using the updated assessment information, is projected to prevent overfishing in 2012. Preventing overfishing is expected to result in positive impacts on the managed resource. While it is not known how the decrease in commercial quota and recreational harvest limit will affect fishing effort and interactions with other non-target species, given the decrease in quota and potential increase in 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 existing impacts (Table 20). Overall, alternative 1 is expected to result in negative biological impacts when compared to the *status quo* as the most recent stock assessment update indicates that overfishing would likey occur. The commercial quota and recreational harvest limit under Alternative 2 (*status quo*) are nearly identical to 2011 (0.8 and 1.2 percent lower, respectively). The measures contained under the *status quo* alternative are more restrictive than those measures recommended under alternative 1, but less restrictive than NMFS preferred alternative 4. Alternative 2 measures are also projected to result in overfishing in 2012 and would have negative biological impacts expected on the managed resource, when compared to existing impacts. It is expected that under a similar quota

and potential increased fish abundance, impacts on the incidental catch rates of non-target species will be neutral to slightly positive, when compared to existing impacts (Table 20). Overall, alternative 2 is expected to result in negative biological impacts. Alternative 3 includes a substantial decrease in commercial quota and recreational harvest limit (46.9 and 47.2 percent lower, respectively) from 2011 levels. This alternative is substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Positive impacts on the managed resource are expected from alternative 3. Under a lower quota and potential increased fish abundance, impacts on the incidental catch rates of non-target species will be neutral to positive, when compared to existing impacts (Table 20). Overall, alternative 3 is expected to result in impacts that are neutral to positive, when compared to *status quo*. Alternative 4 is more restrictive than the *status quo* and expected to result in impacts that are neutral to positive. When comparing across the 4 alternatives, the greatest potential for positive biological impacts are associated with alternative 4 (most restrictive), followed by alternative 4 (second most restrictive). Alternatives 3 (*status quo)* and 1 (least restrictive) have the potential for negative biological impacts.

7.1.2 Scup

The scup stock was well above SSB_{MSY} in 2010, not overfished, and not subject to overfishing (Terceiro 2011). Scup abundance and availability would be expected to be similar to prior years. The commercial quota increase under alternative 1A (64.0 percent; Table 19) and increase in recreational harvest limit (83.4 percent) is inconsistent with the best scientific information available and would likely result in overfishing. Overfishing is expected to result in negative impacts on the managed resource. Overall, alternative 1A is expected to result in negative impacts when compared to the *status quo*. The commercial quota and recreational harvest limit under alternative 2A (*status quo*) are nearly identical to 2011 (1.5 and 1.4 percent lower, respectively). The measures contained under the *status quo* alternative are more restrictive than those measures recommended under alternative 1A and would have a lower risk of overfishing when compared to alternative 1A. Therefore, there are positive biological impacts expected on the managed resource from alternative 4A, when compared to existing impacts. It is expected that under a similar quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral, when compared to existing impacts (Table 20). Overall, alternative 2A is expected to result in neutral to positive biological impacts. Alternative 3 includes a substantial decrease in commercial quota and recreational harvest limit (59.3 and 55.4 percent lower, respectively) from 2011 levels. This alternative is substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Positive impacts on the managed resource are expected from alternative 3A. Under a lower quota and potentially similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral to positive, when compared to existing impacts (Table 20). Overall, alternative 3A is expected to result in impacts that are neutral to positive, when compared to *status quo*. Alterative 4A is consistent with the updated assessment information and is projected to ensure the stock is not overfished or subject to overfishing. Alternative 4A is expected to result in positive impacts for the stock. While it is not known how quota and harvest limit under Altnative 4A will affect fishing effort and interactions with other non-target species, given the increase in quota and relatively similar fish availability, it is expected to have effects on the

incidental catch rates of non-target species that are neutral to slight negative (see discussion above in 7.0 about ethical angler practices and potential avoidance of non-targets), when compared to existing impacts (Table 20). When comparing across the 4 alternatives, the greatest potential for positive biological impacts are associated with alternative 3A (most restrictive), followed by alternative 4A (second most restrictive), and alternative 2A (*status quo*). Alternative 1A (least restrictive) has the potential for negative biological impacts, and overfishing may occur if the catch levels are fully realized in 2012.

Scup alternative 1B proposes an increase in the commercial Winter I period to 50,000 lb, an increase from the current 30,000 lb possession limit (*status quo* alternative 2B). The increased possession limit under alternative 1B may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential interactions with non-target species (assuming existing quota conditions); therefore, when compared to existing impacts this alternative would be expected to result in neutral to slightly positive impacts on non-target species. Alternative 1B merely allows for greater efficiency in the prosecution of the fishery and does not alter catch levels; therefore, it is expected to have neutral impacts on the managed resource. Overall, alternative 1B is expected to result in impact that range from neutral to slight positive. Alternative 2B would maintain the *status quo* and is therefore expected to result in neutral biological impacts.

7.1.3 Black Sea Bass

The black sea bass stock was 111 percent of SSB_{MSY} in 2010, fully rebuilt, and stock biomass has been relatively stable the last few years (Shepherd 2011). As such, black sea bass abundance and availability would be expected to be similar to prior years. The commercial quota and recreational harvest limit increase under alternative 1 are both higher (128.1 percent; Table 19). The combined quota and harvest limit under this alternative is higher than the ABC recommendations of the SSC; therefore, this alternative is inconsistent with the FMP and MSA and would not prevent overfishing. Overfishing is expected to result in negative biological impacts on the managed resource. While it is not known how this increase in quota and harvest limit will affect fishing effort and interactions with other non-target species, given the increase in quota and relatively similar fish availability it is expected to have effects on the incidental catch rates of non-target species that are neutral to slight negative, when compared to existing impacts (Table 20). Overall, alternative 1 is expected to result in impacts that are negative when compared to the *status quo*, due to the significant impacts associated with overfishing a stock. The commercial quota and recreational harvest limit under Alternative 2 (*status quo*) are <0.1 and 25.8 percent lower, respectively. The harvest limit is lower to address management uncertainty; however, the ABC remains *status quo*. The measures contained under the *status quo* alternative are consistent with the SSC recommendations, and are expected to prevent overfishing. Therefore, there are positive biological impacts expected on the managed resource. It is expected that under a similar quota and relatively similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral to slight negative, when compared to existing impacts (Table 20). Overall, alternative 2 is expected to result in neutral to positive biological impacts, due to the substantial positive effects of the lower quota and preventing overfishing on the stock. Alternative 3 includes a substantial decrease in commercial quota and recreational harvest limit (36.3 and 36.0 percent lower, respectively) from 2011 levels. This

alternative is substantially lower than the recommendations of the SSC and would be expected to have the lowest risk of overfishing. Under a lower quota and potentially similar fish abundance, impacts on the incidental catch rates of non-target species will be neutral to positive, when compared to existing impacts (Table 20). However, overall, alternative 3 is expected to result in impacts that are neutral to positive, when compared to *status quo* due to the substantial potential positive effects on the stock. The potential positive biological impacts associated with alternative 3 (most restrictive), are expected to be greater than those under alternative 2 (*status quo*). Alternative 1 is expected to result in negative biological impacts.

7.1.4 RSA

Under alternative 1, there would not be a summer flounder, scup, or black sea bass set-aside for 2012, and the RSA quota amounts would not be deducted from their respective commercial quotas and recreational harvest limits. Because all summer flounder, scup, and black sea bass landings count against the overall quota regardless of whether or not an RSA is implemented, the biological impacts would not change if this alternative were adopted. Under this alternative, there would also be no indirect positive effects from broadening the scientific base upon which management decisions are made.

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

Vessels harvesting research quota in support of approved research projects would be issued EFP authorizing them to exceed Federal possession limits and to fish during Federal quota closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting research quota. Vessels harvesting research quota would operate within all other regulations, unless otherwise exempted through a separate EFP. Because commercial quota closures or recreational harvest limits may or may not occur during a given fishing year, exemption from these closures will have no additional environmental impact. Exemption from possession limits could result in compensation fishing where vessels alter their normal fishing behavior; such as 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 projects #1 and #2, as described in section 7.4, would only occur in concert with commercial fishing trips and/or compensation fishing trips. Research activities would not result in additional fishing effort. Research vessels for these projects 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. If not exempted, vessels must follow all other regulations for non-target species (Table 21). Exemption from scup and black sea bass closures and time restrictions would also be needed to

ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. These changes to standard commercial fishing practice are not expected to result in a substantive increase in mortality of fish under the minimum size.

Table 21. Status of stock for potential non-target species for all proposed 2012 Mid-Atlantic research set-aside projects as of July 2011 (Table provided by NMFS/NERO).

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

Yellowtail Flounder	GB - Overfished; SNE/MA - Overfishing, Overfished; CC/GOM - Overfishing, Overfished
CC – Cape Cod; GB – Georges Bank; GOM – Gulf of Maine; MA – Mid-Atlantic; SNE – Southern New England	

7.2 Habitat Impacts

Section 6.2 describes the habitat VEC and other fishery impact considerations.

7.2.1 Summer Flounder

As described above in section 7.1.1, summer flounder abundance and availability have the potential to increase in 2012. While it is not known with certainty how the small quota increase under alternative 1 (6.2 percent; Table 19) will affect fishing effort and resulting fishing gear impacts on habitat, given the small increase 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 existing impacts (Table 20). Alternative 2 (*status quo*) is nearly identical to the 2011 quota (0.8 percent lower) and is expected to result in impacts that are neutral to slightly positive on habitat (Table 20). Alternative 3 includes a substantial decrease in commercial quota (46.9 percent) and while highly uncertain, it is expected to result in impacts on habitat that range from neutral to positive (Table 20). Alternative 4 is a reduction from *status quo* and is expected to result in impacts that are neutal to slightly positive on habitat (Table 20).

7.2.2 Scup

As described above in section 7.1.2, scup abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the quota increase under alternative 1A (64 percent; Table 19) will affect fishing effort and resulting fishing gear impacts on habitat, given the large increase in quota with relatively stable availability it is expected to have effects on habitat and EFH that are neutral to negative, when compared to existing impacts (Table 20). There is uncertainty associated with these negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries. Alternative 2A (*status quo*) is nearly identical to the 2011 quota (1.5 percent lower) and is expected to result in impacts that are neutral on habitat (Table 20). Alternative 3A includes a substantial decrease in commercial quota (59.3 percent) and while highly uncertain, it is expected to result in impacts on habitat that range from neutral to positive (Table 20). Alternative 4A is a reduction from *status quo* and is expected to result in impacts that are neutal to slightly positive on habitat (Table 20).

Scup alternative 1B proposes an increase in the commercial Winter I period to 50,000 lb, an increase from the current 30,000 lb possession limit (*status quo* alternative 2B). The increased possession limit under alternative 1B may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential gear impacts (assuming existing quota conditions). Therefore, when compared to existing impacts this alternative would be expected to result in

neutral to slight positive impacts on habitat. Alternative 2B would maintain the *status quo* and is therefore expected to result in neutral habitat impacts.

7.2.3 Black Sea Bass

As described above in section 7.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the quota increase under alternative 1 (128 percent; Table 19) will affect fishing effort and resulting fishing gear impacts on habitat, given the large increase in quota with relatively stable availability it is expected to have effects on habitat and EFH that are neutral to negative, when compared to existing impacts (Table 20). There is uncertainty associated with these negative impacts on habitat because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. Furthermore, the areas that would be subjected to increased disturbance from fishing are already fished by mobile, bottom-tending gear used in this and other fisheries. Alternative 2 (*status quo*) is identical to the 2011 quota and is expected to result in impacts that are neutral on habitat (Table 20). Alternative 3 includes a substantial decrease in commercial quota (36.3 percent) and while highly uncertain, it is expected to result in impacts on habitat that range from neutral to positive (Table 20).

7.2.4 Research Sea-Aside Measures

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

Although under Alternative 2 exemptions would be issued for compensation fishing that would exempt vessels from possession limits and quota closures, there would be no additional impacts on habitat because RSA quota is part of, and not in addition to, the overall summer flounder, scup, and black sea bass quotas. Because research activities for Projects #1 and #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 these 2 projects. 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 MSA.

Research activities for Projects #1 and #2, as described in section 7.4, would only occur in concert with commercial fishing trips and/or compensation fishing trips. Research activities would not result in additional fishing effort. Research vessels for these projects would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to

ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. Such exemptions would not have any additional impact on EFH.

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 Summer Flounder

As described above in section 7.1.1, summer flounder abundance and availability have the potential to increase in 2012. While it is not known with certainty how the small quota increase under alternative 1 (6.2 percent; Table 19) will affect fishing effort and resulting interactions/encounters with ESA listed and MMPA protected species, given the small increase in quota and potential increase in fish availability it is expected to have effects on these species that are neutral to slightly positive, when compared to existing impacts (Table 20). Alternative 2 (*status quo*) is nearly identical to the 2011 quota (0.8 percent lower) and is expected to result in impacts that are neutral to slightly positive on ESA listed and MMPA protected species (Table 20). Alternative 3 includes a substantial decrease in commercial quota (46.9 percent) and while highly uncertainty, it is expected to result in impacts on ESA listed and MMPA protected species that range from neutral to positive (Table 20). Alternative 4 is a reduction of 24.1 percent from *status quo* and is expected to result in impacts that are neutal to slightly positive on ESA listed and MMPA protected species (Table 20).

As such, none of these alternatives is expected to affect ESA listed and MMPA protected species in any manner not considered in a prior consultation on this fishery and will have no adverse impacts on protected resources, relative to 2011.

7.3.2 Scup

As described above in section 7.1.2, scup abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the quota increase under alternative 1A (64 percent; Table 19) will affect fishing effort and resulting interactions/encounters with ESA listed and MMPA protected species, given the large increase in quota with relatively stable availability it is expected to have effects on these species that are

neutral to negative, when compared to existing impacts (Table 20). Alternative 2A (*status quo*) is nearly identical to the 2011 quota (1.5 percent lower) and is expected to result in impacts that are neutral on ESA listed and MMPA protected species (Table 20). Alternative 3A includes a substantial decrease in commercial quota (59.3 percent) and while highly uncertain, it is expected to result in impacts on ESA listed and MMPA protected species that range from neutral to positive (Table 20). Alternative 4A is a reduction of 26.7 percent from *status quo* and is expected to result in impacts that are neutal to slightly positive on ESA listed and MMPA protected species (Table 20).

There is uncertainty about the negative impacts expected under alternative 1A on ESA listed and MMPA protected species. For alternative 1A, this result from the inability to quantify if the scup fishery will be made more efficient through higher possession/trip limits or if in fact an increase in effort will result from the higher catch levels permitted. Effort would not be expected to increase in direct proportion to the increase in commercial quota. While Federal waters have established possession limits by fishing period, individual states also set possession limits for the fishing periods in state waters and the Council cannot predict the behavioral response the states may have to trip limit adjustments or other management measures as a result of implementing a higher commercial quota. However, it may be reasonable to expect that states may liberalize possession limits. In addition, there are other factors that affect effort, of which market supply demand and price are important considerations. For example, in Amendment 14 to the FMP (MAFMC 2007), a log-linear model was developed to examine the price and volume relationship for the scup fishery. The value of the landings parameter (-0.57) in that model indicates that if scup landings increase by 1 percent, the ex-vessel price per pound paid to harvesters declines by 0.57 percent; the relationship is not linear and suggests that a change in landings from 10-15 million lb does not have the same effect as from 30-35 million lb (MAFMC 2007). This suggests that the availability of additional quota could affect ex-vessel price, and perhaps have an influence in the expected fishing effort as some individual trips may be less lucrative.

An examination of 2010 NMFS VTR data suggests that 78 percent of the scup landings produced with trawl gear in 2010 occurred in Winter I (January-April) and Winter II (November-December). The winter trawl fishery for scup is targeting the fish while they are aggregated offshore in the cool, deep waters on the continental shelf. The seasonal/spatial extent of the fishery is important given the availability of ESA listed and MMPA protected species to scup fishing gears is also affected by these species distribution. In addition, the stock status (i.e., increasing or decreasing stock size) of these ESA listed and MMPA protected species may affect interaction rates. The majority of scup catch by trawl occurs in winter when the expected interaction rates with sea turtles would be low, because of the migration of the turtles into more southerly areas (see section 6.3 discussion of turtles). Extensive discussion of Atlantic sturgeon is provided in the supplemented section 6.3 of this SEA and is not repeated here.

Scup alternative 1B proposes an increase in the commercial Winter I period to 50,000 lb, an increase from the current 30,000 lb possession limit (*status quo* alternative 2B).The increased possession limit under alternative 1B may allow for fishermen to catch the same amount of fish with fewer trips and fewer potential interactions/encounters with ESA listed and MMPA protected species (assuming existing quota conditions); therefore, when compared to existing

impacts this alternative would be expected to result in neutral to positive impacts on ESA listed and MMPA protected species. Alternative 2B would maintain the *status quo* and is therefore expected to result in neutral impacts on ESA listed and MMPA protected species.

7.3.3 Black Sea Bass

As described above in section 7.1.3, black sea bass abundance and availability would be expected to be similar to prior years. While it is not known with certainty how the quota increase under alternative 1 (128.1 percent; Table 19) will affect fishing effort and resulting interactions/encounters with ESA listed and MMPA protected species, given the large increase in quota with relatively stable availability it is expected to have effects on these species that are neutral to negative, when compared to existing impacts (Table 20). Alternative 2 (*status quo*) is identical (<0.1 percent lower) to the 2011 quota and is expected to result in impacts that are neutral on ESA listed and MMPA protected species (Table 20). Alternative 3 includes a substantial decrease in commercial quota (36.3 percent) and while highly uncertain, it is expected to result in impacts on ESA listed and MMPA protected species that range from neutral to positive (Table 20).

There is uncertainty about the negative impacts expected under alternatives 1 on ESA listed and MMPA protected species which results from the inability to quantify if the black sea bass fishery will be made more efficient through higher possession/trip limits. Effort would not be expected to increase in direct proportion to the increase in allowable landings. Individual states set possession limits for state waters and the Council cannot predict the behavioral response the states may have to trip limit adjustments or other management measures as a result of implementing a higher commercial quota. However, it may be reasonable to expect that states may liberalize possession limits. In addition, there are other factors that affect effort, of which market supply demand and price are important considerations. The availability of additional quota could affect ex-vessel price, and perhaps have an influence in trip taking behavior.

The winter trawl fishery for black sea bass target the fish while they are aggregated offshore in the cool, deep waters on the continental shelf. In the spring/summer black sea bass move inshore to shallow waters to spawn (Steimle et al. 1999b, 2007). The seasonal/spatial extent of the fishery is important given the availability of ESA listed and MMPA protected species to black sea bass fishing gears is also affected by these species distribution. In addition, the stock status (i.e., increasing or decreasing stock size) of these ESA listed and MMPA protected species may affect interaction rates. The majority of black sea bass catch by trawl occurs in winter when the expected interaction rates with sea turtles would be low, because of the migration of the turtles into more southerly areas (see section 6.3 discussion of turtles). Extensive discussion of Atlantic sturgeon is provided in the supplemented section 6.3 of this SEA and is not repeated here.

7.3.4 RSA

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

Vessels harvesting research quota in support of approved research projects would be issued EFPs authorizing them to exceed Federal possession limits and to fish during Federal quota closures. These exemptions are necessary to allow project investigators to recover research expenses as well as adequately compensate fishing industry participants harvesting research quota. Vessels harvesting research quota would operate within all other regulations, unless otherwise exempted through a separate EFP. Because quota closures may or may not occur during a given fishing year, exemption from these closures will have no additional environmental impact. Exemption from possession limits could result in compensation fishing vessels altering their normal fishing behavior; extending tow duration or fishing longer than they otherwise would for example. Other non-target species that may be encountered while fishing are given in Table 21.

Because research activities for Projects #1 and #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.

Research activities for Projects #1 and #2, as described in section 7.4, would only occur in concert with commercial fishing trips and/or compensation fishing trips. Research activities would not result in additional fishing effort. Research vessels for these projects would require an EFP for exemption from minimum scup and black sea bass pot vent size requirements to ensure that scup and black sea bass length frequency data is representative and not biased. If a participating vessel holds a Federal lobster permit it would need exemption from lobster pot vent size requirements. Exemption from scup and black sea bass closures and time restrictions would also be needed to ensure the survey is not disrupted by such regulations. Exemption from scup and black sea bass minimum fish sizes and possession limits would also be needed for data collection purposes only. All undersized fish would be discarded as soon as practicable to minimize mortality, and fish in excess of possession limits would either be discarded as soon as practicable or landed as RSA quota. Such exemptions would not be expected to have any effect on ESA listed and MMPA protected species.

7.4 Socioeconomic Impacts

A description of the summer flounder, scup, and black sea bass alternatives are presented in section 5.0 and summarized at the beginning of section 7.0 (Table 18).

7.4.1 Summer Flounder

As a result of the potential increase in commercial and recreational landings under Council-preferred alternative 1, it is expected that small positive economic impacts on the summer flounder fishery are likely to occur, when compared to 2011. Each state's allocation will increase under these adjusted commercial quotas (Table 2). Overall, the projected increase in landings in 2012 under alternative 1 will likely result in a revenue increase relative to the *status quo* alternative.

If recreational landings are the same in 2011 as in 2010 (4.97 million lb), the recreational harvest limit under alternative 1 (12.26 million lb) is expected to constrain recreational landings in 2012. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter open seasons) will be required in 2012 when compared to 2011. Specific recreational management measures (for all three species) will be determined in December when more complete data regarding 2011 recreational landings are available. Alternative 1 will likely increase recreational satisfaction for the summer flounder recreational fishery, relative to 2011. Overall, it is expected that positive social and economic impacts may occur because of the increase in total landings (in 2012), relative to the 2011 measures for summer flounder. Alternative 1 is likely to result in increased recreational satisfaction when compared to the *status quo*. Note that even though the summer flounder quota under alternative 2 is the *status quo* measure, the overall 2012 summer flounder quota is 0.8 percent lower than the adjusted quota implemented in 2011 due to differences in in RSA amount implemented in 2011 versus the 3 percent analyzed and/or any state overages that were addressed in 2011. Given that the overall potential change in commercial quota associated with this alternative when compared to 2011 is almost nil; it is expected that no adverse economic and social impacts will occur when compared to 2011.

If recreational landings are the same in 2011 as in 2010 (4.97 million lb), the recreational harvest limit under alternative 2 (11.44 million lb) is expected to constrain recreational landings in 2012. Alternative 2 will likely maintain the same level of recreational satisfaction in 2012 when compared to 2011 thus resulting in very little change in overall fishing effort. It is expected that positive social and economic impacts will continue to be realized in the long-term, as the stock continues to be exploited at sustainable levels. Overall, the landings limits (commercial and recreational) associated with alternative 2 may be more restrictive than necessary given the recommendations of the SSC and Summer Flounder Monitoring Committee for 2012 result in commercial quota and recreational harvest limit that are higher than those contained under this alternative.

Non-preferred alternative 3 contains the most restrictive measures for summer flounder. As a result of the lower summer flounder commercial quota (46.9 percent), negative economic impacts on the summer flounder fishery are likely to occur, relative to alternative 2 (*status quo*). However, it is possible that given the potential decrease in summer flounder landings, price for this species may increase if all other factors are held constant. If this occurs, an increase in the price for summer flounder may mitigate some of the revenue reductions associated with lower quantities of summer flounder quota availability under alternative 3.

If recreational landings are the same in 2011 as in 2010 (4.97 million lb), the recreational harvest limit under alternative 3 (6.12 million lb) is expected to constrain recreational landings in 2012. However, alternative 3 will likely provide a lower level of recreational satisfaction in 2012 when compared to alternatives 1 and 2. Overall, the landings limits (commercial and recreational) associated with alternative 3 may be more restrictive than necessary given the recommendations of the SSC and Summer Flounder Monitoring Committee for 2012 result in commercial quota and recreational harvest limit that are higher than those contained under this alternative.

The NMFS preferred alternative 4 is the second most restrictive set of summer flounder measures. The commercial quota is 24.0 percent lower than 2011; the recreational harvest limit is 24.3 percent lower than last year. As a result of the lower summer flounder commercial quota under this alternative, negative economic impacts on the summer flounder fishery are likely to occur, relative to alternative 2 (*status quo*). It is possible that given the potential decrease in summer flounder landings, price for this species may increase if all other factors are held constant. If this occurs, an increase in the price for summer flounder may mitigate some of the revenue reductions associated with lower quantities of summer flounder quota availability under alternative 4.

If recreational landings are the same in 2011 as in 2010 (4.97 million lb), the recreational harvest limit under alternative 4 (8.76 million lb) is expected to constrain recreational landings in 2012. Alternative 4 will likely provide a lower level of recreational satisfaction in 2012 when compared to alternatives 1 and 2, dependent on the as-of-yet determined recreational management measrees for the 2012 fishery. The Council will recommend 2012 recreational management measures in the first quarter of 2012. A supplemental analysis of the recreational measures impacts will be prepared at that time.

It is expected that positive social and economic impacts will continue to be realized in the long-term, as the stock continues to be exploited at sustainable levels. The small increase in landings limits (commercial and recreational) under alternative 4 is consistent with the best scientific information available (i.e., October stock assessment update) and is intended to prevent overfishing.

Overall, when comparing across all three alternatives, alternative 1 (least restrictive) would result in the greatest positive social and economic impacts on the summer flounder fisheries when compared to alternative 2 (*status quo*). Alternative 4 would result in negative social and economic impacts compared to alternative 2; however, the magnitude of the impacts remains largely unknown for the reasons stated. Alternative 3 (most restrictive) would result in the greatest negative social and economic impacts. Alternative 2 (*status quo*) is expected to have similar economic and social impacts when compared to 2011.

7.4.2 Scup

As a result of the potential increase in commercial and recreational landings under Council-preferred alternative 1A, it is expected that positive economic impacts on the scup fishery are likely to occur, when compared to 2011. Overall, the projected increase in landings in 2012 under alternative 1A will likely result in a revenue increase relative to the *status quo* alternative.

If recreational landings are the same in 2011 as in 2010 (5.74 million lb), the recreational harvest limit under alternative 1A (10.53 million lb) is expected to constrain recreational landings in 2012. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) will be required in 2012 when compared to 2011. Overall, it is expected that positive social and economic impacts may occur because of the increase in total landings (in 2012), relative to the 2011 measures for scup. Alternative 1A is likely to result in increased recreational satisfaction when compared to alternative 2 (*status quo*).

Even though the scup quota under alternative 2 is the *status quo* measure, the overall 2012 scup quota is 1.5 percent lower than the adjusted quota implemented in 2011 due to differences in in RSA amount implemented in 2011 versus the 3 percent analyzed and/or any state overages that were addressed in 2011**.** Given that the overall potential change in commercial quota associated with this alternative when compared to 2011 is almost nil; it is expected that no adverse economic and social impacts will occur when compared to 2011.

If recreational landings are the same in 2011 as in 2010 (5.74 million lb), the recreational harvest limit under alternative 2A (5.66 million lb) is not expected to constrain recreational landings in 2012. As such, it is likely that more restrictive measures (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) may be required in 2012 to prevent anglers from exceeding the recreational harvest limit. However, given the fact that the proposed recreational harvest limit under alternative 2A is only slightly lower than scup landings and recreational limits implemented in recent years, it is not expected that recreational satisfaction would significantly change in 2012 when compared to 2011 thus resulting in very little change in overall fishing effort. Overall, the landings limits (commercial and recreational) associated with alternative 2A may be more restrictive than necessary given the recommendations of the SSC and Scup Monitoring Committee for 2012 result in commercial quota and recreational harvest limit that are higher than those contained under this alternative.

Non-preferred alternative 3A contains the most restrictive measures for scup. As a result of the lower scup commercial quota (59.3 percent), negative economic impacts on the scup fishery are likely to occur, relative to alternative 2A (*status quo*). However, it is possible that given the potential decrease in scup landings, price for this species may increase if all other factors are held constant. If this occurs, an increase in the price for scup may mitigate some of the revenue reductions associated with lower quantities of scup quota availability under alternative 3A. If recreational landings are the same in 2011 as in 2010 (5.74 million lb), the recreational harvest limit under alternative 3A (2.56 million lb) is not expected to constrain recreational landings in 2012. As such, it is likely that more restrictive measures (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) may be required in 2012 to prevent anglers from exceeding the recreational harvest limit. Alternative 3A will likely result in a decrease in recreational satisfaction for the scup recreational fishery relative to 2011. However, it is likely that even though anglers may face more restrictive recreational limits in 2012, they will likely be able to keep some of the fish they catch and could also engage in catch and release fishing. Anglers that choose to reduce their scup effort in 2012 are likely to transfer this effort to alternative species (i.e., summer flounder, 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. 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. Currently, the market demand for this sector is relatively stable (see section 8.11.3.1.2). Alternative 3A (most restrictive) is expected to decrease recreational satisfaction when compared to alternative 2A (*status quo*) and alternatives 4A and 1A (NMFS and Council preferred, respectively). Overall, the landings limits

(commercial and recreational) associated with alternative 3A may be more restrictive than necessary given the recommendations of the SSC and Scup Monitoring Committee for 2012, which would result in a commercial quota and recreational harvest limit that are higher than those contained under this alternative.

As a result of the potential increase in commercial landings under alternative 4A, it is expected that positive economic impacts on the scup fishery are likely to occur, when compared to 2011. Overall, the projected increase in landings in 2012 under alternative 4A will likely result in a revenue increase relative to the *status quo* alternative. If recreational landings are the same in 2011 as in 2010 (5.74 million lb), the recreational harvest limit under alternative 4A (8.31 million lb) is expected to constrain recreational landings in 2012. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) will be required in 2012 when compared to 2011. Overall, it is expected that positive social and economic impacts may occur because of the increase in total landings (in 2012), relative to the 2011 measures for scup. Alternative 4A is likely to result in increased recreational satisfaction when compared to alternative 2A (*status quo*).

Overall, when comparing across all these alternatives, alternative 1A (least restrictive) would result in the greatest positive social and economic impacts on scup when compared to alternative 2A (*status quo*), while alternative 3A (most restrictive) would result in the highest negative social and economic impacts. The impacts of alternative 4A are expected to fall between alternatives 2A and 3A.

Scup alternative 1B proposes an increase in the commercial Winter I period possession limit to 50,000 lb, an increase from the current 30,000 lb possession limit (*status quo* alternative 2B). It is expected that the increased possession limit under alternative 1B may allow for fishermen to catch the same amount of fish with fewer trips. Stakeholders have indicated that the increase in the trip limit under alternative 1B would allow vessels fishing during the Winter I period to land larger quantities of scup on a per trip basis thus take advantage of higher scup availability and 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 I 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 2B).

7.4.3 Black Sea Bass

As a result of the potential increase in commercial and recreational landings under non-preferred alternative 1 (least restrictive), it is expected that positive economic impacts on the black sea bass fishery are likely to occur, when compared to 2011. Overall, the projected increase in

landings in 2012 under alternative 1 will likely result in a revenue increase relative to the *status quo* alternative.

If recreational landings are the same in 2011 as in 2010 (2.98 million lb), the recreational harvest limit under alternative 1 (4.06 million lb) is expected to constrain recreational landings in 2012. As such, it is unlikely that more restrictive limits (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) will be required in 2012 when compared to 2011. Overall, the combined quota and harvest limit under alternative 1 is higher than the ABC recommendations of the SSC.

The commercial quota under *status quo* alternative 2 is identical to the limits implemented in 2011 (< 0.1 percent lower or 4,000 lb). As such, it is not expected that the 2012 commercial quota will result in adverse socioeconomic changes when compared to 2011.

Note that even though alternative 2 is the *status quo* alternative, recreational limits in 2012 are 25.8 percent lower than the limit implemented in 2011. This is due to the fact that the Council accounted for management uncertainty in projected discards estimates when establishing a catch target for the recreational fishery. If recreational landings are the same in 2011 as in 2010 (2.98 million lb), more restrictive measures (i.e., lower possession limits, higher minimum size limits, and/or shorter seasons) may be required to prevent anglers from exceeding the recreational harvest limit in 2012 (1.32 million lb). It is possible that alternative 2 will decrease recreational satisfaction for the black sea bass recreational fishery, relative to 2011. However, it is likely that even though anglers may face more restrictive recreational limits in 2012, they will likely be able to keep some of the fish they catch and could also engage in catch and release fishing. Anglers that choose to reduce their black sea bass effort in 2012 are likely to transfer this effort to alternative species (i.e., summer flounder, scup, 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. 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. Currently, the market demand for this sector is relatively stable (see section 8.11.3.1.2). Alternative 2 is expected to decrease recreational satisfaction when compared to 2011. Overall, the landings limits (commercial and recreational) associated with alternative 2 and is consistent with the ABC recommendations of the SSC and therefore based on the best scientific information available and is intended to prevent overfishing.

Non-preferred alternative 3 contains the most restrictive measures for black sea bass. As a result of the lower black sea bass commercial quota (36.3 percent), negative economic impacts on the black sea bass fishery are likely to occur, relative to alternative 2 (*status quo*). However, it is possible that given the potential decrease in black sea bass landings, price for this species may increase if all other factors are held constant. If this occurs, an increase in the price for black sea bass may mitigate some of the revenue reductions associated with lower quantities of black sea bass availability under alternative 3. It is expected that recreational harvest limit under this

alternative would yield results with similar directional impacts (but larger in magnitude) than those described under black sea bass alternative 2. Overall, the landings limits (commercial and recreational) associated with alternative 3 may be more restrictive than necessary given the recommendations of the SSC and Black Sea Bass Monitoring Committee for 2012 result in commercial quota and recreational harvest limit that are higher than those contained under this alternative.

Overall, when comparing across all there alternatives, alternative 1 (non-preferred) would result in the greatest positive social and economic impacts on the black sea bass when compared to preferred alternative 2 (*status quo*), while alternative 3 (most restrictive) would result in negative social and economic impacts.

7.4.4 RSA

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

Under preferred alternative 2, RSAs for each species would be specified. Under the RSA program, successful applicants receive a share of the annual quota for the purpose of conducting scientific research. However, as described above, the economic and social costs of the program are shared among the non-RSA participants in the fishery. The evaluation of the socioeconomic impacts of the commercial quotas in sections 7.1, 7.2, and 7.3 was based on adjusted commercial quotas that account for the RSA proposed under preferred alternative 2.
The Council recommended research set-aside quotas of 3 percent of the overall combined commercial and recreational landings levels for summer flounder, scup, and black sea bass for 2012. The research set aside quantities associated with each alternative evaluated in this document are shown in Table 22.

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 2010 ex-vessel prices (summer flounder -- $2.01/lb; scup -- $0.66/lb; and black sea bass -- $3.08/lb), the 2012 RSA for the commercial component of the fishery could be worth

as much as $1,142,082, $1,066,586, $570,559, and $1,340,927 under the evaluated summer flounder alternatives 1-4, respectively. For scup, the commercial component of the RSA could be worth as much as $681,714, $409,266, $169,092, and $731,119 under alternatives 1A, 2A, 3A, and 4A, respectively. Lastly, for black sea bass, the commercial component of the RSA could be worth as much as $371,263, $162,624, and $104,135 under alternatives 1, 2, and 3, respectively.

Table 22. Pounds of RSA under each alternative evaluated.

		Research Set-Aside	Commercial RSA	Recreational RSA
Summer Flounder	**Alternative 1** (Council Preferred: Least Restrictive)	947,400	568,200	379,200
	Alternative 2 (Non-Preferred: *Status quo* (No Action))	884,400	530,640	353,760
	Alternative 3 (Non-Preferred: Most Restrictive)	473,100	283,860	189,240
	Alternative 4 (NMFS Preferred: Second Most Restrictive)	677,128	406,277	270,851
Scup	**Alternative 1A** (Council Preferred: Least Restrictive)	1,358,700	1,032,900	325,800
	Alternative 2A (Non-Preferred: *Status quo* (No Action))	795,000	620,100	174,900
	Alternative 3A (Non-Preferred: Most Restrictive)	335,400	256,200	79,200
	Alternative 4A (NMFS Preferred: Second Most Restrictive)	1,107,756	664,654	443,102
Black Sea Bass	**Alternative 1** (Non-Preferred: Least Restrictive)	246,000	120,540	125,460
	Alternative 2 (Council and NMFS Preferred: *Status quo* (No Action))	93,600	52,800	40,800
	Alternative 3 (Non-Preferred: Most Restrictive)	69,000	33,810	35,190

As such, on a per vessel basis, the commercial RSAs could result in a potential decrease in summer flounder revenues of $1,604, $1,498, $801, and $1,883 under evaluated alternatives 1, 2, 3, and 4, respectively. The potential decrease in revenue for scup is $1,293, $777, $321, and $1,387 per vessel under alternatives 1A, 2A, 3A, and 4A, respectively. Lastly, the potential decrease in revenue for black sea bass is $639, $280, and $179 per vessel under alternatives 1, 2, and 3, respectively. The values estimated above assume an equal decrease in revenue among all

active vessels in 2010, i.e., 712, 527, and 581 commercial vessels that landed summer flounder, scup, and black sea bass, respectively.

The overall reduction in ex-vessel gross revenue associated with the three species combined under the combined NMFS preferred alternatives (summer flounder alternative 4, scup alternative 4A, and black sea bass alternative 2) in 2012 as the result of the RSA is $2.23 million when compared to commercial quotas without RSA in place. If the potential reduction in revenue associated with the RSA for the three species combined under the most restrictive alternatives is equally distributed among the 883 vessels that landed summer flounder, scup, and black sea bass in 2010, the average decrease in revenue is approximately $2,525/vessel. The overall reduction associated with the three species combined under the least restrictive alternatives (alternative 1 for summer flounder, scup, and black sea bass) in 2012 as the result of the research set asides is $2,195,059 ($2,486/vessel) compared to the commercial quotas without RSA in place. Lastly, the overall reduction associated with the three species combined under the most restrictive alternatives (alternative 3 for summer flounder, scup, and black sea bass) in 2012 as the result of the research set asides is $843,786 ($956/vessel) compared to the commercial quotas without RSA in place. The adjusted commercial quotas analyzed in sections 7.1, 7.2, and 7.3 accounts for the RSAs (as described in section 5.0). If RSAs are not used, the landings would be included in the overall landings levels for each fishery. As such, the estimated economic impacts would be smaller than those estimated under each alternative discussed in sections 7.1 through 7.3.

Given the substantial decrease in the quota in 2012 relative to 2011 for all three species under alternative 3 (most restrictive), 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. 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 2012 bluefish specifications package.

Changes in the recreational harvest limit will be small; the limit changes from 12.64 to 12.26 million lb under summer flounder alternative 1, from 11.79 to 11.44 million lb under alternative 2, from 6.31 to 6.12 million lb under alternative 3, and 9.03 million lb to 8.76 million lb under alternative 4. For the analyzed scup alternatives, the changes in the recreational harvest limits are from 10.86 to 10.53 million lb under alternative 1, from 5.83 to 5.66 million lb under alternative 2, from 2.64 to 2.56 million lb under alternative 3, and 8.57 million lb to 8.31 million lb under alternative 4. Lastly, for the analyzed black sea bass alternatives, the changes in the recreational harvest limits are from 4.18 to 4.06 million lb under alternative 1, from 1.36 to 1.32 million lb under alternative 2, and from 1.17 to 1.14 million lb under alternative 3. Each of these changes in recreational harvest limits approximately represents a 3 percent decrease. It is unlikely that the possession, size or seasonal limits will change as the result of this RSA, and there will be no negative impacts.

7.5 Cumulative Effects Analysis

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

7.5.1 Consideration of the VECs

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

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

7.5.2 Geographic Boundaries

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

7.5.3 Temporal Boundaries

The temporal scope of past and present actions for VECs is primarily focused on actions that have occurred after FMP implementation (1988 for summer flounder; 1996 for scup and black sea bass). For endangered and other protected resources, the scope of past and present actions is on a species-by-species basis (section 6.3) and is largely focused on the 1980s and 1990s through

the present, when NMFS began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ. The temporal scope of future actions for all five VECs extends about three years (2014) into the future. This period was chosen because the dynamic nature of resource management for these three species and lack of information on projects that may occur in the future make it very difficult to predict impacts beyond this timeframe with any certainty.

7.5.4 Actions Other Than Those Proposed in this Amendment

The impacts of each of the alternatives considered in this specifications document are given in section 7.1 through 7.4. Table 23 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 annual specifications process is intended to provide the opportunity for the Council and NMFS to regularly assess the status of the fishery and to make necessary adjustments to ensure that there is a reasonable expectation of meeting the objectives of the FMP and the targets associated with any rebuilding programs under the FMP. The statutory basis for federal fisheries management is the MSA. To the degree with which this regulatory regime is complied, the cumulative impacts of past, present, and reasonably foreseeable future federal fishery management actions on the VECs should generally be associated with positive long-term outcomes. Constraining fishing effort through regulatory actions can often have negative short-term socioeconomic impacts. These impacts are usually necessary to bring about long-term sustainability of a given resource, and as such, should, in the long-term, promote positive effects on human communities, especially those that are economically dependent upon the summer flounder, scup, and black sea bass stocks.

Non-fishing activities that introduce chemical pollutants, sewage, changes in water temperature, salinity, dissolved oxygen, and suspended sediment into the marine environment pose a risk to all of the identified VECs. Human-induced non-fishing activities tend to be localized in nearshore areas and marine project areas where they occur. Examples of these activities include, but are not limited to agriculture, port maintenance, beach nourishment, coastal development, marine transportation, marine mining, dredging and the disposal of dredged material. Wherever these activities co-occur, they are likely to work additively or synergistically to decrease habitat quality and, as such, may indirectly constrain the sustainability of the managed resources, non-target species, and protected resources. Decreased habitat suitability would tend to reduce the tolerance of these VECs to the impacts of fishing effort. Mitigation of this outcome through

regulations that would reduce fishing effort could then negatively impact human communities. The overall impact to the affected species and their habitats on a population level is unknown, but likely neutral to low negative, since a large portion of these species have a limited or minor exposure to these local non-fishing perturbations.

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

Reasonably Foreseeable Future Actions

In terms of RFF Actions, guidance related to National Standard 1 of the MSA will require Council development of an Omnibus Amendment to address annual catch limits (ACLs) and accountability measures (AMs) for summer flounder, scup, and black sea bass (as well as other Council managed species) to ensure that ACLs are not exceeded and ensure the FMP is compliant with the MSA.

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 23. 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 annual quotas, RHLs, other fishery regulations (commercial and recreational)	**Indirect Positive** Regulatory tool to specify catch limits, and other regulation; allows response to annual stock updates	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Reduced effort levels and gear requirements	**Indirect Positive** Benefited domestic businesses
[P, Pr] Developed and Applied 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 ACLs and AMs for all three plan species	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis	**Potentially Indirect Positive** Pending full analysis
[P, Pr, RFF] Agricultural runoff	Nutrients applied to agricultural land are introduced into aquatic systems	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality negatively affects resource
[P, Pr, RFF] Port maintenance	Dredging of coastal, port and harbor areas for port maintenance	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Direct Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects

Table 23 (Continued). Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this specifications document).

Action	Description	Impacts on Managed Resource	Impacts on Non-target Species	Impacts on Habitat and EFH	Impacts on Protected Species	Impacts on Human Communities
P, Pr, RFF Offshore disposal of dredged materials	Disposal of dredged materials	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality	**Indirect Negative** Reduced habitat quality negatively affects resource viability
P, Pr, RFF Beach nourishment	Offshore mining of sand for beaches	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Mixed** Positive for mining companies, possibly negative for fishing industry
	Placement of sand to nourish beach shorelines	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Positive** Beachgoers like sand; positive for tourism
P, Pr, RFF Marine transportation	Expansion of port facilities, vessel operations and recreational marinas	**Indirect Negative** Localized decreases in habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Direct Negative** Reduced habitat quality	**Indirect Negative** Localized decreases in habitat quality	**Mixed** Positive for some interests, potential displacement for others
P, Pr, RFF Installation of pipelines, utility lines and cables	Transportation of oil, gas and energy through pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Indirect Negative** Dependent on mitigation effects	**Uncertain – Likely Direct Negative** Reduced habitat quality	**Potentially Direct Negative** Dependent on mitigation effects	**Uncertain – Likely Mixed** Dependent on mitigation effects
P, Pr, RFF National Offshore Aquaculture Act of 2007	Bill that would grant 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 23 (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 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 23. The indirectly negative actions described in Table 23 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on the managed resources is expected to be limited due to a lack of exposure to the population at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on productivity of the managed resources is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on resources under NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on the managed resources. It is anticipated that the future management actions, described in Table 24, 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 will be the first year of implementation for an Amendment which requires specification of ACLs/AMs and catch accountability. 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 the rebuilding schedule for summer flounder is met, summer flounder, scup, and black sea bass 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 24).

Table 24. 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 and Implement Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on the managed resources * See section 7.5.5.1 for explanation.**		

7.5.5.2 Non-Target Species or Bycatch

Those past, present, and reasonably foreseeable future actions, whose effects may impact non-target species and the direction of those potential impacts, are summarized in Table 23. The effects of indirectly negative actions described in Table 23 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 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. Better assessment of potential bycatch issues allows more effective and specific management measures to be developed to address a bycatch problem. It is anticipated that future management actions, described in Table 25, 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 to ensure the rebuilding schedule for summer flounder is met, summer flounder, scup, and black sea bass 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 25).

Table 25. 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 and Implement Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Indirect Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on the non-target species * See section 7.5.5.2 for explanation.**		

7.5.5.3 Habitat (Including EFH)

Those past, present, and reasonably foreseeable future actions, whose effects may impact habitat (including EFH) and the direction of those potential impacts, are summarized in Table 23. The direct and indirect negative actions described in Table 23 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on habitat is expected to be limited due to a lack of exposure to habitat at large. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude, although the impact on habitat and EFH is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies that may impact NMFS' managed resources and the habitat on which they rely prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of direct and indirect negative impacts those actions could have on habitat utilized by resources under NMFS' jurisdiction.

Past fishery management actions taken through the FMP and annual specification process have had a positive cumulative effect on habitat and EFH. The actions have constrained fishing effort at a large scale and locally, and have implemented gear requirements, which may reduce habitat impacts. As required under these FMP actions, EFH and HAPCs were designated for the managed resources. It is anticipated that the future management actions, described in Table 26, 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 the rebuilding schedule for summer flounder is met, summer flounder, scup, and black sea bass 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 26).

Table 26. 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 and Implement Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Direct Negative**		
Port maintenance	**Uncertain – Likely Direct Negative**		
Offshore disposal of dredged materials	**Direct Negative**		
Beach nourishment – Offshore mining	**Direct Negative**		
Beach nourishment – Sand placement	**Direct Negative**		
Marine transportation	**Direct Negative**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Direct Negative**		
National Offshore Aquaculture Act of 2007	**Direct Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Potentially Direct Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Potentially Direct Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, neutral to positive impacts on habitat, including EFH * See section 7.5.5.3 for explanation.**		

7.5.5.4 ESA Listed and MMPA Protected Species

Those past, present, and reasonably foreseeable future actions, whose effects may impact the protected resources and the direction of those potential impacts, are summarized in Table 23. The indirectly negative actions described in Table 23 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 27, 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 the rebuilding schedule for summer flounder is met, the summer flounder, scup, and black sea bass stock 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 27).

Table 27. 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 and Implement Standardized Bycatch Reporting Methodology	**Neutral**		
Amendment to address ACLs/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Indirect Negative**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Indirect Negative**		
Beach nourishment – Sand placement	**Indirect Negative**		
Marine transportation	**Indirect Negative**		
Installation of pipelines, utility lines and cables	**Potentially Direct Negative**		
National Offshore Aquaculture Act of 2007	**Potentially Indirect Negative**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Indirect Negative**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Indirect Negative**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Positive**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Positive**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on protected resources** *** See section 7.5.5.4 for explanation.**		

7.6.5.5 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 23. The indirectly negative actions described in Table 23 are localized in nearshore areas and marine project areas where they occur. Therefore, the magnitude of those impacts on human communities is expected to be limited in scope. It may, however, displace fishermen from project areas. Agricultural runoff may be much broader in scope, and the impacts of nutrient inputs to the coastal system may be of a larger magnitude. This may result in indirect negative impacts on human communities by reducing resource availability; however, this effect is unquantifiable. As described above (section 7.5.4), NMFS has several means under which it can review non-fishing actions of other federal or state agencies prior to permitting or implementation of those projects. This serves to minimize the extent and magnitude of indirect negative impacts those actions could have on human communities.

Past fishery management actions taken through the FMP and annual specification process have had both positive and negative cumulative effects by benefiting domestic fisheries through sustainable fishery management practices, while at the same time potentially reducing the availability of the resource to all participants. Sustainable management practices are, however, expected to yield broad positive impacts to fishermen, their communities, businesses, and the nation as a whole. It is anticipated that the future management actions, described in Table 28, 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 the rebuilding schedule for summer flounder is met; summer flounder, scup, and black sea bass 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 slight 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 28).

Table 28. 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 and Implement Standardized Bycatch Reporting Methodology	**Potentially Indirect Negative**		
Amendment to address ACL/AMs implemented		**Potentially Indirect Positive**	
Agricultural runoff	**Indirect Negative**		
Port maintenance	**Uncertain – Likely Mixed**		
Offshore disposal of dredged materials	**Indirect Negative**		
Beach nourishment – Offshore mining	**Mixed**		
Beach nourishment – Sand placement	**Positive**		
Marine transportation	**Mixed**		
Installation of pipelines, utility lines and cables	**Uncertain – Likely Mixed**		
National Offshore Aquaculture Act of 2007	**Uncertain – Likely Mixed**		
Offshore Wind Energy Facilities (within 3 years)			**Uncertain – Likely Mixed**
Liquefied Natural Gas (LNG) terminals (within 3 years)		**Uncertain – Likely Mixed**	
Convening Gear Take Reduction Teams (within 3 years)			**Indirect Negative**
Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)			**Indirect Negative**
Summary of past, present, and future actions excluding those proposed in this specifications document	**Overall, actions have had, or will have, positive impacts on human communities** *** See section 7.5.5.5 for explanation.**		

7.5.6 Preferred Action on all the VECS

NMFS 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.

Table 29. Magnitude and significance of the cumulative effects; the additive and synergistic effects of the preferred action, as well as past, present, and future actions.

VEC	Status in 2011	Net Impact of P, Pr, and RFF Actions	Impact of the Preferred Action	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.1)	Neutral to positive (Sections 7.1)	**None**
Non-target Species	Complex and variable (Section 6.1)	Positive (Sections 7.5.4 and 7.5.5.2)	Slight negative to slight positive (Sections 7.1)	**None**
Habitat	Complex and variable (Section 6.2)	Neutral to positive (Sections 7.5.4 and 7.5.5.3)	Slight negative to slight positive (Sections 7.2)	**None**
Protected Resources	Complex and variable (Section 6.3)	Positive (Sections 7.5.4 and 7.5.5.4)	Slight negative to slight positive (Sections 7.3)	**None**
Human Communities	Complex and variable (Section 6.4)	Positive (Sections 7.5.4 and 7.5.5.5)	Negative (highly uncertain) to short-term Positive (Sections 7.4)	**None**

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 29).

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 and NMFS continue to meet the obligations of National Standard 1 by adopting and implementing conservation and management measures that will continue to prevent overfishing, while achieving, on a continuing basis, the optimum yield for summer flounder, scup, and black sea bass and the U.S. fishing industry. To achieve OY, both scientific and management uncertainty need to be addressed when establishing catch limits that are less than the OFL; therefore, the Council and NMFS have 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 and NMFS have considered relevant sources of management uncertainty and other social, economic, and ecological factors, which resulted in recommendations for a black sea bass recreational ACT that was reduced from the recreational ACL to address management uncertainty. The Council and NMFS use the best scientific information available (National Standard 2) and manage 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 and NMFS have 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 and NMFS will insure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, the Nation as a whole, and certainly for the resources.

8.2 NEPA (FONSI)

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

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

None of the proposed specifications or RSA program presented in this document are expected to jeopardize the sustainability of any target species affected by the action. The NMFS preferred alternatives for summer flounder and scup and Council preferred, NMFS adopted alternatives for scup winter I measures and black sea bass 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 are 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 or scup, but the adverse impacts of this increased level of fishing on benthic habitats would not be expected to be significant. The proposed quota for black sea bass is similar to 2011, so fishing effort for black sea bass is not expected to increase. Neither these, nor any of the other measures included in the proposed action, will have any adverse habitat impact.

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. NMFS will consider comments received concerning safety and public health issues.

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 are expected to alter fishing methods or activities. None of the proposed specifications or RSA program are 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 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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I possession limit. None of the proposed specifications or RSA program are expected to alter fishing methods or activities. None of the proposed specifications or RSA program are 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 are 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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I 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 in 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I possession limit. These fisheries are not known to be prosecuted in any unique areas such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically

critical areas. Therefore, the proposed action is not expected to have a substantial impact on any of these 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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I 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.

Regarding Atlantic sturgeon, in the context described above, the incremental impacts of the proposed action versus taking no action are not highly uncertain nor do they involve unique or unknown risks. If final listing determinations for Atlantic sturgeon are issued, the existing Section 7 consultation for the summer flounder, scup, and black sea bass fisheries would be reinitiated consistent with the requirement to reinitiate formal consultation where discretionary Federal agency involvement or control of the action has been retained and a new species is listed that may be affected by the action. During the reinitiation, the effects of the summer flounder, scup, and black sea bass fisheries on the five DPSs would be fully examined.

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 positive impacts overall. The proposed actions, together with past, present, and 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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I possession limit. These summer flounder, scup, and black sea bass fisheries are not known to be prosecuted in any areas that might affect districts, sites, highways, structures, or objects listed in, or eligible for listing in, the National Register of Historic Places or cause the loss or destruction of significant scientific, cultural or historical resources. Therefore, the proposed action is not expected to affect any of these areas.

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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I 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 are expected to alter fishing methods or activities. None of the proposed specifications or RSA program are 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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I possession limit. None of the proposed specifications or RSA program are 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. Further, the proposed listing of Atlantic sturgeon under ESA is not affected by this action. If a listing is approved for Atlantic sturgeon, a formal Section 7 consultation under the ESA will be required for the summer flounder, scup, and black sea bass fisheries, and, if necessary, measures must be established to reduce the incidental take of Atlantic sturgeon in these fisheries.

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 2012 for the summer flounder, scup, and black sea bass fisheries and proposes an increase to the scup commercial Winter I possession limit. None of the proposed specifications or RSA program are 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 are 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 2012 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.

for PATRICIA A. KURKUL — 12/15/11

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

8.3 Endangered Species Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on endangered species and protected resources. None of the specifications proposed in this document are expected to alter fishing methods or activities. Therefore, this action is not expected to affect endangered or threatened species or critical habitat in any manner not considered in previous consultations on the fisheries.

8.4 Marine Mammal Protection Act

Sections 6.3 and 7.0 should be referenced for an assessment of the impacts of the proposed action on marine mammals. None of the specifications proposed in this document are expected to alter fishing methods or activities. Therefore, this action is not expected to affect marine mammals or critical habitat in any manner not considered in previous consultations on the fisheries.

8.5 Coastal Zone Management Act

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

8.6 Administrative Procedure Act

Pursuant to 5 U.S.C.553(b)(B), the Assistant Administrator finds good cause to waive prior notice and an opportunity for public comment on this action, as notice and comment would be impracticable and contrary to the public interest.

The normal specification process timing has been interrupted by the introduction of new stock status information provided by the Northeast Fisheries Science Center for summer flounder and scup. NMFS and the Council must respond to this information to ensure these two stocks are not subject to overfishing in 2012. It is essential that some catch restrictions be established and put in place by January 1, 2012. These restrictions would not only control landings so that overfishing does not occur, but would allow the agency to be compliant with a longstanding court order, (see North Carolina Fisheries Assoc. Inc. et al. v. Daley Civil NO. 2:97cv339 (RGD)), which compels NMFS to put in place annual quotas on or before this date. The FMP does not provide any year-to-year quota rollover. Thus, were no action taken by NMFS in 2011 to put in place summer flounder and scup quotas, there would be no catch constraints in place when the fishing year begins. This would be inconsistent with the MSA, the FMP, and the court order.

Normally, the Council decides on its summer flounder and scup specification recommendations in August and provides its analytical documentation in support of those

recommendations to NMFS in September. NMFS reviews the recommendations and analyses for consistency with applicable law and other requirements, and then conducts notice-and-comment rulemaking over the course of October, November, and early December. The process typically culminates in a final rule to implement specifications in December. Even under ideal circumstances, the rulemaking associated with a typical specification process from Council decision to agency rulemaking usually requires a waiver of the 30-day cooling off period to ensure measures are in place by January 1st. There is very little room within this rulemaking process to account for delays and to meet the January 1st target implementation date.

The introduction of new summer flounder and scup stock status information in late October presents a substantial complication in the specification process. The Council and NMFS are obligated to utilize the best available scientific information in fisheries management, as required in National Standard 2 of the MSA. The updated stock status information for both species indicates that the Council's previous specification recommendations would result in overfishing both stocks in 2012. Under the MSA, NMFS may not authorize a level of catch that would knowingly result in overfishing a stock; thus, it is not appropriate to implement the Council's initial specification recommendations for these two species. Nor would it be appropriate to maintain the status quo as the 2011 catch levels would also be too high and would require rulemaking to maintain (i.e., they cannot be automatically carried over year-to-year).

Following the release of the new information in late October, there was insufficient time for the Council to convene its collective committees and its full membership to consider the new information and reconsider its recommendation to NMFS. Announcement of Council and Council committee meetings are required to provide specific advance notice in the Federal Register. Even had the Council been able to convene quickly and provide NMFS revised recommendations for summer flounder and scup sufficient to ensure that overfishing would not occur in 2012, there would have been insufficient time for NMFS to review the recommendations and to conduct notice-and-comment rulemaking with an effective date on or before January 1, 2012. This is true even if an abbreviated public comment period and waiver of the 30-day cooling off period were used by NMFS.

Summer flounder and scup are cooperatively managed by the Council and Commission. While the Commission's August specifications decisions are final, the Council and Commission plan to reconvene in December to discuss summer flounder and scup revisions. This is necessary to maintain consistent management measures across state and federal waters.

The Council will decide on revised specification recommendations for summer flounder and scup during its December 13-15, 2011, meeting. NMFS is soliciting public comment on the interim final measures contained in this rule and will issue final measures, if necessary, as soon as possible in early 2012 that respond to both the Council's revised recommendation and comments received on the interim final measures.

While this is not completely comparable to the notice-and-comment process typically used, NMFS views this as the only tenable solution to implement measures that ensure overfishing does not occur. This process will ensure that appropriate measures are implemented for the start of the fishing year and provides a meaningful way for the public to comment on those measures as part of the development process for final measures. NMFS recognizes this is not ideal; however, for the unforeseeable reasons outlined above, it would be impracticable to conduct standard notice-and-comment rulemaking for the 2012 specifications. The delay that would result from doing so would allow the fishery to begin with no effective catch constraints

in place and would violate the MSA, the FMP, and introduce significant complications in the fishery management program. While less than ideal, the alternative of putting in measures through an interim final rule at least ensures that catch constraints are in place at the start of the fishing year and provides a process for public input on final measures to be implemented at a later date.

8.7 Section 515 (Data Quality Act)

Utility of Information Product

This action proposes annual commercial quotas and recreational harvest limits in 2012 for the summer flounder, scup, and black sea bass fisheries and scup winter I possession limits. This document includes: A description of the alternatives considered, the preferred action and rationale for selection, and any changes to the implementing regulations of the FMP. As such, this document enables the implementing agency (NMFS) to make a decision on implementation of annual specifications (i.e., management measures) and this document serves as a supporting document for the proposed rule.

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

Integrity of Information Product

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

Objectivity of Information Product

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

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

8.8 Paperwork Reduction Act

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

8.9 Impacts of the Plan Relative to Federalism/EO 13132

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

8.10 Environmental Justice/EO 12898

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

The proposed actions are not expected to affect participation in the summer flounder, scup, and black sea bass fisheries. Since the proposed action represents no changes relative to the current levels of participation in these fisheries, no negative economic or social effects in the context of EO 12898 are anticipated as a result. Therefore, the proposed action is not expected to cause disproportionately high and adverse human health, environmental, or economic effects on minority populations, low-income populations, or Indian tribes.

8.11 Regulatory Flexibility Analysis

This action is exempt from the procedures of the Regulatory Flexibility Act because the implementing rule is being issued by NMFS without prior notice and opportunity for public comment.

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 NMFS preferred measures, the commercial quota would decrease by 24.0 percent for summer flounder and increase by26.7 percent, and <0.1 percent for scup and black sea bass, respectively. In addition, the scup Winter I possession limit would be increased to 50,000 lb (20,000 lb increase). 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. Because trawls can adversely impact EFH for federally-managed species within the affected environment for this action, the increased commercial quotas for summer flounder and scup have the potential 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 2012, the areas which would be subjected to increased disturbance are already fished by mobile, bottom-tending gear used in this and other fisheries, so the additional impact that could result from an increase would be minimal and not require any mitigation. In addition, Warden (2011) suggests that trawling activity has decreased overall in recent years. The proposed commercial quotas for black sea bass are not expected to cause any increased impacts to EFH.

10.0 LITERATURE CITED

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

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11.0 LIST OF AGENCIES AND PERSONS CONSULTED

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

Copies of the specifications document, including the Environmental Assessment and other associated 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 and Patricia Kurkul, Regional Administrator, NMFS Northeast Regional Office, 55 Great Republic Drive, Gloucester, MA 01930