UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

AUG 9 2012

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

TITLE: Supplemental Environmental Assessment (SEA) for Framework Adjustment 6 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan

LOCATION: Atlantic Exclusive Economic Zone

SUMMARY: Framework Adjustment 6 implements changes to the Mid-Atlantic Fishery Management Council's risk policy regarding stocks without an overfishing limit. The measures in Framework Adjustment 6 relate directly to the suite of measures analyzed in the Mid-Atlantic Fishery Management Council's Omnibus Amendment, so the analysis in the Framework Adjustment 6 SEA supplements the Environmental Assessment for the Omnibus Amendment (signed in September 2011, also attached). The modification will allow increases of the acceptable biological catch for stocks that have stable or increasing trends in abundance, and for which there is robust scientific information to suggest that an increased acceptable biological catch will not lead to overfishing.

RESPONSIBLE OFFICIAL: John K. Bullard
Regional Administrator
National Marine Fisheries Service
National Oceanic and Atmospheric Administration (NOAA)
55 Great Republic Drive, Gloucester, MA, 01930
(978) 281-9315

The environmental review process led us to conclude that this action will not have a significant impact on the environment. Therefore, an environmental impact statement was not prepared. A copy of the Finding of No Significant Impact (FONSI), including the supporting supplemental environmental assessment, is enclosed for your information. The September 2011 Environmental Assessment for the Omnibus Amendment is also attached.

Although NOAA is not soliciting comments on this completed SEA and FONSI, we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the Responsible Official named above.

Sincerely,

for Patricia A. Montanio
NOAA NEPA Coordinator

Enclosure

OMNIBUS AMENDMENT

AMENDMENT 13 TO THE
ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH FISHERY MANAGEMENT PLAN

AMENDMENT 3 TO THE
BLUEFISH FISHERY MANAGEMENT PLAN

AMENDMENT 2 TO THE
SPINY DOGFISH FISHERY MANAGEMENT PLAN

AMENDMENT 15 TO THE
SUMMER FLOUNDER, SCUP, AND BLACK SEA BASS FISHERY MANAGEMENT PLAN

AMENDMENT 16 TO THE
SURFCLAM AND OCEAN QUAHOG FISHERY MANAGEMENT PLAN

AMENDMENT 3 TO THE
TILEFISH FISHERY MANAGEMENT PLAN

(Includes Environmental Assessment and Essential Fish Habitat Assessment)

July 2011

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

Draft adopted by MAFMC: 15 APRIL 2010
Final adopted by MAFMC: 17 AUGUST 2010
Draft submitted to NOAA: 18 OCTOBER 2010
Final approved by NOAA: XX AUGUST 2011

A Publication of the Mid-Atlantic Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award No. NA 10 NMF 4410009

1.0 EXECUTIVE SUMMARY

The Omnibus Amendment and environmental assessment (EA) will present and evaluate management alternatives that specify mechanisms to set acceptable biological catch (ABC), annual catch limits (ACLs), and accountability measures (AMs) for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish (hereafter referred to collectively as "the managed resources"), contained within six Mid-Atlantic Fishery Management Council (Council) Fishery Management Plans (FMP) (section 4.0). Specifically, this Omnibus document would amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) includes new requirements for ACLs and AMs and other provisions designed to prevent and end overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA's National Marine Fisheries Service (NMFS) revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1 guidelines) which became effective February 17, 2009. To address the MSA[1] requirements and the revised National Standard 1 guidance, the Council has prepared this document in consultation with NMFS. This Omnibus Amendment is being developed in accordance with the MSA, and the National Environmental Policy Act (NEPA), the former being the primary domestic legislation governing fisheries management in the U.S. Exclusive Economic Zone (EEZ).

Although this Omnibus Amendment is being prepared primarily in response to the new requirements under MSA and requirements of NEPA, it will also address the requirements of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). When preparing an FMP or FMP amendment, the Council also must comply with the applicable requirements of the Regulatory Flexibility Act (RFA), the Administrative Procedure Act (APA), the Paperwork Reduction Act (PRA), the Coastal Zone Management Act (CZMA), the Information Quality Act (IQA), Regulatory Impact Review (RIR), and Executive Orders. These other applicable laws and executive orders help ensure that in developing an amendment, the Council considers the full range of alternatives and their expected impacts on the marine environment, living marine resources, and the affected human communities. This integrated document will contain all required elements of the FMP amendment as required by NEPA and information to ensure consistency with other applicable laws and executive orders.

The proposed action in this Omnibus Amendment would formalize the process of addressing scientific and management uncertainty when setting catch limits for the

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

upcoming fishing year(s) and to establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources subject to this requirement. Specifically, the action in this Omnibus Amendment will: (1) Establish ABC control rules, (2) Establish a Council risk policy, which is one variable needed for the ABC control rules, (3) Establish ACL(s), (4) Establish a system of comprehensive accountability, which addresses all components of the catch, (5) Describe the process by which the performance of the annual catch limit and comprehensive accountability system will be reviewed, (6) Describe the process to modify the measures above in 1-5 in the future.

The preferred alternatives within this Omnibus Amendment for the managed resources are the combined total of elements to establish ABC and address risk of overfishing along with varying combinations of both status quo/no action and new alternatives to address establishment of catch limits and to provide accountability. The totality of the combined preferred alternatives, in conjunction with those existing measures in the FMPs, provides a comprehensive framework for the catch limit and accountability system recommended in the revised NS1 guidelines provided by NMFS. An overview of the alternatives contained within this document along with a qualitative summary of the expected biological, habitat, protected resources, and socioeconomic impacts associated with the alternatives is given below. The Council identified its preferred alternatives at the August 2010 Council Meeting, which are identified as "Preferred" or "Council-preferred" within the tables and section headers.

Specification of ABC

The Council worked with their Scientific and Statistical Committee (SSC) to develop an approach to derive ABC through a set of four levels, which would be applied to each of the managed resources. The levels are based on the information available to assess the stock as well as other relevant information. In general, higher levels will contain assessments with greater detail and lower scientific uncertainty while lower levels have less robust assessments with higher associated scientific uncertainties. When a new stock assessment completes peer-review for any of the managed resources, the SSC would be responsible for determining to which level the assessment belongs. Then the processes described within each level are used to calculate ABC. For the upper levels, this applies a distribution of the overfishing limit (OFL) and a probability of overfishing based on a Council risk policy. For the lowest level, alternative types of approaches must be applied to derive ABC. In the NS1 Guidelines response to comment 42 (74 FR 3191; January 16, 2009), it is stated, “The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule.” As such, the Council is considering formal risk policy options which define the Council’s tolerance for overfishing for the managed resources. Box ES-1 provides a brief summary of all of the alternatives discussed in this document that address the issue of specifying ABC, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives because the Omnibus Amendment only establishes a process for deriving ABC. The actual derivation of ABCs will occur in subsequent actions and be dependent on the information available at that time.

ACLs and AMs

The Council is considering alternatives to establish ACL(s) and a system of comprehensive accountability, which addresses all components of the catch, for each of the managed resources. There are three sets of alternatives for each managed resource, which address specifying annual catch limits, proactive accountability, and reactive accountability. These sets of alternatives were an outgrowth of the early discussion of the Council which considered first how to address specification of ACL, and second how to address the two types of accountability measures (i.e., proactive and reactive). For proactive accountability, the Council may identify more than one action alternative where multiple alternatives are presented. For reactive accountability, one action alternative is presented for each of the managed resources and comprised of one or more mechanisms designed to address all of the catch components of the ACL(s). The Boxes ES-2 through ES-11 provides a brief summary of all of the alternatives discussed in this document that address the issue of ACLs and AMs, for each of the managed resources, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives.

Future Review and Modification of Actions

The Council is considering alternatives that would establish a performance review process for establishing ABCs, ACLs, and AMs. In addition, alternatives are being considered which would describe the process by which actions taken could be modified in the future. Box ES-12 provides a brief summary of all of the alternatives discussed in this document that address the issue of future review and modification of ACLs and AMs, and any associated indirect impacts. There are no direct impacts resulting from the proposed alternatives.

Cumulative Impacts

The biological, Essential Fish Habitat (EFH), protected resources, social, and economic impacts of the alternatives contained within this document were analyzed. When the Council 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 7.4).

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 document are provided in section 7.0. None of the 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.

Box ES-1. Brief description of the alternatives included in this Omnibus Amendment that address specification of an ABC, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.2 for more detail)					Impact of the Alternatives[a] (see section 7.1 for more detail)			
Issue	**Sub-Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Acceptable Biological Catch (ABC)	*ABC Alternatives*	ABC-A	Status quo/no action	No action to establish ABC control rule methods in FMP	0	0	0	0
		ABC-B (Council-Preferred)	Proposed	Council establishes ABC control rule methods in FMP	0	0	0	0
	Council Risk Policy	RISK-A	Status quo/no action	No action to establish formal risk policy in FMP	0	0	0	0
		RISK-B	Proposed	Constant probability of overfishing = 25 Percent	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-C	Proposed	Stock Status, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.0$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at $B/B_{MSY} = 1.5$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level	0/sl+	0/sl+	0/sl+	0/(-S /+L)
		RISK-G (Council-Preferred)	Proposed	Stock Status/Life History, Inflection at B/BMSY = 1.0	0/sl+	0/sl+	0/sl+	0/(-S /+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-2. Brief description of the alternatives included in this Omnibus Amendment that address Atlantic mackerel ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.1 for more detail)					Impact of the Alternatives[a] (see section 7.2.1 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Atlantic Mackerel	*Annual Catch Limit*	ATM-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		ATM-B (Council-Preferred)	Proposed	Establish ACL = domestic ABC	0	0	0	0
	Proactive Accountability	ATM-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		ATM-D (Council-Preferred)	Proposed	Use of ACTs; rec. harvest limit established	0/+	0/+	0/+	0/(-S/+L)
		ATM-E (Council-Preferred)	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
		ATM-F	Proposed	Use of ACT; No rec. harvest limit established	0/+	0/+	0/+	0/(-S/+L)
		ATM-G	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
	Reactive Accountability	ATM-H	Status quo/no action	No reactive AMs established	0	0	0	0
		ATM-I (Council-Preferred)	Proposed	3 mechanisms accountability for catch	0/+	0/+	0/+	0/(-S/+L)
		ATM-J	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-3. Brief description of the alternatives included in this Omnibus Amendment that address butterfish ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.2 for more detail)					**Impact of the Alternatives[a] (see section 7.2.2 for more detail)**			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Butterfish	*Annual Catch Limit*	BUTTER-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		BUTTER-B (Council-Preferred)	Proposed	Establish ACL = ABC	0	0	0	0
	Proactive Accountability	BUTTER-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		BUTTER-D (Council-Preferred)	Proposed	Use of ACT	0/+	0/+	0/+	0/(-S/+L)
	Reactive Accountability	BUTTER-E	Status quo/no action	No reactive AMs established	0	0	0	0
		BUTTER-F (Council-Preferred)	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-4. Brief description of the alternatives included in this Omnibus amendment that address bluefish ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.3 for more detail)					Impact of the Alternatives[a] (see section 7.2.3 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Bluefish	*Annual Catch Limit*	BLUE-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		BLUE-B (Council-Preferred)	Proposed	Establish ACL = ABC	0	0	0	0
	Proactive Accountability	BLUE-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		BLUE-D (Council-Preferred)	Proposed	Use of ACTs	0/+	0/+	0/+	0/(-S/+L)
		BLUE-E (Council-Preferred)	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
	Reactive Accountability	BLUE-F	Status quo/no action	No additional reactive AMs established	0	0	0	0
		BLUE-G (Council-Preferred)	Proposed	3 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)
	Joint Action Accountability	BLUE-H	Status quo/no action	No joint action beyond that which already occurs	0	0	0	0
		BLUE-I (Council-Preferred)	Proposed	Joint action to revisit disconnects in quotas	0	0	0	0

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-5. Brief description of the alternatives included in this Omnibus Amendment that address spiny dogfish ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.4 for more detail)					Impact of the Alternatives[a] (see section 7.2.4 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Spiny Dogfish	*Annual Catch Limit*	DOG-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		DOG-B (Council-Preferred)	Proposed	Establish ACL = domestic ABC	0	0	0	0
	Proactive Accountability	DOG-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		DOG-D (Council-Preferred)	Proposed	Use of ACT	0/+	0/+	0/+	0/(-S/+L)
	Reactive Accountability	DOG-E	Status quo/no action	No reactive AMs established	0	0	0	0
		DOG-F (Council-Preferred)	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a] A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-6. Brief description of the alternatives included in this Omnibus Amendment that address summer flounder ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.5 for more detail)					Impact of the Alternatives[a] (see section 7.2.5 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Summer Flounder	*Annual Catch Limit*	FLUKE-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		FLUKE-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.	0	0	0	0
		FLUKE-C (Council-Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.	0	0	0	0
	Proactive Accountability	FLUKE-D	Status quo/no action	No additional proactive measures established	0	0	0	0
		FLUKE-E (Council-Preferred)	Proposed	Use of ACTs	0/+	0/+	0/+	0/(-S/+L)
		FLUKE-F (Council-Preferred)	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
	Reactive Accountability	FLUKE-G	Status quo/no action	No additional reactive AMs established	0	0	0	0
		FLUKE-H (Council-Preferred)	Proposed	3 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)
	Joint Action Accountability	FLUKE-I	Status quo/no action	No joint action beyond that which already occurs	0	0	0	0
		FLUKE-J (Council-Preferred)	Proposed	Joint action to revisit disconnects in quotas	0	0	0	0

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-7. Brief description of the alternatives included in this Omnibus Amendment that address scup ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.6 for more detail)					Impact of the Alternatives[a] (see section 7.2.6 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Scup	*Annual Catch Limit*	SCUP-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		SCUP-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.	0	0	0	0
		SCUP-C (Council-Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.	0	0	0	0
	Proactive Accountability	SCUP-D	Status quo/no action	No additional proactive measures established	0	0	0	0
		SCUP-E (Council-Preferred)	Proposed	Use of ACTs	0/+	0/+	0/+	0/(-S/+L)
		SCUP-F (Council-Preferred)	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
	Reactive Accountability	SCUP-G	Status quo/no action	No additional reactive AMs established	0	0	0	0
		SCUP-H (Council-Preferred)	Proposed	3 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)
	Joint Action Accountability	SCUP-I	Status quo/no action	No joint action beyond that which already occurs	0	0	0	0
		SCUP-J (Council-Preferred)	Proposed	Joint action to revisit disconnects in quotas	0	0	0	0

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-8. Brief description of the alternatives included in this Omnibus Amendment that address black sea bass ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.7 for more detail)					Impact of the Alternatives[a] (see section 7.2.7 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Black Sea Bass	*Annual Catch Limit*	BSB-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		BSB-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.	0	0	0	0
		BSB-C (Council-Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.	0	0	0	0
	Proactive Accountability	BSB-D	Status quo/no action	No additional proactive measures established	0	0	0	0
		BSB-E (Council-Preferred)	Proposed	Use of ACTs	0/+	0/+	0/+	0/(-S/+L)
		BSB-F Council-(Preferred)	Proposed	General inseason closure authority - recreational	0/+	0	0	0/(-S/+L)
	Reactive Accountability	BSB-G	Status quo/no action	No additional reactive AMs established	0	0	0	0
		BSB-H (Council-Preferred)	Proposed	3 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)
	Joint Action Accountability	BSB-I	Status quo/no action	No joint action beyond that which already occurs	0	0	0	0
		BSB-J (Council-Preferred)	Proposed	Joint action to revisit disconnects in quotas	0	0	0	0

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-9. Brief description of the alternatives included in this Omnibus Amendment that address Atlantic surfclam ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.8 for more detail)					Impact of the Alternatives[a] (see section 7.2.8 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Atlantic Surfclam	*Annual Catch Limit*	SURF-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		SURF-B (Council-Preferred)	Proposed	Establish ACL = ABC	0	0	0	0
	Proactive Accountability	SURF-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		SURF-D (Council-Preferred)	Proposed	Use of ACT	0/+	0/+	0/+	0/(-S/+L)
	Reactive Accountability	SURF-E	Status quo/no action	No reactive AMs established	0	0	0	0
		SURF-F (Council-Preferred)	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-10. Brief description of the alternatives included in this Omnibus Amendment that address Ocean quahog ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.9 for more detail)					Impact of the Alternatives[a] (see section 7.2.9 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Ocean quahog	*Annual Catch Limit*	QUAHOG-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		QUAHOG-B (Council-Preferred)	Proposed	Establish ACL = ABC	0	0	0	0
	Proactive Accountability	QUAHOG-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		QUAHOG-D (Council-Preferred)	Proposed	Use of ACTs	0/+	0/+	0/+	0/(-S/+L)
	Reactive Accountability	QUAHOG-E	Status quo/no action	No reactive AMs established	0	0	0	0
		QUAHOG-F (Council-Preferred)	Proposed	1 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A "sl" in front of a sign conveys a minor effect, such as slight positive (sl+). An 'S' indicates short-term, an 'L' is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-11. Brief description of the alternatives included in this Omnibus Amendment that address tilefish ACLs and AMs, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see section 5.3.10 for more detail)					Impact of the Alternatives[a] (see section 7.2.10 for more detail)			
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Tilefish	*Annual Catch Limit*	TILE-A	Status quo/no action	No established ACL in FMP	0	0	0	0
		TILE-B (Council-Preferred)	Proposed	Establish ACL = ABC	0	0	0	0
	Proactive Accountability	TILE-C	Status quo/no action	No additional proactive measures established	0	0	0	0
		TILE-D (Council-Preferred)	Proposed	Use of ACT	0/+	0/+	0/+	0/(-S/+L)
		TILE-E (Council-Preferred)	Proposed	Incidental fishery closure authority	0/+	0/+	0/+	0/(-S/+L)
		TILE-F (Council-Preferred)	Proposed	Trip limit increase to 500 lb	0	0	0	0/sl+
	Reactive Accountability	TILE-G	Status quo/no action	No additional reactive AMs established	0	0	0	0
		TILE-H (Council-Preferred)	Proposed	3 mechanism accountability for catch	0/+	0/+	0/+	0/(-S/+L)

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

Box ES-12. Brief description of the alternatives included in this Omnibus Amendment that address review and modification of actions, including an overall qualitative summary of the expected indirect impacts of each alternative.

Description of Alternatives (see sections 5.4.1 and 5.4.2 for more detail)					Impact of the Alternatives[a] (see sections 7.3.1 and 7.3.2 for more detail)			
Issue	**Sub-issue**	**Alternative**	**Status**	**Description of Action**	**Biological**	**EFH**	**Protected Resources**	**Social and Economic**
Future Review and Modification of Actions	*Performance Review of Alternatives*	REVIEW-A	Status quo/no action	No formalized review process	0	0	0	0
		REVIEW-B (Council-Preferred)	Proposed	Review of ABC control rules	0	0	0	0
		REVIEW-C (Council-Preferred)	Proposed	Review of ACLs and AMs	0	0	0	0
	Description of Process of Modify Actions	MODIFY-A	Status quo/no action	No description of process to modify actions	0	0	0	0
		MODIFY-B (Council-Preferred)	Proposed	Description of process to modify actions in future	0	0	0	0

[a]A minus sign (-) signifies an expected negative impact, a plus sign (+) signifies a positive impact, and zero indicates null impact. A “sl” in front of a sign conveys a minor effect, such as slight positive (sl+). An ‘S’ indicates short-term, an ‘L’ is indicates long-term impacts. A (u) is used when there is uncertainty whether the impact will be null or as specified (+or-).

2.0 LIST OF ACRONYMS

ABC	Acceptable Biological Catch
ACL	Annual Catch Limit
ACT	Annual Catch Target
AM	Accountability Measure
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission or Commission
B	Biomass
CEQ	Council on Environmental Quality
CZMA	Coastal Zone Management Act
DAH	Domestic Annual Harvest
DAP	Domestic Annual Processing
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973
F	Fishing Mortality Rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
IOY	Initial Optimum Yield
IQA	Information Quality Act
JVP	Joint Venture Processor/Processing
M	Natural Mortality Rate
MAFMC	Mid-Atlantic Fishery Management Council
MRFSS	Marine Recreational Fisheries Statistical Survey
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
mt	metric tons
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS1	National Standard 1
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Act (portions retained plus revisions)
MSRA	Magnuson-Stevens Fishery Conservation and Management Reauthorization Act
OFL	Overfishing limit
OY	Optimal Yield
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RHL	Recreational Harvest Limit
RIR	Regulatory Impact Review
RQ	Research Quota
RSA	Research Set-Aside
SSB	Spawning Stock Biomass
SSC	Scientific and Statistical Committee
TAC	Total Allowable Catch
TAL	Total Allowable Landings
TALFF	Total Allowable Level of Foreign Fishing
VECs	Valued Ecosystem Components

3.0 TABLE OF CONTENTS

3.1 LIST OF TABLES

3.2 LIST OF FIGURES

ENVIRONMENTAL ASSESSMENT

4.0 INTRODUCTION AND PURPOSE AND NEED

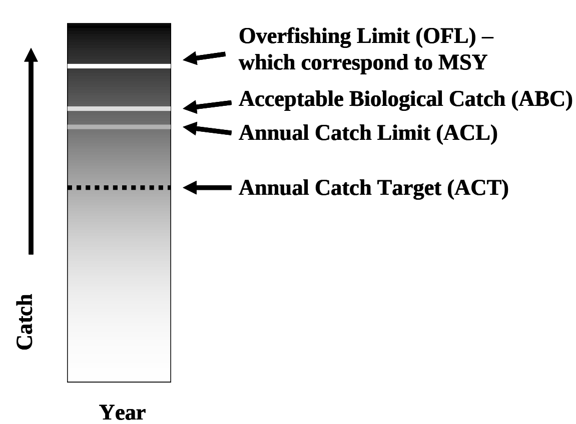
4.1 Introduction

The MSRA was signed into law by President George W. Bush on January 12, 2007, following its 2006 passage by the U.S. Congress. This reauthorization of the MSA includes new requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing (16 U.S.C. §1853(a)(15)). As a result, NOAA's NMFS revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1) which became effective February 17, 2009.

The NS1 guidelines establish advisory guidelines for setting catch limits for the upcoming fishing year(s) which address both scientific and management uncertainty. The action contained within this document has been developed by the Council to be consistent, to the extent practicable, with these guidelines. Scientific uncertainty is less than perfect knowledge about the likely outcome of an event, based on estimates derived from scientific information (models and data). Scientific uncertainty enters into the process to set catch limits in several ways; data input into the stock assessment, the assessment modeling, and the projections to determine what upcoming fishing year catches should be. Management uncertainty relates to the ability (or inability) of managers to constrain catch to a target and the uncertainty in quantifying the true catch. Management uncertainty can occur because of a lack of sufficient information about the catch (e.g., due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g., due to limited or unavailable data, untimely data, or lack of inseason closure authority).

The NS1 guidelines suggest certain provisions are required to be components of a FMP to address scientific and management uncertainty when setting upcoming year(s) catch limits, while other components are discretionary. As a whole, the system outlined by NS1 guidelines is designed to prevent overfishing on the managed resources, rebuild overfished stocks, and achieve optimum yield (OY). Of the catch terms introduced and defined for consideration, OFL, ABC, and ACL are considered required components.

Definition Framework: OFL $\geq$ ABC $\geq$ ACL



The annual catch target (ACT) is described in the NS1 guidelines as a type of proactive accountability measure and something that may be applied at Council discretion. Because the action considered by the Council would set ACL=ABC, the ACT becomes a necessary component of a catch limit system to address management uncertainty. The implications of exceeding an ACT are less significant, and enable the ACT to function as a soft target for the fisheries without all the accountability measures connected with exceeding an ACL. It should be noted that all these new terms are expressed as catch, which includes both landings and discards.

4.1.1 ABC, ACL, and AMs

Acceptable Biological Catch and Risk

To meet the requirement for ABC control rules, the Council has worked with its Scientific and Statistical Committee (SSC) to develop an alternative to address an ABC control rules for all the managed resources subject to this requirement. The action considered in section 5.2.1, which resulted from extensive deliberation by the SSC, presents a pre-agreed process the SSC would use to derive ABC recommendations for the Council. One required variable in this ABC alternative is the Council tolerance for overfishing of stocks (i.e., probability of overfishing) as expressed through a Council risk policy. Therefore, the Council has developed alternatives (section 5.2.2) which can be used to establish a formal Council risk policy.

Annual Catch Limit

Under the NS1 guidelines, it is recommended that the ACL should be reduced from the ABC, based on the amount of management uncertainty (i.e., implementation uncertainty) associated with managing the fishery. Alternatively, the ACL may also be set equal to ABC, which was the Council preferred approach, and management uncertainty can be addressed using another measure, called an ACT (described as a proactive accountability measure later in this section). Management uncertainty can occur because of a lack of sufficient information about the catch (e.g., due to late reporting, underreporting, and misreporting of landings or bycatch), or because of a lack of management precision in many fisheries (e.g., due to limited or unavailable data, untimely data, or lack of inseason closure authority).

Through this action, the Council is considering a process by which management uncertainty could be identified, and if appropriate, accommodated by reducing catch levels to prevent any ACLs from being exceeded and accountability measures enacted. Reducing catch limits to account for management uncertainty has both associated costs and benefits. Reduction in catch levels to address management uncertainty should be only the amount necessary to achieve the results mandated by the MSA, which are intended to prevent overfishing and, when applicable, rebuild overfished stocks. These adjustments should be considered in the general context of the entire catch framework and its performance relative to MSA.

For each of the managed resources, the Council's preference is that ACL(s) are to be established at the fishery level or sector level (i.e., recreational and commercial), depending on the structure of the current fishery allocations and the preferences of the Council for structuring the system of catch and accountability. The ACLs may be specified annually or for multiple years.

Accountability

Under the NS1 guidelines, it is outlined that any time an ACL is determined to have been exceeded, automatic accountability measures (AM) must be enacted. To meet these requirements, the Council considered two types of accountability measures: proactive and reactive. Proactive AMs are intended to prevent as much as is practicable the ACL from being exceeded. Reactive AMs are in response to an ACL overage and are designed to mitigate that overage and/or prevent it from occurring in the subsequent year. AMs are required for each ACL established by the Council. There are AM-like authorities utilized for many stocks contained within the FMPs and those authorities would continue and may fulfill aspects of accountability for the managed resource. For example, many of the managed resource fisheries already implement landings overage deduction mechanisms (paybacks), trip limits, and other management measures. More detailed descriptions of measures already applied to these fisheries are given in section 5.0, under the status quo/no action alternatives. Accountability measures that are fully consistent with the new requirements must be automatic and cannot require Council deliberation, modification through an existing process (e.g., modification through specifications setting), or be left to the NMFS Northeast Regional Administrator (Regional Administrator) discretion. For example, the current process of adjusting recreational management measures (i.e., fish size, season, and possession limit) each year would not, in and of itself, be a fully consistent accountability measure because the process requires analysis and Council deliberation.

ACTs are a type of proactive accountability. The action contemplated in this document, proposes ACTs for all of the managed resources fisheries (except Atlantic surfclam which proposes a TAL) to be applied in a manner which formalizes the process of accounting for management uncertainty when setting catch limits for the upcoming fishing year(s). The Council recognizes that by establishing ACL=ABC (or ACL=domestic ABC), this precludes the use of the ACL to account for management uncertainty. Therefore, utilizing an ACT is analytically desirable in cases where the control rule for ACL specifies ACL=ABC, to ensure a mechanism is available to address management uncertainty. The implications of exceeding an ACT are less significant, and enable the ACT to function as a soft target for the fisheries without all the automatic reactive accountability measures associated with exceeding an ACL. Therefore, the use of ACT(s) to address management uncertainty provided the Council with greater flexibility. Sector-specific ACTs allow management uncertainty to be considered and addressed by sector. The Council also recognized the interannual and intrannual variability in the sources of management uncertainty, and therefore will rely on the groups most knowledgeable about each fishery (i.e., monitoring committees and staff) and changing circumstances that could give rise to different levels of management uncertainty from year to year to provide them with recommendations for ACT(s). The dynamic and complex nature of these fisheries means that while some sources of management uncertainty may be easily quantified, other may not be fully-quantifiable. Therefore, the ACT could be derived from purely quantitative approaches such as relying on history of fishery performance as a means to quantify the uncertainty or imprecision around estimates of catch; however, to adequately address uncertainty it may also need to incorporate semi-quantitative or qualitative information.

4.1.2 Optimum Yield

Optimum Yield (OY) was not redefined by the MSRA. However, OY is an important consideration when specifying catch limits for the upcoming fishing year and it is therefore important to highlight where OY may fall within the proposed catch frameworks. Optimum yield is defined as the long-term average desired yield from a fishery which provides the greatest overall benefit to the nation particularly with respect to food production and recreational opportunity, and takes into account the protection of the marine ecosystems. OY is based on the maximum sustainable yield from the fishery as reduced by any relevant economic, social, or ecological factors, as those terms are described in the NS1 guidelines at §600.310. In the NS1 Guidelines, under the response to comments, NMFS states,

> "NMFS believes that fisheries managers cannot consistently meet the requirements of the MSA to prevent overfishing and achieve, on a continuing basis, OY [optimum yield] unless they address scientific and management uncertainty. The reduction in fishing levels that may be necessary in order to prevent overfishing should be only the amount necessary to achieve the results mandated by the MSA".

The system for specifying annual catch limits (i.e., OFL-ABC-ACL-ACT) allows for the consideration of all relevant factors including scientific and management uncertainty. For all of the ACL and AM frameworks described in the following alternatives for each of the stocks, the Council has specified ACL=ABC. Therefore, OY will be the long term average catch, which is designed not to exceed the ACL, and will fall between ACL and ACT. Because both scientific and management uncertainty levels are expected to vary over time, as will the Council's approach to addressing each, the OY level in any given year will also vary. Thus, it is not practicable to definitively assign an OY level within the OFL-ABC-ACL-ACT framework. The Council could reduce catch limits at the ACL or ACT to address scientific and management uncertainty as well as other factors relating to optimum yield for the managed resources. This system of catch limits is designed to prevent overfishing, rebuild stocks that are overfished, and to maintain stocks that are not overfished at a level that produces the maximum sustainable yield over time. Achieving these objectives will provide the greatest social and economic benefits to fishery participants and allow managers to set catch levels that provide the greatest overall benefit to the nation.

4.1.3 Stocks in the Fishery

The Council acknowledges that all target stocks currently contained within FMPs under its jurisdiction, are "stocks in their respective fisheries", which include Atlantic mackerel, *Loligo* and *Illex* squids[2], butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, tilefish, and monkfish[2]. Therefore, the action taken within this document addresses the MSA requirements for these managed resources. Catch of the managed resources, from both directed and non-directed fisheries, are accounted as total catch to be compared to the respective ACL(s). In the NS1 Guidelines, under the section major components of the proposed action, NMFS states,

> "NMFS wants to encourage ecosystem approaches to management, thus it proposes the EC [ecosystem component] species as a possible classification a Council or the Secretary

[2] *Loligo* and *Illex* squids are exempt from ACL and AM requirements and the New England Fishery Management Council will develop measures for monkfish (see section 4.2).

> could, but is not required to, consider. The final NS1 guidelines do not require a Council or the Secretary to include all target and non-target species as ''stocks in the fishery,'' do not mandate use of the EC species category, and do not require inclusion of particular species in an FMP. The decision of whether conservation and management is needed for a fishery and how that fishery should be defined remains within the authority and discretion of the relevant Council or the Secretary, as appropriate. NMFS presumes that stocks or stock complexes currently listed in an FMP are ''stocks in the fishery,'' unless the FMP is amended to explicitly indicate that the EC species category is being used. ''Stocks in the fishery'' need status determination criteria, other reference points, ACL mechanisms and AMs; EC species would not need them."

The Council could consider inclusion of other target and non-target species in need of conservation and management, or ecosystem component species, in the FMPs in the future.

4.2 Purpose and Need for Action

The purpose of this Omnibus Amendment is to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish (hereafter referred to collectively as "the managed resources"), which are all subject to this requirement. For bluefish, the action would also extend the ability to propose specifications for up to 3 years, to allow for additional management flexibility and consistency with other Council FMPs. As such, the Council is proposing action for each of the managed resources subject to these requirements which will:

1) Establish ABC control rules.
2) Establish a Council risk policy, which is one variable needed for the ABC control rules utilized to inform the SSC of the Council's preferred tolerance for the risk of overfishing a stock
3) Establish ACL(s).
4) Establish a system of comprehensive accountability, which addresses all components of the catch.
5) Describe the process by which the performance of the annual catch limit and comprehensive accountability system will be reviewed.
6) Describe the process to modify the measures above in 1-5 in the future.

In order to prevent and end overfishing, rebuild overfished stocks, and achieve optimum yield, as prescribed by the MSA, this Omnibus Amendment is needed to ensure that all FMPs of the MAFMC are consistent with the MSA. To address the MSA[3] requirements and develop measures consistent with the National Standard 1 guidance, the Council has prepared this document in consultation with NMFS, which will amend the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP. The MSA requirements exempt annual life cycle species not subject to overfishing (i.e., *Loligo* and *Illex* squids), and the New England Fishery Management Council will develop measures for monkfish, as it has the lead for the FMP.

---

[3] 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).

4.3 Management Unit, Management Objectives, and History of FMP Development

4.3.1 Atlantic Mackerel, Squids, and Butterfish FMP

The management unit is all northwest Atlantic mackerel (*Scomber scombrus*), *Loligo pealei*, *Illex illecebrosus*, and butterfish (*Peprilus tricanthus*) under U.S. jurisdiction. The management regime is detailed in the FMP. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 1. The management objectives of the Atlantic Mackerel, Squids, and Butterfish FMP are as follows:

1) Enhance the probability of successful (i.e., the historical average) recruitment to the fisheries.
2) Promote the growth of the U.S. commercial fishery, including the fishery for export.
3) Provide the greatest degree of freedom and flexibility to all harvesters of these resources consistent with the attainment of the other objectives of this FMP.
4) Provide marine recreational fishing opportunities, recognizing the contribution of recreational fishing to the national economy.
5) Increase understanding of the conditions of the stocks and fisheries.
6) Minimize harvesting conflicts among U.S. commercial, U.S. recreational, and foreign fishermen.

Table 1. Summary of the history of the Atlantic Mackerel, Squids, and Butterfish FMP.

Year Approved	Document	Plan Species	Management Action(s)
1978-1980	Original FMPs (3) and individual amendments	Atlantic mackerel, squids, butterfish	- Established and continued management of Atlantic mackerel, squid, and butterfish fisheries
1983	Merged FMP	Atlantic mackerel, squids, butterfish	- Consolidated management of Atlantic mackerel, squid, and butterfish fisheries under a single FMP
1984	Amendment 1	Atlantic mackerel and squids	- Implemented squid OY adjustment mechanism - Revised Atlantic mackerel mortality rate
1986	Amendment 2	Atlantic mackerel, squids, butterfish	- Equated fishing year with calendar year - Revised squid bycatch TALFF allowances - Implemented framework adjustment process - Converted expiration of fishing permits from indefinite to annual
1991	Amendment 3	Atlantic mackerel, squids, butterfish	- Established overfishing definitions for all four species
1991	Amendment 4	Atlantic mackerel, squids, butterfish	- Limited the activity of directed foreign fishing and joint venture transfers to foreign vessels - Allowed for specification of OY for Atlantic mackerel for up to three years
1996	Amendment 5	Atlantic mackerel, squids, butterfish	- Adjusted *Loligo* MSY; established 1 7/8” minimum mesh size - Eliminated directed foreign fisheries for *Loligo, Illex*, and butterfish - Instituted a dealer and vessel reporting system; instituted operator permitting - Implemented a limited access system for *Loligo, Illex* and butterfish - Expanded management unit to include all Atlantic mackerel, *Loligo*, *Illex*, and butterfish under U.S. jur.

Table 1. Continued. Summary of the history of the Atlantic Mackerel, Squids, and Butterfish FMP.

Year Approved	Document	Plan Species	Management Action(s)
1997	Amendment 6	squids and butterfish	- Established directed fishery closure at 95% of DAH for *Loligo*, *Illex* and butterfish with post-closure trip limits for each species - Established a mechanism for seasonal management of the *Illex* fishery to improve the yield-per recruit - Revised the overfishing definitions for *Loligo*, *Illex* and butterfish
1997	Amendment 7	Atlantic mackerel, squids, butterfish	- Established consistency among FMPs in the NE region of the U.S. relative to vessel permitting, replacement and upgrade criteria
1998	Amendment 8	Atlantic mackerel, squids, butterfish	- Brought the FMP into compliance with new and revised National Standards and other required provisions of the Sustainable Fisheries Act. - Added a framework adjustment procedure.
2001	Framework 1	Atlantic mackerel, squids, butterfish	- Established research set-asides (RSAs).
2002	Framework 2	Atlantic mackerel, squids, butterfish	- Established that previous year specifications apply when specifications for the management unit are not published prior to the start of the fishing year (excluding TALFF specifications) - Extended the *Illex* moratorium for one year; Established *Illex* seasonal exemption from *Loligo* minimum mesh; - Specified the *Loligo* control rule; Allowed *Loligo* specs to be set for up to 3 years
2003	Framework 3	*Illex* squid	- Extended the moratorium on entry to the *Illex* fishery for an additional year
2004	Framework 4	*Illex* squid	- Extended the moratorium on entry to the *Illex* fishery for an additional 5 years
2007	Amendment 12	Atlantic mackerel, squids, butterfish	- Standardized bycatch reporting methodology
2009	Amendment 9	Atlantic mackerel, squids, butterfish	- Extended the moratorium on entry into the *Illex* fishery, without a sunset provision - Adopted biological reference points for *Loligo* recommended by the stock assessment review committee (SARC). - Designated EFH for Loligo eggs based on available information - Prohibited bottom trawling by MSB-permitted vessels in Lydonia and Oceanographer Canyons Authorized specifications to be set for all four MSB species for up to 3 years
2010	Amendment 10	*Loligo* squid and butterfish	- Implemented a butterfish rebuilding program. - Increased the Loligo minimum mesh in Trimesters 1 and 3. - Implemented a 72-hour trip notification requirement for the Loligo fishery.

4.3.2 Atlantic Bluefish FMP

The management unit is bluefish (*Pomatomus saltatrix*) in U.S. waters of the western Atlantic Ocean. The management regime is detailed in the FMP. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 2. The management objectives of the Atlantic Bluefish FMP are as follows:

1) Increase understanding of the stock and of the fishery.
2) Provide the highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish.
3) Provide for cooperation among the coastal states, the various regional marine fishery management councils, and federal agencies involved along the coast to enhance the management of bluefish throughout its range.
4) Prevent recruitment overfishing.
5) Reduce the waste in both the commercial and recreational fisheries.

Table 2. Summary of the history of the Atlantic Bluefish FMP.

Year Approved	Document	Management Action(s)
1990	Original FMP	- Established management of Atlantic bluefish fisheries
2000	Amendment 1	- Brought the FMP into compliance with new and revised National Standards and other required provisions of the Sustainable Fisheries Act - Implemented rebuilding plan. - Required that a commercial quota and recreational harvest limit be based on projected stock size estimates as derived from the latest stock assessment information.
2001	Framework 1	- Created a quota set-aside for the purpose of conducting research
2007	Amendment 2	- Standardized bycatch reporting methodology

4.3.3 Spiny Dogfish FMP

The management unit is the entire spiny dogfish (*Squalus acanthias*) population along the Atlantic coast of the United States. The management regime is detailed in the FMP. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 3. The management objectives of the Spiny Dogfish FMP are as follows:

1) Reduce fishing mortality to ensure that overfishing does not occur.
2) Promote compatible management regulations between state and Council jurisdictions and the U.S. and Canada.
3) Promote uniform and effective enforcement of regulations.
4) Minimize regulations while achieving the management objectives stated above.
5) Manage the spiny dogfish fishery so as to minimize the impact of the regulations on the prosecution of other fisheries, to the extent practicable.
6) Contribute to the protection of biodiversity and ecosystem structure and function.

Table 3. Summary of the history of the Spiny Dogfish FMP.

Year Approved	Document	Management Action(s)
2000	Original FMP	- Established management of Atlantic spiny dogfish fisheries - Initiated stock rebuilding plan
2006	Framework 1	- Created mechanism for specification of multi-year management measures
2007	Amendment 1	- Standardized bycatch reporting methodology
2009	Framework 2	- Built flexibility into process to define and update status determination criteria

4.3.4 Summer Flounder, Scup, Black Sea Bass FMP

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 management regime is detailed in the FMP, including any subsequent amendments. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 4. The management objectives of the Summer Flounder, Scup, Black Sea Bass FMP are as follows:

1) reduce fishing mortality in the summer flounder, scup and black sea bass fisheries to ensure that overfishing does not occur;
2) reduce fishing mortality on immature summer flounder, scup, and black sea bass to increase spawning stock biomass;
3) improve the yield from the fishery;
4) promote compatible management regulations between state and federal jurisdictions;
5) promote uniform and effective enforcement of regulations; and
6) minimize regulations to achieve the management objectives stated above.

Table 4. Summary of the history of the Summer Flounder, Scup, and Black Sea Bass FMP.

Year Approved	Document	Plan Species	Management Action(s)
1988	Original FMP	summer flounder	- Established management plan for summer flounder
1991	Amendment 1	summer flounder	- Established an overfishing definition for summer flounder
1993	Amendment 2	summer flounder	- Established rebuilding schedule, commercial quotas, recreational harvest limits, size limits, gear restrictions, permit and reporting requirements for summer flounder - Created the Summer Flounder Monitoring Committee
1993	Amendment 3	summer flounder	- Revised exempted fishery line - Increased large mesh net threshold - Otter trawl retentions requirements for large mesh use

Table 4. Continued. Summary of the history of the Summer Flounder, Scup, and Black Sea Bass FMP.

Year Approved	Document	Plan Species	Management Action(s)
1993	Amendment 4	summer flounder	- Revised state-specific shares for summer flounder quota allocation
1993	Amendment 5	summer flounder	- Allowed states to combine or transfer summer flounder quota
1994	Amendment 6	summer flounder	- Set criteria for allowance of multiple nets on board commercial vessels for summer flounder - Established deadline for publishing catch limits, commercial mgmt. measures for summer flounder
1995	Amendment 7	summer flounder	- Revised the F reduction schedule for summer flounder
1996	Amendment 8	summer flounder and scup	- Incorporated Scup FMP into Summer Flounder FMP and established scup measures including commercial quotas, recreational harvest limits, size limits, gear restrictions, permits, and reporting requirements
1996	Amendment 9	summer flounder and black sea bass	- Incorporated Black Sea Bass FMP into Summer Flounder FMP and established black sea bass measures including commercial quotas, recreational harvest limits, size limits, gear restrictions, permits, and reporting requirements
1997	Amendment 10	summer flounder, scup, and black sea bass	- Modified commercial minimum mesh requirements, continued commercial vessel moratorium, prohibited transfer of fish at sea, established special permit for party/charter sector for summer flounder
1998	Amendment 11	summer flounder, scup, and black sea bass	- Modified certain provisions related to vessel replacement and upgrading, permit history transfer, splitting, and permit renewal regulations
1999	Amendment 12	summer flounder, scup, and black sea bass	- Revised FMP to comply with the SFA and established framework adjustment process
2001	Framework 1	summer flounder, scup, and black sea bass	-Established quota set-aside for research for all three species
2001	Framework 2	summer flounder	- Established state-specific conservation equivalency measures for summer flounder
2003	Framework 3	scup	- Allowed the rollover of scup quota - Revised start date for summer quota period for scup fishery
2003	Framework 4	scup	- Established system to transfer scup at sea
2003	Amendment 13	summer flounder, scup, and black sea bass	- Addressed disapproved sections of Amendment 12 and included new EIS
2004	Framework 5	summer flounder, scup, and black sea bass	- Established multi-year specification setting of quota for all three species
2006	Framework 6	summer flounder	- Established region-specific conservation equivalency measures for summer flounder

Table 4. Continued. Summary of the history of the Summer Flounder, Scup, and Black Sea Bass FMP.

Year Approved	Document	Plan Species	Management Action(s)
2007	Amendment 14	scup	- Established rebuilding schedule for scup
2007	Framework 7	summer flounder, scup, and black sea bass	- Built flexibility into process to define and update status determination criteria for each plan species - Scup GRAs made modifiable through framework adjustment process
2007	Amendment 16	summer flounder, scup, and black sea bass	- Standardized bycatch reporting methodology

4.3.5 Atlantic Surfclam and Ocean Quahog FMP

The management unit is all Atlantic surfclams (*Spisula solidissima*) and ocean quahogs (*Arctica islandica*) in the Atlantic EEZ. The ocean quahogs managed in this FMP include a small-scale fishery in eastern Maine that harvests small ocean quahogs which are generally sold for the half-shell market. Locally these small ocean quahogs off the coast of Maine are known as "mahogany quahogs" and have been under Council management since implementation of Amendment 10 (MAFMC 1998). There is no scientific question that the small scale Maine fishery occurs on *Arctica islandica*. The management regime is detailed in the FMP, including any subsequent amendments. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 5. The management objectives of the Atlantic Surfclam and Ocean Quahog FMP are as follows:

1) Conserve and rebuild Atlantic surfclam and ocean quahog resources by stabilizing annual harvest rates throughout the management unit in a way that minimizes short term economic dislocations.
2) Simplify to the maximum extent the regulatory requirement of surfclam and ocean quahog management to minimize the government and private cost of administering and complying with regulatory, reporting, enforcement, and research requirements of surfclam and ocean quahog management.
3) Provide the opportunity for industry to operate efficiently, consistent with the conservation of surfclam and ocean quahog resources, which will bring harvesting capacity in balance with processing and biological capacity and allow industry participants to achieve economic efficiency including efficient utilization of capital resources by the industry.
4) Provide a management regime and regulatory framework which is flexible and adaptive to unanticipated short term events or circumstances and consistent with overall plan objectives and long term industry planning and investment needs.

Table 5.Summary of the history of the Atlantic Surfclam and Ocean Quahog FMP.

Year Approved	Document	Plan Species	Management Action(s)
1977	Original FMP	Atlantic surfclam and ocean quahog	- Established management of surfclam and ocean quahog fisheries through September 1979 - Established quarterly quotas for surfclams - Established annual quotas for ocean quahogs - Established effort limitation, permit, and logbook provisions - Instituted a moratorium on entry into the surfclam fishery for one year to allow time for the development of an alternative limited entry system such as a "stock certificate" program
1979	Amendment 1	Atlantic surfclam and ocean quahog	- Extended management authority through December 31, 1979 - Maintained the moratorium
1979	Amendment 2	Atlantic surfclam and ocean quahog	- Extended the FMP through the end of 1981 - Divided the surfclam portion of the management unit into the New England and Mid-Atlantic Area - Introduced a "bad weather make up day" - Maintained the moratorium in the Mid-Atlantic Area
1981	Amendment 3	Atlantic surfclam and ocean quahog	- Extended the FMP indefinitely - Imposed a 5.5" surfclam minimum size limit in the Mid-Atlantic Area - Expanded the surfclam fishing week in the Mid-Atlantic Area to Sunday - Thursday from Monday – Thursday - Established a framework basis for quota setting - Proposed a permit limitation system to replace the moratorium which was disapproved by NMFS - NMFS extended the moratorium
1984	Amendment 4 - Not approved		
1985	Amendment 5	Atlantic surfclam and ocean quahog	- Allowed for revision of the surfclam minimum size limit provision - Extended the size limit throughout the entire fishery - Instituted a requirement that cages be tagged
1986	Amendment 6	Atlantic surfclam and ocean quahog	- Divided the New England Area into the Nantucket Shoals and Georges Bank Areas, the dividing line being 69° W Longitude - Combined the provisions of Amendment 4 with the Mid-Atlantic Council's Amendment 6 into one document - Replaced the bimonthly quotas with quarterly quotas - Eliminate the weekly landing limits for the Nantucket Shoals Area - Clarified the quota adjustment provisions for the Nantucket Shoals and Georges Bank Areas - Established one landing per trip provision
1987	Amendment 7	Atlantic surfclam and ocean quahog	- Changed the quota distribution on Georges Bank to equal quarterly quotas - Revised the roll over provisions
1988	Amendment 8	Atlantic surfclam and ocean quahog	- Replaced the regulated fishing time system in the surfclam and ocean quahog fisheries with an individual transferable quota (ITQ) system

Table 5. Continued. Summary of the history of the Atlantic Surfclam and Ocean Quahog FMP.

Year Approved	Document	Plan Species	Management Action(s)
1996	Amendment 9	Atlantic surfclam and ocean quahog	- Revised the overfishing definitions for surfclams and ocean quahogs in response to a scientific review by NMFS
1998	Amendment 10	Ocean quahog	- Provided management measures for the small artisanal fishery for ocean quahogs (mahogany clams) off the northeast coast of Maine
1998	Amendment 11	Atlantic surfclam and ocean quahog	- Achieved consistency among Mid-Atlantic and New England FMPs on vessel replacement and upgrade provisions, permit history transfer and splitting and renewal regulations for fishing vessels issued Northeast Limited Access Federal Fishery permits
1998	Amendment 12	Atlantic surfclam and ocean quahog	- Brought the FMP into compliance with the new and revised National Standards and other requirements of the 1996 Sustainable Fisheries Act - Established a framework adjustment process - Implemented an Operator Permit requirement for fishermen that did not already have them for other fisheries - The Regional Administrator partially approved Amendment 12 with the exceptions of the proposed surfclam overfishing definition and the fishing gear impacts to EFH section.
2003	Amendment 13	Atlantic surfclam and ocean quahog	- Addressed various disapproved sections of Amendment 12
2007	Amendment 14	Atlantic surfclam and ocean quahog	- Standardized bycatch reporting methodology

4.3.6 Tilefish FMP

The management unit is defined as all golden tilefish under United States jurisdiction in the Atlantic Ocean north of the Virginia/North Carolina border. Tilefish south of the Virginia/North Carolina border are currently managed as part of the Fishery Management Plan for the Snapper-Grouper Fishery managed by the South Atlantic Fishery Management Council. The management regime is detailed in the FMP, including any subsequent amendments. A summary of the management actions taken since the establishment of the FMP, through FMP amendments and FMP framework adjustments is given in Table 6. The management objectives of the Tilefish FMP are as follows:

1) Prevent overfishing and rebuild the resource to the biomass that would support MSY.
2) Prevent overcapitalization and limit new entrants.
3) Identify and describe essential tilefish habitat.
4) Collect necessary data to develop, monitor, and assess biological, economic, and social impacts of management measures designed to prevent overfishing and to reduce bycatch of tilefish in all fisheries.

Table 6. Summary of the history of the Tilefish FMP.

Year Approved	Document	Management Action(s)
2001	Original FMP	- Established management of the Golden Tilefish fishery - Limited entry into the commercial fishery - Implemented system for dividing Total Allowable Landings (TAL) among three fishing categories
2001	Framework 1	- Created quota set-aside for the purposes of conducting research
2007	Amendment 2	- Standardized bycatch reporting methodology
2009	Amendment 1	- Implemented an individual fishing quota (IFQ) program for the commercial fishery - Established new reporting requirements - Imposed gear modifications - Addressed recreational fishing issues - Reviewed the EFH components of the FMP

4.4 Structure of the Document

This document amends the following FMPs: Atlantic Mackerel, Squid, and Butterfish; Bluefish; Spiny Dogfish; Summer Flounder, Scup, and Black Sea Bass; Surfclam and Ocean Quahog; and Tilefish for all the managed resources, except *Loligo* and *Illex* squids. In order to present the information contained in the Omnibus Amendment in as clear a manner as possible the document is organized as follows:

Section 5.0 identifies the management alternatives, including no action/status quo alternatives, the Council-preferred alternatives and any non-preferred alternatives that were considered by the Council. Structurally, the alternatives are presented as sets, where the Council will need to select between either one or more action alternatives which would implement new measures and the status quo/no action alternative for each set. The selection of the preferred alternatives within section 5.0, taken in conjunction with those existing measures in the FMPs, will provide a comprehensive framework for the catch limit and accountability system recommended in the revised NS1 guidelines provided by NMFS. In some cases, more than one preferred alternative may be identified for a set of measures. Section 5.1 includes a description of the no action and describes why the no action and status quo are the same. Section 5.2 provides alternatives which address the specification of ABC, which includes two parts: (1) the ABC control rule methods and (2) Council risk policy. Section 5.3 provides alternatives which address ACLs and AMs for the managed resources, and are ordered by FMP and managed resources. There are three sub-sections for each managed resource, which address specifying annual catch limits, proactive accountability, and reactive accountability. These three sub-sections were an outgrowth of the early discussion of the Council which considered first how to address specification of the ACL, and second how to address the two types of accountability measures. Each suite of options is composed of a status quo/no action alternative, and one or more action alternatives that are under Council consideration. In the case of proactive accountability and performance review alternatives, the Council may identify more than one action alternative as preferred. Section 5.4 provides alternatives that address any future review and modification of actions taken in this document. Section 5.0 follows this general organization, and Boxes ES-1 through ES-12 in section 1.0, more fully describe the organization of the alternatives in each subsection.

- 5.1 No action
- 5.2 Specifying ABC
    - 5.2.1 ABC Control Rule Methods
    - 5.2.2 Council Risk Policy
- 5.3 ACLs and AMs (sub-section for each of the managed resources)
    - Managed resource ACL
    - Managed resource Proactive AMs
    - Managed resource Reactive AMs
    - Other AM measures (if applicable for a managed resource)
- 5.4 Future Review and Modification of Actions
    - Performance review
    - Modification of actions

Those alternatives/measures that the Council considered but rejected from further analysis in the document are described under Appendix A.

Section 6.0 provides the description of the affected environment for each of the managed resources.

Section 7.0 presents the expected environmental consequences of the alternatives under consideration. This chapter evaluates the impacts associated with the preferred alternative relative to the Status quo/no action alternatives, and the expected cumulative effects associated with the action.

Section 8.0 describes the relationship of this action to all other applicable laws and directives, including NEPA, RFA, CZMA, ESA, and MMPA. This chapter documents compliance with these other laws and directives, and includes a Finding of No Significant Impact (FONSI) statement, an assessment under the RFA, and a RIR.

Section 9.0 presents the essential fish habitat (EFH) assessment. Section 10 provides the literature cited throughout this document, while Section 11 and 12 provide lists of preparers and agency persons consulted in the preparation of this EA.

Four appendices are provided with the Omnibus Amendment. Appendix A presents those measures that were considered but rejected from further analysis by the Council during the amendment development process. Appendix B provides a description of the new terminology for each FMP relative to existing FMP terminology. Appendix C described the species that are listed as endangered and threatened within the management units for the managed resources. Appendix D provides the comments that were received during the public hearing process.

This structure was selected in order to avoid the duplication and redundancy that would result from maintaining an FMP-based structure throughout the entire Omnibus Amendment. Some degree of duplication is unavoidable in a document such as this, given the many subject FMPs and the multiple legal requirements that apply to its development.

4.5 Selection of the Council-Preferred Alternatives

The selection of Council-preferred alternatives in this Omnibus ACL/AM Amendment are the culmination of over three years of Council discussion at Council meetings, Council workshops, and Committee meetings, following the MSRA being signed into law on January 12, 2007. Prior to NMFS producing revised guidance for implementing National Standard 1 on January 16, 2009, the Council formed an ACL/AM Committee to begin discussions of how the new law would affect the fisheries for the managed resources.

In light of the complex new guidelines and the need to comprehensively evaluate and modify all of the Council FMPs, the Council decided to address the MSA requirements and NS1 guidelines through an Omnibus ACL/AM Amendment. This Omnibus approach enabled the Council to take a consistent approach to determining what new measures were needed to address scientific and management uncertainty and establish a comprehensive system of catch accountability. Maintaining consistency across the various resource FMPs would have posed a greater challenge had the Council amended each FMP independently on differing time schedules.

The Council took the practical approach of first reviewing each of its managed resources FMPs relative to the NS1 guidelines. The Council then sought to develop new measures, which taken in conjunction with existing measures, bring the plans into consistency and further promote the objectives of preventing overfishing and enabling these fisheries to achieve optimum yield. While the Council considered approaches to addressing the NS1 guidelines that were under development by other regional Council's, ultimately the Council selected an approach in this Omnibus ACL/AM Amendment that is responsive to the unique aspects of the fisheries managed in the Mid-Atlantic and complements the current FMP infrastructure (i.e., utilizes established FMP allocations, fishing sectors, and unique aspects of the plans).

The Council recognized that the MSA provided the SSC with the responsibility of recommending an ABC for each of the managed resources to the Council. As such, the Council sought the SSC's advice in developing a framework of ABC control rule methods (Council-preferred alternative ABC-B); which is essentially a pre-agreed process the SSC would use to derive ABC recommendations for the Council. The control rule methods under this preferred alternative correspond to the level of stock assessment information available. This framework of methods was the result of extensive deliberation on the part of the SSC and the Council and provides the flexibility to apply the best available information when it becomes available. The Council developed a risk policy, which will be used to inform the SSC of what the Council perception of an acceptable risk of overfishing for a given stock. The Council selected alternative RISK-G as its preferred risk policy alternative on the basis that it provided a simple formula which reflected a decreasing Council tolerance for overfishing with decreasing stock size, and allowed for consideration of fish life history (i.e., typical versus atypical) which the Council considered to be an important cofactor when identifying their risk tolerance.

In July 2009, the Council held a one-day special meeting session specifically to discuss what mechanism to use to establish ACLs. Ultimately, the Council determined that the use of ACTs was the preferred approach to address management uncertainty for the managed resources and therefore set ACL=ABC for all the managed resources. The implications of exceeding an ACT are less significant, and enable the ACT to function as a soft target for the fisheries without all the automatic reactive accountability measures associated with exceeding an ACL. The use of ACT(s) to address management uncertainty provided the Council with greater flexibility as a proactive AM. Each ACT can be crafted in response to the specific levels of uncertainty in each of the fisheries or fishing sectors. The Council sought to use the group most knowledgeable about the fisheries and management uncertainty, the Monitoring Committee's and staff in the case of surfclam and ocean quahog, to provide advice on specifying ACT(s). The ACT(s) are a particularly important proactive management measure for recreational fisheries, where the Council was limited in its ability to develop proactive measures due to data timing and availability that prevented the development of inseason management measures beyond applying general recreational fishery closure authority. The Council acknowledged that establishing an ACT(s) is an important proactive measure to prevent the ACL from being exceeded for the managed resources, and for some of its fisheries it is the primary measure to prevent the ACL from being exceeded.

For some of the commercial fisheries for the managed resources, reactive accountability measures (i.e., overage deduction mechanisms) already existed. The Council chose to extend the existing quota-based FMP infrastructure and measures, such that reactive accountability has been applied to all of the resource fisheries catch components (i.e., landings, discards, etc.) consistent with the existing allocation formulas. The new reactive measures developed are specifically anchored to whether the ACL is exceeded. The overage deduction mechanisms in place prior to this Omnibus ACL/AM Amendment occur irrespective of whether the ACL was or was not exceeded, and those measures have not been modified. The Council acknowledges that overage deduction mechanisms serve the dual function of both mitigating an overage if it occurs preventing any potential biological harm, as well as maintaining the integrity of the Council established allocations which were previously determined to be consistent with the national standards.

The Council selection of preferred alternatives considered was based on a broad consideration of all the issues and extensive public input. The Council considered the numerous comments provided by members of the public during scoping, through letters and emails, and during public hearings (Appendix D) and Council meetings. Those alternatives/measures that the Council considered but rejected from further analysis in the document are described under Appendix A. It should be noted, however, that Council discussion and consideration was not limited to only the measures contained in Appendix A; those measures are only those that were included in the June 2010 draft and rejected.

5.0 MANAGEMENT ALTERNATIVES

The selection of the preferred alternatives within section 5.0, taken in conjunction with those existing measures in the FMPs, will provide a comprehensive framework for the catch limit and accountability system recommended in the revised NS1 guidelines provided by NMFS. Each suite of potential options is composed of a status quo/no action alternative, and one or more action alternatives that the Council considered when identify preferred alternatives. In the case of proactive accountability and performance review alternatives, the Council may identify more than one action alternative as preferred.

5.1 No Action

Section 5.03(b) of NOAA Administrative Order (NAO) 216-6, "Environmental review procedures for implementing the National Environmental Policy Act," states that "an 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 action alternatives contained within this document to specify mechanisms to set ABC, ACLs, and AMs, and future review and modification of those actions for the managed resources of this Omnibus Amendment, it is slightly more complicated than either of these interpretations suggest. There is no analogue for these fisheries to the railroad project described above, where no action means nothing happens. The management regimes and associated management measures within the FMPs (section 4.2) for the managed resources have been refined over time and codified in regulation. The *status quo* management measures for the managed resources, therefore, each involve a set of indefinite (i.e., in force until otherwise changed) measures that have been established. These measures will continue as they are even if the actions contained within this document are not taken (i.e., no action). The no action alternative for these managed resources is therefore equivalent to *status quo*. On that basis, the status quo and no action are presented in conjunction (i.e., Status quo/no action alternative) for comparative impact analysis relative to the action alternatives.

5.2 Specifying Acceptable Biological Catch

This section is comprised of two subsections which address the establishment of ABC controls rule methods in the FMP and a Council risk policy. Box 5.2 provides a brief overview of the alternatives contained within this section.

Box 5.2. Brief description of the alternatives included in section 5.2.				
Issue	**Sub-Issue**	**Alternative**	**Status**	**Description of Action**
Acceptable Biological Catch (ABC) (Section 5.2)	*ABC Alternatives (Section 5.2.1)*	ABC-A	Status quo/no action	No action to establish ABC control rule methods in FMP
		ABC-B (Council-Preferred)	Proposed	Council establishes ABC control rule methods in FMP
	Council Risk Policy (Section 5.2.2)	RISK-A	Status quo/no action	No action to establish formal risk policy in FMP
		RISK-B	Proposed	Constant probability of overfishing = 25 Percent
		RISK-C	Proposed	Stock Status, Replenishment Threshold, with Inflection at B/B_{MSY} = 1.0
		RISK-D	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with Inflection at B/B_{MSY} = 1.5
		RISK-E	Proposed	Stock Status/Assessment Level Offset, Replenishment Threshold, with 2 Inflection Points at B/B_{MSY} = 1.0 and B/B_{MSY} = 2.0
		RISK-F	Proposed	Categorical (4 x 4) with stock history, life history, and assessment level
		RISK-G (Council-Preferred)	Proposed	Stock Status/Life History, Inflection at B/BMSY = 1.0

5.2.1 Acceptable Biological Catch Alternatives

Alternative ABC-A: Status quo/no action

Under this status quo alternative, the process used by the SSC for developing ABC recommendations for the Council would continue. There would be no formalization of the process to address scientific uncertainty and the SSC would continue to apply ad hoc methods to develop ABC recommendations. ABC would continue to be specified for up to three years for each of the managed resources, except spiny dogfish which may be specified up to five years and bluefish specified annually. This ad hoc process would not establish ABC control rules in the FMP for the managed resources consistent with NS1 guidelines (§ 600.310(f)(4)).

Alternative ABC-B (Council-Preferred): ABC Control Rule Methods – Four Assessment Levels

A multi-level approach will be used for setting an ABC for each Mid-Atlantic stock, based on the overall level of scientific uncertainty associated with its assessment. The stock assessment will be required to provide estimates of the maximum fishing mortality threshold (MFMT) and future biomass, the probability distributions of these estimates, the probability distribution of the overfishing limit (OFL; level of catch that would achieve MFMT given the current or future biomass), and a description of factors considered and methods used to estimate their distributions. The multi-level approach defines four levels of overall assessment uncertainty defined by characteristics of the stock assessment and determination by the SSC that the uncertainty in the probability distribution of OFL adequately represents best available science. The procedure used to determine ABCs is different in each level of the methods framework. The SSC will determine to which level the assessment for a particular stock belongs when setting single or multi-year ABC specifications and a description of the justification for assignment to a level will be provided with the ABC recommendation. The ABC recommendations should be more precautionary as an assessment moves from level 1 to level 4. Recommendations for ABC may be made for up to 3 years for all of the managed resources except spiny dogfish which may be specified for up to 5 years. The rationale for assigning an assessment to a level will be reviewed each time an ABC determination is made.

The levels of stock assessments, their characteristics, and procedures for determining ABCs are defined as follows:

Level 1: Level 1 represents the highest level to which an assessment can be assigned. Assignment of a stock to this level implies that all important sources of uncertainty are fully and formally captured in the stock assessment model and the probability distribution of the OFL calculated within the assessment provides an adequate description of uncertainty of OFL. Accordingly, the OFL distribution will be estimated directly from the stock assessment. In addition, for a stock assessment to be assigned to Level 1, the SSC must determine that the OFL probability distribution represents best available science. Examples of attributes of the stock assessment that would lead to inclusion in Level 1 are:

- Assessment model structure and any treatment of the data prior to inclusion in the model includes appropriate and necessary details of the biology of the stock, the fisheries that exploit the stock, and the data collection methods;
- Estimation of stock status and reference points integrated in the same framework such that the OFL calculations promulgate all uncertainties (stock status and reference points) throughout estimation and forecasting;
- Assessment estimates relevant quantities including F_{MSY}[4], OFL, biomass reference points, stock status, and their respective uncertainties; and
- No substantial retrospective patterns in the estimates of fishing mortality (F), biomass (B), and recruitment (R) are present in the stock assessment estimates.

The important part of Level 1 is that the precision estimated using a purely statistical routine will define the OFL probability distribution. Thus, all of the important sources of uncertainty are formally captured in the stock assessment model. When a Level 1 assessment is achieved, the assessment results are likely unbiased and fully consider uncertainty in the precision of estimates. Under Level 1, the ABC will be determined solely on the basis of an acceptable probability of overfishing (P*), determined by the Council's risk policy (see alternatives in section 5.2.2), and the probability distribution of the OFL.

Level 2: Level 2 indicates that an assessment has greater uncertainty than Level 1. Specifically, the estimation of the probability distribution of the OFL directly from the stock assessment model fails to include some important sources of uncertainty, necessitating expert

[4] With justification, F_{MSY} may be replaced with an alternative maximum fishing mortality threshold to define the OFL.

judgment during the preparation of the stock assessment, and the OFL probability distribution is deemed best available science by the SSC. Examples of attributes of the stock assessment that would lead to inclusion in Level 2 are:

- Key features of the biology of the stock, the fisheries that exploit it, or the data collection methods are missing from the stock assessment;
- Assessment estimates relevant quantities, including reference points (which may be proxies) and stock status, together with their respective uncertainties, but the uncertainty is not fully promulgated through the model or some important sources may be lacking;
- Estimates of the precision of biomass, fishing mortality rates, and their respective reference points are provided in the stock assessment; and
- Accuracy of the MFMT and future biomass is estimated in the stock assessment by using *ad hoc* methods.

In this level, ABC will be determined by using the Council's risk policy (see alternatives in section 5.2.2), as with a Level 1 assessment, but with the OFL probability distribution based on the specified distribution in the stock assessment.

Level 3: Attributes of a stock assessment that would lead to inclusion in Level 3 are the same as Level 2, except that

- The assessment does not contain estimates of the probability distribution of the OFL or the probability distribution provided does not, in the opinion of the SSC, adequately reflect uncertainty in the OFL estimate.

Assessments in this level are judged to over- or underestimate the accuracy of the OFL. The SSC will adjust the distribution of the OFL and develop an ABC recommendation by applying the Council's risk policy (see alternatives in section 5.2.2) to the modified OFL probability distribution. The SSC will develop a set of default levels of uncertainty in the OFL probability distribution for this level based on literature review and a planned evaluation of ABC control rules. A control rule of 75 percent of F_{MSY} may be applied as a default if an OFL distribution cannot be developed.

Level 4: Stock assessments in Level 4 are deemed to have reliable estimates of trends in abundance and catch, but absolute abundance, fishing mortality rates, and reference points are suspect or absent. Additionally, there are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines (i.e., ABC determination). In these circumstances, the SSC may propose alternative approaches for satisfying the NS1 requirements of the MSA than those set forth in the NS1 guidelines. In particular, stocks in this level do not have point estimates of the OFL or probability distributions of the OFL that are considered best available science. In most cases, stock assessments that fail peer review or are deemed highly uncertain by the SSC will be assigned to this level. Examples of potential attributes for inclusion in this category are:

- Assessment approach is missing essential features of the biology of the stock, characteristics of data collection, and the fisheries that exploit it;
- Stock status and reference points are estimated, but are not considered reliable;

- Assessment may estimate some relevant quantities including biomass, fishing mortality or relative abundance, but only trends are deemed reliable;
- Large retrospective patterns usually present; and
- Uncertainty may or may not be considered, but estimates of uncertainty are probably substantially underestimated.

In this level, a simple control rule will be used based on biomass and catch history and the Council's risk policy.

The SSC will determine, based on the assessment level to which a stock is classified, the specifics of the control rule to specify ABC that would be expected to attain the probability of overfishing specified in the Council's risk policy. The SSC may deviate from the above control rule methods framework or level criteria and recommend an ABC that differs from the result of the ABC control rule calculation, but must provide justification for doing so.

5.2.2 Risk Policy Alternatives

The Council risk policy alternatives given below would be applied all to the managed resources under MAFMC management jurisdiction. Under any of the action risk alternatives selected below, which excludes alternative RISK-A, the following would also apply.

For managed resources that are under rebuilding plans, the upper limit on the probability of exceeding $F_{REBUILD}$ would be 50 percent unless modified to a lesser value (i.e., higher probability of not exceeding $F_{REBUILD}$) through a rebuilding plan amendment. For example, the Council may conclude through a rebuilding plan Amendment that setting catch limits at the 25^{th} percentile of catch associated with $F_{REBUILD}$ would rebuild the stock more quickly (i.e., provide for 75 percent probability of not exceeding $F_{REBUILD}$). In instances where the SSC derives a more restrictive ABC recommendation, based on the application of the ABC control rule methods framework and risk policy, than the ABC derived from the use of $F_{REBUILD}$ at the MAFMC-specified overfishing risk level, the SSC shall recommend to the MAFMC the lower of the ABC values.

In addition, if no OFL is available (i.e., No F_{MSY} or F_{MSY} proxy provided through the stock assessment to identify it) and no OFL proxy is provided by the SSC at the time of ABC recommendations, then an upper limit (cap) on allowable increases in ABC will be established. ABC may not be increased until an OFL has been identified. This policy is designed to prevent catch limits from being increased when there are no criteria available to determine if overfishing will be occurring for the upcoming fishing year. To reduce the risk of overfishing, the Council policy would be to not increase ABC in the absence of an OFL.

It should be noted in the alternatives below that if the ratio of biomass (B) to biomass at maximum sustainable yield (B_{MSY}) is less than 1.0, then the current stock biomass is less than B_{MSY}; if the ratio of B to B_{MSY} is greater than or equal to B, then the current stock biomass is B_{MSY} or greater.

Alternative Risk-A: Status quo/no action

Under this status quo alternative, there would be no formalization of a Council risk policy which expresses the Council tolerance for overfishing. Under this alternative, no policy would be established and provided to the SSC prior to ABC recommendations being developed for the Council. The ad hoc Council process to address risk guided by past precedent would continue. Past precedent from *NRDC et al. versus Daley* (USDC, 1999) identifies catch levels must have at least a 50 percent probability of not overfishing. A 50 percent probability of overfishing is, therefore, the upper limit on the risk of overfishing and serves as the precedent-based default in the absence of any Council action to establish a risk policy. Consistent with the status quo, the Council could recommend catch be reduced to achieve a lower probability of overfishing on an ad hoc basis after ABC recommendation have been provided by the SSC to the Council.

Alternative Risk-B: Constant Probability of Overfishing = 25 Percent

Under this alternative, the probability of overfishing will be 25 percent under all circumstances (i.e., irrespective of stock condition, rebuilding status, life history, etc.).

Alternative Risk-C: Stock Status, Inflection at B/B_{MSY} = 1.0

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly as the ratio of B/B_{MSY} increases, until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 40 percent probability of overfishing is utilized for ratios equal to or greater than 1.0.

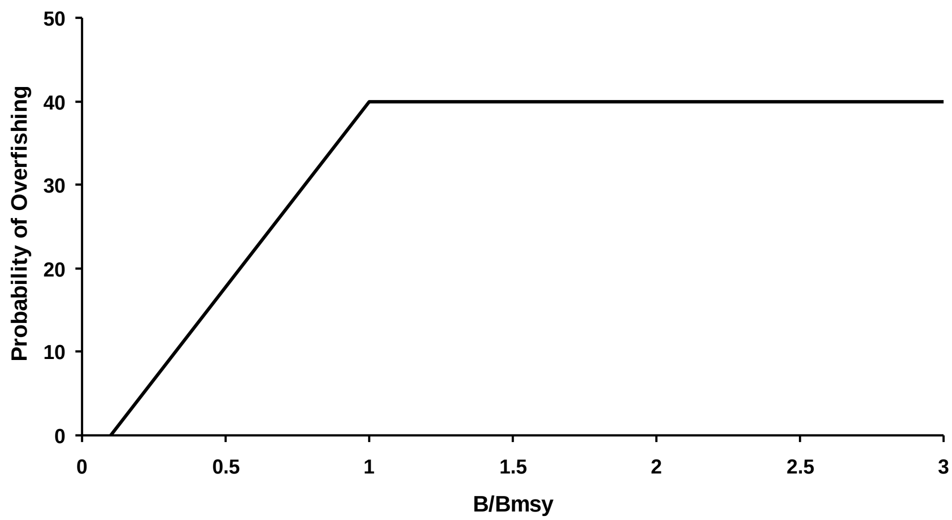


Figure 1. Risk Policy C.

Alternative Risk-D: Stock Status/Assessment Level, Inflection at B/B_{MSY} = 1.5

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to

0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of $B/B_{MSY} = 1.5$ is reached and a 50 percent probability of overfishing is utilized for assessment level 1 (see section 5.2.1), 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4.

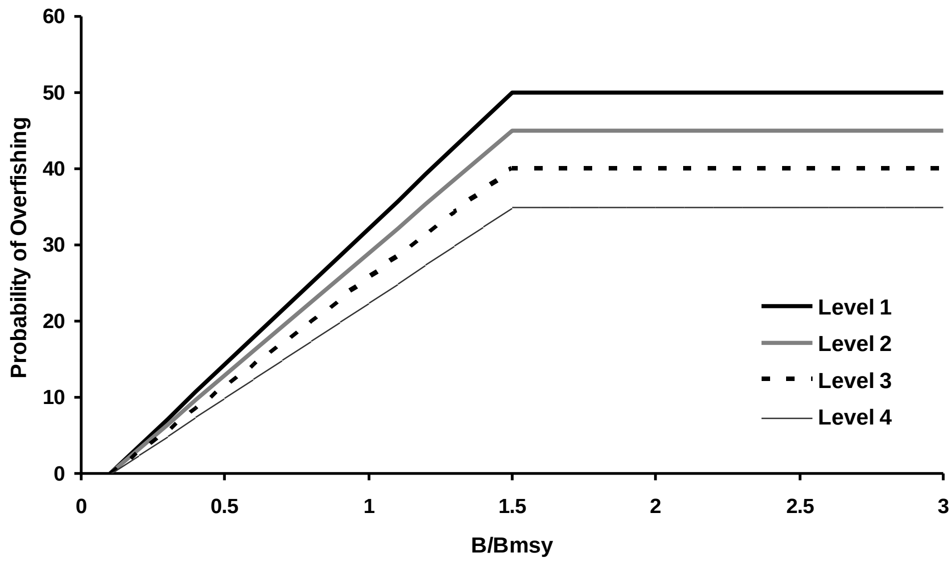


Figure 2. Risk Policy D.

Alternative Risk-E: Stock Status/Assessment Level, 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$

Under this alternative, a stock replenishment threshold defined as the ratio of $B/B_{MSY} = 0.10$, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly at similar rates as the ratio of B/B_{MSY} increases; until the inflection point of $B/B_{MSY} = 1.0$ is reached and a 45 percent probability of overfishing is utilized for assessment level 1 (see section 5.2.1), 40 percent for level 2, 35 percent for level 3, and 30 percent for level 4. Probability of overfishing then continues to increase to the inflection point of $B/B_{MSY} = 2.0$, where the probability of overfishing is for level 1 is 50 percent, 45 percent for level 2, 40 percent for level 3, and 35 percent for level 4, for all B/B_{MSY} ratios equal to or greater than 2.0.

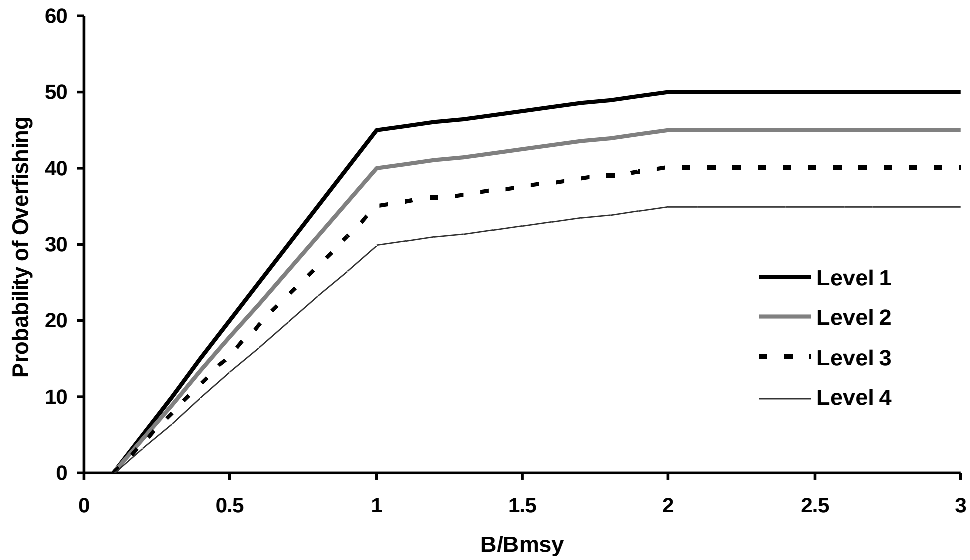


Figure 3. Risk Policy E.

Alternative Risk-F: Categorical, Range from 10 - 50 percent

Under this alternative, specification of the probability of overfishing incorporates assessment level (see section 5.2.1), stock history, and life history patterns. Probability of overfishing is higher for stocks which have not been overfished (either currently or previously based on best available scientific information). Probability of overfishing is also higher for stocks which have typical life history patterns, when compared to atypical life history patterns (e.g., spiny dogfish and black sea bass). In addition, as the assessment level decreases, the probability of overfishing decreases. The SSC will determine whether a stock is typical or atypical each time an ABC is recommended. Generally speaking, an atypical stock has a life history strategy that results in greater vulnerability to exploitation, and whose life history has not been fully addressed through the stock assessment and biological reference point development process.

Table 7. Risk Policy F.

Probability of Overfishing				
Assessment Level	**Stock History (Previously Overfished?)**			
	Has Never Been Overfished		***Has Been Overfished***	
	Life History Pattern		***Life History Pattern***	
	Typical	**Atypical**	**Typical**	**Atypical**
1	50	45	45	40
2	40	35	35	30
3	30	25	25	20
4	20	15	15	10

Alternative Risk-G (Council-Preferred): Stock Status/Life History, Inflection at B/B_{MSY} = 1.0

Under this alternative, a stock replenishment threshold defined as the ratio of B/B_{MSY} = 0.10, will be utilized to ensure the stock does not reach low levels from which it cannot recover. The probability of overfishing will be 0 percent if the ratio of B/B_{MSY} is less than or equal to 0.10. Probability of overfishing increases linearly for stock defined as typical as the ratio of B/B_{MSY} increases, until the inflection point of B/B_{MSY} = 1.0 is reached and a 40 percent probability of overfishing is utilized for ratios equal to or greater than 1.0. Probability of overfishing increases linearly for stock defined as atypical as the ratio of B/B_{MSY} increases, until the inflection point of B/B_{MSY} = 1.0 is reached and a 35 percent probability of overfishing is utilized for ratios equal to or greater than 1.0. The SSC will determine whether a stock is typical or atypical each time an ABC is recommended. Generally speaking, an atypical stock has a life history strategy that results in greater vulnerability to exploitation, and whose life history has not been fully addressed through the stock assessment and biological reference point development process.

In addition, under this alternative for managed resources that are under rebuilding plans, the upper limit on the probability of exceeding $F_{REBUILD}$ would be 50 percent unless modified to a lesser value (i.e., higher probability of not exceeding $F_{REBUILD}$) through a rebuilding plan amendment. In instances where the SSC derives a more restrictive ABC recommendation, based on the application of the ABC control rule methods framework and risk policy, than the ABC derived from the use of $F_{REBUILD}$ at the MAFMC-specified overfishing risk level, the SSC shall recommend to the MAFMC the lower of the ABC values.

In addition, if no OFL is available (i.e., No F_{MSY} or F_{MSY} proxy provided through the stock assessment to identify it) and no OFL proxy is provided by the SSC at the time of ABC recommendations, then an upper limit (cap) on allowable increases in ABC will be established. ABC may not be increased until an OFL has been identified.

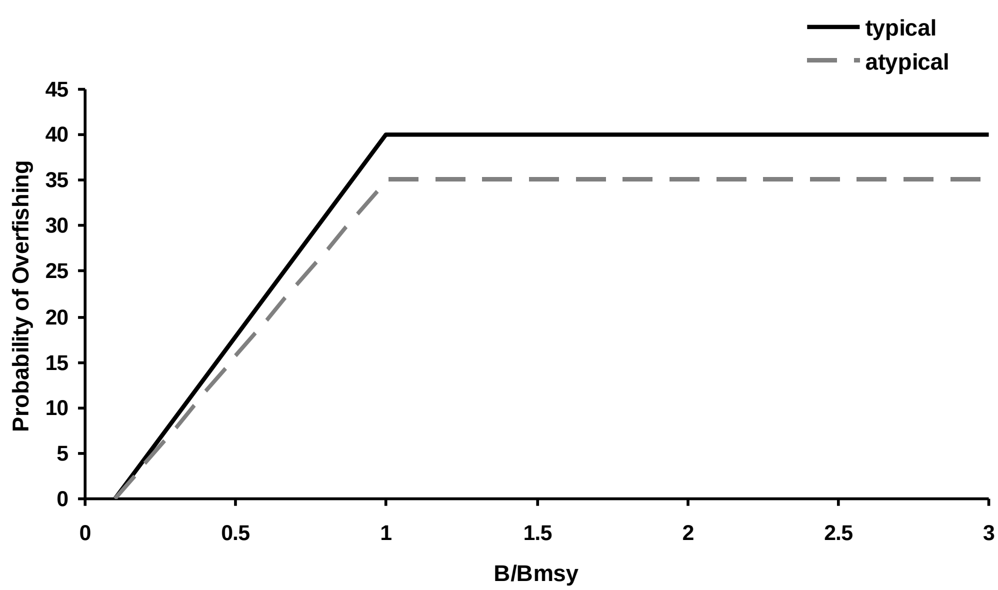


Figure 4. Risk Policy G.

5.3 Annual Catch Limits (ACLs) and Accountability Measures (AMs)

Those measures for ACLs and AMs that were considered but rejected from further analysis by the Council during the preparation of this document are provided in Appendix A, ordered by managed resource.

Atlantic Mackerel, Squids, and Butterfish FMP

5.3.1 Atlantic Mackerel

Amendment 11 to the Atlantic Mackerel, Squids, and Butterfish FMP is developing a recreational harvest limit allocation (i.e., landings-based sector allocation) for the recreational fishery. Regardless of whether this allocation is established, the alternative to specify an ACL for Atlantic Mackerel would remain the same. However, in the event the recreational allocation is either not established by the Council, or is not established before this Omnibus Amendment is effective, two sets of action alternatives for proactive and reactive accountability are provided to enable response to whether a landings-based sector allocation has been established for the recreational fishery. Box 5.2 provides a brief overview of the alternatives contained within this section.

Box 5.3.1. Brief description of the alternatives included in section 5.3.1.

Managed Resource	Issue	Alternative	Status	Description of Action
Atlantic Mackerel (Section 5.3.1)	*Annual Catch Limit (Section 5.3.1.1)*	ATM-A	Status quo/no action	No established ACL in FMP
		ATM-B (Council-Preferred)	Proposed	Establish ACL = domestic ABC
	Proactive Accountability (Section 5.3.1.2)	ATM-C	Status quo/no action	No additional proactive measures established
		ATM-D (Council-Preferred)	Proposed	Use of ACTs; rec. harvest limit established
		ATM-E (Council-Preferred)	Proposed	General inseason closure authority - recreational harvest limit established
		ATM-F	Proposed	Use of ACT; No rec. harvest limit established
		ATM-G	Proposed	General inseason closure authority - No rec. harvest limit established
	Reactive Accountability (Section 5.3.1.3)	ATM-H	Status quo/no action	No reactive AMs established
		ATM-I (Council-Preferred)	Proposed	3 mechanisms accountability for catch
		ATM-J	Proposed	1 mechanism accountability for catch

5.3.1.1 Atlantic Mackerel Annual Catch Limit

Alternative ATM-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process for allowable biological catch that is then apportioned into landing levels termed initial optimum yield (IOY), domestic annual harvest (DAH), domestic annual processing (DAP), and research quota (RQ) as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative ATM-B (Council-Preferred): Specify ACL=Domestic ABC

ACL: Under this alternative, the Council would establish an annual catch limit derived from the ABC recommendation of the SSC, reduced by any scientific uncertainty. Fishery removals (i.e., total catch) are comprised of both U.S. and Canadian catches, and U.S. accountability measures cannot be applied or enforced on the Canadian fishery. Therefore, under this alternative, the fishery-level ACL would be set equal to the domestic ABC for Atlantic mackerel stock. Figures 5 and 6 provided later in this section highlight the ACL structure if this alternative is selected. The ABC is reduced from the overfishing limit (OFL) based on an adjustment for scientific uncertainty and the domestic ABC is defined as the ABC for the stock minus the Canadian catch.

ABC = OFL - Scientific Uncertainty Adjustment

Domestic ABC = ABC – Canadian Catch

Under this alternative, the fishery-level ACL would be set equal to the domestic ABC for Atlantic mackerel.

ACL = Domestic ABC

ACL Evaluation: The ACL is exceeded when the catch from all domestic sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.1.2 Atlantic Mackerel Proactive Accountability Measures

Alternative ATM-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the Atlantic mackerel fishery. Those AM-like authorities linked to landings which already exist within the FMP for Atlantic mackerel will continue to function as described in the FMP.

The commercial fishery landings component already has inseason closure authority when landings under the DAH are projected to be reached. Specifically, if 100 percent of the DAH is projected to be reached within the fishing season or year, then the fishery could be closed for the remainder of the fishing season or year (§ 648.22(a)(1)).

To slow the approach of observed landings to attaining the DAH, the directed fishery closes when 90 percent of the DAH is reached (§ 648.22(a)(1)) and an incidental 20,000 lb trip limit is implemented if the closure occurs before June 1 and a 50,000 lb trip limit if a closure occurs thereafter (§ 648.25(a)). Vessels may not fish for, possess, or land more than the applicable incidental trip limits at any time and may only land Atlantic Mackerel once per calendar day (defined as 0001 to 2400 hours).

5.3.1.2.1 Recreational Harvest Limit Established

Alternative ATM-D (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, existing allocations already defined in the FMP would be used to partition the ACL into sector-specific ACTs (i.e., recreational ACT and commercial ACT). The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 5 provided later in this section highlights the ACT structure if this alternative is selected.

The Atlantic Mackerel Monitoring Committee will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT for each sector. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 3 years.

Alternative ATM-E (Council-Preferred): General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the recreational harvest limit (RHL). This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the Atlantic mackerel recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

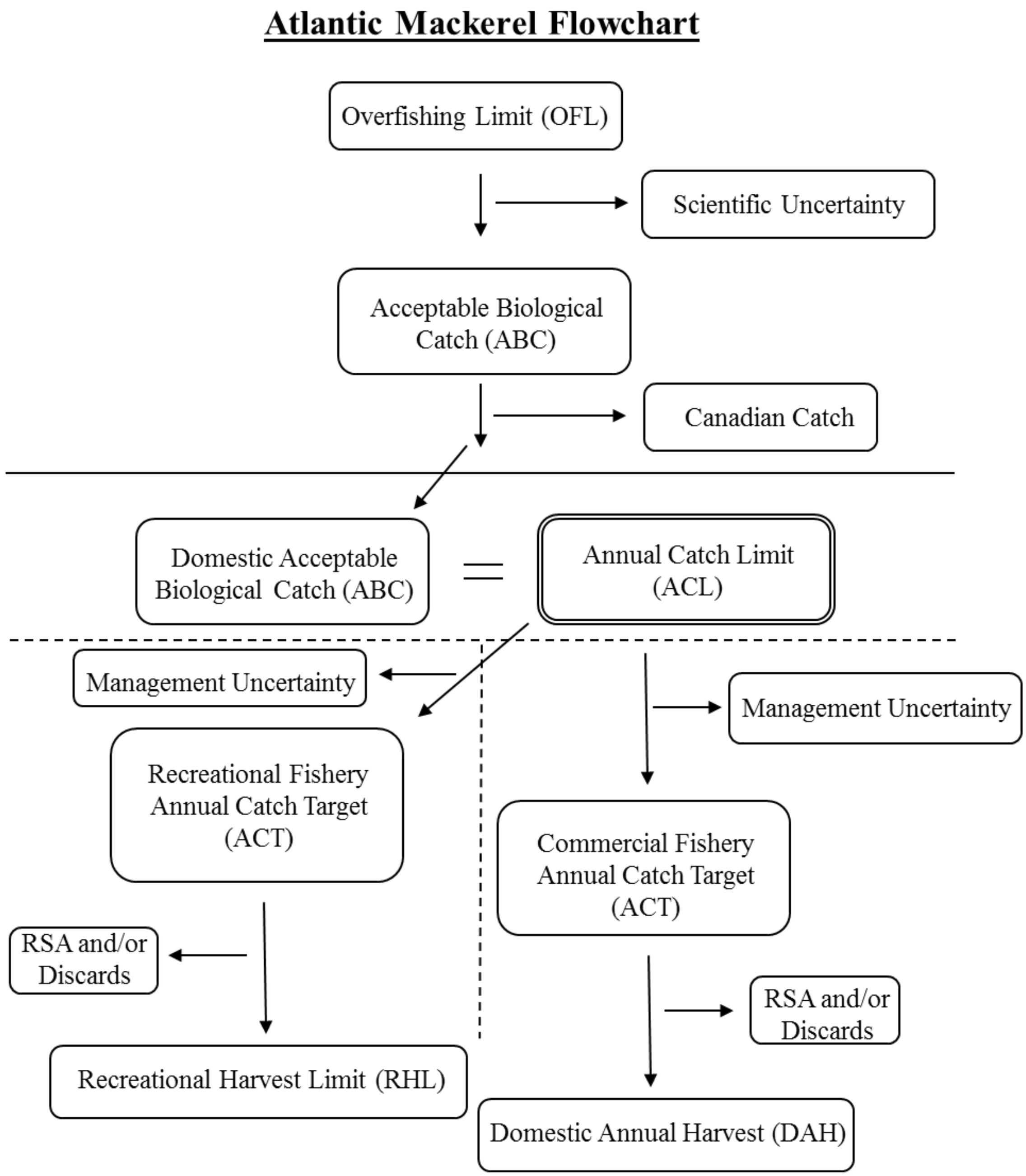


Figure 5. Atlantic mackerel catch limit structure if recreational and commercial ACTs are utilized.

5.3.1.2.2 No Recreational Harvest Limit Established

Alternative ATM-F: Use of ACT

Use of ACT: Under this alternative, a fishery-level ACT would be specified and serve as a buffer from the ACL. Figure 6 provided later in this section highlights the ACT structure if this alternative is selected.

The Atlantic Mackerel Monitoring Committee will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT for Atlantic mackerel. The ACT, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 3 years.

Alternative ATM-G: General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the RHL. This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the Atlantic mackerel recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

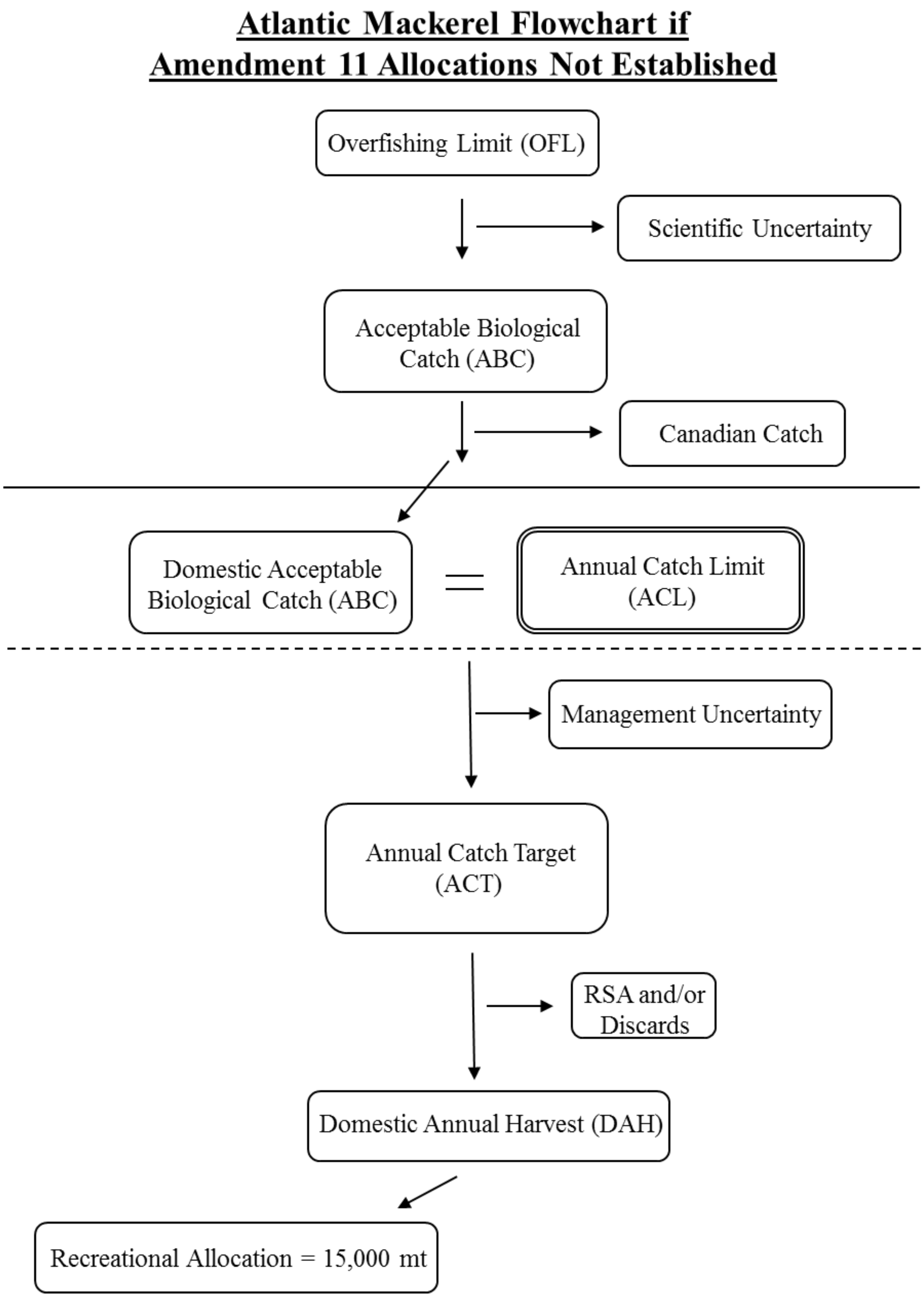


Figure 6. Atlantic mackerel catch limit structure if a single ACT is utilized.

5.3.1.3 Atlantic Mackerel Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative ATM-H: Status quo/no action

Under this alternative, the status quo would continue and there would be no mechanisms in the FMP for Atlantic mackerel that function as reactive accountability measures and address accountability for all catch components of the ACL. Therefore, this alternative is inconsistent with the NS1 guidelines.

5.3.1.3.1 Recreational Harvest Limit Established

Alternative ATM-I (Council-Preferred): Accountability for Catch Components

For Atlantic Mackerel, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Commercial Landings Component of the ACL: If the ACL is exceeded, and commercial fishery landings are responsible for the overage, then landings in excess of the domestic annual harvest (DAH) will be deducted from the DAH the following year (i.e., lb-for-lb repayment), as a single year adjustment.

Reactive Accountability for the Recreational Landings Component of the ACL: If the ACL is exceeded, and recreational fishery landings are responsible for the overage, then landings in excess of the recreational harvest limit will be deducted from the recreational harvest limit for the following year (i.e., lb-for-lb repayment), as a single year adjustment.

Reactive Accountability for Other Non-landings Components of the ACL: If the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then the commercial fishery and/or recreational fishery ACT would be adjusted in response to the ACL being exceeded if other reactive AMs have not addressed the overage. Specifically, the amount by which the ACL was exceeded would be used to adjust the sector-specific ACTs the following year (i.e., lb-for-lb repayment), as a single-year adjustment.

5.3.1.3.2 No Recreational Harvest Limit Established

Alternative ATM-J: Accountability for Catch Components

For Atlantic Mackerel, under this alternative the Council is proposing a single reactive accountability mechanism that responds to potential overages for all catch components.

Reactive Accountability for All Catch Components of the ACL: If the ACL is exceeded, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

5.3.2 Butterfish

A brief overview of the alternatives contained within this section is given in Box 5.3.2.

Box 5.3.2. Brief description of the alternatives included in section 5.3.2.

Managed Resource	Issue	Alternative	Status	Description of Action
Butterfish (Section 5.3.2)	*Annual Catch Limit (Section 5.3.2.1)*	BUTTER-A	Status quo/no action	No established ACL in FMP
		BUTTER-B (Council-Preferred)	Proposed	Establish ACL = ABC
	Proactive Accountability (Section 5.3.2.2)	BUTTER-C	Status quo/no action	No additional proactive measures established
		BUTTER-D (Council-Preferred)	Proposed	Use of ACT
	Reactive Accountability (Section 5.3.2.3)	BUTTER-E	Status quo/no action	No reactive AMs established
		BUTTER-F (Council-Preferred)	Proposed	1 mechanism accountability for catch

5.3.2.1 Butterfish Annual Catch Limit

Alternative BUTTER-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of ABC, landing limits termed IOY, DAH, DAP, and RQ as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative BUTTER-B (Council-Preferred): Specify ACL= ABC

ACL: Under this alternative, the fishery-level ACL would be set equal to the ABC for butterfish. Figure 7 provided later in this section highlights the ACL structure if this alternative is selected.

ACL = ABC

ACL Examination: The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.2.2 Butterfish Proactive Accountability Measures

Alternative BUTTER-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the butterfish fishery. Those AM-like authorities linked to landings which already exist within the FMP for butterfish would function as described in the FMP.

The directed fishery already has inseason closure authority when 80 percent the Domestic Annual Harvest (DAH) is projected to be reached. The directed fishery closure remains effective for the remainder of the fishing period with incidental catch permitted, as outlined below. (§ 648.22(a)(4)).

During a directed fishery closure, an incidental trip limit of 250 lb is implemented if the closure occurs before October 1 and a 600 lb trip limit if closure occurs thereafter (§ 648.25(b)(1)). Vessels may not fish for, possess, or land more than the applicable incidental trip limits at any time and may only land butterfish once per calendar day (defined as 0001 to 2400 hours). Vessels issued an incidental catch permit for butterfish may not fish for, possess, or land more than 600 lb of butterfish at any time and may land only once per day unless the directed fishery closes before October 1. Then the incidental catch permit possession and landing limit becomes 250 lb (per calendar day).

Alternative BUTTER-D (Council-Preferred): Use of ACT

Use of ACT: Under this alternative, an ACT would be specified and serve as a buffer from the ACL. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 7 provided later in this section highlights the ACT structure if this alternative is selected.

The Butterfish Monitoring Committee will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 3 years.

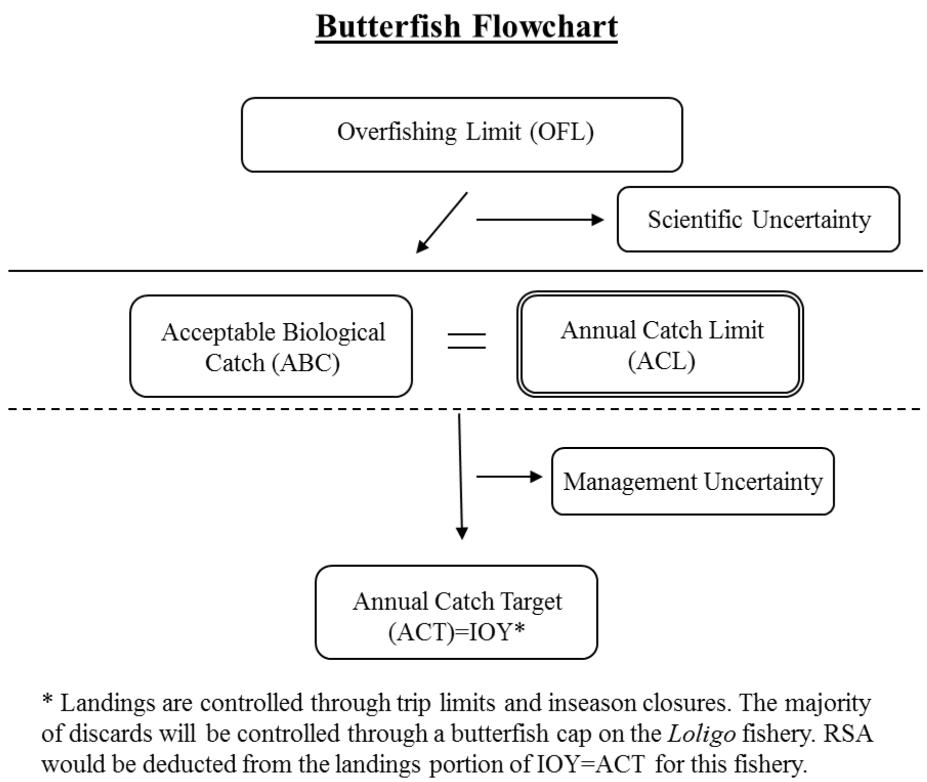


Figure 7. Butterfish catch limit structure if a single ACT is utilized.

5.3.2.3 Butterfish Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative BUTTER-E: Status quo/no action

Under this alternative, the status quo would continue and there would be no mechanisms in the FMP for butterfish that function as reactive accountability measures and address accountability for all catch components of the ACL. Therefore, this alternative is inconsistent with the NS1 guidelines.

Alternative BUTTER-F (Council-Preferred): Accountability for Catch Components

For butterfish, under this alternative the Council is proposing a single reactive accountability mechanism that responds to potential overages for all catch components.

Reactive Accountability for All Catch Components of the ACL: If the ACL is exceeded, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

Atlantic Bluefish FMP

5.3.3 Bluefish

A brief overview of the alternatives contained within this section is given in Box 5.3.3.

Description of Alternatives (see section 5.3.3 for more detail)				
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**
Bluefish (Section 5.3.3)	*Annual Catch Limit (Section 5.3.3.1)*	BLUE-A	Status quo/no action	No established ACL in FMP
		BLUE-B (Council-Preferred)	Proposed	Establish ACL = ABC
	Proactive Accountability (Section 5.3.3.2)	BLUE-C	Status quo/no action	No additional proactive measures established
		BLUE-D (Council-Preferred)	Proposed	Use of ACTs
		BLUE-E (Council-Preferred)	Proposed	General inseason closure authority - recreational
	Reactive Accountability (Section 5.3.3.3)	BLUE-F	Status quo/no action	No additional reactive AMs established
		BLUE-G (Council-Preferred)	Proposed	3 mechanism accountability for catch
	Joint Action Accountability (Section 5.3.3.4)	BLUE-H	Status quo/no action	No joint action beyond that which already occurs
		BLUE-I (Council-Preferred)	Proposed	Joint action to revisit disconnects in quotas

5.3.3.1 Bluefish Annual Catch Limit

Alternative BLUE-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of total allowable catch (TAC) and total allowable landings (TAL) divided into a commercial quota and recreational harvest limit, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative BLUE-B (Council-Preferred): Specify ACL= ABC

<u>*ACL:*</u> Under this alternative, the fishery-level ACL would be set equal to the ABC for bluefish. Figure 8 provided later in this section highlights the ACL structure if this alternative is selected.

ACL = ABC

<u>*ACL Evaluation:*</u> The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.3.2 Bluefish Proactive Accountability Measures

Alternative BLUE-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the bluefish fishery. This includes the specification of management measures annually. Those AM-like authorities linked to landings which already exist within the FMP for bluefish will continue to function as described in the FMP.

When 100 percent of the commercial quota in a given state is projected to be reached within the fishing season or year, commercial landings are prohibited to the state in question (§ 648.161(b)). The EEZ may be closed to commercial fishing for the remainder of the year if all individual states have been closed or inaction by a state or states will cause the established F target to be exceeded during the fishing year (§ 648.161(a)).

There is a mechanism which allows for transfer between the recreational and commercial sectors ((§ 648.160(c)(2)) and to transfer commercial fishery quota allocated pounds between individual states (§ 648.161(f)).

Alternative BLUE-D (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, existing allocations already defined in the FMP would be used to partition the ACL into sector-specific ACTs. Separate recreational ACT and commercial fishery ACTs would be specified. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 8 provided later in this section highlights the ACT structure if this alternative is selected.

The Bluefish Monitoring Committee will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 3 years.

Alternative BLUE-E (Council-Preferred): General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the RHL. This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the bluefish recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

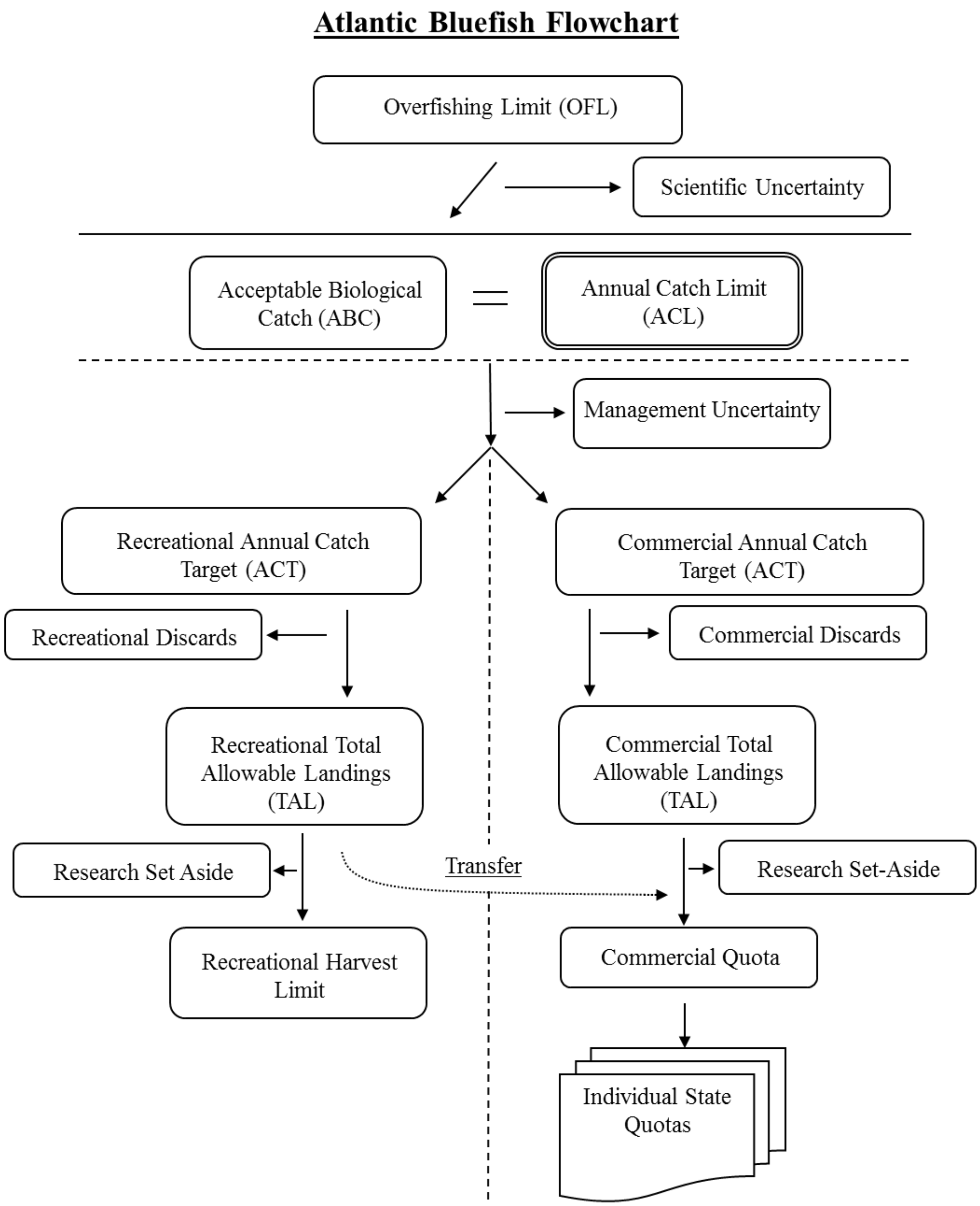


Figure 8. Bluefish catch limit structure if recreational and commercial ACTs are utilized.

5.3.3.3 Bluefish Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative BLUE-F: Status quo/no action

Under this alternative, the status quo would continue and a commercial landings based overage deduction in the FMP for bluefish would occur; specifically, there is an overage deduction mechanism (i.e., commercial landing repayment lb-for-lb) in place by which state-specific overages are deducted from their following year allocation (§ 648.160(e)(2)). While this measure could be used to address the requirement for commercial landings-based accountability, the status quo would lack accountability for all catch components for this stock (i.e., recreational landings and total discards). Because the measures contained in the FMP do not perform the full function of a comprehensive catch accountability system, it would be inconsistent with the NS1 guidelines.

Alternative BLUE-G (Council-Preferred): Accountability for Catch Components

For bluefish, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Commercial Landings Component of the ACL: Irrespective of whether the ACL is or is not exceeded, the mechanisms to address commercial landings overages already in the FMP described in (§ 648.160(e)(2)) will continue to be applied, as needed.

Reactive Accountability for the Recreational Landings Component of the ACL: If the ACL is exceeded, and recreational fishery landings are responsible for the overage in a year when no transfer has occurred from the recreational to commercial fishery, then the overage would be deducted from the following year's recreational harvest limit (i.e., recreational landings repayment lb-for-lb) which would reduce the recreational sector ACT the following year, as a single year adjustment.

If the ACL is exceeded, and recreational fishery landings are responsible for the overage in a year when a transfer has occurred from the recreational to commercial fishery, then accountability for the recreational overage would occur at the overall fishery level (i.e., combined recreational and commercial fishery). The ACL would be reduced by the overage amount (i.e., lb-for-lb repayment), and the amount to be transferred the following year would be reduced by at least the overage amount if it is determined that the overage resulted from too liberal a transfer from the recreational to the commercial sector.

Reactive Accountability for Other Non-landings Components of the ACL: Accountability for other catch components (other than commercial or recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

5.3.3.4 Bluefish Joint Action Accountability Measures

Alternative BLUE-H: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to convene the ASMFC Bluefish Board and Council under joint rules beyond the routine specifications process with jointly convened meetings in August and December of each year.

Alternative BLUE-I (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The following would need to be jointly adopted under Council and ASMFC rules:
Action to Address State/Federal Disconnects in Catch Limits: If the ASMFC Bluefish Board approves different total catch or allowable landings, commercial quotas, and/or and recreational harvest limits for summer flounder that differ from recommendations made by the Council for Federal waters, administrative action will be taken to reconvene the Council and ASMFC Bluefish Board, at earliest convenience, to revisit their recommendations. The intent of such action is to try and achieve alignment of state and federal measures so potential differential effects on Federal permit holders resulting from different catch levels, is avoided.

Spiny Dogfish FMP

5.3.4 Spiny Dogfish

A brief overview of the alternatives contained within this section is given in Box 5.3.4.

Box 5.3.4. Brief description of the alternatives included in section 5.3.4.

Managed Resource	Issue	Alternative	Status	Description of Action
Spiny Dogfish (Section 5.3.4)	*Annual Catch Limit (Section 5.3.4.1)*	DOG-A	Status quo/no action	No established ACL in FMP
		DOG-B (Council-Preferred)	Proposed	Establish ACL = domestic ABC
	Proactive Accountability (Section 5.3.4.2)	DOG-C	Status quo/no action	No additional proactive measures established
		DOG-D (Council-Preferred)	Proposed	Use of ACT
	Reactive Accountability (Section 5.3.4.3)	DOG-E	Status quo/no action	No reactive AMs established
		DOG-F (Council-Preferred)	Proposed	1 mechanism accountability for catch

5.3.4.1 Spiny Dogfish Annual Catch Limit

Alternative DOG-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC, TAL/commercial quota, and two semi-annual quota periods as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative DOG-B (Council-Preferred): Specify ACL= Domestic ABC

ACL: Fishery removals are comprised of both U.S. and Canadian catches, and U.S. accountability measures cannot be applied or enforced on the Canadian fishery. Therefore under this alternative, the ABC is reduced from the overfishing limit (OFL) based on an adjustment for scientific uncertainty and the domestic ABC is defined as the ABC for the stock minus the Canadian catch. The fishery-level ACL would be set equal to the domestic ABC for spiny dogfish.

ABC = OFL - Scientific Uncertainty Adjustment

Domestic ABC = ABC – Canadian Catch

Under this alternative, the fishery-level ACL would be set equal to the domestic ABC for this stock. Figure 9 provided later in this section highlights the ACL structure if this alternative is selected.

ACL= Domestic ABC

ACL Evaluation: The ACL is exceeded when the catch from all sources exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.4.2 Spiny Dogfish Proactive Accountability Measures

Alternative DOG-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the spiny dogfish fishery. Those AM-like authorities linked to landings which already exist within the FMP for spiny dogfish will continue to function as described in the FMP.

Trip limits may be implemented through the specifications process for spiny dogfish (§ 648.230(b)(4)) and have been utilized at varying levels in recent years.

The semi-annual quota, a sub-derivative of the TAL, may be closed in the EEZ when projected landings indicate that the semi-annual quota will be attained (§ 648.231). Closures are effective for the remainder of the semi-annual quota period in question.

Alternative DOG-D (Council-Preferred): Use of ACT

Use of ACT: Under this alternative, an ACT would be specified and serve as a buffer from the ACL. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 9 provided later in this section highlights the ACT structure if this alternative is selected.

The Spiny Dogfish Monitoring Committee will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for fishery management measures for a single year or up to 5 years.

5.3.4.3 Spiny Dogfish Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

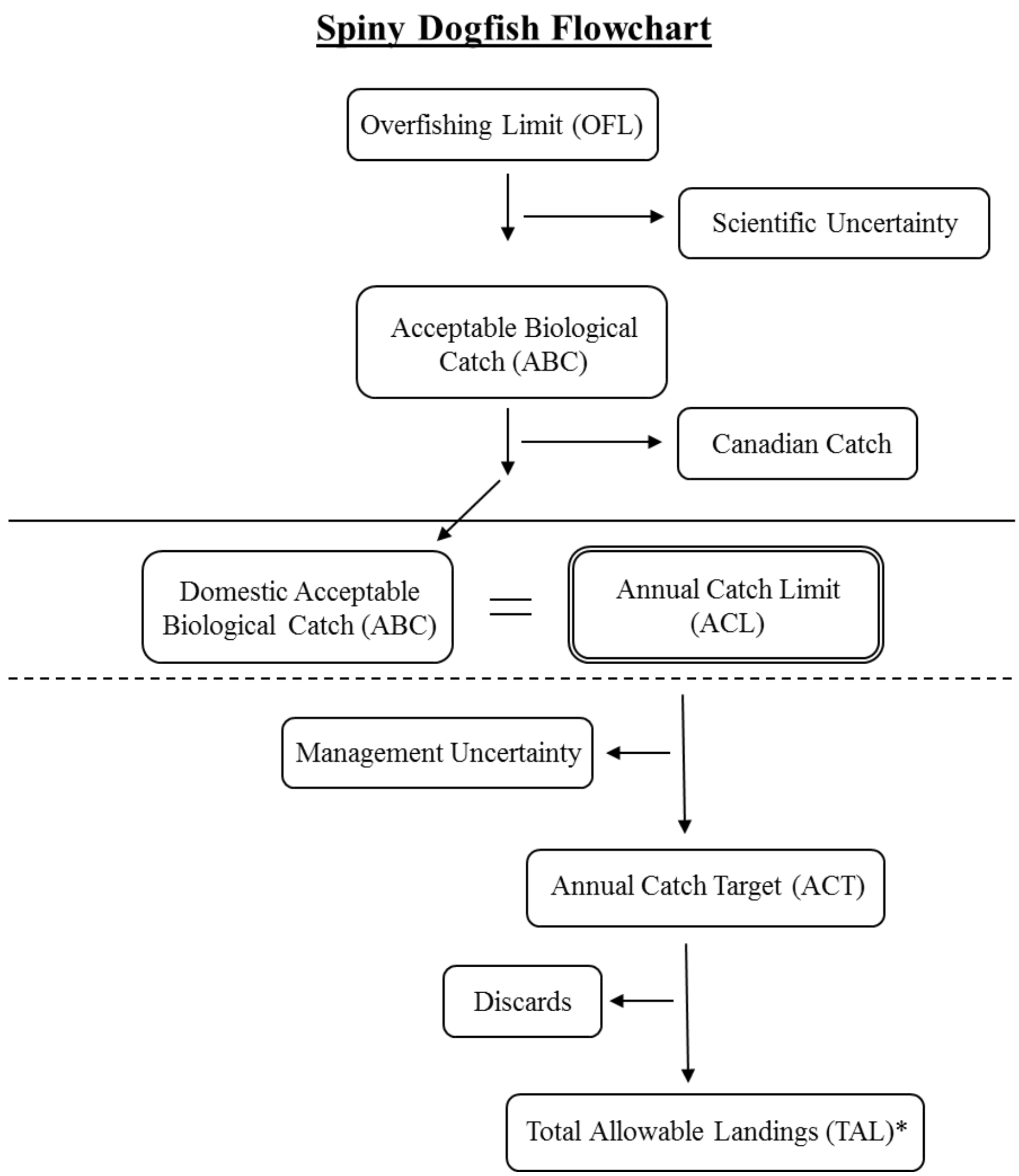
Alternative DOG-E: Status quo/no action

Under this alternative, the status quo would continue and there would be no mechanisms in the federal FMP for spiny dogfish that function as reactive accountability measures and address accountability for all catch components of the ACL. Although overage deduction mechanisms are in place in the Interstate Fisheries Management Program (ISFMP) for spiny dogfish, the lack of AMs in the federal FMP is inconsistent with the NS1 guidelines.

Alternative DOG-F (Council-Preferred): Accountability for Catch Components

For spiny dogfish, under this alternative the Council is proposing a single reactive accountability mechanism that responds to potential overages for all catch components.

Reactive Accountability for All Catch Components of the ACL: If the ACL is exceeded, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.



*RSA for spiny dogfish is contemplated in proposed Amendment 3. RSA would be deducted from the TAL.

Figure 9. Spiny Dogfish catch limit structure if an ACT is utilized.

Summer Flounder, Scup, Black Sea Bass FMP

5.3.5 Summer Flounder

A brief overview of the alternatives contained within this section is given in Box 5.3.5.

Box 5.3.5. Brief description of the alternatives included in section 5.3.5.

Managed Resource	Issue	Alternative	Status	Description of Action
Summer Flounder (Section 5.3.5)	*Annual Catch Limit (Section 5.3.5.1)*	FLUKE-A	Status quo/no action	No established ACL in FMP
		FLUKE-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.
		FLUKE-C (Council-Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.
	Proactive Accountability (Section 5.3.5.2)	FLUKE-D	Status quo/no action	No additional proactive measures established
		FLUKE-E (Council-Preferred)	Proposed (Preferred)	Use of ACTs
		FLUKE-F (Council-Preferred)	Proposed (Preferred)	General inseason closure authority - recreational
	Reactive Accountability (Section 5.3.5.3)	FLUKE-G	Status quo/no action	No additional reactive AMs established
		FLUKE-H (Council-Preferred)	Proposed (Preferred)	3 mechanism accountability for catch
	Joint Action Accountability (Section 5.3.5.4)	FLUKE-I	Status quo/no action	No joint action beyond that which already occurs
		FLUKE-J (Council-Preferred)	Proposed (Preferred)	Joint action to revisit disconnects in quotas

5.3.5.1 Summer Flounder Annual Catch Limit

Alternative FLUKE-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC and TAL divided into a commercial quota and recreational harvest limit, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative FLUKE-B: Specify ACL= ABC with 1-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (i.e., commercial and recreational) would be set equal to the ABC for the summer flounder. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 10 provided later in this section highlights the ACL structure if this alternative is selected.

$$\mathbf{\Sigma(ACL_{SECTOR}) = ABC}$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For both the recreational and commercial sector this is based on a single-year comparison.

Alternative FLUKE-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (i.e., commercial and recreational) would be set equal to the ABC for the summer flounder stock. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 10 provided later in this section highlights the ACL structure if this alternative is selected.

$$\mathbf{\Sigma(ACL_{SECTOR}) = ABC}$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For the commercial sector this is based on a single-year comparison, for the recreational sector this would be based on a 3-year moving average comparison of catch to the 3-year average of the recreational ACLs. This 3-year moving average would be phased in over the first three years of management under the implemented Omnibus Amendment measures: In year 1, observed catch would be compared to the recreational ACL for that year. In year 2, the average of year 1 and year 2 catch would be compared to the average of the recreational ACLs for year 1 and year 2. In year 3, the average of the catch from year 1, 2, and 3 would be compared to the average of the recreational ACLs for year 1, 2, and 3, and the comparison thereafter will be based on a prior three year moving average of catches and recreational ACLs.

5.3.5.2 Summer Flounder Proactive Accountability Measures

Alternative FLUKE-D: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the summer flounder fishery. Those AM-like authorities linked to landings which already exist within the FMP for summer flounder will continue to function as described in the FMP. If 100 percent of the commercial quota in a given state is projected to be reached within the fishing year, then the fishery could be closed for the remainder of the fishing year (§ 684.101(b)). The EEZ may also be closed for the remainder of the year if the commercial fishery in all states has been closed or if inaction by one or more states will cause the target F to be exceeded (§ 648.101(a)).

Alternative FLUKE-E (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, existing sector allocations defined in the FMP would be used to partition the ABC into sector-specific ACLs. Separate recreational and commercial sector ACTs would be specified and may be reduced from the sector-specific ACLs (i.e., commercial ACL and recreational ACL) to address management uncertainty. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 10 provided later in this section highlights the ACT structure if this alternative is selected.

The Summer Flounder Monitoring Committee will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for the sector-specific fishery management measures for a single year or up to 3 years.

Alternative FLUKE-F (Council-Preferred): General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the RHL. This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the summer flounder recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

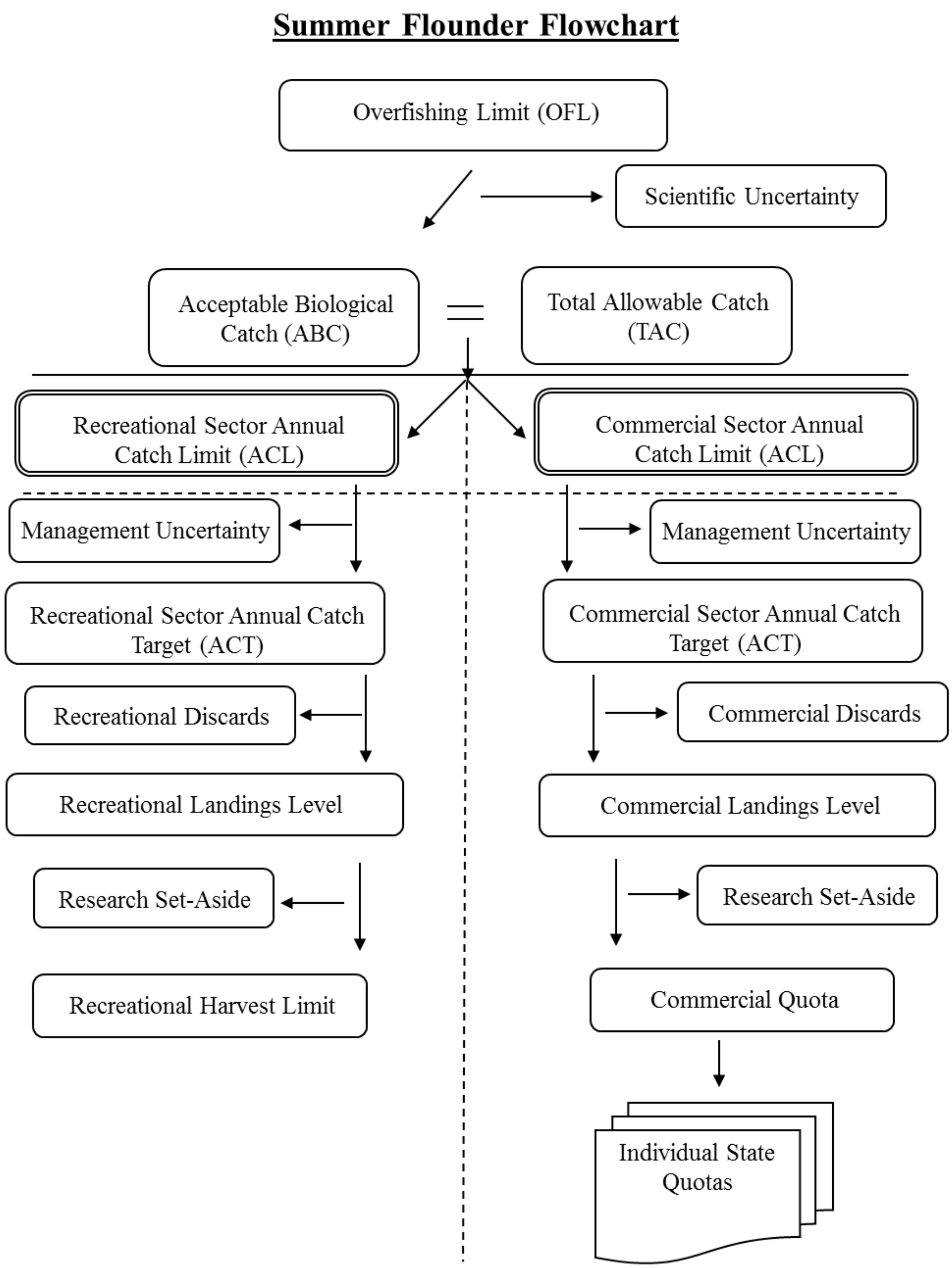


Figure 10. Summer flounder catch limit structure if a recreational and commercial ACTs are utilized.

5.3.5.3 Summer Flounder Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative FLUKE-G: Status quo/no action

Under this alternative, the status quo would continue and a commercial landings based overage deduction in the FMP for summer flounder would occur; specifically, there is an overage deduction mechanism (i.e., commercial landing repayment lb-for-lb) in place by which state-specific landings overages are deducted from their following year allocation (§ 648.100(d)(1)(ii)). While this measure could be used to address the requirement for commercial landings-based accountability, the status quo would lack accountability for all catch components for this stock (i.e., recreational landings and total discards). Because the measures contained in the FMP do not perform the full function of a comprehensive catch accountability system, it would be inconsistent with the NS1 guidelines.

Alternative FLUKE-H (Council-Preferred): Accountability for Catch Components

For summer flounder, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Commercial Landings Component of the ACL: Irrespective of whether the ACL is or is not exceeded, the mechanisms to address commercial landings overages already in the FMP described in 648.100(d)(1)(ii)) would be applied.

Reactive Accountability for the Recreational Landings Component of the ACL: If the recreational sector ACL is exceeded, the RHL overage would be deducted from the following year's recreational harvest limit (i.e., recreational landings repayment lb-for-lb) which would reduce the recreational sector ACT the following year, as a single year adjustment.

The Atlantic States Marine Fisheries Commission (ASMFC) may explore state-by-state accountability if conservation equivalency is utilized in the recreational fishery; however, the Federal FMP is not empowered to impose such repayment requirements in state waters.

Reactive Accountability for Other Non-landings Components of the ACL: Accountability for other catch components (other than commercial or recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then accountability would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the following year (lb-for-lb repayment), as a single year adjustment.

5.3.5.4 Summer Flounder Joint Action Accountability Measures

Alternative FLUKE-I: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to convene the ASMFC Summer Flounder, Scup, Black Sea Bass Board and Council under joint rules beyond the routine specifications process with jointly convened meetings in August and December of each year.

Alternative FLUKE-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The following would need to be jointly adopted under Council and ASMFC rules:
Action to Address State/Federal Disconnects in Catch Limits: If the ASMFC Summer Flounder, Scup, Black Sea Bass Board approves different total catch or allowable landings, commercial quotas, and/or and recreational harvest limits for summer flounder that differ from recommendations made by the Council for Federal waters, administrative action will be taken to reconvene the Council and ASMFC Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations. The intent of such action is to try and achieve alignment of state and federal measures so potential differential effects on Federal permit holders resulting from different catch levels, is avoided.

5.3.6 Scup

A brief overview of the alternatives contained within this section is given in Box 5.3.6.

Box 5.3.6. Brief description of the alternatives included in section 5.3.6.

Managed Resource	Issue	Alternative	Status	Description of Action
Scup (Section 5.3.6)	*Annual Catch Limit (Section 5.3.6.1)*	SCUP-A	Status quo/no action	No established ACL in FMP
		SCUP-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.
		SCUP-C (Council - Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.
	Proactive Accountability (Section 5.3.6.2)	SCUP-D	Status quo/no action	No additional proactive measures established
		SCUP-E (Council - Preferred)	Proposed	Use of ACTs
		SCUP-F (Council - Preferred)	Proposed	General inseason closure authority - recreational
	Reactive Accountability (Section 5.3.6.3)	SCUP-G	Status quo/no action	No additional reactive AMs established
		SCUP-H (Council - Preferred)	Proposed	3 mechanism accountability for catch
	Joint Action Accountability (Section 5.3.6.4)	SCUP-I	Status quo/no action	No joint action beyond that which already occurs
		SCUP-J (Council - Preferred)	Proposed	Joint action to revisit disconnects in quotas

5.3.6.1 Scup Annual Catch Limit

Alternative SCUP-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC and TAL divided into a commercial quota and recreational harvest limit, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative SCUP-B: Specify ACL= ABC with 1-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (commercial and recreational) would be set equal to the ABC for scup. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 11 provided later in this section highlights the ACL structure if this alternative is selected.

$$\mathbf{\Sigma(ACL_{SECTOR}) = ABC}$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For both the recreational and commercial sector this is based on a single-year comparison.

Alternative SCUP-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (i.e., commercial and recreational) would be set equal to the ABC for scup. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 11 provided later in this section highlights the ACL structure if this alternative is selected.

$$\mathbf{\Sigma(ACL_{SECTOR}) = ABC}$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For the commercial sector this is based on a single-year comparison, for the recreational sector this would be based on a 3-year moving average comparison of catch to the 3-year average of the recreational ACLs. This 3-year moving average would be phased in over the first three years of management under the implemented Omnibus Amendment measures: In year 1, observed catch would be compared to the recreational ACL for that year. In year 2, the average of year 1 and year 2 catch would be compared to the average of the recreational ACLs for year 1 and year 2. In year 3, the average of the catch from year 1, 2, and 3 would be compared to the average of the recreational ACLs for year 1, 2, and 3, and the comparison thereafter will be based on a prior three year moving average of catches and recreational ACLs.

5.3.6.2 Scup Proactive Accountability Measures

Alternative SCUP-D: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the scup fishery. Those AM-like authorities linked to landings which already exist within the FMP for summer flounder will continue to function as described in the FMP. The specifications process permits possession limits to be established for the Winter I and II quota periods (§ 648.120(b)(3)) and the percent of landings attained at which the Winter I landing limit will be reduced ((§ 648.120(b)(4)). In recent years, the Winter I fishery has carried a 30,000 lb Federal landing limit that drops to 1,000 lb when 80 percent of the Winter I quota period has been attained. A variable trip limit scale has been used for Winter II dependent on the amount of unused Winter I quota rolled over to the Winter II period.

Alternative SCUP-E (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, existing sector allocations defined in the FMP would be used to partition the ABC into sector-specific ACLs. Separate recreational and commercial sector ACTs would be specified and may be reduced from the sector-specific ACLs (i.e., commercial ACL and recreational ACL) to address management uncertainty. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 11 provided later in this section highlights the ACT structure if this alternative is selected.

The Scup Monitoring Committee will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for the sector-specific fishery management measures for a single year or up to 3 years.

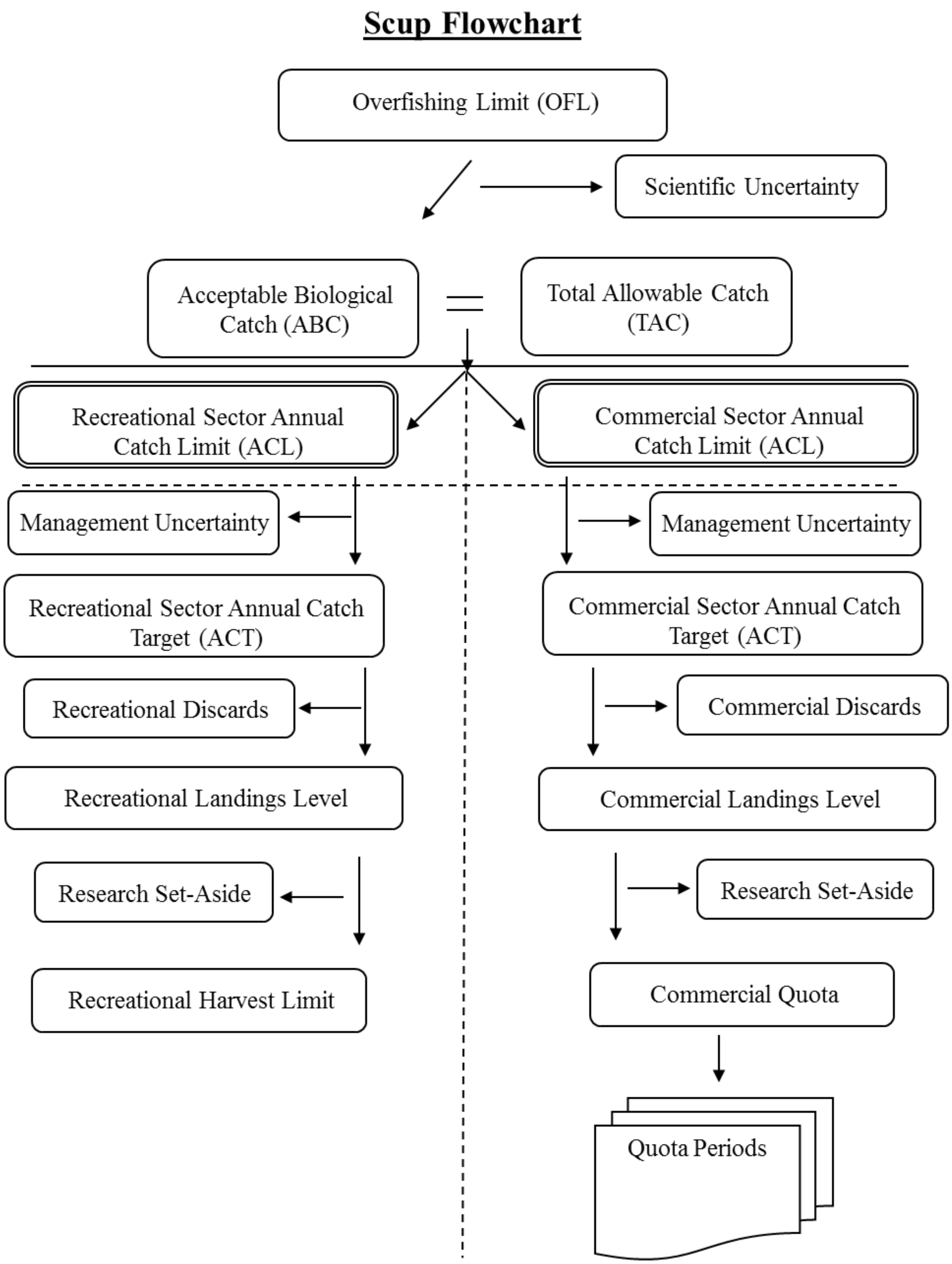


Figure 11. Scup catch limit structure if recreational and commercial ACTs are utilized.

Alternative SCUP-F (Council-Preferred): General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the RHL. This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the scup recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

5.3.6.3 Scup Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative SCUP-G: Status quo/no action

Under this alternative, the status quo would continue and a commercial landings based overage deduction in the FMP for scup would occur; specifically, there is an overage deduction mechanism (i.e., commercial landing repayment lb-for-lb) in place by which quota period-specific landings overages are deducted from the same subsequent year quota period allocation (§ 648.120(d)(4)(i)and (ii)). While this measure could be used to address the requirement for commercial landings-based accountability, the status quo would lack accountability for all catch components for this stock (i.e., recreational landings and total discards). Because the measures contained in the FMP do not perform the full function of a comprehensive catch accountability system, it would be inconsistent with the NS1 guidelines.

Alternative SCUP-H (Council-Preferred): Accountability for Catch Components

For scup, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Commercial Landings Component of the ACL: Irrespective of whether the ACL is or is not exceeded, the mechanisms to address commercial landings overages already in the FMP described in (§ 648.120(d)(4)(i)and (ii)) would be applied.

Reactive Accountability for the Recreational Landings Component of the ACL: If the recreational sector ACL is exceeded, the RHL overage would be deducted from the following year's recreational harvest limit (i.e., recreational landings repayment lb-for-lb) which would reduce the recreational sector ACT the following year as a single year adjustment.

The Atlantic States Marine Fisheries Commission (ASMFC) may explore regional accountability if regional conservation equivalency is utilized; however, the Federal FMP is not empowered to impose such repayment requirements in state waters.

Reactive Accountability for Other Non-landings Components of the ACL: Accountability for other catch components (other than commercial or recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then accountability would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

5.3.6.4 Scup Joint Action Accountability Measures

Alternative SCUP-I: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to convene the ASMFC Summer Flounder, Scup, Black Sea Bass Board and Council under joint rules beyond the routine specifications process with jointly convened meetings in August and December of each year.

Alternative SCUP-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The following would need to be jointly adopted under Council and ASMFC rules:
Action to Address State/Federal Disconnects in Catch Limits: If the ASMFC Summer Flounder, Scup, Black Sea Bass Board approves different total catch or allowable landings, commercial quotas, and/or and recreational harvest limits for summer flounder that differ from recommendations made by the Council for Federal waters, administrative action will be taken to reconvene the Council and ASMFC Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations. The intent of such action is to try and achieve alignment of state and federal measures so potential differential effects on Federal permit holders resulting from different catch levels, is avoided.

5.3.7 Black Sea Bass

A brief overview of the alternatives contained within this section is given in Box 5.3.7.

Box 5.3.7. Brief description of the alternatives included in section 5.3.7.				
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**
Black Sea Bass (Section 5.3.7)	*Annual Catch Limit (Section 5.3.7.1)*	BSB-A	Status quo/no action	No established ACL in FMP
		BSB-B	Proposed	Establish sector ACLs = ABC, with 1 yr. recreational catch avg.
		BSB-C (Council - Preferred)	Proposed	Establish sector ACLs = ABC, with 3 yr. recreational catch avg.
	Proactive Accountability (Section 5.3.7.2)	BSB-D	Status quo/no action	No additional proactive measures established
		BSB-E (Council - Preferred)	Proposed	Use of ACTs
		BSB-F (Council - Preferred)	Proposed	General inseason closure authority - recreational
	Reactive Accountability (Section 5.3.7.3)	BSB-G	Status quo/no action	No additional reactive AMs established
		BSB-H (Council - Preferred)	Proposed	3 mechanism accountability for catch
	Joint Action Accountability (Section 5.3.7.4)	BSB-I	Status quo/no action	No joint action beyond that which already occurs
		BSB-J (Council - Preferred)	Proposed	Joint action to revisit disconnects in quotas

5.3.7.1 Black Sea Bass Annual Catch Limit

Alternative BSB-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC and TAL divided into a commercial quota and recreational harvest limit, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative BSB-B: Specify ACL= ABC with 1-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (commercial and recreational) would be set equal to ABC for black sea bass. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 12 provided later in this section highlights the ACL structure if this alternative is selected.

$$\Sigma(ACL_{SECTOR}) = ABC$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For both the recreational and commercial sector this is based on a single-year comparison.

Alternative BSB-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Average

ACL: Under this alternative, the sum of the ACLs for each sector (i.e., commercial and recreational) would be set equal to ABC for black sea bass. The formula reads as the summation of all sector-specific ACL equals the ABC. The ABC would be allocated to each sector ACL according to the allocation guidelines of the FMP. Figure 12 provided later in this section highlights the ACL structure if this alternative is selected.

$$\Sigma(ACL_{SECTOR}) = ABC$$

ACL Evaluation: The ACLs are exceeded when the recreational catch exceeds the recreational sector ACL or the commercial catch exceeds the commercial sector ACL. For the commercial sector this is based on a single-year comparison, for the recreational sector this would be based on a 3-year moving average comparison of catch to the 3-year average of the recreational ACLs. This 3-year moving average would be phased in over the first three years of management under the implemented Omnibus Amendment measures: In year 1, observed catch would be compared to the recreational ACL for that year. In year 2, the average of year 1 and year 2 catch would be compared to the average of the recreational ACLs for year 1 and year 2. In year 3, the average of the catch from year 1, 2, and 3 would be compared to the average of the recreational ACLs for year 1, 2, and 3, and the comparison thereafter will be based on a prior three year moving average of catches and recreational ACLs.

5.3.7.2 Black Sea Bass Proactive Accountability Measures

Alternative BSB-D: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the black sea bass fishery. Those AM-like authorities linked to landings which already exist within the FMP for summer flounder will continue to function as described in the FMP. If 100 percent of the coastwide commercial quota is projected to be reached within the fishing year, then the fishery could be closed for the remainder of the fishing year (§ 684.141). The EEZ may also be closed for the remainder of the year if inaction by one or more states will cause the target F to be exceeded (§ 648.141)

Alternative BSB-E (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, existing sector allocations defined in the FMP would be used to partition the ABC into sector-specific ACLs. Separate recreational and commercial sector ACTs would be specified and may be reduced from the sector-specific ACLs (i.e., commercial ACL and recreational ACL) to address management uncertainty. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 12 provided later in this section highlights the ACT structure if this alternative is selected.

The Black Sea Bass Monitoring Committee will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for the sector-specific fishery management measures for a single year or up to 3 years.

Alternative BSB-F (Council-Preferred): General Inseason Closure Authority

General Recreational Closure Authority: Under this alternative, the Regional Administrator will monitor the recreational fishery, and shall determine if the recreational landings have exceeded the RHL. This determination will be based on observed landings (i.e., data-in-hand) and will not be based upon projections of the data. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the black sea bass recreational fishery in the EEZ will be closed for the remainder of the fishing year. This proactive AM is designed to reduce the magnitude of potential recreational overages by halting the accrual of additional landings, thus reducing the magnitude of overage mitigation necessary if reactive AMs are triggered (i.e., lb-for-lb repayment of overages).

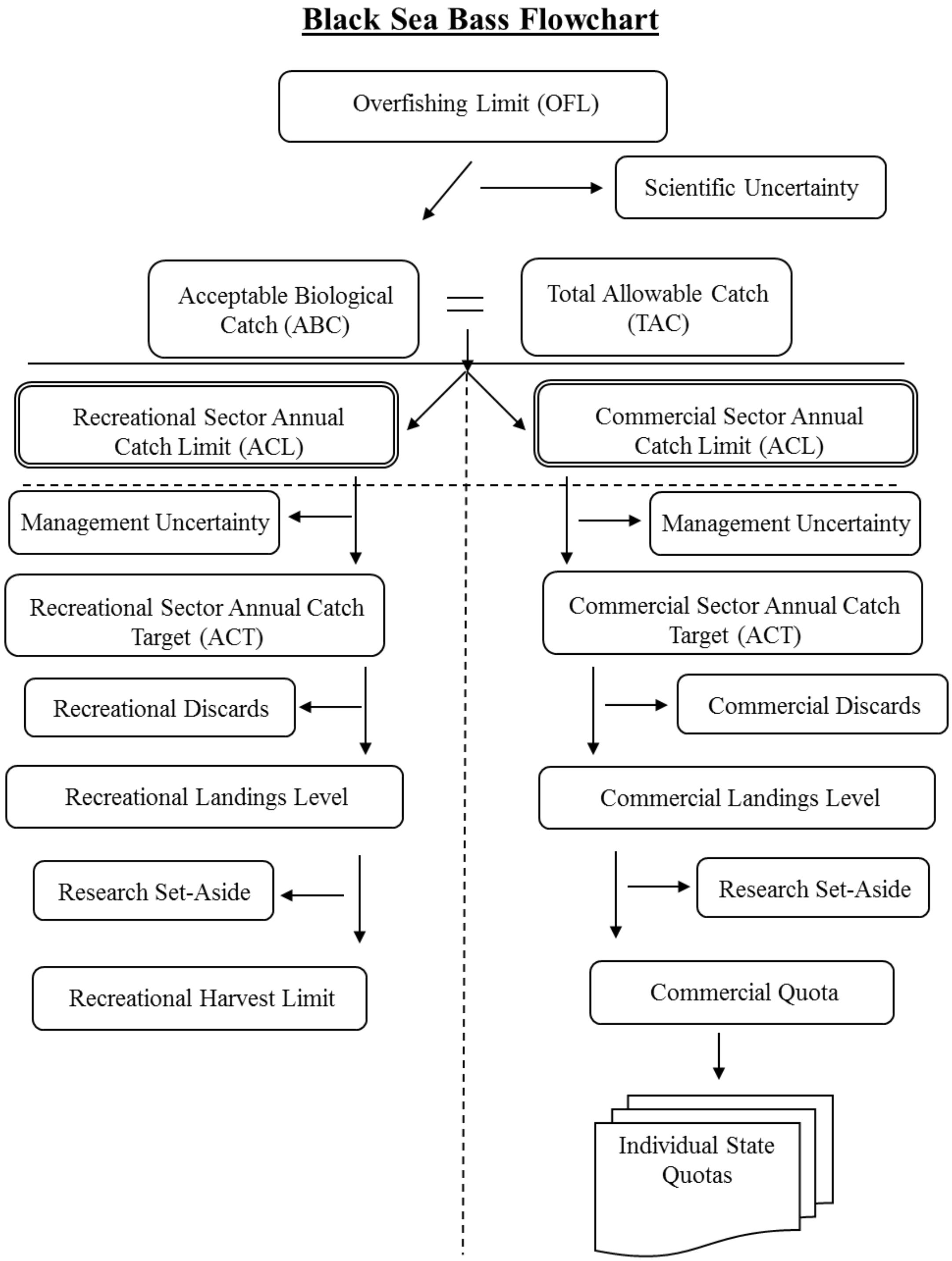


Figure 12. Black sea bass catch limit structure if recreational and commercial ACTs are utilized.

5.3.7.3 Black Sea Bass Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative BSB-G: Status quo/no action

Under this alternative, the status quo would continue and a commercial landings based overage deduction in the FMP for black sea bass would occur; specifically, there is an overage deduction mechanism (i.e., commercial landing repayment lb-for-lb) in place by which coastwide landing overages are deducted from their following year allocation (§ 648.140(d)(3)). While this measure could be used to address the requirement for commercial landings-based accountability, the status quo would lack accountability for all catch components for this stock (i.e., recreational landings and total discards). Because the measures contained in the FMP do not perform the full function of a comprehensive catch accountability system, it would be inconsistent with the NS1 guidelines.

Alternative BSB-H (Council-Preferred): Accountability for Catch Components

For black sea bass, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Commercial Landings Component of the ACL: Irrespective of whether the ACL is or is not exceeded, the mechanisms to address commercial landings overages already in the FMP described in (§ 648.140(d)(3)) would be applied.

Reactive Accountability for the Recreational Landings Component of the ACL: If the recreational sector ACL is exceeded, the RHL overage would be deducted from the following year's recreational harvest limit (i.e., recreational landings repayment lb-for-lb) which would reduce the recreational sector ACT the following year, as a single year adjustment.

Reactive Accountability for Other Non-landings Components of the ACL: Accountability for other catch components (other than commercial or recreational landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then accountability would occur at the sector-specific ACL. Specifically, the amount by which the commercial sector ACL and/or recreational sector ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

5.3.7.4 Black Sea Bass Joint Action Accountability Measures

Alternative BSB-I: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to convene the ASMFC Summer Flounder, Scup, Black Sea Bass Board and Council under joint rules beyond the routine specifications process with jointly convened meetings in August and December of each year.

Alternative BSB-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The following would need to be jointly adopted under Council and ASMFC rules:
Action to Address State/Federal Disconnects in Catch Limits: If the ASMFC Summer Flounder, Scup, Black Sea Bass Board approves different total catch or allowable landings, commercial quotas, and/or and recreational harvest limits for summer flounder that differ from recommendations made by the Council for Federal waters, administrative action will be taken to reconvene the Council and ASMFC Summer Flounder, Scup, Black Sea Bass Board, at earliest convenience, to revisit their recommendations. The intent of such action is to try and achieve alignment of state and federal measures so potential differential effects on Federal permit holders resulting from different catch levels, is avoided.

Atlantic Surfclam and Ocean Quahog FMP

5.3.8 Atlantic Surfclam

A brief overview of the alternatives contained within this section is given in Box 5.3.8.

Box 5.3.8. Brief description of the alternatives included in section 5.3.8.				
Managed Resource	**Issue**	**Alternative**	**Status**	**Description of Action**
Atlantic Surfclam (Section 5.3.8)	*Annual Catch Limit (Section 5.3.8.1)*	SURF-A	Status quo/no action	No established ACL in FMP
		SURF-B (Council - Preferred)	Proposed	Establish ACL = ABC
	Proactive Accountability (Section 5.3.8.2)	SURF-C	Status quo/no action	No additional proactive measures established
		SURF-D (Council - Preferred)	Proposed	Use of ACT
	Reactive Accountability (Section 5.3.8.3)	SURF-E	Status quo/no action	No reactive AMs established
		SURF-F (Council - Preferred)	Proposed	1 mechanism accountability for catch

5.3.8.1 Atlantic Surfclam Annual Catch Limit

Alternative SURF-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of an ACT, as given in Appendix B and outlined in the FMP. While this process could be used to partially address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative SURF-B: (Council-Preferred): Specify ACL = ABC

ACL: Under this alternative, the fishery-level ACL would be set equal to the ABC for Atlantic surfclam. Figure 13 provided later in this section highlights the ACL structure if this alternative is selected.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

After reducing catch levels from the ACL to address OY for this fishery, the allocation precepts of the FMP would be applied.

5.3.8.2 Atlantic Surfclam Proactive Accountability Measures

Alternative SURF-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the Atlantic surfclam fishery. Those AM-like authorities that already exist within the FMP for Atlantic surfclam will continue to function as described in the FMP. Fishing areas may be closed due to environmental degradation, small surfclams, and/or paralytic shellfish poisoning toxin (§ 648.73(a), (b), and (d)).

Alternative SURF-D (Council-Preferred): Use of ACT

Use of ACT: Under this alternative, an ACT would be specified and may be reduced from the ACL to address management uncertainty. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 13 provided later in this section highlights the ACL and ACT relationship if this alternative is selected.

The Council staff will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, or other emerging issues including fishery discards, as part of the specifications process for fishery management measures. The staff may provide other recommendations relevant to setting catch limits consistent with the MSA. The staff will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including formulaic control rules if applied, for any reduction in catch when recommending ACT. The ACT, technical basis, and sources of management uncertainty would be described and provided to the Council as part of the surfclam annual quota recommendation paper to the SSC and the Council outlined in §648.71(1) at the time recommendations are made for fishery management measures for a single year or up to 3 years.

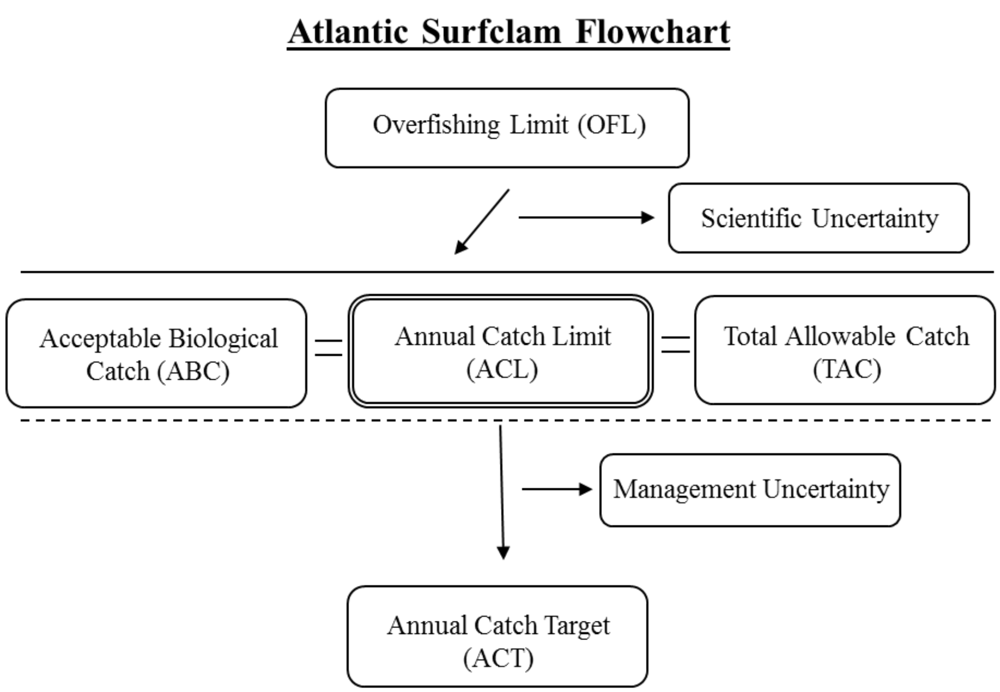


Figure 13. Atlantic surfclam catch limit structure if the ACT is utilized to address management uncertainty.

5.3.8.3 Atlantic Surfclam Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative SURF-E: Status quo/no action

Under this alternative, the status quo would continue and there would be no mechanisms in the FMP for Atlantic surfclam that function as reactive accountability measures and address accountability for all catch components of the ACL. Therefore, this alternative is inconsistent with the NS1 guidelines.

Alternative SURF-F (Council-Preferred): Accountability for Catch Components

For Atlantic surfclam, under this alternative the Council is proposing a single reactive accountability mechanism that responds to potential overages for all catch components.

Reactive Accountability for ITQ fishery: If the ACL is exceeded, and that overage can be attributed to an ITQ permit holder, then accountability for that overage would occur at the ITQ permit level. Specifically, individual ITQ permits would be reduced in the following year by 100 percent of the overage (i.e., bushel-for-bushel repayment), as a single-year adjustment only. Any amount of an ACL overage that cannot be otherwise attributed to an ITQ permit holder will be deducted from the ACL in the following fishing year.

5.3.9 Ocean Quahog

A brief overview of the alternatives contained within this section is given in Box 5.3.9.

Box 5.3.9. Brief description of the alternatives included in section 5.3.9.

Managed Resource	Issue	Alternative	Status	Description of Action
Ocean quahog (Section 5.3.9)	*Annual Catch Limit (Section 5.3.9.1)*	QUAHOG-A	Status quo/no action	No established ACL in FMP
		QUAHOG-B (Council - Preferred)	Proposed	Establish ACL = ABC
	Proactive Accountability (Section 5.3.9.2)	QUAHOG-C	Status quo/no action	No additional proactive measures established
		QUAHOG-D (Council - Preferred)	Proposed	Use of ACTs
	Reactive Accountability (Section 5.3.9.3)	QUAHOG-E	Status quo/no action	No reactive AMs established
		QUAHOG-F (Council -	Proposed	1 mechanism accountability for catch

		Preferred)		

5.3.9.1 Ocean Quahog Annual Catch Limit

Alternative QUAHOG-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAC and TAL, as given in Appendix B and outlined in the FMP. While this process could be used to address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative QUAHOG-B (Council-Preferred): Specify ACL = ABC

ACL: Under this alternative, the fishery-level ACL would be set equal to the ABC for ocean quahog. Figure 14 provided later in this section highlights the ACL structure if this alternative is selected.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

After reducing catch levels from the ACL to address OY for this fishery, the allocation precepts of the FMP would be applied to the Non-Maine fishery (all fishery components less Maine) and Maine fishery component.

5.3.9.2 Ocean Quahog Proactive Accountability Measures

Alternative QUAHOG-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the ocean quahog fishery. Those AM-like authorities that already exist within the FMP for ocean quahog will continue to function as described in the FMP. The Maine mahogany ocean quahog quota is monitored inseason and may be closed when the quota is projected to be taken (§ 648.76(b)(1)(i)-(iv)). All Maine mahogany ocean quahog permitted vessels landing quahogs while not utilizing an individual allocation of ocean quahogs are applied against the annual Maine mahogany ocean quahog quota. The Regional Administrator will close the Maine mahogany fishery for the remainder of the fishing year when dealer reports and other information indicate the Maine mahogany ocean quahog quota will be reached.

Alternative QUAHOG-D (Council-Preferred): Use of ACTs

Use of ACTs: Under this alternative, a Maine-fishery ACT and Non-Maine Fishery would be specified based on the allocation precepts of the FMP, and may be reduced from the ACL to address management uncertainty. In this case, proactive ACTs would be specified for the Non-Maine fishery (all fishery components less Maine) and Maine fishery component. The sum of the Non-Maine and Maine ACTs, would be less than ACL based on achieving the OY range in the FMP, and any additional reduction in catch to address management uncertainty. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 14 provided later in this section highlights the ACT structure if this alternative is selected.

The Council staff will be responsible for recommending ACTs to the Council which consider and address management uncertainty as defined under NS1 guidelines, or other emerging issues including fishery discards, as part of the specifications process for fishery management measures. The staff may provide other recommendations relevant to setting catch limits consistent with the MSA. The staff will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including formulaic control rules if applied, for any reduction in catch when recommending ACTs. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council as part of the Ocean quahog annual quota recommendation paper to the SSC and the Council outlined in §648.71(1) at the time recommendations are made for fishery management measures for a single year or up to 3 years.

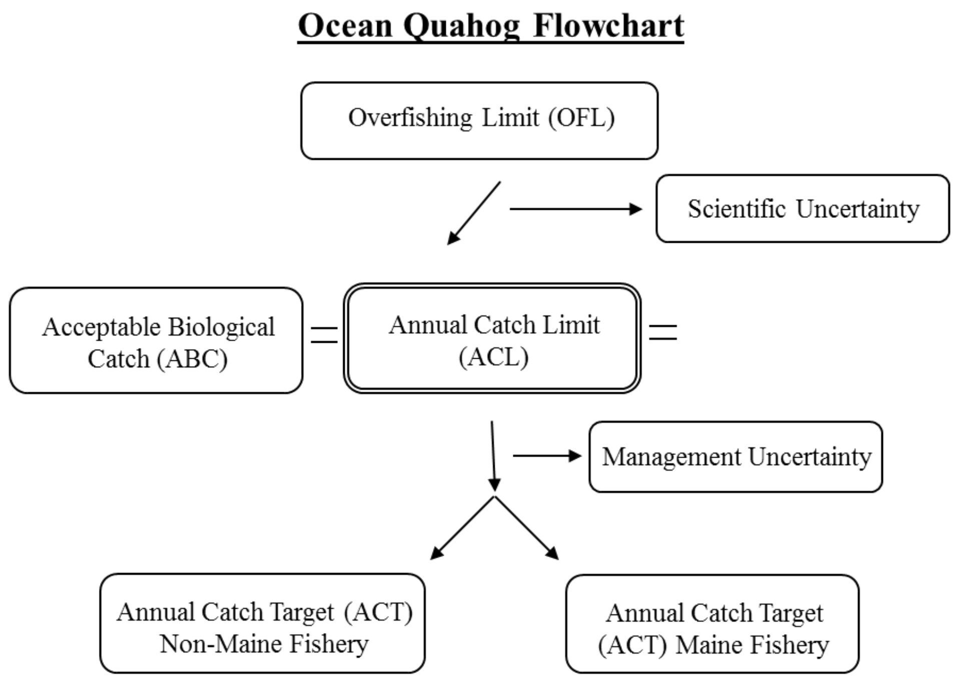


Figure 14. Ocean quahog catch limit structure if ACTs are utilized.

5.3.9.3 Ocean Quahog Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative QUAHOG-E: Status quo/no action

Under this alternative, the status quo would continue and there would be no mechanisms in the FMP for ocean quahog that function as reactive accountability measures and address accountability for all catch components of the ACL. Therefore, this alternative is inconsistent with the NS1 guidelines.

Alternative QUAHOG-F (Council-Preferred): Accountability for Catch Components

For ocean quahog, under this alternative the Council is proposing two reactive accountability mechanisms that respond to potential overages for all catch components.

Reactive Accountability for Non-Maine fishery: If the ACL is exceeded and the Non-Maine fishery is responsible for the overage, then the Non-Maine Fishery ACT is adjusted. Accountability for that overage would occur at the ITQ permit level. Specifically, if the overage can be attributed to an ITQ permit, then the individual ITQ permits would be reduced in the following year by 100 percent of the overage (i.e., bushel-for-bushel repayment), as a single-year adjustment. Any amount of an ACL overage that cannot be otherwise attributed to an ITQ permit holder will be deducted from the appropriate ACL in the following fishing year.

Reactive Accountability for Maine fishery: If the ACL is exceeded and the Maine fishery is responsible for the overage, then the Maine Fishery ACT is adjusted. The amount by which the ACL was exceeded would be used to adjust the Maine fishery ACT the following year (i.e., bushel-for-bushel repayment), as a single-year adjustment.

Tilefish FMP

5.3.10 Tilefish

A brief overview of the alternatives contained within this section is given in Box 5.3.9.

Box 5.3.10. Brief description of the alternatives included in section 5.3.10.

Managed Resource	Issue	Alternative	Status	Description of Action
Tilefish (Section 5.3.10)	*Annual Catch Limit (Section 5.3.10.1)*	TILE-A	Status quo/no action	No established ACL in FMP
		TILE-B (Council-Preferred)	Proposed	Establish ACL = ABC
	Proactive Accountability (Section 5.3.10.2)	TILE-C	Status quo/no action	No additional proactive measures established
		TILE-D (Council-Preferred)	Proposed	Use of ACT
		TILE-E (Council-Preferred)	Proposed	Incidental fishery closure authority
		TILE-F (Council-Preferred)	Proposed	Trip limit increase to 500 lb
	Reactive Accountability (Section 5.3.10.3)	TILE-G	Status quo/no action	No additional reactive AMs established
		TILE-H (Council-Preferred)	Proposed	3 mechanism accountability for catch

5.3.10.1 Tilefish Annual Catch Limit

Alternative TILE-A: Status quo/no action

Under this alternative, the status quo process contained within the FMP for establishing catch limits would be maintained. This includes specification through the Council process of TAL, as given in Appendix B and outlined in the FMP. While this process could be used to partially address the overarching requirement of an annual catch limit that considers both landings and discards, the status quo would lack an associated system of accountability for all catch components for this stock. Because the current catch limits in the FMP do not perform the full function of establishing both a catch limit and comprehensive catch accountability system, it would not be fully consistent with the NS1 guidelines. Therefore, the Council has is considering additional measures, designed to work in concert with status quo/no action measures and methods to fully address the NS1 guideline-recommended system for ACLs and AMs.

Alternative TILE-B (Council-Preferred): Specify ACL= ABC

ACL: Under this alternative, the fishery-level ACL would be set equal to the ABC for the tilefish stock. Figure 15 provided later in this section highlights the ACL structure if this alternative is selected.

ACL = ABC

ACL Evaluation: The ACL is exceeded when the catch from the total fishery exceeds this value. This comparison of observed catch to ACL is based on a single-year comparison.

5.3.10.2 Tilefish Proactive Accountability Measures

Alternative TILE-C: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to establish additional proactive accountability measures for the tilefish fishery. Those AM-like authorities linked to landings which already exist within the FMP for tilefish will continue to function as described in the FMP.

The tilefish fishery has a mechanism to adjust the tilefish incidental trip limit if the incidental category exceeds 5 percent of the TAL (§ 648.290(c)). A trip limit of 300 lb exists for the incidental category (§ 648.293). If the incidental catch exceeds 5 percent of the incidental trip limit of 300 lb may be reduced in the following fishing year.

Alternative TILE-D (Council-Preferred): Use of ACT

Use of ACT: Under this alternative, an ACT would be specified and serve as a buffer from the ACL. The Council has developed ACTs as they provide increased flexibility for dealing with management uncertainty and do not evoke automatic AMs if exceeded. Additional information on the use and function of ACTs as envisioned by the Council for managed resources can be found in section 4.1.1. Figure 15 provided later in this section highlights the ACT structure if this alternative is selected.

The Tilefish Monitoring Committee will be responsible for recommending an ACT to the Council which considers and addresses management uncertainty as defined under NS1 guidelines, as part of the specifications process for fishery management measures. The Monitoring Committee may provide other recommendations relevant to setting catch limits consistent with the MSA. The Monitoring Committee will consider all relevant sources of management uncertainty in this fishery and provide the technical basis, including any formulaic control rules if applied, for any reduction in catch when recommending an ACT. The ACTs, technical basis, and sources of management uncertainty would be described and provided to the Council at the time Monitoring Committee recommendations are made for the sector-specific fishery management measures for a single year or up to 3 years.

The recreational fishery for tilefish appears to be small (i.e., less than 1 metric ton annually from 48th SAW; NEFSC, 2009) based on the landings information available through the Marine Recreational Fisheries Statistics Survey (MRFSS); however, the recreational landings are highly imprecise because tilefish is a “rare event” in the sampling. Concerns have been raised about the potential emergence of a recreational tilefish fishery and the ability of the recreational landings survey (i.e., MRFSS) to accurately capture the magnitude of that fishery given the levels of sampling. Mortality from the recreational fishery is not presently accounted for through the stock assessment, which would be the appropriate place to address sources of fishing mortality. If not accommodated under scientific uncertainty, uncertainty associated with the imprecision of the recreational fishery (i.e., inability to accurately capture the true magnitude of that fishery) could be accommodated under management uncertainty.

Alternative TILE-E (Council-Preferred): Incidental Fishery Closure Authority

Incidental Fishery Inseason Closure Authority: Under this alternative, the Regional Administrator will monitor the incidental category fishery based on available information, and shall determine the date when the allocation will be harvested. The Regional Administrator shall publish notification in the *Federal Register* advising that, effective upon a specific date, the incidental category has been harvested will be closed for the remainder of the fishing year. This proactive AM is designed to prevent and/or significantly reduce the magnitude of potential overages.

Alternative TILE-F (Council-Preferred): Trip Limit increase to 500 lb

Under this alternative, a trip limit of 500 lb would be applied in lieu of the existing 300 lb limit for the incidental category (§ 648.293). If the incidental catch exceeds 5 percent of the incidental fishery allocation, then the incidental trip limit of 500 lb may be reduced in the following fishing year.

This is based on table 85 in the original FMP, which suggests that prior to the implementation of the current 300 lb trip limit in 1998, there were 23 trips that did not use longline gear and landed in excess of 300 lb. Nine of those trips landed between 2,001-3,000 lb per trip, which suggests those trips may have been directing on tilefish. No trips landed 600-2,000 lb, and 14 trips landed between 301-600 lb. The remainder of the total 2,766 trips landed 300 lb or less. Of those trips between 301-600 lb, the catch per trip averaged 534 lb. In addition, recent analysis and modeling of tilefish trip limits suggests that regardless of the trip limit (including 0 lb), fishermen would not change their behavior or abandon any trip (Eric Thunberg, NEFSC, personal communication).

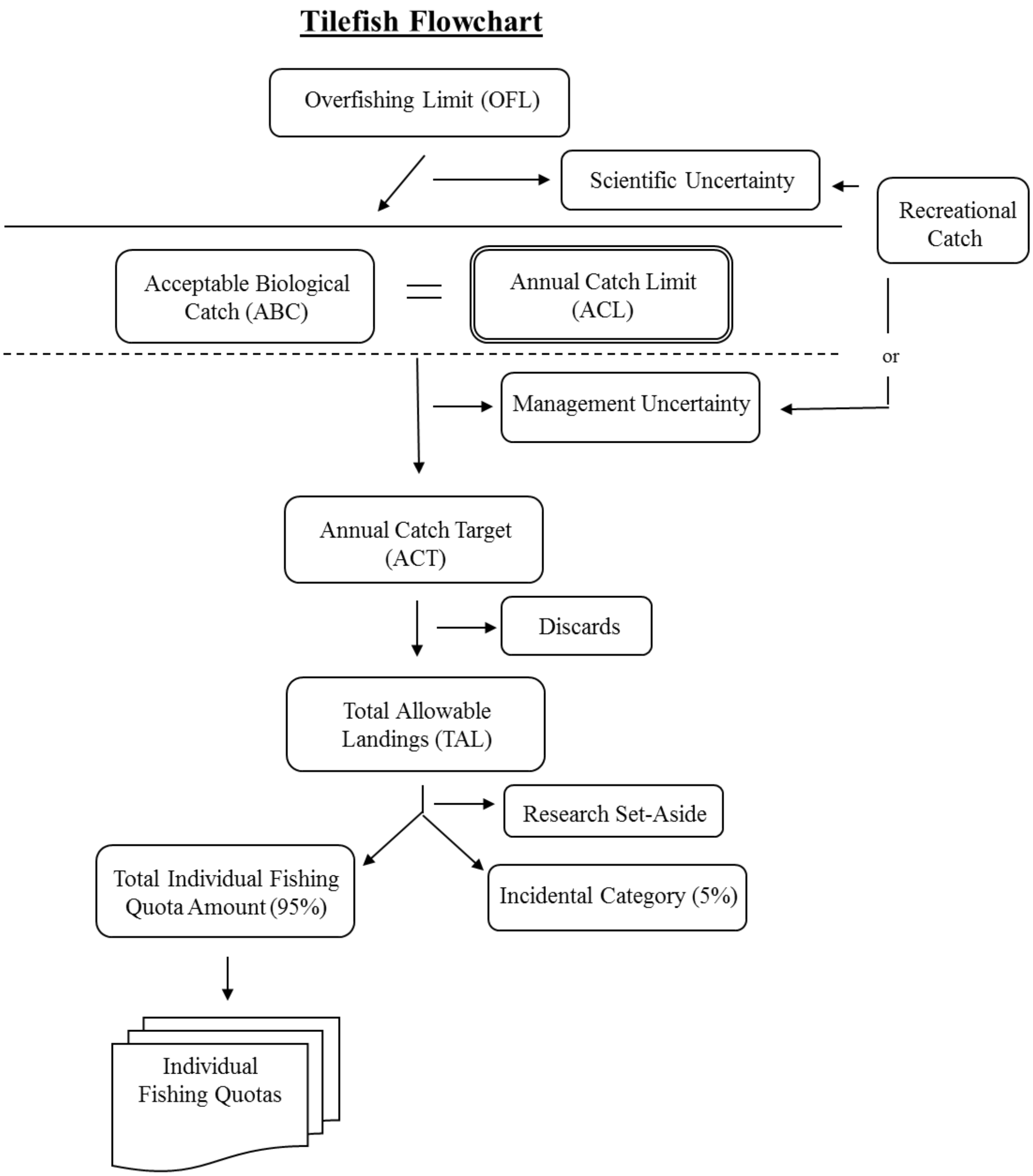


Figure 15. Tilefish catch limit structure if an ACT is utilized.

5.3.10.3 Tilefish Reactive Accountability Measures

To ensure maximum consistency with the NS1 guidelines, all FMPs should have, at a minimum, reactive accountability measures that seek to correct or mitigate overages of the ACL if they occur. These must be automatic functions of the FMP and cannot rely on analysis, deliberation, and recommendations for action by the Council or discretion of the Regional Administrator.

Alternative TILE-G: Status quo/no action

Under this alternative, the status quo would continue for tilefish and individual fishing quota (IFQ) overages, including amounts of tilefish landed by a lessee in excess of a temporary transfer of IFQ allocation would be deducted from the following fishing year allocation (§ 648.291(f)). While this measure could be used to address the requirement for ITQ landings-based accountability, the status quo would lack accountability for all catch components for this stock (i.e., incidental fishery landings and total discards). Because the measures contained in the FMP do not perform the full function of a comprehensive catch accountability system, it would be inconsistent with the NS1 guidelines.

Alternative TILE-H (Council-Preferred): Accountability for Catch Components

For tilefish, under this alternative the Council is proposing three reactive accountability mechanisms that respond to potential overages in the specific sectors or by non-landings, respectively.

Reactive Accountability for the Landings Components of the ACL: Irrespective of whether the ACL is or is not exceeded, the mechanisms to address ITQ overages already in the FMP described in (§ 648.140(d)(3)) would be applied. This is the status quo/no action.

If the ACL is exceeded and the incidental fishery landings are responsible for the overage, then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the ACL would be reduced the following year by the overage amount (i.e., lb-for-lb repayment), as a single year adjustment.

Reactive Accountability for Other Non-landings Components of the ACL: Accountability for other catch components (other than ITQ and incidental fishery landings) that result in the ACL being exceeded must also be addressed. In the event the ACL is exceeded, and that overage has not been accommodated through other mechanisms in the FMP (i.e., discards and/or unlikely event RSA is exceeded), then accountability would occur at the fishery level and the ACL would be reduced. Specifically, the amount by which the ACL was exceeded would be used to adjust the ACL the following year (i.e., lb-for-lb repayment), as a single year adjustment.

5.4 Future Review and Modification of Actions

A brief overview of the alternatives contained within this section is given in Box 5.4.

Box 5.4. Brief description of the alternatives included in section 5.4.

Issue	Sub-issue	Alternative	Status	Description of Action
Future Review and Modification of Actions (Section 5.4)	*Performance Review of Alternatives (Section 5.4.1)*	REVIEW-A	Status quo/no action	No formalized review process
		REVIEW-B (Council-Preferred)	Proposed	Review of ABC control rules
		REVIEW-C (Council-Preferred)	Proposed	Review of ACLs and AMs
	Description of Process of Modify Actions (Section 5.4.2)	MODIFY-A	Status quo/no action	No description of process to modify actions
		MODIFY-B (Council-Preferred)	Proposed	Description of process to modify actions in future

5.4.1 Performance Review of ABC, ACL, and AM Alternatives

Alternative REVIEW-A: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to prepare and review information on the performance of the ABC control rules, ACL control rules, and comprehensive system of accountability, beyond the materials prepared and SSC and Monitoring Committee (if applicable) review of materials, for the catch limit specification processes to set measures annually or for up to three years (5 for spiny dogfish).

Alternative REVIEW-B (Council-Preferred): SSC Review of ABC Control Rules

Under this alternative, ABC control rule performance will be reviewed in detail by the SSC five years after initial implementation of the Omnibus Amendment for the managed resources, and at least every five years thereafter. Council staff will prepare data on ABC control rule performance prior to the review in conjunction with the SSC managed resource lead. If it is determined that the ABC control rules are not performing as intended regarding preventing and ending overfishing, the SSC shall recommend modifications. Any recommended modifications would be addressed in a manner consistent with the magnitude and significance of the proposed changes (section 5.4.2). The periodicity of the reviews could be less than five years, based on more frequent reviews required by the Council under rebuilding plans, Council initiated review due to poor control rule performance relative to overfishing, or other relevant factors.

These periodic reviews do not substitute for the specification setting review which updates catch level recommendations for the upcoming fishing year(s); however, these more detailed reviews may be scheduled to coincide with specification meetings.

Alternative REVIEW-C (Council-Preferred): Monitoring Committee Review of ACL Control Rules

Under this alternative, fishery performance relative to the ACL and ACT, ACT control rule performance if established or applicable, and the performance of AMs will be reviewed by the respective managed resource Monitoring Committees (or staff for surfclam and ocean quahog) at least every 5 years. The periodicity of the reviews could be less than 5 years, based on more frequent reviews required by the Council under rebuilding plans, Council initiated review due to poor control rule performance relative to the ACL, or other relevant factors. Council staff will monitor the fishery performance relative to the ACL, and will notify the Council if the ACL for one of the managed resources is exceeded with a frequency greater than 25 percent (i.e., 1 in 4 years or 2 consecutive years). Council staff will prepare data on fishery performance relative to the ACL, ACT control rule performance, and performance of AMs, prior to the review. If it is determined that the measures implemented are not performing as intended to prevent the ACL from being exceeded, the managed resource Monitoring Committee's (or staff for surfclam and ocean quahog) shall recommend modifications.

These periodic reviews do not substitute for the specification setting review which updates catch level recommendations for the upcoming fishing year(s); however, these more detailed reviews may be scheduled to coincide with specification meetings.

5.4.2 Description of Process to Modify Actions

Alternative MODIFY-A: Status quo/no action

Under this alternative, the status quo would continue and no action would be taken to describe the process to review and modify measures addressed in this document. As such, a determination would need to be taken at the time of action development, which process would be most appropriate, specifications, FMP framework adjustment, or FMP Amendment.

Alternative MODIFY-B (Council-Preferred): Modification of Actions, including Framework Action List

Need for Adaptive Process
The actions taken in this Omnibus Amendment to establish catch limit frameworks for the purposes of specifying ABCs, ACLs, ACTs, and their associated AMs for each of the managed resources are intended to be dynamic to ensure these catch frameworks and associated system of accountability are flexible so that they do achieve the objectives of the FMP, prevent overfishing, and when required, rebuild fisheries. Flexibility is imperative and must allow for timely modifications given the dynamic nature of fisheries and the environment. This action, therefore, contemplates a process that allows for the timely modification of the action alternatives proposed in this document through the annual specifications or FMP framework adjustment. Undoubtedly, there will be modifications to the program as yet not contemplated that will have to go through an FMP amendment.

Modification of ABC Control Rules
The action proposed in this document would establish an ABC control rule methods framework comprised of four levels to which a stock could be classified. Each level would apply different ABC control rules. Those specific control rules, including the levels and criteria [including aspects of the risk policy which is part of the control rule], that are applied to derive ABC for the upcoming fishing year(s) would be conceptually expressed in the regulations implementing the Omnibus Amendment and given effect through specifications. Future modifications to these control rule methods would be based upon the best available scientific and other relevant information and could be recommended to the Council and implemented through subsequent specifications rulemaking. The introduction of an ABC control rule approach that is a major departure from the action taken in this document would need to go through either a FMP framework adjustment or FMP amendment. An FMP Amendment would be required for future measures that have not been previously contemplated in the FMP.

Modification of Risk Policy
The action proposed in this document would establish a formal Council risk policy, which expresses the Council's tolerance for risk of overfishing. The specific values associated with the risk policy that were applied by the SSC when deriving ABC for the upcoming fishing year(s) would be given effect through specifications. Future minor modifications to the risk policy, such as aspects of the policy (i.e., inflection points, intercepts, and range of probabilities), could be recommended by the Council and implemented through subsequent annual specifications rulemaking. The introduction of risk policy that is a major departure from the action taken in this document would need to go through either an FMP framework adjustment or FMP amendment. An FMP amendment would be required for future measures that have not been previously contemplated in the FMP.

Modification of ACT Control Rules
The action proposed in this document would establish a process for the development of ACT control rules to address management uncertainty. The ACT control rules that are applied to derive ACTs, for the upcoming fishing year(s) would be developed by the various species Monitoring Committees or staff for those stocks which lack these committees, given the dynamic nature of these fisheries and resulting variability in the sources of management uncertainty, within the specifications development process. Those specific control rules, that are applied to derive ACT for the upcoming fishing year(s) would be conceptually expressed in the regulations implementing the annual specifications. This process allows the development of rules that are specific to the fishing year and allows for an adaptive response to changes in the sources of management uncertainty inherent in the fisheries for the managed resources.

Modification of Existing AMs
The current specifications process already allows for modification of existing accountability measures through specifications for the managed resources on the basis that the dynamic nature of these fisheries requires the ability to respond to changing conditions in a timely fashion. Therefore, changes to the values associated with existing AMs (e.g., trip limits, trigger points for trip limit drops, etc.) can already be modified via specifications and that process would continue unmodified by this action.

Introduction of New AMs
In order for the system of catch limits and accountability proposed in this document to be effective for each of the managed resources, the introduction of new AMs is necessary to respond to the dynamic nature of these fisheries and prevent the ACL(s) from being exceeded. As such, it is contemplated that accountability measures may need to be introduced or strengthened in a timely manner to prevent, as much as is practicable, the ACL from being exceeded or to mitigate that overage and/or prevent it from occurring in the following year. For example, the introduction of sub-ACTs, a type of proactive AM may be necessary to address sub-components of the fishery which contribute to a lack of control in the total catch relative to the ACL and require the ability to manage that catch component independently. New or improved sources of data may allow for the development of more effective accountability measures in the future, such as annual or inseason accountability approaches for either the commercial or recreational fisheries, and the ability to responds to dynamic changes in the scientific and technical data available on which to base management measure is essential for preventing the ACL(s) from being exceeded.

The current list of FMP framework adjustment categories are given below. The Council shall develop and analyze appropriate management actions over the span of at least two Council meetings. The Council must provide the public with advance notice of the availability of the recommendation(s), appropriate justification(s) and economic and biological analyses, and the opportunity to comment on the proposed adjustment(s) at the first meeting, and prior to and at the second Council meeting. The Council's recommendations on adjustments or additions to management measures must come from one or more of the following categories:

Atlantic Mackerel and Butterfish - Minimum fish size, maximum fish size, gear restrictions, gear requirements or prohibitions, permitting restrictions, recreational possession limit, recreational seasons, closed areas, commercial seasons, commercial trip limits, commercial quota system including commercial quota allocation procedure and possible quota set asides to mitigate bycatch, recreational harvest limit, annual specification quota setting process, FMP Monitoring Committee composition and process, description and identification of EFH (and fishing gear management measures that impact EFH), description and identification of habitat areas of particular concern, overfishing definition and related thresholds and targets, regional gear restrictions, regional season restrictions (including option to split seasons), restrictions on vessel size (LOA and GRT) or shaft horsepower, changes to the Northeast Region SBRM (including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside programs), any other management measures currently included in the FMP, set aside quota for scientific research, regional management, and process for inseason adjustment to the annual specification.

Atlantic Bluefish - Minimum fish size, maximum fish size, gear restrictions, gear requirements or prohibitions, permitting restrictions, recreational possession limit, recreational season, closed areas, commercial season, description and identification of essential fish habitat (EFH), fishing gear management measures to protect EFH, designation of habitat areas of particular concern within EFH, changes to the Northeast Region SBRM (including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports and/or industry-funded observers or observer set-aside programs), and any other management measures currently included in the FMP.

Spiny Dogfish - Minimum fish size; maximum fish size; gear requirements, restrictions or prohibitions (including, but not limited to, mesh size restrictions and net limits); regional gear restrictions; permitting restrictions and reporting requirements; recreational fishery measures (including possession and size limits and season and area restrictions); commercial season and area restrictions; commercial trip or possession limits; fin weight to spiny dogfish landing weight restrictions; onboard observer requirements; commercial quota system (including commercial quota allocation procedures and possible quota set-asides to mitigate bycatch, conduct scientific research, or for other purposes); recreational harvest limit; annual quota specification process; FMP Monitoring Committee composition and process; description and identification of essential fish habitat; description and identification of habitat areas of particular concern; overfishing definition and related thresholds and targets; regional season restrictions (including option to split seasons); restrictions on vessel size (length and GRT) or shaft horsepower; target quotas; measures to mitigate marine mammal entanglements and interactions; regional management; changes to the Northeast Region SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside program; any other management measures currently included in the Spiny Dogfish FMP; and measures to regulate aquaculture projects.

Summer Flounder and Black Sea Bass - Minimum fish size, maximum fish size, gear restrictions, gear requirements or prohibitions, permitting restrictions, recreational possession limit, recreational seasons, closed areas, commercial seasons, commercial trip limits, commercial quota system including commercial quota allocation procedure and possible quota set asides to mitigate bycatch, recreational harvest limit, annual specification quota setting process, FMP Monitoring Committee composition and process, description and identification of essential fish habitat (and fishing gear management measures that impact EFH), description and identification of habitat areas of particular concern, overfishing definition and related thresholds and targets, regional gear restrictions, regional season restrictions (including option to split seasons), restrictions on vessel size (LOA and GRT) or shaft horsepower, operator permits, changes to the Northeast Region SBRM (including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside programs), any other commercial or recreational management measures, any other management measures currently included in the FMP, and set aside quota for scientific research.

Scup - Minimum fish size, maximum fish size, gear restrictions, gear restricted areas, gear requirements or prohibitions, permitting restrictions, recreational possession limit, recreational seasons, closed areas, commercial seasons, commercial trip limits, commercial quota system including commercial quota allocation procedure and possible quota set asides to mitigate bycatch, recreational harvest limit, annual specification quota setting process, FMP Monitoring Committee composition and process, description and identification of essential fish habitat (and fishing gear management measures that impact EFH), description and identification of habitat areas of particular concern, overfishing definition and related thresholds and targets, regional gear restrictions, regional season restrictions (including option to split seasons), restrictions on vessel size (LOA and GRT) or shaft horsepower, operator permits, any other commercial or recreational management measures, any other management measures currently included in the FMP, and set aside quota for scientific research.

Atlantic Surfclam and Ocean Quahog - The overfishing definition (both the threshold and target levels), description and identification of EFH (and fishing gear management measures that impact EFH), habitat areas of particular concern, set-aside quota for scientific research, VMS, OY range, suspension or adjustment of the surfclam minimum size limit, and changes to the Northeast Region SBRM (including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside programs).

Tilefish - Minimum fish size, minimum hook size, closed seasons, closed areas, gear restrictions or prohibitions, permitting restrictions, gear limits, trip limits, overfishing definition and related thresholds and targets, annual specification quota setting process, tilefish FMP Monitoring Committee composition and process, description and identification of EFH, fishing gear management measures that impact EFH, habitat areas of particular concern, set-aside quotas for scientific research, changes to the Northeast Region SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, reports, and/or industry-funded observers or observer set-aside programs, recreational management measures, including the bag-size limit, fish size limit, seasons, and gear restrictions or prohibitions, and IFQ program review components, including capacity reduction, safety at sea issues, transferability rules, ownership concentration caps, permit and reporting requirements, and fee and cost-recovery issues.

New Framework Categories
The framework process can be used to introduce new accountability measures in a timely manner; therefore, the following lists the categories of AMs that will be added to each of the framework list for the managed resources:

Sub-ACT(s)
Predefined inseason adjustment to commercial measures
Predefined inseason adjustment to recreational measures (if applicable)
Existing ABC control rule methods modification
Existing Council Risk policy modification
Frequency of ABC control rule, ACL and AM performance reviews

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

This section serves to identify and describe the *valued ecosystem components* (VECs; Beanlands and Duinker 1984) that are likely to be directly or indirectly affected by the actions proposed in this document. These VECs comprise the affected environment within which the proposed actions will take place. Following the guidance provided by the Council on Environmental Quality (CEQ 1997), the VECs are identified and described here as a means of establishing a baseline for the impact analysis that will be presented in the subsequent document section (section 7.0 Analysis of Impacts). Impacts of the proposed actions on the VECs will also be determined from a cumulative effects perspective, which is in the context of other past, present, and reasonably foreseeable future actions.

Identification of the Selected Valued Ecosystem Components

As indicated in CEQ (1997), one of the fundamental principles of cumulative effects analysis is that "… the list of environmental effects must focus on those that are truly meaningful." As such, the range of VECs described in this section is limited to those for which a reasonable likelihood of meaningful impacts is expected. These VECs are listed below.

1) Managed resources
2) Non-target species
3) Habitat including EFH for the managed resource and non-target species
4) Endangered and protected resources
5) Human Communities

The managed resources VEC includes Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish, which is managed under the Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP. Changes to the FMP, such as those proposed in this Omnibus Amendment, have the potential to directly affect the condition of the managed resources. These impacts may occur when management actions either reduce or expand the directed harvest of managed resources or bycatch of these species.

Similarly, management actions that would change the distribution and/or magnitude of fishing effort for the managed resources may indirectly affect the non-target species VEC (species incidentally captured as a result of fishing activities for the managed resources), the habitat VEC (especially habitats vulnerable to activities related to directed fishing for the managed resource), and the protected resources VEC (especially those species with a history of encounters with the managed resources). The human communities VEC could be affected directly or indirectly through a variety of complex economic and social relationships associated with managing these species.

6.1 Description of the Managed Resources

6.1.1 Description of the Stock Status

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 peer-review panelist reports are available online at the NEFSC website: http://www.nefsc.noaa.gov.

Table 8 summarizes information from the 2010 second quarter NMFS status of the stocks report to Congress. Based on the second quarter update, none of the managed resources have overfishing occurring. Butterfish is considered overfished and under a rebuilding plan. Both summer flounder and tilefish are under rebuilding plans. With the exception of summer flounder and butterfish, all of the managed resources have stock biomass (either total or spawning stock biomass) above biomass at maximum sustainable yield (B_{MSY}).

6.1.2 Description of Stock Characteristics, and Ecological Relationships

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/.

Table 8. Stock Status based on NMFS second quarter Status of Stocks Report to Congress.

FMP	Stock	Overfishing? (Is Fishing Mortality above Threshold?)	Overfished? (Is Biomass below Threshold?)	Management Action Required	Rebuilding Program Progress	B/Bmsy or B/Bmsy proxy
Atlantic Mackerel, Squid and Butterfish	Atlantic mackerel	No	No[a]	N/A	N/A	3.57
Atlantic Mackerel, Squid and Butterfish	Butterfish	No	Yes[b]	Continue Rebuilding	Year 1 of 4-year plan	0.38
Bluefish	Bluefish	No	No	N/A	N/A	1.05
Spiny Dogfish	Spiny dogfish	No	No	N/A	N/A	1.03
Summer Flounder, Scup and Black Sea Bass	Black sea bass	No	No	N/A	N/A	1.03
Summer Flounder, Scup and Black Sea Bass	Scup	No	No	N/A	N/A	2.04
Summer Flounder, Scup and Black Sea Bass	Summer flounder	No	No - Rebuilding	Continue Rebuilding	Year 11 of 13-year plan	0.77
Atlantic Surfclam and Ocean Quahog	Atlantic surfclam	No	No	N/A	N/A	1.62
Atlantic Surfclam and Ocean Quahog	Ocean quahog	No	No	N/A	N/A	1.62
Tilefish	Tilefish	No	No - Rebuilding[c]	Continue Rebuilding	Year 9 of 10-year plan	1.04

[a] Although this stock is currently listed as not subject to overfishing and not overfished, the most recent stock assessment conducted for Atlantic mackerel (2010) could not determine the overfishing or overfished status.

[b] Although the butterfish stock is listed as overfished, the status of the butterfish stock is unknown because biomass reference points could not be determined in the most recent assessment (SAW 49). Though the butterfish population appears to be declining over time, the underlying causes for population decline are unknown. Despite considerable uncertainty in the recent assessment, no evidence suggests the status of the butterfish stock has improved since the previous assessment (SAW 38). The status of the butterfish stock will remain as overfished in this report until biological reference points can be determined in a future assessment.

[c] Although the most recent B/Bmsy = 1.04, this stock has not been declared rebuilt. SARC 48 notes the following: *The biomass estimates for recent years from the ASPIC model are likely over-optimistic because trends in commercial VTR CPUE declined recently in a manner consistent with the passage of the strong 1999 cohort through the population (an interpretation further supported by the length frequency data). The current assessment model (ASPIC) does not account for those factors. Much of the confidence interval around the 2008 biomass estimate falls below the updated BMSY listed above. Based on these considerations there is no convincing evidence that the stock has rebuilt to levels above.*

6.2 Non-target Species

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 F 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.

Atlantic mackerel and butterfish - The commercial butterfish fishery, recently constrained because of its depleted status, primarily occurs when butterfish itself is caught as bycatch and retained. Red hake, silver hake, spiny dogfish, scup, unclassified skates, fourspot flounder, Loligo squid, Atlantic mackerel, and little skate are have been identified as bycatch and/or discard species for the butterfish fishery. There are no significant recreational landings of butterfish. Mackerel and Atlantic (sea) herring are often caught together in midwater trawls and can make analysis of bycatch in the commercial mackerel fishery difficult. However, analysis has identified spiny dogfish, Atlantic (sea) herring, scup, blueback herring, striped bass, hickory shad, silver hake (whiting), American shad, alewife, unclassified dogfish, and butterfish as primary bycatch and/or discard species for the mackerel fishery. There are significant recreational landings of mackerel in Massachusetts, New Hampshire, and Maine in the summer. Analysis of how much of that catch is directed and how much is incidental has not been undertaken, but the directed portion likely catches other gamefish in those areas such as striped bass and bluefish at least on occasion. Section 6.2 of Amendment 10 to the Atlantic Mackerel, Squid, and Butterfish FMP (MAFMC 2009) provides a full description of bycatch in the butterfish and mackerel fisheries.

Bluefish - The bluefish commercial fishery is a mixed species fishery prosecuted with gillnets, otter trawls, and handlines, where bonito, Atlantic croaker, weakfish, and spiny dogfish are harvested with bluefish. Section 3.1.3.9 of Amendment 1 to the Bluefish FMP (MAFMC 1999a) provides a full description of bycatch in these fisheries. There is a significant recreational fishery for bluefish. The recreational fishery may catch and/or land numerous other species which could include, but are not limited to striped bass, weakfish, and other pelagics.

Spiny dogfish - The spiny dogfish commercial fishery is prosecuted with hook gear, gillnets, and to a lesser degree trawl gear, where by far, the primary discard species in the spiny dogfish fishery is spiny dogfish, followed by other species including cod, skates, herring, and scup. Section 3.1.3.9 of the Spiny Dogfish FMP (MAFMC 1999) provides a full description of bycatch in these fisheries. There is not significant directed recreational fishery for dogfish, but it is a common discard while fishing for other recreationally sought species.

Summer flounder, scup, and black sea bass - The summer flounder, scup and black sea bass commercial fisheries are mixed fisheries, prosecuted with bottom and midwater trawls, fish pots/traps, and lines, 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 in these fisheries. There are significant recreational fisheries for summer flounder, scup, and black sea bass. The recreational fishery may catch and/or land numerous other species within the management units of these resources. These species could include, but are not limited to, striped bass, bluefish, weakfish, tautog, Atlantic croaker, spot, spiny dogfish, skates species, and other flounder species and pelagics.

Atlantic surfclam and ocean quahog - The surfclam and ocean quahog fisheries, prosecuted with hydraulic dredges, are extremely clean, as evidenced by the 1997 NEFSC clam survey species listing (Table 34 of Amendment 13, MAFMC 2003). Surfclams and ocean quahogs comprise well over 80percent of the total catch from the survey, with no fish caught. Only sea scallops, representing other commercially desirable invertebrates were caught at around one-half of one percent. Commercial operations are cleaner than the scientific surveys which have liners in the dredges, as all animate and inanimate objects except surfclams and ocean quahogs are discarded quickly before the resource is placed in the cages. The processors reduce their payments if "things" other than surfclams or ocean quahogs are in the cages (Wallace and Hoff 2004).

Tilefish - The commercial fishery for tilefish is primarily prosecuted with bottom longline gear. According to Amendment 1 of the Tilefish FMP, all of the tilefish landed by directed commercial trips used longline gear. Section 6.2 of Amendment 1 to the FMP provides a full description of bycatch in the fishery. Catch disposition analysis indicates that the tilefish fishery is very clean as the overall pounds landed and/or discarded of other species is low for directed tilefish trips. Bottom otter trawls may also be used to catch tilefish, but have limited utility because of the habitat preferred by tilefish. Bottom otter trawls are only effective where the bottom is firm, flat, and free of obstructions. Soft mud bottom, rough or irregular bottom, or areas with obstructions, which are those areas most frequented by tilefish, are not conducive to bottom trawling. However, tilefish are occasionally taken incidental to other directed fisheries, such as the trawl fisheries for lobster and flounder (Freeman and Turner 1977) and hake, squid, mackerel and butterfish (MAFMC 2000). Recreational landings are very small and there is no substantial directed recreational fishery and the number of tilefish discarded by recreational anglers is low (section 6.1; MAFMC 2009).

6.3 Habitat (Including Essential Fish Habitat)

Detailed information on the affected physical and biological environments inhabited by the managed resources is available in Stevenson et al. (2004). The managed resources inhabit the Northeast U.S. Shelf Ecosystem, which has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream (Sherman et al. 1996). 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.

6.3.1 Atlantic Mackerel and Butterfish

A description of the habitat associated with the Atlantic mackerel and butterfish fisheries is presented in section 6.3 of Amendment 9 to the Atlantic Mackerel, Squid (*Loligo* and *Illex*), and Butterfish FMP (MAFMC 2008). Amendment 11 is revising the EFH designations for these species and should be implemented in 2011. The impact of fishing on Atlantic mackerel and butterfish habitat (and EFH) and the impact of the Atlantic mackerel and butterfish fisheries on other species' habitat and EFH can be found in Amendment 9 to the FMP (Sections 6.3, 7.3, Appendices; MAFMC 2008). Potential habitat (including EFH) impacts associated with the measures proposed in this document are discussed in section 7.0. The current EFH designation definitions by life history stage for Atlantic mackerel and butterfish are available at the following website: http://www.nero.noaa.gov/hcd/list.htm.

Information on Atlantic mackerel habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Atlantic Mackerel, *Scomber scombrus*, Life History and Habitat Characteristics" (Studholme et al. 1999). Information on butterfish habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Butterfish, *Peprilus triacanthus*, Life History and Habitat Characteristics" (Cross et al. 1999). Electronic versions of these source documents are available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 9 to the Atlantic Mackerel, Squid (*Loligo* and *Illex*), and Butterfish FMP (MAFMC 2008). Atlantic mackerel are primarily landed by mid-water trawls and to a lesser degree by bottom otter trawls. Landed butterfish are primarily caught incidentally in bottom otter trawls. Amendment 9 to the FMP included alternatives to minimize the adverse impacts of fishing gear on EFH (as required pursuant to section 303(a)(7) of the SFA). As stated in section 6.3 of Amendment 9, the Council determined that the mobile bottom-tending gear used in

Atlantic mackerel and butterfish fisheries has a potential to adversely impact EFH. The analysis in Amendment 9 to the FMP supported Council selection of an alternative to prohibit fishing for Atlantic mackerel, squids, and butterfish with bottom otter trawls in Lydonia and Oceanographer Canyons in order to minimize adverse EFH effects to the extent practicable. There have been no significant changes to the manner in which the Atlantic mackerel and butterfish fisheries are prosecuted, and none of the alternatives being considered in this document would adversely affect EFH (see section 7.0); therefore, other than specific actions in Amendment 10 to the FMP (butterfish mortality reduction), which were found unlikely to adversely impact habitat (including EFH), the effects of fishing on EFH have not been re-evaluated since Amendment 9 to the FMP, and no alternatives to minimize adverse effects on EFH are presented in this document.

6.3.2 Atlantic Bluefish

A description of the habitat associated with the bluefish fisheries is presented in Section 2.2.2 of Amendment 1 to the FMP (MAFMC 1999). The impact of fishing on bluefish habitat (and EFH) and the impact of the bluefish fishery on other species' habitat and EFH are also described in the FMP. Potential impacts associated with the measures proposed in this document on habitat (including EFH) are discussed in section 7.0. The current EFH designation definitions by life history stage for bluefish are available at the following website: http://www.nero.noaa.gov/hcd/list.htm.

Information on bluefish habitat requirements can be found in the document titled," Essential Fish Habitat Source Document: Bluefish, *Pomatomus saltatrix*, Life History and Habitat Characteristics" (Shepherd and Packer 2006). An electronic version of this source document is available at the following website:
http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 1 to the Bluefish FMP (MAFMC 1999). A 2004 evaluation of the habitat impacts of bottom otter trawls, gillnets, and handlines used in the commercial bluefish fishery indicated that the baseline impact of the fishery was minimal and temporary in nature (MAFMC 2004). Therefore, it was concluded that adverse effects of the bluefish fishery on EFH were minimal and no action was necessary. There have been no significant changes to the manner in which the bluefish fisheries are 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 1 to the FMP and the 2004 evaluation, and no alternatives to minimize adverse effects on EFH are presented in this document.

6.3.3 Spiny Dogfish

A description of the habitat associated with the spiny dogfish fishery is presented in section 2.2.2 of the FMP (MAFMC 1999). The impact of fishing on spiny dogfish habitat (and EFH) and the impact of the spiny dogfish fishery on other species' habitat and EFH are also described in the FMP. Potential impacts associated with the measures proposed in this document on habitat (including EFH) are discussed in section 7.0. The current EFH designation definitions by life history stage for spiny dogfish are available at the following website: http://www.nero.noaa.gov/hcd/list.htm .

Information on spiny dogfish habitat requirements can be found in the document titled "Essential Fish Habitat Source Document: Spiny Dogfish, *Squalus acanthias*, Life History and Habitat Characteristics" (Stehlik 2007). An electronic version of this source document is available at the following website:
http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for the Spiny Dogfish FMP (MAFMC 1999). The dominant gear types used in the commercial fishery are sink gillnets and hook gear. Gears used in gillnet and hook fisheries are not expected to significantly impact essential fish habitat. The FMP evaluated the potential EFH impacts of the spiny dogfish fishery and concluded that because spiny dogfish are not associated with any particular type of bottom habitat, it is difficult to identify specific adverse impacts from bottom trawls or dredges on spiny dogfish EFH. Therefore, no management measures were proposed at that time for minimizing the potential adverse impacts of trawls on EFH. Since then, the NEFMC has established habitat closed areas for minimizing the adverse impacts of bottom trawls and dredges on EFH for a number of managed species in NMFS Northeast Region. These management measures are sufficient for minimizing any adverse habitat impacts that may be associated with the spiny dogfish fishery. There have been no significant changes to the manner in which the spiny dogfish 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 the Spiny Dogfish FMP, and no alternatives to minimize adverse effects on EFH are presented in this document.

6.3.4 Summer Flounder, Scup, and Black Sea Bass

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). The impact of fishing on summer flounder, scup, and black sea bass 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 document on habitat (including EFH) are discussed in section 7.0. The current EFH designation definitions by life history stage for summer flounder are available at the following website: http://www.nero.noaa.gov/hcd/list.htm.

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

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). Summer flounder are primarily landed by bottom otter trawls. Scup are primarily landed by fish pots/traps, bottom and midwater trawls, and lines. 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 SFA). As stated in section 3.2 of Amendment 13, the Council determined that both mobile bottom tending and stationary gear have a potential to adversely impact EFH. The analysis in that document also indicated that no management measures were needed, because in Federal waters the fishery is conducted primarily in high energy mobile sand and bottom habitat, where gear impacts are minimal and/or temporary in nature. On that basis, the Council selected the no action alternative, from among the suite of alternatives to minimize fishing gear impacts on EFH in Amendment 13 to the FMP. There have been no significant changes to the manner in which the summer flounder, scup, and black sea bass fishery is prosecuted, and none of the alternatives being considered in this document would adversely affect EFH (see section 7.0); therefore, the effects of fishing on EFH have not been re-evaluated since Amendment 13 to the FMP, and no alternatives to minimize adverse effects on EFH are presented in this document.

6.3.5 Atlantic Surfclam and Ocean Quahog

A description of the habitat associated with the Atlantic surfclam and ocean quahog fisheries is presented in section 2.2 of Amendment 13 to the FMP (MAFMC 2003). The impact of fishing on surfclam and ocean quahog habitat (and EFH) and the impact of the surfclam and ocean quahog fisheries on other species' habitat and EFH can be found in Amendment 13 to the FMP (section 2.2; MAFMC 2003). Potential impacts associated with the measures proposed in this document on habitat (including EFH) are discussed in section 7.0. The current EFH designation definitions by life history stage for Atlantic surfclam and ocean quahog are available at the following website:
http://www.nero.noaa.gov/hcd/list.htm.

Information on Atlantic surfclam habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Surfclam, *Spisula solidissima*, Life History and Habitat Requirements" (Cargnelli et al. 1999a). Information on ocean quahog habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Ocean Quahog, *Arctica islandica*, Life History and Habitat Requirements" (Cargnelli et al. 1999b). Electronic versions of these source documents are available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 13 to the Atlantic Surfclam and Ocean Quahog FMP (MAFMC 2003). Atlantic surfclams and ocean quahogs are primarily landed by hydraulic clam dredges. Amendment 13 included alternatives to minimize the adverse impacts of fishing gear on EFH (as required pursuant to section 303(a)(7) of the SFA). As stated in section 2.2 of Amendment 13, the prime habitat of surfclams and ocean quahogs consists of sandy substrates with no vegetation or benthic 'structures' that could be damaged by the passing of a hydraulic dredge. In these 'high energy' environments, it is thought that the recovery time following passage of a clam dredge is relatively short. Because of the potential that the fishery adversely impacts EFH for a number of managed species, eight action alternatives (including closed area alternatives) for minimizing those impacts were considered by the Council in Amendment 13. A panel of experts who participated in a 2001 workshop to evaluate the potential habitat impacts of fishing gears used in the Northeast region concluded that there are potentially large, localized impacts of hydraulic clam dredges on the biological and physical structure of sandy benthic habitats (MAFMC 2003). The Council concluded in Amendment 13 that there may be some adverse effects of clam dredging on EFH, but concurred with the workshop panel that the effects are short term and minimal because the fishery occurs in a relatively small area (compared to the area impacted by scallop dredges or bottom trawls) and primarily in high energy sand habitats. The panel concluded that biological communities would recover within months to years (depending on what species was affected) and physical structure within days in high energy environments to months in low energy environments. The preamble to the EFH Final Rule (50 CFR Part 600) defines temporary impacts as those that are limited in duration and that allow the particular environment to recover without measurable impact. Additionally, the overall area impacted by the clam fisheries is relatively small (approximately 100 square nautical miles), compared to the large area of high energy sand on the continental shelf. The closed area alternatives in Amendment 13 were analyzed for their biological, economic, and social impacts, but given the results of the gear effects analysis in that document (summarized above), the Council concluded that none of them were necessary or practicable. There have been no significant changes to the manner in which the Atlantic surfclam and ocean quahog 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.

6.3.6 Tilefish

A description of the habitat associated with the golden tilefish fishery is presented in section 6.3 of Amendment 1 to the FMP (MAFMC 2009). The impact of fishing on tilefish habitat (and EFH) and the impact of the tilefish fisheries on other species' habitat and EFH can be found in Amendment 1 to the FMP (sections 6.2 and 6.3; MAFMC 2009). Potential impacts associated with the measures proposed in this document on habitat (including EFH) are discussed in section 7.0. The current EFH designation definitions by life history stage for tilefish are available at the following website: http://www.nero.noaa.gov/hcd/list.htm.

Information on tilefish habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Tilefish, *Lopholatilus chamaeleonticeps*, Life History and Habitat Characteristics" (Steimle et al. 1999; Appendix F). An electronic version of this source document is available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Any actions implemented in the FMP that affect species with overlapping EFH were considered in the EFH assessment for Amendment 1 to the Tilefish FMP (MAFMC 2009). Tilefish are primarily landed by longline and bottom otter trawl. Amendment 1 included alternatives to minimize the adverse impacts of fishing gear on EFH (as required pursuant to section 303(a)(7) of the SFA). As stated in section 6.3 of Amendment 1, the Council determined that juvenile and adult tilefish are considered to be highly vulnerable to adverse impacts from bottom otter trawls. Specifically, there is potential for a high degree of impact to the physical structure of hard clay outcroppings in which tilefish create burrows. On that basis, the Council selected to close Norfolk, Veatch, Lydonia, and Oceanographer canyons to otter bottom trawl gear to reduce gear impacts on juvenile and adult tilefish EFH in Amendment 1 to the FMP. There have been no significant changes to the manner in which the tilefish 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 1 to the FMP, and no alternatives to minimize adverse effects on EFH are presented in this document.

6.4 Endangered and Protected Resources

Information in this section pertains to species formally listed as threatened or endangered under the ESA with one additional species proposed for listing, and two candidate species (Table 9). A more detailed description of the species listed as proposed, threatened, or endangered, including ecological relationships and life history information, is presented in Appendix C. The potential impacts to ESA species listed as proposed, threatened, or endangered in Table 9 under this Omnibus Amendment are discussed in section 7.0. There are no expected impacts to any ESA proposed, endangered, or listed species as the Omnibus Amendment is a description of processes that will be utilized to set ABC, ACL, ACTs, and evoke AMs, as needed. The Council will assess the potential impacts to ESA proposed, threatened, or endangered species when utilizing the Omnibus Amendment established mechanisms to set catches in subsequent years.

Atlantic sturgeon have been proposed for listing under the ESA (Table 9). A status review for Atlantic sturgeon was completed in 2007. NMFS has concluded that the U.S. Atlantic sturgeon spawning populations comprise five Distinct Population Segments (DPSs) (ASSRT, 2007). On October 6, 2010, NMFS proposed listing five populations of Atlantic sturgeon along the U.S. East Coast as either threatened or endangered species. The Gulf of Maine 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 expected by October 6, 2011.

Atlantic sturgeon are known to interact frequently with commercial gillnet and trawl gears. A more detailed description of Atlantic sturgeon life history, including ecological relationships, is included with the species listed as endangered or threatened in Appendix A. The potential impacts to protected species associated with the proposed measures under this specifications document, including Atlantic sturgeon, are discussed in section 7.0.

Two additional species, cusk and Atlantic bluefin tuna, are candidate species for listing under the ESA (Table 9). Candidate species receive no substantive or procedural protection under the ESA; 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 of Atlantic bluefish tuna and cusk, which will be incorporated in the status review reports for both candidate species. The results of those efforts are needed to accurately characterize recent interactions between fisheries and the candidate species in the context of stock sizes. Any conservation measures deemed appropriate for these species will follow the information from these reviews. Please note that the conference provisions requirement of the ESA applies only if a candidate species is proposed for listing (and thus, becomes a proposed species) (see 50 CFR 402.10).

The status of these and other marine mammal populations inhabiting the Northwest Atlantic has been discussed in detail in the U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments. Initial assessments were presented in Blaylock et al. (1995) and are updated in Waring et al. (2009). The most recent information on the stock assessment of various marine mammals through 2009 can be found at:
http://www.nmfs.noaa.gov/pr/sars/.
Three other useful websites on marine mammals are:
http://www.nmfs.noaa.gov/pr/recovery, which provides information on recovery plans, http://spo.nwr.noaa.gov/mfr611/mfr611.htm, provides history and status of endangered whales, and http://www.nmfs.noaa.gov/pr/species/mammals, which provides updates of stock status.

Under section 118 of the MMPA of 1972, NMFS must publish, and annually update, the List of Fisheries (LOF), which places all U.S. commercial fisheries in one of three categories based on the level of incidental serious injury and mortality of marine mammals in each fishery (arranging them according to a two-tiered classification system). The categorization of a fishery in the LOF determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. The classification criteria consist of a two-tiered, stock-specific approach that first addresses the total impact of all fisheries on each marine mammal stock (Tier 1) and then addresses the impact of the individual fisheries on each stock (Tier 2).

Table 9. Species listed as candidates, proposed, threatened, or endangered under the ESA that are found in the environment utilized by the managed resources fisheries under NMFS' jurisdiction.

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	*Caretta caretta*	Threatened[5]
Fish	Shortnose sturgeon	*Acipenser brevirostrum*	Endangered
	Atlantic salmon	*Salmo salar*	Endangered
	Smalltooth sawfish	*Pristis pectinata*	Endangered
	Atlantic sturgeon	*Acipenser oxyrinchus*	Proposed
	Cusk	*Brosme brosme*	Candidate
	Atlantic bluefin Tuna	*Thunnus thynnus*	Candidate

[6]) for the stock, then the stock is designated as Tier 1, and all fisheries interacting with this stock would be placed in Category I. Annual mortality and serious injury of a stock in a given fishery is greater than or equal to 50 percent of the PBR level;

II. Annual mortality and serious injury of a stock in a given fishery is greater than one percent and less than 50 percent of the PBR level; or

[5] Proposed up-listing from threatened, which is the current status under ESA, to endangered.
[6] PBR is the product of minimum population size, one-half the maximum productivity rate, and a "recovery" factor (MMPA Sec. 3. 16 U.S.C. 1362; Wade and Angliss 1997).

III. Annual mortality and serious injury of a stock in a given fishery is less than one percent of the PBR level.

Under Category I, there is documented information indicating a "frequent" incidental mortality and injury of marine mammals in the fishery. In Category II, there is documented information indicating an "occasional" incidental mortality and injury of marine mammals in the fishery. In Category III, there is information indicating no more than a "remote likelihood"[7] of an incidental taking of a marine mammal in the fishery or, in the absence of information indicating the frequency of incidental taking of marine mammals, other factors such as fishing techniques, gear used, methods used to deter marine mammals, target species, seasons and areas fished, and species and distribution of marine mammals in the area suggest there is no more than a remote likelihood of an incidental take in the fishery.

All types of commercial fishing gear are required to meet the gear restrictions detailed in the: Atlantic Large Whale Take Reduction Plan at http://www.nero.noaa.gov/whaletrp/, the Harbor Porpoise Take Reduction Plan at http://www.nero.noaa.gov/prot_res/porptrp/, the MMPA and ESA respectively at http://www.nmfs.noaa.gov/pr/laws/mmpa/ and http://www.nmfs.noaa.gov/pr/laws/esa/. These restrictions are intended to reduce fishery interactions and incidental injury or mortality of protected resources.

Recreational Fisheries
The principle gears used in the recreational fishery for Atlantic mackerel, bluefish, summer flounder, scup, and black sea bass are rod and reel and handline. Recreational fisheries, in general, have very limited interaction with marine mammals and endangered or threatened species. Anecdotal information indicates that recreational anglers periodically foul hook Atlantic sturgeon while in pursuit of other recreational species such as striped bass (Damon-Randall, NMFS, Protected Resources Division, personal communication). These interactions are believed to be infrequent occurrences, the impact of which are well below the level which would impact the continued survivability of Atlantic sturgeon (Damon-Randall, NMFS, Protected Resources Division, personal communication). Recreational fishermen do contribute to difficulties for endangered and threatened 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

[7] A commercial fishery with a “remote likelihood” of causing incidental mortality and serious injury of marine mammals is one that collectively with other fisheries is responsible for the annual removal of: (1) 10% or less of any marine mammal stock's potential biological removal level, or (2) More than 10% of any marine mammal stock's PBR level, yet that fishery by itself is responsible for the annual removal of 1 percent or less of that stock's PBR level.

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 protected species associated with the proposed measures are discussed in section 7.0.

Commercial Fisheries

Atlantic mackerel are primarily prosecuted by mid-water trawls and to a lesser degree by bottom otter trawls. Landed butterfish are primarily caught incidentally in bottom otter trawls. The bluefish commercial fishery are prosecuted by bottom otter trawls, gillnets, and handlines. The dominant gear types used in the commercial fishery for spiny dogfish are sink gillnets and hook gear. 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. Atlantic surfclams and ocean quahogs are primarily landed by hydraulic clam dredges. Tilefish are primarily landed by longline and bottom otter trawl.

The 2010 LOF indicates that sink gill nets deployed in the Mid-Atlantic gillnet and Northeast sink gillnet are classified as Category I, with potential to result in incidental injury and mortality of Western North Atlantic bottlenose dolphin, common dolphin, Risso's dolphin, white-sided dolphin, short-finned pilot whale, long-finned pilot whale, fin whales, right whales, gray seal, harp seal, harbor seal, hooded seal, Gulf of Maine, humpback whales, harbor porpoise, and Canadian East coast minke whale. The Mid-Atlantic mid-water trawl (including pair trawl) is classified as a Category II fishery, with potential to result in incidental injury and mortality of Western North Atlantic bottlenose dolphin, common dolphin, Risso's dolphin, white-sided dolphin, short-finned pilot whale, and long-finned pilot whale. The Mid-Atlantic bottom trawl fishery is also a Category II fishery, with potential to result in incidental injury and mortality of Western North Atlantic common dolphins, white-sided dolphin, short-finned pilot whales, and long-finned pilot whales. The Atlantic mixed species trap/pot fishery is listed as a Category II fishery, with potential to result in incidental injury and mortality of North Atlantic fin whales and humpback whales in the Gulf of Maine. This fishery was classified by analogy. 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. The Northeast/Mid-Atlantic bottom longline/hook and line and hydraulic quahog and clam dredges in the Mid-Atlantic are all Category III fisheries, with no known injury and mortality to marine mammals.

The NMFS observer data for the period of January 2007 through December 2009 indicates there were 589 marine mammal observed interactions and 128 observed sea turtle interactions with the managed resources fisheries, where at least one of the managed resources was the target for the fishing trip, the haul target, or was landed on that trip. The interactions where the managed resources were the target species for the trip are as follows.

The NMFS observer data for the period of January 2007 to December 2009 indicates there were 4 observed marine mammal interactions, where Atlantic mackerel was the species being targeted for those trips using midwater otter trawls (including paired trawls). These 4 interactions resulted in 1 dead Risso's dolphin, 1 dead common dolphin, and 2 whitesided dolphins were dead. There were 2 interactions where spiny dogfish was the trip target using fixed or sink gillnets. Of those 2 interactions, 1 harbor seal and 1 harbor porpoise were dead. For trip where summer flounder was the primary target, 3 dead seals (1 gray and 2 unknown species) were observed in trips using sink gillnets.

The NMFS observer data for the period of January 2007 to December 2009 indicate there were 18 observed sea turtle takes (1 Kemp's ridley, 1 leatherback, 16 loggerhead) where summer flounder was the species being targeted for those trips. These 18 takes all involved bottom otter trawls targeting summer flounder and the Kemp's ridley turtle was dead, the leatherback turtle was released alive, 12 loggerhead turtles were released alive, 2 loggerhead turtles were released alive and resuscitated, and 2 loggerhead turtles were dead.

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 announced in May 2009 (74 FR 21627, May 8, 2009) its intention to prepare an Environmental Impact Statement (EIS) and to conduct public scoping meetings to comply with NEPA by assessing potential impacts resulting from the proposed implementation of new sea turtle regulations in the Atlantic and Gulf of Mexico trawl fisheries. These requirements are proposed to protect threatened and endangered sea turtles in the western Atlantic Ocean and Gulf of Mexico from incidental capture, and would be implemented under the Endangered Species Act (ESA). NMFS announced consideration of rulemaking for these new sea turtle regulations in an Advance Notice of Public Rulemaking (72 FR 7382, February 15, 2007). NMFS will evaluate a range of alternatives in the Draft EIS to reduce sea turtle bycatch and mortality in trawl fisheries along the Atlantic Coast.

Murray (2008) evaluated fisheries observers documented interactions between bottom otter trawl gear and sea turtles in the U.S. Mid-Atlantic region (i.e., south of 41°30'N/66°W to approximately 35º00'N/75°30'W) during 1996-2004. Bycatch rates and total mortality were only estimated for loggerhead turtles, the species involved in the majority of interactions. Vessel Trip Reports (VTR) from fishermen operating bottom otter trawl gear in the Mid-Atlantic were used to expand predicted bycatch rates to total estimated bycatch. Predicted bycatch rates were stratified by a combination of significant variables, which included latitude zone, depth, sea surface temperature, and the use of a working TED. Estimated average annual bycatch of loggerhead turtles in Mid-Atlantic bottom otter trawl gear during 1996-2004 was 616 animals (C.V.=0.23, 95% C.I. over the 9 year period: 367-890). Murray (2006) provided an estimate of loggerhead bycatch in all fisheries using bottom otter trawl fish gear in Mid-Atlantic waters; estimated bycatch in scallop trawl gear is reported separately in Murray (2007). In Murray (2006), there was not enough evidence to suggest that bycatch rates differed significantly among target species groups; thus, rates were not stratified, nor total mortality estimates reported in this manner. However, in Murray (2008) NERO requested this information by FMP group to support their ESA Section 7 consultations for various FMPs. This information, evaluated from 2000-2004, suggests that 47 percent of the loggerhead takes for that period were by the Mid-Atlantic bottom otter trawl fish gear targeting summer flounder, scup, and black sea bass, and less than 1 percent each for bluefish and spiny dogfish (Murray 2008). It should be noted that Murray (2008) highlights extensive data and analysis caveats, which include but are not limited to, assumptions about bycatch rates within expansion stratum, assumptions about bycatch rates across fisheries and years, as well as the representativeness of VTR data. The original report should be consulted when interpreting these results.

Murray (2009), conducted a similar analysis with of sea turtle bycatch in U.S. Mid-Atlantic sink gillnet gear during 1995 through 2006. Highest predicted bycatch rates in this fishery occurred in warm waters of the southern Mid-Atlantic and in large-mesh gillnets. From 1995-2006, the average annual bycatch estimate of loggerheads was 350 turtles (C.V. = 0.20., 95% CI over the 12-year period: 234-504). For bluefish, spiny dogfish, and summer flounder, the average estimate of bycatch was 48, 1, and 6, respectively. It should be noted that non-target species caught on trips with high estimated loggerhead bycatch will, based on these methods of analysis, also have a relatively high estimated loggerhead bycatch (Murray, 2009). Bluefish, for example, is often caught as a secondary or tertiary species on monkfish trips. While an average bycatch of 48 turtles was associated with landings of bluefish, observers from 1995-2006 did not document any loggerheads taken in Mid-Atlantic sink gillnet gear targeting bluefish (Murray, 2009). The original report should be consulted when interpreting these results.

The following provides brief descriptions of the protected resources with documented interactions with the managed resources fisheries in the most recent 3 years (2007-2009). Interactions with the following species have been identified based on this analysis: common dolphin, Risso’s dolphin, white-sided dolphin, harbor porpoise, harbor seal, gray seal, leatherback sea turtle, loggerhead sea turtle, and Kemp's ridley sea turtle. More detailed descriptions of these resources as well as other endangered and threatened species can be found in Appendix C of this EA.

Sea Turtles

Loggerhead, leatherback, Kemp’s ridley, and green sea turtles occur seasonally in southern New England and Mid-Atlantic continental shelf waters north of Cape Hatteras. In general, turtles move up the coast from southern wintering areas as water temperatures warm in the spring (James *et al*. 2005; Morreale and Standora 2005; Braun-McNeill and Epperly 2004; Morreale and Standora 1998; Musick and Limpus 1997; Shoop and Kenney 1992; Keinath *et al.* 1987). The trend is reversed in the fall as water temperatures cool. By December, turtles have passed Cape Hatteras, returning to more southern waters for the winter (James *et al*. 2005; Morreale and Standora 2005; Braun-McNeill and Epperly 2004; Morreale and Standora 1998; Musick and Limpus 1997; Shoop and Kenney 1992; Keinath *et al.* 1987). Hard-shelled species are typically observed as far north as Cape Cod whereas the more cold-tolerant leatherbacks are observed in more northern Gulf of Maine waters in the summer and fall (Shoop and Kenney 1992; STSSN database).

It is noted that on March 16, 2010, NMFS and the US Fish and Wildlife Service announced 12-month findings on the petitions to list the North Pacific populations and the Northwest Atlantic populations of the loggerhead sea turtle as Distinct Population Segments (DPSs) with endangered status. On March 22, 2011, the timeline for the final determination was extended for six months until September 16, 2011 (76 FR 15932).

Small Cetaceans (Dolphins, Harbor Porpoise and Pilot Whale)
Numerous small cetacean species (dolphins, pilot whales, harbor porpoise) occur within the area from Cape Hatteras through the Gulf of Maine. Seasonal abundance and distribution of each species in Mid-Atlantic, Georges Bank, and/or Gulf of Maine waters varies with respect to life history characteristics. Some species primarily occupy continental shelf waters (e.g., white sided dolphins, harbor porpoise), while others are found primarily in continental shelf edge and slope waters (e.g., Risso's dolphin), and still others occupy all three habitats (e.g., common dolphin, spotted dolphins, striped dolphins). Information on the western North Atlantic stocks of each species is summarized in Waring *et al*. (2009).

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).

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 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. 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 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. 2004b, ASMFC TC 2007, Dunton et al. 2010).

6.5 Human Communities and Economic Environment

6.5.1 Description of the Fisheries

Detailed descriptions of the economic aspects of the commercial and recreational fisheries for the managed resources, as well as the management regimes are available in the respective FMPs (section 4.3).

Commercial Fisheries

The 2009 ex-vessel value and commercial landings for each of the Omnibus Amendment managed resources is given in Table 10. The total combined ex-vessel value for all the managed resources is $104.0 million. Profiles of the fishing ports and communities in the Northeast Region that are important are available at:
http://www.nefsc.noaa.gov/read/socialsci/community_profiles/

Table 10. The commercial ex-vessel value ($ in million) and commercial landings, in 2009.

Species	2009 Commercial Landings	2009 Ex-vessel Value ($ in million)
Atlantic mackerel	49.9 million lb	8.0
Butterfish	1.0 million lb	0.6
Atlantic Bluefish	6.7 million lb	2.6
Spiny dogfish	12.4 million lb	2.7
Summer flounder	11.1 million lb	20.8
Scup	8.2 million lb	6.3
Black sea bass	1.1 million lb	3.5
Atlantic surfclam	2.6 million bushel	30.0
Ocean quahog	3.4 million bushel	25.0
Tilefish	1.7 million lb	4.2
Total	93.2 million lb and 6.0 million bushels	$104.0 million

Source: Commercial landings based on Dealer Weighout Data, as of May 27, 2010 and for black sea bass, spiny dogfish, and bluefish this includes, General Canvass as of June 28, 2009.

Recreational Fisheries

Summer flounder, scup, black sea bass, and bluefish continue to be important components of the recreational fishery, with 2009 recreational landings of about 6.3 million lb (2.9 million kg), 2.9 million lb (1.3 million kg), 2.4 million lb (1.1 million kg), and 13.6 million lb (6.2 million kg), respectively. Atlantic mackerel is a less frequently landed recreational species, with 2009 landings of 1.6 million lb (0.73 million kg). In 2009, total recreational angler trips on the Atlantic coast were about 43.7 million, with about 30.3 million of those trips taken in the Northeast (i.e., Maine through North Carolina; Table 11). Trips by mode and state for 2009 are also provided in Table 11.

Table 11. The total number of angler trips taken from Maine through Florida East coast by fishing mode in 2009.

	Mode		
Year	**Shore**	**Party/Charter**	**Private/Rental**
Maine	658,286	25,526	329,913
New Hampshire	167,482	97,822	149,033
Massachusetts	1,507,083	227,134	1,871,523
Connecticut	668,369	43,474	724,563
Rhode Island	572,456	54,903	414,423
New York	1,656,148	371,665	2,889,078
New Jersey	2,257,022	434,022	2,753,239
Delaware	378,521	43,265	497,959
Maryland	1,008,249	204,632	1,597,975
Virginia	916,625	46,787	2,020,643
North Carolina	3,446,402	219,180	2,031,935
South Carolina	1,192,003	147,958	1,051,366
Georgia	332,024	16,193	503,246
East Florida	4,560,955	179,654	5,401,059
Total	19,321,625	2,112,215	22,235,955

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division, July 7, 2010.

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 12). The surveys were conducted as part of the MRFSS. Average nominal 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.).

Table 12. Average nominal 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

6.5.2 Analysis of Permit Data

Federally Permitted Vessels

This analysis estimates that in 2009, there were 17,794 federal Northeast commercial permits and 4,714 recreational (party/charter) permits, issued for the managed resources (Table 13). Since many vessels are issued multiple permits, the number of unique fishing entities totaled 3,911. Of these vessels, 2,854 held only a commercial harvesting permit, 206 held only a party/charter permit, while the remaining 851 operating units held at least one commercial harvest permit and at least one party/charter permit. Nearly all of the 3,911 permitted vessels did report at least some sales of commercially caught species in the Northeast region. This includes most of the 206 vessels that did not hold a commercial permit for any of the species managed under this FMP since they may have held other commercial permits. However, only about one-third of these vessels (1,285) reported landing of at least one pound of the managed species covered by the proposed action.

Table 13. Total Federal commercial and recreational permits in 2009.

<table>
<tr><th>Species</th><th>Commercial Permits</th><th>Recreational Permits (Party/charter)</th></tr>
<tr><td>Atlantic mackerel</td><td>2488</td><td rowspan="3">850</td></tr>
<tr><td rowspan="2">Butterfish</td><td>395[a]</td></tr>
<tr><td>2124[b]</td></tr>
<tr><td>Atlantic Bluefish</td><td>3125</td><td>971</td></tr>
<tr><td>Spiny dogfish</td><td>3020</td><td>NA[e]</td></tr>
<tr><td>Summer flounder</td><td>956</td><td>929</td></tr>
<tr><td>Scup</td><td>807</td><td>834</td></tr>
<tr><td>Black sea bass</td><td>845</td><td>904</td></tr>
</table>

Atlantic surfclam	839	NA
Ocean quahog	885[c]	NA
Tilefish	2310[d]	226

[a] Loligo/butterfish moratorium permit
[b] Squid/butterfish incidental permit
[c] Maine quahog and non-Maine permits combined
[d] ITQ and incidental fishery combined
[e] NA=Not applicable
Source: Northeast Federal permit database, as of May 27, 2010.

A total of 1,057 vessels were issued at least one recreation party/charter permit during 2009. Of these small entities 548 carried for-hire passengers on at least one occasion of which 452 retained at least one pound of any of the species managed under the proposed action. Note that this number includes 84 of the 206 permitted vessels that only held recreational permits and 368 of the 851 permitted vessels that held both commercial and recreational party/charter permits.

Dealers

There were 339 dealers who purchased at least one of the managed resources in 2009 from 1,306 active commercial fishing vessels. They were distributed by state as indicated in Table 14, and range from 3 dealers in Delaware to 86 dealers in Massachusetts. Employment data for these specific firms are not available.

Table 14. Dealers reporting buying one or more of the managed resources, by state (from NMFS commercial landings database) in 2009.

	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Other
Number of Dealers	14	8	86	46	9	62	42	3	9	27	28	5

Source: Commercial landings based on Dealer Weighout Data, as of May 27, 2010.

7.0 ENVIRONMENTAL CONSEQUENCES AND REGULATORY ECONOMIC EVALUATION OF ALTERNATIVES

The nature and extent of the management programs for the managed resources fisheries have been examined in detail in the EAs and EISs prepared for the management actions and are detailed in section 4.3. The aspects of the environment (Valued Ecosystem Components - VECs) that could be affected by the proposed actions are detailed in section 6.0, and the analysis in this section focuses on impacts relative to those (managed resources and non-target species, habitat (including EFH), protected resources, and human communities). Other aspects of the human environment, such as historic and cultural resources, noise, invasive species, and others, have no potential to be impacted by any of the alternatives and are not analyzed further in this document. This Omnibus Amendment is wholly administrative in nature and focused on formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establishing a comprehensive system of accountability for catch relative to those limits.

Overall and due to the nature of the measures to be implemented through this Omnibus Amendment, there are very few functional differences (as far as environmental effects are concerned) between the status quo alternatives and the other alternatives under consideration. The expected direct effects are generally well-defined for most fishery management actions, but indirect effects are often less so. While NEPA requires consideration of "reasonably foreseeable effects," it does not require consideration of remote and speculative impacts; these effects remain outside the scope of a NEPA analysis (Bass et al., 2001). During the development of this Omnibus Amendment, there have been occasions when discussions shifted from the process to account for scientific and management uncertainty when establishing catch levels for the managed resources to what the actual catches established through this process might be (i.e., same as current catch levels, higher, lower, for each species). These types of effects are considered too remote and speculative to be appropriate for consideration in this Omnibus Amendment. While this Omnibus Amendment is focused on establishing a clear and transparent process to account for scientific and management uncertainty when establishing catch levels designed to prevent overfishing of stocks, there is nothing to indicate whether the catch levels established under this process would not be similar to the status quo. There is no way to predict the direct effect that the administrative process proposed would have on the managed resources, non-target species, habitat (including EFH), protected resources, and human communities. The actual catch levels that would be established through the processes described in this Omnibus Amendment cannot be predicted; however, the impacts of future catch levels will be evaluated through specifications. Biological impacts are driven not only by the potential catch level, but also the biological state (demographics) of the target and non-target species which also cannot be predicted. Therefore, because the proposed management actions covered in this Omnibus Amendment are too remote and speculative to be adequately or meaningfully addressed, this NEPA analysis focuses solely on the potential direct, indirect, and cumulative effects expected to be immediately associated with the proposed action and primary alternatives.

The direct and indirect impacts of the alternatives described in section 5.0 are given in the following sections (section 7.1-7.3). The cumulative impacts of these alternatives are provided in section 7.4. The actions proposed in this Omnibus Amendment are administrative and have no direct impacts on the VECs (i.e., biological, habitat, ESA proposed, threatened, or endangered species and MMPA protected species, socioeconomic environment). This Omnibus Amendment will establish measures in the FMPs to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establish a comprehensive system of accountability for catch for the managed resources. As this is a description of process, it does not trigger any direct impacts. The incorporation of ABC control rule methods, a Council risk policy, measures to define ACLs and establish AMs for the managed resources, and measures that address any future review and modification of actions taken in this Omnibus Amendment, do not result in direct impacts merely through their existence within the FMP. It is through the application of this administrative process in the future with respect to catch limits, that impacts will be realized; therefore, indirect impacts are anticipated and described in the sections that follow.

The result of the administrative process described in this Omnibus Amendment (i.e., resulting future catch limits implemented and application of AMs to those catch limits, etc.), will be analyzed through specifications for each of the managed resources and subject to NEPA impact analysis as appropriate.

To prevent excessive repetition of text throughout section 7.1-7.4, a discussion of how changes in catch limits may affect habitat and ESA proposed, threatened, or endangered species and MMPA protected species is provided here and would apply to the impact analysis that follows. Habitat (including EFH) could be negatively impacted through increases in gear contact time with habitat. Changes to catch limits could result in increases or decreases in fishing effort, and associated impacts to habitat. For example, an increase in catch limits could result in more, or longer fishing trips, with a corresponding increase in habitat impacts. Conversely, a larger catch limit may mean that managers establish higher possession limits, which could result in an equal number of fishing trips landing a larger volume of fish. Changes in overall stock size and age structure of the managed resources could influence catch-per-unit-effort (i.e., fewer trips landing more or larger (heavier) fish and vice versa).

ESA proposed, threatened, or endangered species and MMPA protected species could be impacted through increases in the interaction rates with the managed resource fisheries. Changes to catch limits could result in increases or decreases in fishing effort, and associated changes to the rate of interactions with ESA proposed, threatened, or endangered species and MMPA protected species. Similar to the habitat discussion above, the management measures implemented and changes in managed resources stock dynamics could also influence changes in fishing effort.

7.1 Specifying Acceptable Biological Catch

7.1.1 Acceptable Biological Catch Alternatives

Section 5.2.1 fully described the ABC alternatives under consideration. For reference, the ABC alternatives are:

- Alternative ABC-A: Status quo/no action
- Alternative ABC-B (Council-Preferred): ABC Control Rule Methods – Four Assessment Levels

7.1.1.1 Biological Impacts

This section details the indirect impacts of the ABC alternatives on the managed resources, as well as other non-target species (sections 6.1 and 6.2). Alternative ABC-B includes a multi-level approach for setting ABCs which describes the process by which scientific information on the managed resources, in conjunction with a Council risk policy, would be used to develop an ABC recommendation. Alternative ABC-B would establish a different process for deriving ABC when compared to the status quo (alternative ABC-A). The ABC for each of the managed resources is already being established through ad hoc means by the SSC (i.e., status quo) and alternative ABC-B would only provide for a more descriptive process for establishing ABC based on the level of assessment. Therefore, both processes would result in an ABC that addresses scientific uncertainty and alternative ABC-B would be expected to result in the same outcome as the status quo. Because only the process of derivation would differ, the anticipated indirect biological impacts of alternative ABC-B are expected to be the same as the status quo.

7.1.1.2 Habitat Impacts

This section details the indirect impacts of the ABC alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resources. Alternative ABC-B would provide for a more descriptive process for establishing ABC and would be expected to result in the same outcome as the status quo (see discussion in section 7.1.1.1). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). However, because the process for derivation of ABC under alternative ABC-B would be expected to result in the same outcome as the status quo (alternative ABC-A), there are no indirect habitat impacts anticipated.

7.1.1.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the ABC alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources. Alternative ABC-B would provide for a more descriptive process for establishing ABC and would be expected to result in the same outcome as the status quo (see discussion in section 7.1.1.1). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). However, because the process for derivation of ABC under alternative ABC-B would be expected to result in the same outcome as the status quo (alternative ABC-A), there are no indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts anticipated.

7.1.1.4 Socioeconomic Impacts

This section details the impacts of the ABC alternatives on the social and economic environment (section 6.5). Alternative ABC-B would provide for a more descriptive process for establishing ABC and would be expected to result in the same outcome as the status quo (see discussion in section 7.1.1.1). Increasing or decreasing catch limits could result in indirect impacts on fishing vessels, fleets, or ports associated with the managed resources. However, because the process for derivation of ABC under alternative ABC-B would be expected to result in the same outcome as the status quo, there are no indirect social and economic impacts anticipated.

7.1.2 Risk Policy Alternatives

Section 5.2.2 fully described the risk policy alternatives under consideration. For reference, the risk policy alternatives are:

- Alternative Risk-A: Status quo/no action
- Alternative Risk-B: Constant Probability of Overfishing = 25 Percent
- Alternative Risk-C: Stock Status, Inflection at $B/B_{MSY} = 1.0$
- Alternative Risk-D: Stock Status/Assessment Level, Inflection at $B/B_{MSY} = 1.5$
- Alternative Risk-E: Stock Status/Assessment Level, 2 Inflection Points at $B/B_{MSY} = 1.0$ and $B/B_{MSY} = 2.0$
- Alternative Risk-F: Categorical, Range from 10 - 50 percent
- Alternative Risk-G (Council-Preferred): Stock Status/Life History, Inflection at $B/B_{MSY} = 1.0$

7.1.2.1 Biological Impacts

This section details the indirect impacts of the Council risk policy alternatives on the managed resources, as well as other non-target species (sections 6.1 and 6.2). Alternatives RISK-B through RISK-G describes the Council tolerance for overfishing of the managed resources through a formalized Council risk policy. Because these alternatives are simply variations of risk expression, the impacts of each of the action alternatives relative to the status quo are expected to be the same. Therefore, they are compared as alternatives RISK-B-G, relative to the status quo, merely for efficiency. There could be indirect impacts associated with the resulting catch limits that are derived from the application of a Council risk policy under alternatives RISK-B-G, depending on whether the policy results in lower or higher catch levels relative to the status quo (alternative RISK-A). However, these impacts would not be expected to depart substantially from those levels associated with status quo, because past precedent has established an upper limit on the risk of overfishing at a given catch level as 50 percent (USDC, 1999) which mitigates negative biological impacts to the managed resources. In addition, catch levels for many of the managed resources have been implemented in prior years (i.e., status quo), which have probabilities of overfishing less than 50 percent. Future catch levels for the managed resources that result from the application of a risk policy intended to reduce the risk of overfishing would result in indirect long-term positive biological impacts. As such, the anticipated indirect biological impacts associated with alternatives RISK-B-G, would be neutral to slight positive, when compared to the status quo.

7.1.2.2 Habitat Impacts

This section details the indirect impacts of the Council risk policy alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resources. Alternatives RISK-B through RISK-G describes the Council tolerance for overfishing of the managed resources through a formalized Council risk policy. There could be indirect impacts associated with changes in effort relative to the resulting catch limits that are derived from the application of the Council risk policy under alternatives RISK-B-G. Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). However, these habitat impacts would not be expected to depart substantial from those levels associated with status quo (alternative RISK-A), because past precedent has established an upper limit on the risk of overfishing at a given catch level as 50 percent (USDC, 1999), which would prevent unconstrained increases in catch limits. In addition, catch levels for many of the managed resources have been implemented in prior years (i.e., status quo), which have probabilities of overfishing less than 50 percent. As such, the anticipated indirect habitat impacts associated with alternatives RISK-B-G would be neutral to slight positive, when compared to the status quo.

7.1.2.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the Council risk policy alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources. Alternatives RISK-B through RISK-G describe the Council tolerance for overfishing of the managed resources through a formalized Council risk policy. There could be indirect impacts associated with changes in effort relative to the resulting catch limits that are derived from the application of the Council risk policy under alternatives RISK-B-G. Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). However, these ESA proposed, threatened, or endangered species and MMPA protected species impacts would not be expected to depart substantially from those levels associated with status quo (alternative RISK-A), because past precedent has established an upper limit on the risk of overfishing at a given catch level as 50 percent (USDC, 1999), which would prevent unconstrained increases in catch limits. In addition, catch levels for many of the managed resources have been implemented in prior years (i.e., status quo), which have probabilities of overfishing less than 50 percent. As such, the anticipated indirect ESA proposed, threatened or endangered species and MMPA protected species impacts associated with alternatives RISK-B-G would be neutral to slight positive, when compared to the status quo.

7.1.2.4 Socioeconomic Impacts

This section details the indirect impacts of the Council risk policy alternatives on the social and economic environment (section 6.5). Alternatives RISK-B through RISK-G describes the Council tolerance for overfishing of the managed resources through a formalized Council risk policy. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the Council risk policy, depending on whether catch limits that result from this process increase or decrease. However, these impacts would be expected to be similar to those under the status quo (alternative RISK-A), because past precedent has established an upper limit on the risk of overfishing at a given catch level as 50 percent (USDC, 1999), which would prevent unconstrained increases in fishing effort and a significant departure from current management practices. In addition, catch levels for many of the managed resources have been implemented in prior years (i.e., status quo), which have probabilities of overfishing less than 50 percent. There may be short-term neutral to negative indirect impacts if the application of a formal risk policy results in catch to levels that are same or less than anticipated under the status quo. Future catch levels for the managed resources that result from the application of a risk policy intended to reduce the risk of overfishing would result in indirect long-term social and economic impacts that range from neutral to positive. As such, the anticipated social and economic indirect impacts associated with alternatives RISK-B-G would be short-term neutral to negative and long-term neutral to positive, when compared to the status quo.

7.2 Annual Catch Limits and Accountability Measures

7.2.1 Atlantic Mackerel

Section 5.3.1 fully described the Atlantic mackerel alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Atlantic Mackerel Annual Catch Limit**
  - Alternative ATM-A: Status quo/no action
  - Alternative ATM-B (Council-Preferred): Specify ACL=Domestic ABC
- **Atlantic Mackerel Proactive Accountability Measures**
  - Alternative ATM-C: Status quo/no action
    - **Recreational Harvest Limit Established**
      - Alternative ATM-D (Council-Preferred): Use of ACTs
      - Alternative ATM-E Council-Preferred): General Inseason Closure Authority
    - **No Recreational Harvest Limit Established**
      - Alternative ATM-F: Use of ACT

            - Alternative ATM-G: General Inseason Closure Authority
- **Atlantic Mackerel Reactive Accountability Measures**
    - Alternative ATM-H: Status quo/no action
        - **Recreational Harvest Limit Established**
            - Alternative ATM-I (Council-Preferred): Accountability for Catch Components
        - **No Recreational Harvest Limit Established**
            - Alternative ATM-J: Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives. Alternatives ATM-D and ATM-F propose the use of two ACTs or a single ACT, respectively, in the process to address management uncertainty. The impacts of these alternatives would be expected to be the same when compared to the status quo (alternative ATM-C), because either approach would in fact establish a process to address all relevant sources of management uncertainty when specifying ACT(s). In effect, these are two slightly different approaches which should achieve the same result. Alternatives ATM-E and ATM-G are identical and impacts are therefore the same when compared to the status quo (alternative ATM-C). In addition, regardless of whether three reactive accountability mechanism or a single mechanism are utilized under alternatives ATM-I and ATM-J, respectively, the impacts of these alternatives would be expected to be similar when compared to the status quo (alternative ATM-H), because either approach would trigger reactive AMs if an overage of the ACL occurs.

7.2.1.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on Atlantic mackerel, as well as other non-target species (sections 6.1.and 6.2).

Annual Catch Limit

Alternative ATM-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Because alternative ATM-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative ATM-A).

Proactive Accountability

Alternatives ATM-D and ATM-F both describe the process by which ACT(s) would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternatives ATM-D and ATM-F, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative ATM-C). This process will not increase catch relative to the ACL because the ACT, or the sum of the two ACTs, cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative ATM-C).

Alternatives ATM-E and ATM-G would establish general inseason closure authority for the recreational fishery in the FMP for Atlantic mackerel. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternatives ATM-E and ATM-G. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative ATM-C).

Reactive Accountability

Alternatives ATM-I and ATM-J both describe the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternatives ATM-I and ATM-J, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under these action alternatives is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative ATM-H).

7.2.1.2 Habitat Impacts

This section details the indirect impacts of the Atlantic mackerel ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative ATM-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative ATM-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative ATM-A).

Proactive Accountability

Alternatives ATM-D and ATM-F both describe the process by which ACT(s) would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternatives ATM-D and ATM-F, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative ATM-C). The process under these alternatives will not increase catch relative to the ACL because the ACT, or the sum of the two ACTs, cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative ATM-C).

Alternatives ATM-E and ATM-G would establish general inseason closure authority for the recreational fishery in the FMP for Atlantic mackerel. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternatives ATM-E and ATM-G. Recreational fisheries, in general, have limited interaction with bottom habitat. Therefore, the indirect habitat impacts would be expected to be neutral, when compared to the status quo (alternative ATM-C).

Reactive Accountability

Alternatives ATM-I and ATM-J both describe the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternatives ATM-I and ATM-J, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under these action alternatives is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative ATM-H).

7.2.1.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the Atlantic mackerel ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative ATM-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative ATM-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative ATM-A).

Proactive Accountability

Alternatives ATM-D and ATM-F both describe the process by which ACT(s) would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternatives ATM-D and ATM-F, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative ATM-C). The process under these alternatives will not increase catch relative to the ACL because the ACT, or the sum of the two ACTs, cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative ATM-C)

Alternatives ATM-E and ATM-G would establish general inseason closure authority for the recreational fishery in the FMP for Atlantic mackerel. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternatives ATM-E and ATM-G. Recreational fisheries, in general, have limited interaction with ESA proposed, threatened, or endangered species and MMPA protected species. Therefore, the indirect ESA proposed, threatened or endangered species and MMPA protected species impacts would be expected to be neutral, when compared to the status quo (alternative ATM-C).

Reactive Accountability

Alternatives ATM-I and ATM-J both describe the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternatives ATM-I and ATM-J, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under these action alternatives is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect ESA proposed, threatened or endangered species and MMPA protected species impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative ATM-H).

7.2.1.4 Socioeconomic Impacts

This section details the indirect impacts of the Atlantic mackerel ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative ATM-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Because alternative ATM-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative ATM-A).

Proactive Accountability

Alternatives ATM-D and ATM-F both describe the process by which ACT(s) would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternatives ATM-D and ATM-F. This process will not increase catch relative to the ACL because the ACT, or the sum of the two ACTs, cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of an ACT(s) may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative ATM-C).

Alternatives ATM-E and ATM-G would establish general inseason closure authority for the recreational fishery in the FMP for Atlantic mackerel. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternatives ATM-E and ATM-G. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council's desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative ATM-C).

Reactive Accountability

Alternatives ATM-I and ATM-J both describe the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternatives ATM-I and ATM-J, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under these action alternatives is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative ATM-H).

7.2.2 Butterfish

Section 5.3.2 fully described the butterfish alternatives for ACL and accountability AMs under consideration. For reference, those alternatives are:

- **Butterfish Annual Catch Limit**
  - Alternative BUTTER-A: Status quo/no action
  - Alternative BUTTER-B (Council-Preferred): Specify ACL= ABC
- **Butterfish Proactive Accountability Measures**
  - Alternative BUTTER-C: Status quo/no action
  - Alternative BUTTER-D (Council-Preferred): Use of ACT
- **Butterfish Reactive Accountability Measures**
  - Alternative BUTTER-E: Status quo/no action
  - Alternative BUTTER-F (Council-Preferred): Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.2.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on butterfish, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative BUTTER-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative BUTTER-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative BUTTER-A).

Proactive Accountability

Alternative BUTTER-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BUTTER-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative BUTTER-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative BUTTER-C).

Reactive Accountability

Alternative BUTTER-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BUTTER-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council’s desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BUTTER-E).

7.2.2.2 Habitat Impacts

This section details the indirect impacts of the butterfish ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative BUTTER-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative BUTTER-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative BUTTER-A).

Proactive Accountability

Alternative BUTTER-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BUTTER-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative BUTTER-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative BUTTER-C).

Reactive Accountability

Alternative BUTTER-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BUTTER-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BUTTER-E).

7.2.2.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the butterfish ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species s. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative BUTTER-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative BUTTER-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species is expected to be identical to those under the status quo (alternative BUTTER-A).

Proactive Accountability

Alternative BUTTER-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process alternative BUTTER-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo. This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative BUTTER-C).

Reactive Accountability

Alternative BUTTER-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BUTTER-F, depending on whether addressing of an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BUTTER-E).

7.2.2.4 Socioeconomic Impacts

This section details the indirect impacts of the butterfish ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative BUTTER-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative BUTTER-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment is expected to be identical to those under the status quo (alternative BUTTER-A).

Proactive Accountability

Alternative BUTTER-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on

fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative BUTTER-D. This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of an ACT may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative BUTTER-C).
Reactive Accountability

Alternative BUTTER-F describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after the process to correct and mitigate these overages has been applied under alternative BUTTER-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BUTTER-E).

7.2.3 Bluefish

Section 5.3.3 fully described the bluefish alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Bluefish Annual Catch Limit**
    - Alternative BLUE-A: Status quo/no action
    - Alternative BLUE-B (Council-Preferred): Specify ACL= ABC
- **Bluefish Proactive Accountability Measures**
    - Alternative BLUE-C: Status quo/no action
    - Alternative BLUE-D (Council-Preferred): Use of ACTs
    - Alternative BLUE-E (Council-Preferred): General Inseason Closure Authority

- **Bluefish Reactive Accountability Measures**
    - Alternative BLUE-F: Status quo/no action
    - Alternative BLUE-G (Council-Preferred): Accountability for Catch Components
- **Bluefish Joint Action Accountability Measures**
    - Alternative BLUE-H: Status quo/no action
    - Alternative BLUE-I (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.3.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on bluefish, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative BLUE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative BLUE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative BLUE-A).

Proactive Accountability

Alternative BLUE-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BLUE-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative BLUE-C). This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative BLUE-C).

Alternative BLUE-E would establish general inseason closure authority for the recreational fishery in the FMP for bluefish. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BLUE-E. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative BLUE-C).

Reactive Accountability

Alternative BLUE-G describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BLUE-G, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BLUE-F).

Joint Action Accountability Measures

Alternative BLUE-I would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect biological impacts associated with alternative BLUE-I are not anticipated and impacts would be the same as those under the status quo (alternative BLUE-H).

7.2.3.2 Habitat Impacts

This section details the indirect impacts of the bluefish ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.
Annual Catch Limit

Alternative BLUE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative BLUE-B would not result in an increase or decrease in catch relative to

ABC, the indirect impacts on habitat are expected to be identical to those under the status quo alternative BLUE-A.

Proactive Accountability

Alternative BLUE-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BLUE-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative BLUE-C). The process under these alternatives will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative BLUE-C).

Alternative BLUE-E would establish general inseason closure authority for the recreational fishery in the FMP for bluefish. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BLUE-E. Recreational fisheries, in general, have limited interaction with bottom habitat. Therefore, the indirect habitat impacts would be expected to be neutral, when compared to the status quo (alternative BLUE-C).

Reactive Accountability

Alternative BLUE-G describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BLUE-G, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BLUE-F).

Joint Action Accountability Measures

Alternative BLUE-I would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect habitat impacts associated with alternative BLUE-I are not anticipated and impacts would be the same as those under the status quo (alternative BLUE-H).

7.2.3.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the bluefish ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species s. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative BLUE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species resources (see discussion in section 7.0). Because alternative BLUE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative BLUE-A).

Proactive Accountability

Alternative BLUE-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BLUE-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative BLUE-C). The process under these alternatives will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative BLUE-C)

Alternative BLUE-E would establish general inseason closure authority for the recreational fishery in the FMP for bluefish. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BLUE-E. Recreational fisheries, in general, have limited interaction with ESA proposed, threatened, or endangered species and MMPA protected species. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral, when compared to the status quo (alternative BLUE-C).

Reactive Accountability

Alternative BLUE-G describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BLUE-G, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BLUE-F).

Joint Action Accountability Measures

Alternative BLUE-I would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative BLUE-I are not anticipated and impacts would be the same as those under the status quo (alternative BLUE-H).

7.2.3.4 Socioeconomic Impacts

This section details the indirect impacts of the bluefish ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative BLUE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative BLUE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative BLUE-A).

Proactive Accountability

Alternative BLUE-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative BLUE-D. This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of ACT(s) may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative BLUE-C).

Alternative BLUE-E would establish general inseason closure authority for the recreational fishery in the FMP for bluefish. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BLUE-E. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council's desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative BLUE-C).

Reactive Accountability

Alternative BLUE-G describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BLUE-G, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BLUE-F).

Joint Action Accountability Measures

Alternative BLUE-I would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect social and economic impacts associated with alternatives BLUE-I are not anticipated and impacts would be the same as those under the status quo (alternative BLUE-H).

7.2.4 Spiny Dogfish

Section 5.3.4 fully described the dogfish alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Spiny Dogfish Annual Catch Limit**
    - Alternative DOG-A: Status quo/no action
    - Alternative DOG-B (Council-Preferred): Specify ACL= Domestic ABC
- **Spiny Dogfish Proactive Accountability Measures**
    - Alternative DOG-C: Status quo/no action
    - Alternative DOG-D (Council-Preferred): Use of ACT
- **Spiny Dogfish Reactive Accountability Measures**
    - Alternative DOG-E: Status quo/no action
    - Alternative DOG-F (Council-Preferred): Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.4.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on spiny dogfish, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative DOG-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Because alternative DOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative DOG-A).

Proactive Accountability

Alternative DOG-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative DOG-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative DOG-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative DOG-C).

Reactive Accountability

Alternative DOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative DOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative DOG-E).

7.2.4.2 Habitat Impacts

This section details the indirect impacts of the spiny dogfish ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative DOG-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative DOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative DOG-A).

Proactive Accountability

Alternative DOG-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative DOG-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative DOG-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative DOG-C).

Reactive Accountability

Alternative DOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative DOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative DOG-E).

7.2.4.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the spiny dogfish ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species s. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative DOG-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative DOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative DOG-A).

Proactive Accountability

Alternatives DOG-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process alternative DOG-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo. This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative DOG-C).

Reactive Accountability

Alternative DOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative DOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative DOG-E).

7.2.4.4 Socioeconomic Impacts

This section details the indirect impacts of the spiny dogfish ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative DOG-B would merely specify that ACL be set equal to the domestic ABC (i.e., ACL=domestic ABC). Because alternative DOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative DOG-A).

Proactive Accountability

Alternative DOG-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative DOG-D. This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of an ACT may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative DOG-C).

Reactive Accountability

Alternative DOG-F describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after the process to correct and mitigate these overages has been applied under alternative DOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative DOG-E).

7.2.5 Summer Flounder

Section 5.3.5 fully described the summer flounder alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Summer Flounder Annual Catch Limit**
    - Alternative FLUKE-A: Status quo/no action
    - Alternative FLUKE-B: Specify ACL= ABC with 1-yr Recreational Catch Avg
    - Alternative FLUKE-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Avg
- **Summer Flounder Proactive Accountability Measures**
    - Alternative FLUKE-D: Status quo/no action
    - Alternative FLUKE-E (Council-Preferred): Use of ACTs
    - Alternative FLUKE-F (Council-Preferred): General Inseason Closure Authority
- **Summer Flounder Reactive Accountability Measures**

    - Alternative FLUKE-G: Status quo/no action
    - Alternative FLUKE-H (Council-Preferred): Accountability for Catch Components
- **Summer Flounder Joint Action Accountability Measures**
    - Alternative FLUKE-I: Status quo/no action
    - Alternative FLUKE-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs, and Joint Action) are compared to the respective status quo alternatives.

7.2.5.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on summer flounder, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternatives FLUKE-B and FLUKE-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., Σ ACL_{SECTOR}=ABC). Because alternatives FLUKE-B and FLUKE-C would not result in an increase or decrease in proposed catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative FLUKE-A). However, there are subtle differences in how the comparison of observed catch based on averaging 1 year (FLUKE-B) versus 3 years (FLUKE-C) of catch may interact with the system of reactive accountability that is implemented. Depending on the reactive accountability alternatives preferred and implemented, recreational overages of the ACL may be deducted, which could affect future specifications of the recreational catch limits. The use of a 3-year average comparison may smooth interannual variability in the observed catch relative to the ACL; however, the potential retention of any overages in the average calculation for multiple years could result in slightly lower future recreational catch limits, when compared to a single year comparison of observed recreational catch. While these differences are noted, the selection of this alternative does not, however, directly propose action for reactive accountability. Therefore, when evaluating indirect impacts solely on the action contained within these alternatives (FLUKE-B and FLUKE-C), the impacts of these alternatives would be expected to be similar when compared to the status quo alternative (FLUKE-A), because these are merely small methodology differences in the calculation of observed recreational catch to be compared to the recreational ACL.

Proactive Accountability

Alternative FLUKE-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative FLUKE-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative FLUKE-D). This process will not increase catch because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative FLUKE-D).

Alternative FLUKE-F would establish general inseason closure authority for the recreational fishery in the FMP for summer flounder. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative FLUKE-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative FLUKE-D).

Reactive Accountability

Alternative FLUKE-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative FLUKE-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If a sector ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage results in exceeding the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative FLUKE-G).

Joint Action Accountability Measures

Alternative FLUKE-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the

MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect biological impacts associated with alternative FLUKE-J are not anticipated and impacts would be the same as those under the status quo (alternative FLUKE-I).

7.2.5.2 Habitat Impacts

This section details the indirect impacts of the summer flounder ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternatives FLUKE-B and FLUKE-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternatives FLUKE-B and FLUKE-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative FLUKE-A). The discussion in section 7.2.5.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative FLUKE-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative FLUKE-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative FLUKE-D). The process under these alternatives will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative FLUKE-D).

Alternative FLUKE-F would establish general inseason closure authority for the recreational fishery in the FMP for summer flounder. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative FLUKE-F. Recreational fisheries, in general, have limited interaction with bottom habitat. Therefore, the indirect habitat impacts would be expected to be neutral, when compared to the status quo (alternative FLUKE-D).

Reactive Accountability

Alternative FLUKE-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative FLUKE-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative FLUKE-G).

Joint Action Accountability Measures

Alternative FLUKE-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect habitat impacts associated with alternative FLUKE-J are not anticipated and impacts would be the same as those under the status quo (alternative FLUKE-I).

7.2.5.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species s

This section details the indirect impacts of the summer flounder ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species s. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternatives FLUKE-B and FLUKE-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternatives FLUKE-B and FLUKE-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative FLUKE-A). The discussion in section 7.2.5.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative FLUKE-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative FLUKE-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative FLUKE-D). The process under these alternatives will not increase catch because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative FLUKE-D)

Alternative FLUKE-F would establish general inseason closure authority for the recreational fishery in the FMP for summer flounder. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative FLUKE-F. Recreational fisheries, in general, have limited interaction with ESA proposed, threatened, or endangered species and MMPA protected species s. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral, when compared to the status quo (alternative FLUKE-D).

Reactive Accountability

Alternative FLUKE-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative FLUKE-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered species impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative FLUKE-G).

Joint Action Accountability Measures

Alternative FLUKE-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative FLUKE-J are not anticipated and impacts would be the same as those under the status quo (alternative FLUKE-I).

7.2.5.4 Socioeconomic Impacts

This section details the indirect impacts of the summer flounder ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternatives FLUKE-B and FLUKE-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Because alternatives FLUKE-B and FLUKE-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment is expected to be identical to those under the status quo (alternative FLUKE-A). The discussion in section 7.2.5.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative FLUKE-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative FLUKE-E. This process will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Addressing management uncertainty and the use of ACT(s) may reduce the amount of fish available to fishermen relative to the sector ACLs specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the sector ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative FLUKE-D).

Alternative FLUKE-F would establish general inseason closure authority for the recreational fishery in the FMP for summer flounder. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative FLUKE-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council’s desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative FLUKE-D).

Reactive Accountability

Alternative FLUKE-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative FLUKE-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the sector ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative FLUKE-G).

Joint Action Accountability Measures

Alternative FLUKE-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect social and economic impacts associated with alternatives FLUKE-J are not anticipated and impacts would be the same as those under the status quo (alternative FLUKE-I).

7.2.6 Scup

Section 5.3.6 fully described the scup alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Scup Annual Catch Limit**
  - Alternative SCUP-A: Status quo/no action
  - Alternative SCUP-B: Specify ACL= ABC with 1-yr Recreational Catch Avg
  - Alternative SCUP-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Avg
- **Scup Proactive Accountability Measures**
  - Alternative SCUP-D: Status quo/no action

- Alternative SCUP-E (Council-Preferred): Use of ACTs
    - Alternative SCUP-F (Council-Preferred): General Inseason Closure Authority
- **Scup Reactive Accountability Measures**
    - Alternative SCUP-G: Status quo/no action
    - Alternative SCUP-H (Council-Preferred): Accountability for Catch Components
- **Scup Joint Action Accountability Measures**
    - Alternative SCUP-I: Status quo/no action
    - Alternative SCUP-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs, and Joint Action) are compared to the respective status quo alternatives.

7.2.6.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on scup, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternatives SCUP-B and SCUP-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., Σ ACL_{SECTOR}=ABC). Because alternatives SCUP-B and SCUP-C would not result in an increase or decrease in proposed catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative SCUP-A). However, there are subtle differences in how the comparison of observed catch based on averaging 1 year (SCUP-B) versus 3 years (SCUP-C) of catch may interact with the system of reactive accountability that is implemented. Depending on the reactive accountability alternatives preferred and implemented, recreational overages of the ACL may be deducted, which could affect future specifications of the recreational catch limits. The use of a 3-year average comparison may smooth interannual variability in the observed catch relative to the ACL; however, the potential retention of any overages in the average calculation for multiple years could result in slightly lower future recreational catch limits, when compared to a single year comparison of observed recreational catch. While these differences are noted, the selection of this alternative does not, however, directly propose action for reactive accountability. Therefore, when evaluating indirect impacts solely on the action contained within these alternatives (SCUP-B and SCUP-C), the impacts of these alternatives would be expected to be similar when compared to the status quo alternative (SCUP-A), because these are merely small methodology differences in the calculation of observed recreational catch to be compared to the recreational ACL.

Proactive Accountability

Alternative SCUP-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SCUP-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative SCUP-D). This process will not increase catch because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative SCUP-D).

Alternative SCUP-F would establish general inseason closure authority for the recreational fishery in the FMP for scup. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative SCUP-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative SCUP-D).

Reactive Accountability

Alternative SCUP-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SCUP-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If a sector ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage results in exceeding the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative SCUP-G).

Joint Action Accountability Measures

Alternative SCUP-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect biological impacts associated with alternative SCUP-J are not anticipated and impacts would be the same as those under the status quo (alternative SCUP-I).

7.2.6.2 Habitat Impacts

This section details the indirect impacts of the scup ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternatives SCUP-B and SCUP-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternatives SCUP-B and SCUP-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative SCUP-A). The discussion in section 7.2.6.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative SCUP-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SCUP-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative SCUP-D). The process under these alternatives will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative SCUP-D).

Alternative SCUP-F would establish general inseason closure authority for the recreational fishery in the FMP for scup. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative SCUP-F. Recreational fisheries, in general, have limited interaction with bottom habitat. Therefore, the indirect habitat impacts would be expected to be neutral, when compared to the status quo (alternative SCUP-D).

Reactive Accountability

Alternative SCUP-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SCUP-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative SCUP-G).

Joint Action Accountability Measures

Alternative SCUP-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect habitat impacts associated with alternative SCUP-J are not anticipated and impacts would be the same as those under the status quo (alternative SCUP-I).

7.2.6.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the scup ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternatives SCUP-B and SCUP-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., $\Sigma ACL_{SECTOR}=ABC$). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternatives SCUP-B and SCUP-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative SCUP-A). The discussion in section 7.2.6.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative SCUP-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SCUP-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative SCUP-D). The process under these alternatives will not increase catch because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative SCUP-D)

Alternative SCUP-F would establish general inseason closure authority for the recreational fishery in the FMP for scup. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative SCUP-F. Recreational fisheries, in general, have limited interaction with ESA proposed, threatened, or endangered species and MMPA protected species. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral, when compared to the status quo (alternative SCUP-D).

Reactive Accountability

Alternative SCUP-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SCUP-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered species impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative SCUP-G).

Joint Action Accountability Measures

Alternative SCUP-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative SCUP-J are not anticipated and impacts would be the same as those under the status quo (alternative SCUP-I).

7.2.6.4 Socioeconomic Impacts

This section details the indirect impacts of the scup ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternatives SCUP-B and SCUP-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Because alternatives SCUP-B and SCUP-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative SCUP-A). The discussion in section 7.2.6.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative SCUP-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative SCUP-E. This process will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Addressing management uncertainty and the use of ACT(s) may reduce the amount of fish available to fishermen relative to the sector ACLs specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the sector ACLs, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative SCUP-D).

Alternative SCUP-F would establish general inseason closure authority for the recreational fishery in the FMP for scup. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative SCUP-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council's desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative SCUP-D).

Reactive Accountability

Alternative SCUP-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SCUP-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the sector ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative SCUP-G).

Joint Action Accountability Measures

Alternative SCUP-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect social and economic impacts associated with alternatives SCUP-J are not anticipated and impacts would be the same as those under the status quo (alternative SCUP-I).

7.2.7 Black Sea Bass

Section 5.3.6 fully described the black sea bass alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Black Sea Bass Annual Catch Limit**
    - Alternative BSB-A: Status quo/no action
    - Alternative BSB-B: Specify ACL= ABC with 1-yr Recreational Catch Avg
    - Alternative BSB-C (Council-Preferred): Specify ACL= ABC with 3-yr Recreational Catch Avg

- **Black Sea Bass Proactive Accountability Measures**
  - Alternative BSB-D: Status quo/no action
  - Alternative BSB-E (Council-Preferred): Use of ACTs
  - Alternative BSB-F (Council-Preferred): General Inseason Closure Authority
- **Black Sea Bass Reactive Accountability Measures**
  - Alternative BSB-G: Status quo/no action
  - Alternative BSB-H (Council-Preferred): Accountability for Catch Components
- **Black Sea Bass Joint Action Accountability Measures**
  - Alternative BSB-I: Status quo/no action
  - Alternative BSB-J (Council-Preferred): Joint Action to Address Disconnect in Catch Limits

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs, and Joint Action) are compared to the respective status quo alternatives.

7.2.7.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on black sea bass, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternatives BSB-B and BSB-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., $\Sigma\ ACL_{SECTOR}$=ABC). Because alternatives BSB-B and BSB-C would not result in an increase or decrease in proposed catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative BSB-A). However, there are subtle differences in how the comparison of observed catch based on averaging 1 year (BSB-B) versus 3 years (BSB-C) of catch may interact with the system of reactive accountability that is implemented. Depending on the reactive accountability alternatives preferred and implemented, recreational overages of the ACL may be deducted, which could affect future specifications of the recreational catch limits. The use of a 3-year average comparison may smooth interannual variability in the observed catch relative to the ACL; however, the potential retention of any overages in the average calculation for multiple years could result in slightly lower future recreational catch limits, when compared to a single year comparison of observed recreational catch. While these differences are noted, the selection of this alternative does not, however, directly propose action for reactive accountability. Therefore, when evaluating indirect impacts solely on the action contained within these alternatives (BSB-B and BSB-C), the impacts of these alternatives would be expected to be similar when compared to the status quo alternative (BSB-A), because these are merely small methodology differences in the calculation of observed recreational catch to be compared to the recreational ACL.

Proactive Accountability

Alternative BSB-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BSB-E, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative BSB-D). This process will not increase catch because the sector-specific ACTs cannot exceed the sector ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative BSB-D).

Alternative BSB-F would establish general inseason closure authority for the recreational fishery in the FMP for black sea bass. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BSB-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative BSB-D).

Reactive Accountability

Alternative BSB-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BSB-H, depending on whether addressing an overage of the sector ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If a sector ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage results in exceeding the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative BSB-G).

Joint Action Accountability Measures

Alternative BSB-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect biological impacts associated with alternative BSB-J are not anticipated and impacts would be the same as those under the status quo (alternative BSB-I).

7.2.7.2 Habitat Impacts

This section details the indirect impacts of the black sea bass ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternatives BSB-B and BSB-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., $\Sigma ACL_{SECTOR}=ABC$). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternatives BSB-B and BSB-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative BSB-A). The discussion in section 7.2.7.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative BSB-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BSB-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative BSB-D). The process under these alternatives will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative BSB-D).

Alternative BSB-F would establish general inseason closure authority for the recreational fishery in the FMP for black sea bass. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BSB-F. Recreational fisheries, in general, have limited interaction with bottom habitat. Therefore, the indirect habitat impacts would be expected to be neutral, when compared to the status quo (alternative BSB-D).

Reactive Accountability

Alternative BSB-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BSB-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative BSB-G).

Joint Action Accountability Measures

Alternative BSB-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect habitat impacts associated with alternative BSB-J are not anticipated and impacts would be the same as those under the status quo (alternative BSB-I).

7.2.7.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the black sea bass ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternatives BSB-B and BSB-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternatives BSB-B and BSB-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative BSB-A). The discussion in section 7.2.7.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative BSB-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative BSB-E, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative BSB-D). The process under these alternatives will not increase catch because the sum of the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative BSB-D)

Alternative BSB-F would establish general inseason closure authority for the recreational fishery in the FMP for black sea bass. There could be indirect impacts associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BSB-F. Recreational fisheries, in general, have limited interaction with ESA proposed, threatened, or endangered species and MMPA protected species. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral, when compared to the status quo (alternative BSB-D).

Reactive Accountability

Alternative BSB-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BSB-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered species impacts would be expected to be neutral to positive depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative BSB-G).

Joint Action Accountability Measures

Alternative BSB-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the

MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative BSB-J are not anticipated and impacts would be the same as those under the status quo (alternative BSB-I).

7.2.7.4 Socioeconomic Impacts

This section details the indirect impacts of the black sea bass ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternatives BSB-B and BSB-C would merely specify that the sum of the recreational ACL and commercial ACL be set equal to the ABC (i.e., ΣACL_{SECTOR}=ABC). Because alternatives BSB-B and BSB-C would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative BSB-A). The discussion in section 7.2.7.1 about single year versus 3-year average comparisons of observed recreational catch applies here.

Proactive Accountability

Alternative BSB-E describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative BSB-E. This process will not increase catch relative to the ACL because the sector-specific ACTs cannot exceed the sector ACLs, relative to the status quo. Addressing management uncertainty and the use of ACT(s) may reduce the amount of fish available to fishermen relative to the sector ACL(s) specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the sector ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative BSB-D).

Alternative BSB-F would establish general inseason closure authority for the recreational fishery in the FMP for black sea bass. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the recreational fishery is closed based on the application of alternative BSB-F. Recreational fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council's desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative BSB-D).

Reactive Accountability

Alternative BSB-H describes the process by which overages of the sector ACLs would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative BSB-H, depending on whether addressing an overage of the sector ACL(s) occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the sector ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the sector ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the sector ACLs are or are not exceeded in the future, when compared to the status quo (alternative BSB-G).

Joint Action Accountability Measures

Alternative BSB-J would require that the ASMFC and MAFMC reconvene under joint rules if the recommendations for TAC, TAL, commercial quotas and/or recreational harvest limits differ. Indirect impacts associated with these action alternatives are not anticipated. Having a mechanism in the FMP to reconvene the ASMFC and MAFMC to reconsider their recommendations has the potential to result in reconsideration of recommendations from those groups; however, this plan mechanism does not in and of itself trigger any specific requirement to modify such recommendations. In addition, any recommendations must be consistent with the MSA and managed resource FMPs, which is the same as under status quo. Therefore, indirect social and economic impacts associated with alternatives BSB-J are not anticipated and impacts would be the same as those under the status quo (alternative BSB-I).

7.2.8 Atlantic Surfclam

Section 5.3.8 fully described the Atlantic surfclam alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Atlantic Surfclam Annual Catch Limit**

  - Alternative SURF-A: Status quo/no action
  - Alternative SURF-B (Council-Preferred): Specify ACL= ABC
- **Atlantic Surfclam Proactive Accountability Measures**
  - Alternative SURF-C: Status quo/no action
  - Alternative SURF-D (Council-Preferred): Use of TAL
- **Atlantic Surfclam Reactive Accountability Measures**
  - Alternative SURF-E: Status quo/no action
  - Alternative SURF-F (Council-Preferred): Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.8.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on Atlantic surfclam, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative SURF-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative SURF-B would not result in an increase or decrease in catch relative to ABC, the impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative SURF-A).

Proactive Accountability

Alternative SURF-D describes the process by which the TAL would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SURF-D, depending on whether addressing management uncertainty when deriving a TAL results in lower catches relative to the status quo (alternative SURF-C). This process will not increase catch relative to the ACL because the TAL cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative SURF-C).

Reactive Accountability

Alternative SURF-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SURF-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative SURF-E).

7.2.8.2 Habitat Impacts

This section details the indirect impacts of the Atlantic surfclam ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative SURF-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative SURF-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative SURF-A).

Proactive Accountability

Alternative SURF-D describes the process by which the TAL would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SURF-D, depending on whether addressing management uncertainty when deriving a TAL results in lower catches relative to the status quo (alternative SURF-C). This process will not increase catch relative to the ACL because the TAL cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative SURF-C).

Reactive Accountability

Alternative SURF-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SURF-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative SURF-E).

7.2.8.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the Atlantic surfclam ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative SURF-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative SURF-B would not result in an increase or decrease in catch relative to ABC, the impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative SURF-A).

Proactive Accountability

Alternatives SURF-D describes the process by which the TAL would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative SURF-D, depending on whether addressing management uncertainty when deriving a TAL results in lower catches relative to the status quo. This process will not increase catch relative to the ACL because the TAL cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative SURF-C).

Reactive Accountability

Alternative SURF-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SURF-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered resource impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative SURF-E).

7.2.8.4 Socioeconomic Impacts

This section details the indirect impacts of the Atlantic surfclam ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative SURF-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative SURF-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative SURF-A).

Proactive Accountability

Alternative SURF-D describes the process by which the TAL would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative SURF-D. This process will not increase catch relative to the ACL because the TAL cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of a TAL may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative SURF-C).

Reactive Accountability

Alternative SURF-F describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative SURF-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative SURF-E).

7.2.9 Ocean Quahog

Section 5.3.9 fully described the ocean quahog alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Ocean Quahog Annual Catch Limit**
    - Alternative QUAHOG-A: Status quo/no action
    - Alternative QUAHOG-B (Council-Preferred): Specify ACL= ABC
- **Ocean Quahog Proactive Accountability Measures**
    - Alternative QUAHOG-C: Status quo/no action
    - Alternative QUAHOG-D (Council-Preferred): Use of ACTs
- **Ocean Quahog Reactive Accountability Measures**
    - Alternative QUAHOG-E: Status quo/no action
    - Alternative QUAHOG-F (Council-Preferred): Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.9.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on ocean quahog, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative QUAHOG-B would merely specify that ACL be set equal to the ABC (i.e., ACL= ABC). Because alternative QUAHOG-B would not result in an increase or decrease in catch relative to ABC, the impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative QUAHOG-A).

Proactive Accountability

Alternative QUAHOG-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative QUAHOG-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative QUAHOG-C). This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative QUAHOG-C).

Reactive Accountability

Alternative QUAHOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative QUAHOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council’s desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative QUAHOG-E).

7.2.9.2 Habitat Impacts

This section details the indirect impacts of the ocean quahog ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative QUAHOG-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative QUAHOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative QUAHOG-A).

Proactive Accountability

Alternative QUAHOG-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative QUAHOG-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo (alternative QUAHOG-C). This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative QUAHOG-C).

Reactive Accountability

Alternative QUAHOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative QUAHOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative QUAHOG-E).

7.2.9.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the ocean quahog ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative QUAHOG-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative QUAHOG-B would not result in an increase or decrease in catch relative to ABC, the impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative QUAHOG-A).

Proactive Accountability

Alternatives QUAHOG-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process alternative QUAHOG-D, depending on whether addressing management uncertainty when deriving ACTs results in lower catches relative to the status quo. This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative QUAHOG-C).

Reactive Accountability

Alternative QUAHOG-F describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative QUAHOG-F, depending on whether addressing of an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered resource impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative QUAHOG-E).

7.2.9.4 Socioeconomic Impacts

This section details the indirect impacts of the ocean quahog ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative QUAHOG-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative QUAHOG-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative QUAHOG-A).

Proactive Accountability

Alternative QUAHOG-D describes the process by which ACTs would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative QUAHOG-D. This process will not increase catch relative to the ACL because the sum of the ACTs cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of ACTs may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative QUAHOG-C).

Reactive Accountability

Alternative QUAHOG-F describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after the process to correct and mitigate these overages has been applied under alternative QUAHOG-F, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative QUAHOG-E).

7.2.10 Tilefish

Section 5.3.10 fully described the tilefish alternatives for ACLs and accountability AMs under consideration. For reference, those alternatives are:

- **Tilefish Annual Catch Limit**
  - Alternative TILE-A: Status quo/no action
  - Alternative TILE-B (Council-Preferred): Specify ACL= ABC
- **Tilefish Proactive Accountability Measures**
  - Alternative TILE-C: Status quo/no action
  - Alternative TILE-D (Council-Preferred): Use of ACT
  - Alternative TILE-E (Council-Preferred): Incidental Fishery Closure Authority
  - Alternative TILE-F (Council-Preferred): Trip Limit increase to 500 lb
- **Tilefish Reactive Accountability Measures**
  - Alternative TILE-G: Status quo/no action
  - Alternative TILE-H (Council-Preferred): Accountability for Catch Components

The indirect impacts of each set of alternatives (i.e., ACL, Proactive AMs, and Reactive AMs) are compared to the respective status quo alternatives.

7.2.10.1 Biological Impacts

This section details the indirect impacts of the ACL and AM alternatives on tilefish, as well as other non-target species (sections 6.1 and 6.2).

Annual Catch Limit

Alternative TILE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative TILE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the managed resource and non-target species are expected to be identical to those under the status quo (alternative TILE-A).

Proactive Accountability

Alternative TILE-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative TILE-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative TILE-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty may reduce the potential for catch overages and potential negative biological impacts associated with exceeding catch limits. In addition, there is not a similar process to address management uncertainty and develop ACT control rules contained within the FMP (i.e., status quo). Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).

Alternative TILE-E would establish closure authority for the commercial tilefish incidental fishery. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the fishery is closed based on the application of alternative TILE-E. Fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to result in negative biological impacts on the managed resource and other non-target species. Therefore, the indirect biological impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).

Alternative TILE-F would increase the trip limit in the commercial tilefish incidental fishery from 300 lb to 500 lb. Indirect impacts expected from TILE-F are similar to the status quo (alternative TILE-C) because this trip limit adjustment would not be expected change fishing practices (section 5.3.10.2) for the managed resource or other non-target species (sections 6.1 and 6.2). In addition, this action alternative would not alter the allocation under which that trip limit operates; therefore, it would only affect the rate at which tilefish landings are accrued. Therefore, there are no indirect biological impacts associated with alternative TILE-F, relative to the status quo (alternative TILE-C).

Reactive Accountability

Alternative TILE-H describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative TILE-H, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to result in positive biological impacts in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded, by ensuring subsequent year catch limits are reduced such that overages do not negatively impact the sustainability of the managed resource. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. Therefore, the indirect biological impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative TILE-G).

7.2.10.2 Habitat Impacts

This section details the indirect impacts of the tilefish ACL and AM alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resource.

Annual Catch Limit

Alternative TILE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect habitat (see discussion in section 7.0). Because alternative TILE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on habitat are expected to be identical to those under the status quo (alternative TILE-A).

Proactive Accountability

Alternative TILE-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process under alternative TILE-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo (alternative TILE-C). This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).

Alternative TILE-E would establish closure authority for the commercial tilefish incidental fishery. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the fishery is closed based on the application of alternative TILE-E. Fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages and may prevent fishing activity, and by association gear contact with habitat, in far excess of that intended when the fishery allocations were initially established. Therefore, the indirect habitat impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).

Alternative TILE-F would increase the trip limit in the commercial tilefish incidental fishery from 300 lb to 500 lb. Indirect habitat impacts expected from TILE-F are similar to the status quo (alternative TILE-C) because this trip limit adjustment would not be expected change fishing practices (section 5.3.10.2) for the managed resource. As such increases or decreases in fishing effort, and associated gear contact with habitat, would not be anticipated. Therefore, there are no indirect habitat impacts associated with alternative TILE-F, relative to the status quo (alternative TILE-C).

Reactive Accountability

Alternative TILE-H describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative TILE-H, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect habitat impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative TILE-G).

7.2.10.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the tilefish ACL and AM alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources.

Annual Catch Limit

Alternative TILE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Changes in catch limits have the potential to affect ESA proposed, threatened, or endangered species and MMPA protected species (see discussion in section 7.0). Because alternative TILE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on ESA proposed, threatened, or endangered species and MMPA protected species are expected to be identical to those under the status quo (alternative TILE-A).

Proactive Accountability

Alternative TILE-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts associated with the resulting catch limits that are derived from the application of the process alternative TILE-D, depending on whether addressing management uncertainty when deriving an ACT results in lower catches relative to the status quo. This process will not increase catch

relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).
Alternative TILE-E would establish closure authority for the commercial tilefish incidental fishery. There could be indirect impacts associated with having this closure authority established in the FMP, if in the future at some time uncertain, the fishery is closed based on the application of alternative TILE-E. Fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages and may prevent fishing activity, and by association interactions with ESA proposed, threatened, or endangered species and MMPA protected species , in far excess of that intended when the fishery allocations were initially established. Therefore, the indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts would be expected to be neutral to positive, when compared to the status quo (alternative TILE-C).

Alternative TILE-F would increase the trip limit in the commercial tilefish incidental fishery from 300 lb to 500 lb. Indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts expected from TILE-F are similar to the status quo (alternative TILE-C) because this trip limit adjustment would not be expected change fishing practices (section 5.3.10.2) for the managed resource. As such increases or decreases in fishing effort, and associated changes in interaction rates, would not be anticipated. Therefore, there are no indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative TILE-F, relative to the status quo (alternative TILE-C).

Reactive Accountability

Alternative TILE-H describes the process by which overages of the ACL would be addressed. There could be indirect impacts associated with the resulting catch limits in future fishing years after reactive accountability measures have been applied under alternative TILE-H, depending on whether addressing of an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be expected to adjust catch limits in response. Therefore, the indirect protected and endangered resource impacts would be expected to be neutral to positive depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative TILE-G).

7.2.10.4 Socioeconomic Impacts

This section details the indirect impacts of the tilefish ACL and AM alternatives on the social and economic environment (section 6.5).

Annual Catch Limit

Alternative TILE-B would merely specify that ACL be set equal to the ABC (i.e., ACL=ABC). Because alternative TILE-B would not result in an increase or decrease in catch relative to ABC, the indirect impacts on the social and economic environment are expected to be identical to those under the status quo (alternative TILE-A).

Proactive Accountability

Alternative TILE-D describes the process by which an ACT would be used to address management uncertainty when specifying catch levels. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the process under alternative TILE-D. This process will not increase catch relative to the ACL because the ACT cannot exceed the ACL, relative to the status quo. Addressing management uncertainty and the use of an ACT may reduce the amount of fish available to fishermen relative to the ACL specified. As such, there may be short-term neutral to negative social and economic impacts from the application of this process. However, the application of proactive accountability measures are intended to reduce the likelihood of exceeding the ACL, reduce the likelihood that reactive accountability measures would be applied, and to ensure such overages do not negatively impact the sustainability of the managed resource. As such, long-term neutral to positive impacts would also be expected. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative TILE-C).

Alternative TILE-E would establish closure authority for the commercial tilefish incidental fishery. There could be indirect impacts on fishing vessels, fleets, or ports associated with having this authority established in the FMP, if in the future at some time uncertain, the incidental fishery is closed based on the application of alternative TILE-E. Fishery closure is intended as a proactive accountability measure to prevent the accrual of substantial fishery overages that have the potential to compromise the sustainability of the managed resource or undermine the Council's desired management system and FMP defined allocations, which would provide positive long-term social and economic benefits. There may however, be short-term neutral to negative consequences associated with closure of the fishery on the social and economic environment. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, when compared to the status quo (alternative TILE-C).

Alternative TILE-F would increase the trip limit in the commercial tilefish incidental fishery from 300 lb to 500 lb. Indirect social and economic impacts expected from TILE-F may be slightly greater when compared to the status quo (alternative TILE-C) if this trip limit increase allows some tilefish that would have been discarded, with assumed 100 percent mortality, to be retained and sold. Therefore, the indirect social economic impacts associated with alternative TILE-F may be neutral to slightly positive, relative to the status quo (alternative TILE-C).

Reactive Accountability

Alternative TILE-H describes the process by which overages of the ACL would be addressed. There could be indirect social and economic impacts associated with the resulting catch limits in future fishing years after the process to correct and mitigate these overages has been applied under alternative TILE-H, depending on whether addressing an overage of the ACL occurred. The process of overage adjustment under this action alternative is unidirectional, therefore the impacts are also. If the ACL is exceeded in the future, reactive accountability measures would be applied and those measures would ensure overages do not negatively impact the sustainability of the managed resource in instances where stocks are rebuilding, the magnitude of the ACL overage exceeds the OFL, or established F targets are exceeded. This will ensure long-term positive social and economic impacts that provide the greatest benefits can be realized. In situations wherein no explicit biological harm occurs to the stock, as previously outlined, reactive AMs function to preserve the Council's desired management system and FMP defined allocations. There may be short-term social and economic impacts incurred to ensure both the sustainability of the resources and preservation of the management system. Therefore, the indirect social and economic impacts would be expected to be neutral to negative short-term and neutral to positive long-term, depending on whether the ACL is or is not exceeded in the future, when compared to the status quo (alternative TILE-G).

7.3 Future Review and Modification of Actions

7.3.1 Performance Review of ABC, ACL, and AM Alternatives

Section 5.4.1 fully described the alternatives for future performance review under consideration. For reference, those alternatives are:

- Alternative REVIEW-A: Status quo/no action
- Alternative REVIEW-B (Council-Preferred): SSC Review of ABC Control Rules
- Alternative REVIEW-C (Council-Preferred): Monitoring Committee Review of ACL Control Rules

Both alternatives REVIEW-B and REVIEW-C are merely descriptive of process and are expected to result in similar indirect impacts on the VECs.

7.3.1.1 Biological Impacts

This section details the indirect impacts of the performance review alternatives on the managed resources, as well as other non-target species. Alternatives REVIEW-B and REVIEW-C include a process by which the SSC will review performance of the ABC control rules and respective resource Monitoring Committee's (or staff) will review performance of ACLs and AMs, respectively. Indirect impacts associated with these action alternatives are not anticipated, as performance review could result in recommendations for modifications to the processes used to derive ABCs, ACLs, and AMs. These recommendations could, if deemed necessary by the

Council, result in the revision of the administrative processes or measures contained within the FMPs for the managed resources. It is through the future application of those revised processes that impacts will be realized. Therefore, indirect biological impacts associated with alternatives REVIEW-B and REVIEW-C are not anticipated and impacts would be the same as those under the status quo (alternative REVIEW-A).

7.3.1.2 Habitat Impacts

This section details the indirect impacts of the performance review alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resources. Alternatives REVIEW-B and REVIEW-C include a process by which the SSC will review performance of the ABC control rules and respective resource Monitoring Committee's (or staff) will review performance of ACLs and AMs, respectively. Indirect impacts associated with these action alternatives are not anticipated, as performance review could result in recommendations for modifications to the processes used to derive ABCs, ACLs, and AMs. These recommendations could, if deemed necessary by the Council, result in the revision of the administrative processes or measures contained within the FMPs for the managed resources. It is through the future application of those revised processes that impacts will be realized. Therefore, indirect habitat impacts associated with alternatives REVIEW-B and REVIEW-C are not anticipated and impacts would be the same as those under the status quo (alternative REVIEW-A).

7.3.1.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the impacts of the performance review alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources. Alternatives REVIEW-B and REVIEW-C include a process by which the SSC will review performance of the ABC control rules and respective resource Monitoring Committee's (or staff) will review performance of ACLs and AMs, respectively. Indirect impacts associated with these action alternatives are not anticipated, as performance review could result in recommendations for modifications to the processes used to derive ABCs, ACLs, and AMs. These recommendations could, if deemed necessary by the Council, result in the revision of the administrative processes or measures contained within the FMPs for the managed resources. It is through the future application of those revised processes that impacts will be realized. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternatives REVIEW-B and REVIEW-C are not anticipated and impacts would be the same as those under the status quo (alternative REVIEW-A).

7.3.1.4 Socioeconomic Impacts

This section details the impacts of the performance review alternatives on the social and economic environment. Alternatives REVIEW-B and REVIEW-C include a process by which the SSC will review performance of the ABC control rules and respective resource Monitoring Committee's (or staff) will review performance of ACLs and AMs, respectively. Indirect impacts associated with these action alternatives are not anticipated, as performance review could result in recommendations for modifications to the processes used to derive ABCs, ACLs, and AMs. These recommendations could, if deemed necessary by the Council, result in the revision of the administrative processes or measures contained within the FMPs for the managed resources. It is through the future application of those revised processes that impacts will be realized. Therefore, indirect social and economic impacts associated with alternatives REVIEW-B and REVIEW-C are not anticipated and impacts would be the same as those under the status quo (alternative REVIEW-A).

7.3.2 Description of Process to Modify Actions

Section 5.4.2 fully described the alternatives for the process to modify actions in the future under consideration. For reference, those alternatives are:

- Alternative MODIFY-A: Status quo/no action
- Alternative MODIFY-B (Council-Preferred): Modification of Actions, including Framework Action List

7.3.2.1 Biological Impacts

This section details the indirect impacts of the future modification of measures alternatives on the managed resources, as well as other non-target species. Alternative MODIFY-B describes the process by which the measures contained within this document could be modified in the future via specifications, FMP framework adjustment, or FMP amendment. Indirect impacts associated with the action alternative are not anticipated. Regardless of which process is applied (i.e., status quo alternative MODIFY-A, or action alternative Modify-B), any proposed action will be analyzed through the appropriate NEPA process. Status quo simply means the determination for how to modify measures would be initiated with the Council without the additional guidance of the process described under alternative MODIFY-B. Therefore, indirect biological impacts associated with alternative MODIFY-B would be the same as those under the status quo.

7.3.2.2 Habitat Impacts

This section details the indirect impacts of the future modification of measures alternatives on habitat (including EFH). Section 6.3 discusses habitat for the managed resources. Alternative MODIFY-B describes the process by which the measures contained within this document could be modified in the future via specifications, FMP framework adjustment, or FMP amendment. Indirect impacts associated with the action alternative are not anticipated. Regardless of which process is applied (i.e., status quo alternative MODIFY-A, or action alternative Modify-B), any proposed action will be analyzed through the appropriate NEPA process. Status quo simply means the determination for how to modify measures would be initiated with the Council without the additional guidance of the process described under alternative MODIFY-B. Therefore, indirect habitat impacts associated with alternative MODIFY-B would be the same as those under the status quo.

7.3.2.3 Impacts on ESA proposed, threatened, or endangered species and MMPA protected species

This section details the indirect impacts of the future modification of measures alternatives on ESA proposed, threatened, or endangered species and MMPA protected species. Section 6.4 described the ESA proposed, threatened, or endangered species and MMPA protected species with potential for interaction with the managed resources. Alternative MODIFY-B describes the process by which the measures contained within this document could be modified in the future via specifications, FMP framework adjustment, or FMP amendment. Indirect impacts associated with the action alternative are not anticipated. Regardless of which process is applied (i.e., status quo alternative MODIFY-A, or action alternative Modify-B), any proposed action will be analyzed through the appropriate NEPA process. Status quo simply means the determination for how to modify measures would be initiated with the Council without the additional guidance of the process described under alternative MODIFY-B. Therefore, indirect ESA proposed, threatened, or endangered species and MMPA protected species impacts associated with alternative MODIFY-B would be the same as those under the status quo.

7.3.2.4 Socioeconomic Impacts

This section details the indirect impacts of the future modification of measures alternatives on the social and economic environment. Alternative MODIFY-B describes the process by which the measures contained within this document could be modified in the future via specifications, FMP framework adjustment, or FMP amendment. Indirect impacts associated with the action alternative are not anticipated. Regardless of which process is applied (i.e., status quo alternative MODIFY-A, or action alternative Modify-B), any proposed action will be analyzed through the appropriate NEPA process. Status quo simply means the determination for how to modify measures would be initiated with the Council without the additional guidance of the process described under alternative MODIFY-B. Therefore, indirect social and economic impacts associated with alternative MODIFY-B would be the same as those under the status quo.

.

7.4 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 resources described in this document.

7.4.1 Consideration of the VECs

In section 6.0 (Description of the Affected Environment), the valued ecosystem components (VECs) that exist within the managed resources fisheries environment are identified. Therefore, the significance of the cumulative effects will be discussed in relation to the VECs listed below.

1. Managed resources
2. Non-target species
3. Habitat including EFH for the managed resource and non-target species
4. Endangered and protected species
5. Human communities

7.4.2 Geographic Boundaries

The analysis of impacts focuses on actions related to the managed resources. The core geographic scope for each of the VECs is focused on the Western Atlantic Ocean, primarily from Florida through Maine (section and 6.0), as this encompasses the typical biological range for these stocks. For non-target species, those ranges may be expanded and would depend on the biological range of each individual non-target species, but again focus on marine waters from Florida through Maine. For habitat, the core geographic scope is focused on EFH within the EEZ but includes all habitat utilized by the managed resources and other non-target species primarily in marine waters from Florida through Maine. The core geographic scope for ESA proposed, threatened, or endangered species and MMPA protected species can be considered the overall range of these VECs which occur primarily in marine waters from Florida through Maine. 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 Florida through Maine (section 6.5).

7.4.3 Temporal Boundaries

The temporal scope of past and present actions for the managed resources, non-target species, habitat and human communities is primarily focused on actions that have occurred after FMP implementation for the managed resources. For endangered and other protected resources, the scope of past and present actions is on a species-by-species basis (section 6.4) and is largely focused on the 1980s and 1990s through the present, when NMFS began generating stock assessments for marine mammals and turtles that inhabit waters of the U.S. EEZ. The temporal scope of future actions for all five VECs extends about five years (2016) into the future. The dynamic nature of resource management and a lack of information on projects that may occur in the future makes it very difficult to predict impacts beyond a few years with any certainty. The Omnibus requires a 5-year review of performance of ACLs and AMs; therefore, it is not unreasonable to anticipate actions that may affect these fisheries for about five years.

7.4.4 Actions Other Than Those Proposed in this Omnibus Amendment

The impacts of each of the alternatives considered in this document are given in section 7.0. Table 15 presents meaningful past (P), present (Pr), or reasonably foreseeable future (RFF) actions to be considered other than those actions being considered in this Omnibus Amendment. 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 (described in section 4.3) have resulted in positive impacts on the health of the managed resources. Numerous actions have been taken to manage these commercial and recreational fisheries through FMP amendment and FMP framework adjustment actions. In addition, the annual (or multi-year) 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 socio-economic 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 managed resources.

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 near shore 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 Reasonably Foreseeable Future (RFF) Actions, guidance related to National Standard 1 of the MSA will require Council action through this document to address ACLs and AMs for the managed resources to ensure the FMP is compliant with the MSA. This system of catch limits and accountability is intended to be an adaptive, dynamic process. Therefore, future action may be taken to refine and adjust measures within the FMP to ensure this system functions as intended and prevents ACLs from being exceeded.

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 ESA proposed, threatened, or endangered species and MMPA protected species whose management units are under NMFS' jurisdiction.

7.4.5 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 15. Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this 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 FMPs and subsequent Amendments and Frameworks (section 4.3)	Established commercial and if applicable recreational management measures	**Direct Positive** Regulatory tool available to rebuild and manage stocks	**Direct Positive** Reduced fishing effort, gear restricted areas	**Direct Positive** Reduced fishing effort, defining EFH, HAPC, gear restricted areas	**Indirect Positive** Reduced fishing effort, take reduction provisions	**Indirect Positive** Benefited domestic businesses
[P, Pr] Managed Resources Specifications	Establish limits on landings (commercial and/or recreational)	**Direct Positive** Regulatory tool to specify reduce landings; 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 (2007)	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
[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 15. Continued. Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this 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 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 15. Continued. Impacts of Past (P), Present (Pr), and Reasonably Foreseeable Future (RFF) Actions on the five VECs (not including those actions considered in this 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 (1 built and others 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
[RFF] Future FMPs Amendments and Frameworks	Refine/adapt catch limit system and accountability	**Indirect Positive** Regulatory tool to manage stocks	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Reduced fishing effort	**Indirect Positive** Benefited domestic businesses

7.4.5.1 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 16. The indirectly negative actions described in Table 16 are localized in near shore 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 7.4.4), 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 specification process have had a positive cumulative effect on the managed resources. It is anticipated that the future management actions, described in Table 16, 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 the managed resources productivity depends. Future action may be taken to refine and adjust measures within the FMP to ensure this catch limit and accountability system contemplated in this document and by the MSA functions as intended, prevents ACLs from being exceeded, and 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 the managed resources have had a positive cumulative effect.

Formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, would contribute to sustainable management of the managed resources and help ensure measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed action in this document would positively reinforce the past and anticipated positive cumulative effects on the managed resources, by achieving the objectives specified in the FMP and mandated by the MSA. Therefore, the proposed action would not have any significant effect on the managed resources individually or in conjunction with other anthropogenic activities (see Table 21).

Table 16. Summary of the effects of past, present, and reasonably foreseeable future actions on the managed resource.

<table>
<tr><th>Action (see Box 7.4.4 for more detailed description)</th><th colspan="2">Past to the Present</th><th>Reasonably Foreseeable Future</th></tr>
<tr><td>Original FMPs and subsequent Amendments and Frameworks to the FMPs</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Managed Resources Specifications</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Developed and Implement Standardized Bycatch Reporting Methodology</td><td colspan="2">Neutral</td><td></td></tr>
<tr><td>Agricultural runoff</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Port maintenance</td><td colspan="3">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Offshore disposal of dredged materials</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Offshore mining</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Sand placement</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Marine transportation</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Installation of pipelines, utility lines and cables</td><td colspan="3">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>National Offshore Aquaculture Act of 2007</td><td colspan="2">Potentially Indirect Negative</td><td></td></tr>
<tr><td>Offshore Wind Energy Facilities (within 3 years)</td><td></td><td></td><td>Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Liquefied Natural Gas (LNG) terminals (within 3 years)</td><td></td><td colspan="2">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Convening Gear Take Reduction Teams (within 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Future FMPs Amendments and Frameworks</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Summary of past, present, and future actions excluding those proposed in this Omnibus Amendment</td><td colspan="3">Overall, actions have had, or will have, positive impacts on the managed resources
* See section 7.4.5.1 for explanation.</td></tr>
</table>

7.4.5.2 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 17. The effects of indirectly negative actions described in Table 17 are localized in near shore 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 7.4.4), 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 17, 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.

Formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, would contribute to greater consideration of discards and bycatch in these fisheries and help ensure measures are consistent with the objectives of the FMP under the guidance of the MSA. The proposed action in this document would positively reinforce the past and anticipated positive cumulative effects on non-target species, by achieving the objectives specified in the FMP and mandated by the MSA. Therefore, the proposed action would not have any significant effect on non-target species individually or in conjunction with other anthropogenic activities (see Table 21).

Table 17. Summary of the effects of past, present, and reasonably foreseeable future actions on the non-target species.

<table>
<tr><th>Action (see Box 7.4.4 for more detailed description)</th><th colspan="2">Past to the Present</th><th>Reasonably Foreseeable Future</th></tr>
<tr><td>Original FMPs and subsequent Amendments and Frameworks to the FMPs</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Managed Resources Specifications</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Developed and Implement Standardized Bycatch Reporting Methodology</td><td colspan="2">Neutral</td><td></td></tr>
<tr><td>Agricultural runoff</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Port maintenance</td><td colspan="3">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Offshore disposal of dredged materials</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Offshore mining</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Sand placement</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Marine transportation</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Installation of pipelines, utility lines and cables</td><td colspan="3">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>National Offshore Aquaculture Act of 2007</td><td colspan="2">Potentially Indirect Negative</td><td></td></tr>
<tr><td>Offshore Wind Energy Facilities (within 3 years)</td><td></td><td></td><td>Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Liquefied Natural Gas (LNG) terminals (within 3 years)</td><td></td><td colspan="2">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Convening Gear Take Reduction Teams (within 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Future FMPs Amendments and Frameworks</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Summary of past, present, and future actions excluding those proposed in this Omnibus Amendment</td><td colspan="3">Overall, actions have had, or will have, positive impacts on the non-target species
* See section 7.4.5.2 for explanation.</td></tr>
</table>

7.4.5.3 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 18. The direct and indirect negative actions described in Table 18 are localized in near shore 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 7.4.4), 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 some of the managed resources. It is anticipated that the future management actions, described in Table 18, 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.

Formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, would contribute to the sustainability of the management resources consistent with the objectives of the FMP under the guidance of the MSA. The proposed action in this document would positively reinforce the past and anticipated positive cumulative effects on habitat, by achieving the objectives specified in the FMP and mandated by the MSA. Therefore, the proposed action would not have any significant effect on habitat individually or in conjunction with other anthropogenic activities (see Table 21).

Table 18. Summary of the effects of past, present, and reasonably foreseeable future actions on the habitat.

<table>
<tr><th>Action (see Box 7.4.4 for more detailed description)</th><th colspan="2">Past to the Present</th><th>Reasonably Foreseeable Future</th></tr>
<tr><td>Original FMPs and subsequent Amendments and Frameworks to the FMPs</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Managed Resources Specifications</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Developed and Implement Standardized Bycatch Reporting Methodology</td><td colspan="2">Neutral</td><td></td></tr>
<tr><td>Agricultural runoff</td><td colspan="3">Direct Negative</td></tr>
<tr><td>Port maintenance</td><td colspan="3">Uncertain – Likely Direct Negative</td></tr>
<tr><td>Offshore disposal of dredged materials</td><td colspan="3">Direct Negative</td></tr>
<tr><td>Beach nourishment – Offshore mining</td><td colspan="3">Direct Negative</td></tr>
<tr><td>Beach nourishment – Sand placement</td><td colspan="3">Direct Negative</td></tr>
<tr><td>Marine transportation</td><td colspan="3">Direct Negative</td></tr>
<tr><td>Installation of pipelines, utility lines and cables</td><td colspan="3">Uncertain – Likely Direct Negative</td></tr>
<tr><td>National Offshore Aquaculture Act of 2007</td><td colspan="2">Direct Negative</td><td></td></tr>
<tr><td>Offshore Wind Energy Facilities (within 3 years)</td><td></td><td></td><td>Potentially Direct Negative</td></tr>
<tr><td>Liquefied Natural Gas (LNG) terminals (within 3 years)</td><td></td><td colspan="2">Potentially Direct Negative</td></tr>
<tr><td>Convening Gear Take Reduction Teams (within 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Future FMPs Amendments and Frameworks</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Summary of past, present, and future actions excluding those proposed in this Omnibus Amendment</td><td colspan="3">Overall, actions have had, or will have, neutral to positive impacts on habitat, including EFH
* See section 7.4.5.3 for explanation.</td></tr>
</table>

7.4.5.4 Protected and Endangered 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 19. The indirectly negative actions described in Table 19 are localized in near shore 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 7.4.4), 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 protected resources 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 gear take reduction teams for marine mammals and the development of strategies for sea turtle conservation described in Table 19, 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.

Formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, would contribute to the sustainability of the management resources 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 protective resources and thus, would not have any significant effect on protected resources individually or in conjunction with other anthropogenic activities (see Table 21).

Table 19. Summary of the effects of past, present, and reasonably foreseeable future actions on the protected resources.

<table>
<tr><th>Action (see Box 7.4.4 for more detailed description)</th><th colspan="2">Past to the Present</th><th>Reasonably Foreseeable Future</th></tr>
<tr><td>Original FMPs and subsequent Amendments and Frameworks to the FMP</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Managed Resources Specifications</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Developed and Implement Standardized Bycatch Reporting Methodology</td><td colspan="2">Neutral</td><td></td></tr>
<tr><td>Agricultural runoff</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Port maintenance</td><td colspan="3">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Offshore disposal of dredged materials</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Offshore mining</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Sand placement</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Marine transportation</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Installation of pipelines, utility lines and cables</td><td colspan="3">Potentially Direct Negative</td></tr>
<tr><td>National Offshore Aquaculture Act of 2007</td><td colspan="2">Potentially Indirect Negative</td><td></td></tr>
<tr><td>Offshore Wind Energy Facilities (within 3 years)</td><td></td><td></td><td>Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Liquefied Natural Gas (LNG) terminals (within 3 years)</td><td></td><td colspan="2">Uncertain – Likely Indirect Negative</td></tr>
<tr><td>Convening Gear Take Reduction Teams (within 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Future FMPs Amendments and Frameworks</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Summary of past, present, and future actions excluding those proposed in this Omnibus Amendment</td><td colspan="3">Overall, actions have had, or will have, positive impacts on protected resources
* See section 7.4.5.4 for explanation.</td></tr>
</table>

7.4.5.5 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 20. The indirectly negative actions described in Table 20 are localized in near shore 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 7.4.4), 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 20, 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.

Formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, would contribute to the sustainability of the management resources consistent with the objectives of the FMP under the guidance of the MSA. It is not clear whether the catch limit and accountability system contemplated in this document will result in future catch limits that are higher or lower for the managed resources, because the future population status and the decision to select catch limit for specifications annually have not yet occurred. However, if future catch limits are reduced there may be impacts on some fishermen caused by reductions in their opportunities to earn revenues in the commercial fisheries. Recreational fisheries may have decreased harvest opportunities due to 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 the managed resources. 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 (see Table 21).

Table 20. Summary of the effects of past, present, and reasonably foreseeable future actions on human communities.

<table>
<tr><th>Action (see Box 7.4.4 for more detailed description)</th><th colspan="2">Past to the Present</th><th>Reasonably Foreseeable Future</th></tr>
<tr><td>Original FMPs and subsequent Amendments and Frameworks to the FMP</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Managed Resources Specifications</td><td colspan="2">Indirect and Direct Positive</td><td></td></tr>
<tr><td>Developed and Implement Standardized Bycatch Reporting Methodology</td><td colspan="2">Potentially Indirect Negative</td><td></td></tr>
<tr><td>Agricultural runoff</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Port maintenance</td><td colspan="3">Uncertain – Likely Mixed</td></tr>
<tr><td>Offshore disposal of dredged materials</td><td colspan="3">Indirect Negative</td></tr>
<tr><td>Beach nourishment – Offshore mining</td><td colspan="3">Mixed</td></tr>
<tr><td>Beach nourishment – Sand placement</td><td colspan="3">Positive</td></tr>
<tr><td>Marine transportation</td><td colspan="3">Mixed</td></tr>
<tr><td>Installation of pipelines, utility lines and cables</td><td colspan="3">Uncertain – Likely Mixed</td></tr>
<tr><td>National Offshore Aquaculture Act of 2007</td><td colspan="2">Uncertain – Likely Mixed</td><td></td></tr>
<tr><td>Offshore Wind Energy Facilities (within 3 years)</td><td></td><td></td><td>Uncertain – Likely Mixed</td></tr>
<tr><td>Liquefied Natural Gas (LNG) terminals (within 3 years)</td><td></td><td colspan="2">Uncertain – Likely Mixed</td></tr>
<tr><td>Convening Gear Take Reduction Teams (within 3 years)</td><td></td><td></td><td>Indirect Negative</td></tr>
<tr><td>Strategy for Sea Turtle Conservation for the Atlantic Ocean and the Gulf of Mexico Fisheries (within next 3 years)</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Future FMPs Amendments and Frameworks</td><td></td><td></td><td>Indirect Positive</td></tr>
<tr><td>Summary of past, present, and future actions excluding those proposed in this Omnibus Amendment</td><td colspan="3">Overall, actions have had, or will have, positive impacts on human communities
* See section 7.4.5.5 for explanation.</td></tr>
</table>

7.4.6 Preferred Action on all the VECS

The Council has identified its preferred action alternatives in section 5.0. The cumulative effects of the range of actions considered in this Omnibus Amendment can be considered to make a determination if significant cumulative effects are anticipated from the preferred action.

Table 21. Magnitude and significance of the cumulative effects; the additive and synergistic effects of the proposed action, as well as past, present, and future actions.

VEC	Status in 2009	Net Impact of P, Pr, and RFF Actions	Impact of the Proposed Action	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.4.4 and 7.4.5.1)	Neutral to positive (Sections 7.1-7.3)	**None**
Non-target Species	Complex and variable (Section 6.2)	Positive (Sections 7.4.4 and 7.4.5.2)	Neutral to positive (Sections 7.1-7.3)	**None**
Habitat	Complex and variable (Section 6.3)	Neutral to positive (Sections 7.4.4 and 7.4.5.3)	Neutral to positive (Sections 7.1-7.3)	**None**
Protected Resources	Complex and variable (Section 6.4)	Positive (Sections 7.4.4 and 7.4.5.4)	Neutral to positive (Sections 7.1-7.3)	**None**
Human Communities	Complex and variable (Section 6.5)	Positive (Sections 7.4.4 and 7.4.5.5)	Short-term- negative to positive; long-term- positive (Sections 7.1-7.3)	**None**

The direct and indirect impacts of the proposed action on the VECs are described in sections 7.1 through 7.3. 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 7.4. The action proposed in this document builds off action taken in the original FMP and subsequent FMP amendment and FMP framework adjustment 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.

8.0 APPLICABLE LAWS

8.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA) and 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 for the managed resources 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 the managed resources and the U.S. fishing industry.

Specifically, this action was developed to address the revised NS1 guidelines; therefore, the Council has identified new management measures, when taken in conjunction with existing measures, will establish a process or setting catch limits which address both scientific and management uncertainty as well as a comprehensive system of accountability for all components of the catch for each of the manage resources. By addressing both scientific and management uncertainty by establishing catch limits less than the OFL, the risk of overfishing these managed resources will be reduced and OY can be achieved in these fisheries. The Council uses the best scientific information available (National Standard 2) and the Council's SSC will continue to provide advice such that the Council's decisions are informed by the best science available, including the application of the ABC control rule methods described within this document. The Council manages all of its resources throughout their range (National Standard 3) and this action does not alter the management units or management jurisdictions for any of these resources. These management measures do not discriminate among residents of different states (National Standard 4) because the application of catch limits and accountability are applied to the fishery as a whole or to the fishing sectors (i.e., recreational or commercial). The positive impacts which result from preventing overfishing and achieving OY should be realized by all fishery participants, irrespective of state of residency. The actions taken within this document do not have economic allocation as their sole purpose (National Standard 5); these measures specifically address the NS1 objectives of preventing overfishing and achieving OY and the catch limits and system of accountability merely overlay the fishery allocations that were previously established and deemed consistent with these National Standards. These measures account for variations in these fisheries (National Standard 6) by enabling the inherent scientific and management uncertainty associated with assessing these resources and implementing fishery management measures to be considered when establishing catch limits for these fisheries. This action avoids unnecessary duplication (National Standard 7) and establishes new FMP measures which will work in conjunction with existing FMP measures to address any inconsistencies with the NS1 guidelines. This action would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished, and therefore should not alter the manner in which fishing communities participant in these fisheries. This action considers fishing communities

(National Standard 8); this system of catch limits is designed to prevent overfishing, rebuild stocks that are overfished, and to maintain stocks at a level that produces OY. Achieving these objectives will provide the greatest social and economic benefits to fishery participants and fishing communities. This action does not propose any measures that would affect safety at sea (National Standard 10). Finally, actions taken are consistent with National Standard 9, because the proposed measures would establish comprehensive catch limits and accountability, which consider all components of the catch, including bycatch.

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 amendment, FMP framework adjustment, and specifications, the Council will insure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, the Nation as a whole, and certainly for the resources.

8.2 NEPA (FONSI)

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 Council on Environmental Quality regulations at 40 C.F.R. §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 is not expected to jeopardize the sustainability of any target species affected by the action (section 6.1). The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. As such, the impacts of these alternatives on any species that may be affected by the measures are administrative in nature; there are no significant physical or biological impacts associated with the alternatives (section 7.0).

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

The proposed action is not expected to jeopardize the sustainability of any non-target species (section 6.2). These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the preferred alternatives on any species that may be affected by the measures are administrative in nature; there are no significant physical or biological impacts associated with the preferred alternatives (section 7.0).

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

The proposed action is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMP. In general, bottom-tending mobile gear, primarily otter trawls and hydraulic dredges, has the potential to adversely affect EFH for the species as detailed in section 6.3 of the document. The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The direct impacts of the preferred alternatives on habitat are wholly administrative in nature; there are no significant habitat impacts associated with the preferred alternatives (section 7.0 and 9.0).

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

The proposed action would not alter the manner in which the industry conducts fishing activities for the managed resources (section 6.5). 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 (section 7.0). 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?

The proposed action is not expected to adversely affect ESA listed, threatened, or endangered, marine mammals, or critical habitat of these species (section 6.4). These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the alternatives on any species that may be affected by the measures are wholly administrative in nature; there are no expected significant impacts on ESA proposed, threatened, or endangered, and MMPA protected species associated with the alternatives (section 7.0).

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 (section 6.1.2). The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the preferred alternatives on biodiversity and ecosystem function within the affected area are administrative in nature; there are no significant impacts on biodiversity and ecosystem function associated with the alternatives (section 7.0).

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 (section 6.0). The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the preferred alternatives are administrative in nature and not expected to result in significant social or economic impacts interrelated with natural or physical environmental effects (section 7.0).

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 this document. The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. These measures are administrative in nature and build on measures contained in the FMP which have been in place for many years. 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?

The proposed actions described in section 5.0 will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The fisheries for the managed resources 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 (section 6.3). Therefore, the alternatives are not expected to have a substantial impact on any of these areas (section 7.0).

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. The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. These measures are administrative in nature and build on measures contained in the FMP which have been in place for many years. The measures contained in this action are not expected to have highly uncertain effects or to involve unique or unknown risks on the human environment.

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

As discussed in section 7.4, 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 described in section 5.0 on the human environment are provided in section 7.0 of the EA. The action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The fisheries for the managed resources 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 (section 6.0). 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?

The proposed action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. There is no evidence or indication that the managed resources fisheries have ever resulted in the introduction or spread of nonindigenous species. None of the proposed measures is expected to substantially change the manner in which these fisheries are prosecuted. 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?

The proposed action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The performance of the fisheries relative to catch limits and the entire system of catch limits and accountability will be monitored and measures contained within the FMP will be adjusted in response to those conditions in the future. Therefore, these actions are not expected to result in significant effects, nor 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?

The proposed action will formalize the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The action is not expected to alter fishing methods or activities such that they threaten a violation of federal, State, or local law or requirements imposed for the protection of the environment. In fact, the proposed measures have been found to be consistent with other applicable laws (see sections 8.2-8.11 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 are detailed in section 7.4 of the EA. None of the proposed measures are expected significantly alter the manner in which the fishery is prosecuted. The synergistic interaction of improvements in the manner in which scientific and management uncertainty is addressed when specifying catch limits for the managed resources fisheries is expected to generate positive impacts overall.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for this Omnibus Amendment document, 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 Environmental Assessment. 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.

____ ___July 28, 2011___

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 actions proposed in this document are expected to alter fishing methods or activities. Therefore, this action is not expected to affect proposed, threatened, or endangered 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 actions 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 document and will submit it to NMFS; NMFS must determine whether this action is consistent to the maximum extent practicable with the CZM programs for each state (Maine through North Carolina).

8.6 Administrative Procedure Act

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

The Administrative Procedure Act requires solicitation and review of public comments on actions taken in the development of an FMP and subsequent FMP amendment and framework adjustments. Development of this document provided many opportunities for public review, input, and access to the rulemaking process. This proposed action and the document were developed through a multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on this action at:

<u>Omnibus ACL/AM Scoping Meetings</u>
April 14, 2009 - Duck, NC
April 21, 2009 - East Setauket, NY
May 4, 2009 - Alexandria, Virginia

<u>Omnibus ACL/AM Committee Meetings</u>
December 9, 2008 - Montauk, NY
February 11, 2009 - Galloway, NJ
April 15, 2009 - Duck, NC
June 11, 2009 - New York, NY

SSC Meetings
January 22, 2009 - Baltimore, MD
July 16, 2009 - Philadelphia, PA
March 9, 2010 - Baltimore, MD

Omnibus ACL/AM Public hearings
May 3, 2010 - Alexandria, Virginia
May 10, 2010 - Newport News, VA
May 12, 2010 - East Setauket, NY
May 18, 2010 - Pomona, NJ

MAFMC Meetings
July 14, 2009 - Philadelphia, PA
August 6, 2009 - Alexandria, VA
December 9, 2009 - Wilmington, DE
February 11, 2010 - Cambridge, MD
April 14, 2010 - Duck, NC
June 10, 2010 - New York, NY
August 17, 2010 – Philadelphia, PA

In addition, the public will have further opportunity to comment on this Omnibus Amendment once NMFS publishes a request for comments notice in the Federal Register (FR).

8.7 Section 515 (Data Quality Act)

Utility of Information Product

This action proposes formalizing the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources. This document includes: A description of the alternatives considered, the Council-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 the actions proposed and this Omnibus Amendment serves as a supporting document for the proposed rule.

The action contained within this 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 the same meetings listed above in section 8.6. The public will have further opportunity to comment once NMFS publishes a request for comments on the proposed regulations 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 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 Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish fisheries.

The review process for this 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 Omnibus Amendment 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 (PRA)

The purpose of the PRA is to control and, to the extent possible, minimize the paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by or for the Federal Government. The preferred alternatives currently associated with this action do not propose to modify any existing collections, or to add any new collections; therefore, no review under the PRA is necessary.

8.9 Impacts of the Plan Relative to Federalism/EO 13132

This 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 action contained within this document are not expected to affect participation in the Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish 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.

8.10 Regulatory Impact Review/Initial Regulatory Flexibility Analysis

A Regulatory Impact Review (RIR) is required by NMFS for all regulatory actions that either implement a new FMP or significantly amend an existing FMP. An RIR is required by NMFS for all regulatory actions that are part of the “public interest.” The RIR is a required component of the process of preparing and reviewing FMPs or amendments and provides a comprehensive review of the economic impacts associated with proposed regulatory actions. The RIR addresses many concerns posed by the regulatory philosophy and principles of E.O. 12866. The RIR serves as the basis for assessing whether or not any proposed regulation is a "significant regulatory action" under criteria specified by E.O. 12866. The RIR must provide the following information: (1) A comprehensive review of the level and incidence of economic impacts associated with a proposed regulatory action or actions; (2) a review of the problems and policy objectives prompting the regulatory proposals; and (3) an evaluation of the major alternatives that could be used to meet these objectives. In addition, an RIR must ensure that the regulatory agency systematically and comprehensively consider all available alternatives such that the public welfare can be enhanced in the most efficient and cost effective manner. Under the Regulatory Flexibility Act (RFA) of 1980, as amended by Public Law 104-121, new FMPs or amendments also require an assessment of whether or not proposed regulations would have a significant economic impact on a substantial number of small business entities. The primary purposes of the RFA are to relieve small businesses, small organizations, and small Government agencies from burdensome regulations and record-keeping requirements, to the extent possible.

This section of the Omnibus Amendment provides an assessment and discussion of the potential economic impacts, as required of an RIR and the RFA, of various proposed actions consistent with the purpose of this action.

8.10.1 Basis and Purpose for the Action

The legal basis for this Omnibus Amendment can be found in the MSA (16 U.S.C. §1853(a)(15)), which includes new requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing. This is described further in section 4.0. The action is needed to ensure that MAFMC FMPs (i.e., Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP, and Tilefish FMP), comply with the requirements of the MSA. The purpose of the action is to: (1) Establish ABC control rules, (2) Establish a Council risk policy, which is one variable needed for the ABC control rules, (3) Establish ACL(s), (4) Establish a system of comprehensive accountability, which addresses all components of the catch, (5) Describe the process by which the performance of the annual catch limit and comprehensive accountability system will be reviewed, and (6) Describe the process to modify the measures above in 1-5 in the future. The purpose, need, and objectives of this Omnibus Amendment are described further in section 4.0.

8.10 Regulatory Flexibility Analysis (RFA/IRFA)

8.10.2 Evaluation of E.O 12866 Significance

8.10.2.1 Description of the Management Objectives

A complete description of the purpose and need and objectives of this proposed rule is found under section 4.2. This action is taken under the authority of the MSA and regulations at 50 CFR part 648.

8.10.2.2 Description of the Fishery

A description of the managed resources fisheries is presented in section 6.0. Detailed descriptions of the economic aspects of the commercial and recreational fisheries for the managed resources, descriptions of important ports and communities, as well as the management regimes are available in the respective FMPs (section 4.3). The 2009 commercial landings and ex-vessel prices are provided in section 6.5.1. An analysis of permit data is found in section 6.5.2.

8.10.2.3 A Statement of the Problem

A statement of the problem for resolution is presented under section 1.0. The purpose and need for this amendment is found in section 4.2.

8.10.2.4 A Description of Each Alternative

A full description of the alternatives analyzed in this section is presented in sections 5.0.

Description of the Affected Entities

A description of the affected entities is provided in section 8.10.3.1 of the IRFA. As noted in earlier sections (see section 7.1 to 7.4), this action will formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establish a comprehensive system of accountability for catch. Thus, the scope of the impacts associated with this Omnibus Amendment is atypical for an FMP amendment. Most FMP amendments focus on changes to fishing regulations in order to effect a direct change in either fishing effort or fishing practices, and these regulatory changes generally result in direct effect on fishing vessel operations (by modifying where, when, and/or how fishing may take place). These types of changes to fishing vessel operations almost always have socio-economic impacts on the participants of the subject fisheries.

However, as the focus of this amendment is on establishing administrative processes consistent with NS1, and there are therefore no direct impacts. Therefore, although this Omnibus Amendment addresses all fisheries operating for the managed resources, the actual economic impacts associated with this amendment are considered to be negligible. More details on these fisheries are available in section 6.5.

8.10.2.5 Determination of Significance under E.O. 12866

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be significant. A "significant regulatory action" is one that is likely to: (1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, safety, or state, local, or tribal Governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order. A regulatory program is "economically significant" if it is likely to result in the effects described above. The RIR is designed to provide information to determine whether the proposed regulation is likely to be "economically significant."

A complete evaluation of the expected economic effects of the various alternatives, including cumulative impacts, is presented throughout sections 7.1-7.4. The proposed action would establish a process for addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources. These actions would not affect the conservation objectives associated with each of the managed fisheries. Thus, while having no immediate direct economic impact, these actions will provide greater assurance that the current and future flow of commercial and recreational economic benefits from the managed fisheries will be maintained.

The MAFMC has determined that, given the information presented above, there would no substantive change in net benefits derived from the implementation of the proposed Omnibus Amendment. Because none of the factors defining “significant regulatory action” are triggered by this proposed action, the action has been determined to be not significant for purposes of E.O. 12866.

8.10.3 Initial Regulatory flexibility Analysis

The objective of the RFA is to require consideration of the capacity of regulated small entities affected by regulations to bear the direct and indirect costs of regulation. If an action would have a significant impact on a substantial number of small entities, an Initial Regulatory Flexibility Analysis must be prepared to identify the need for action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of whether the proposed action would have a significant economic impact on a substantial number of small entities. Depending on the nature of the proposed regulations assessment of the economic impacts on small businesses, small organizations, and small Governmental jurisdictions may be required. If an action is determined to affect a substantial number of small entities, the analysis must include:

> 1) A description and estimate of the number of regulated small entities and total number of entities in a particular affected sector, and the total number of small entities affected; and
> 2) Analysis of the economic impact on regulated small entities, including the direct and indirect compliance costs of completing paperwork or recordkeeping requirements, effect on the competitive position of small entities, effect on the small entity’s cash flow and liquidity, and ability of small entities to remain in the market.

If it is clear that an action would not have a significant economic impact on a substantial number of small regulated entities, the RFA allows Federal agencies to certify the proposed action to that effect to the SBA. The decision on whether or not to certify is generally made after the final decision on the preferred alternatives for the action and may be documented at either the proposed rule or the final rule stage.

Based on the information and analyses provided in earlier sections of this Omnibus Amendment, it is clear that this action would not have a significant economic impact on a substantial number of small entities, and that certification under the RFA is warranted. The remainder of this section establishes the factual basis for this determination, as recommended by the Office of Advocacy at the SBA.

8.10.3.1 Description and Estimate of Number of Small Entities to Which the Action Applies

The implementation of this action will formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources. Because this action would modify the process by which catch limits and accountability are applied to the managed resources fisheries, the small entities to which this action applies include all federally permitted fishing vessels for the managed resources operating in the Northeast Region. These vessels include both small regulated entities engaged in either commercial harvesting or a party/charter business activity. The small business size standard for commercial fishing (NAICS 1411) is $4 million in gross sales while the size standard for party/charter businesses (NAICS 487210) is $6.5 million in gross sales. During fishing year 2009, the total number of Federal fishing permits issued either a recreational or a commercial permit for the managed resources in the Northeast Region were 17,794 and 4,714, respectively (section 6.5.2). However, since many vessels are issued multiple permits the number of unique fishing entities totaled 3,911. Of these vessels, 2,854 held only a commercial harvesting permit, 206 held only a party/charter permit, while the remaining 851 operating units held at least one commercial harvest permit and at least one party/charter permit. Nearly all of the 3,911 permitted vessels did report at least some sales of commercially caught species in the Northeast region. This includes most of the 206 vessels that did not hold a commercial permit for any of the species managed under this FMP since they may have held other commercial permits. However, only about one-third of these vessels (1,285) reported landing of at least one pound of the managed species covered by the proposed action. Based on total sales, there were only 6 of the 1,285 participating regulated commercial fishing entities that had sales exceeding $4 million.

A total of 1,057 vessels were issued at least one recreation party/charter permit during 2009. Of these small entities 548 carried for-hire passengers on at least one occasion of which 452 retained at least one pound of any of the species managed under the proposed action. Note that this number includes 84 of the 206 permitted vessels that only held recreational permits and 368 of the 851 permitted vessels that held both commercial and recreational party/charter permits. Based on average passenger fees of $62.38[8] none of the participating party/charter operators exceeded $861,000 so all participating entities were determined to be small entities under the SBA size standards.

8.10.3.2 Economic Impacts on Small Entities

The economic impacts associated with each alternative considered in the development of this Omnibus Amendment are evaluated throughout section 7.0. For the purposes of the RFA certification review, the following addresses the economic impacts associated with each element of the proposed action.

---

[8] The 2006 party/charter average expenditure estimate ($57.76; Table 12) was adjusted to its 2009 equivalent using the Bureau of Labor's Consumer Price Index.

8.10.3.2.1 Specifying Acceptable Biological Catch

This element of the proposed action focuses on the alternatives to address the specification of ABC which includes an ABC control rule methods framework for the managed resources as well as a Council risk policy, which is one required variable in this ABC framework (see section 5.2). Because the actions proposed in this section are focused on methods and procedures to specify ABC, and are administrative in nature, there are no marginal changes to the economic impacts on small entities associated with this element (see section 7.0). If in the future, the implementation of the administrative processes described in this document indirectly results in any economic impacts, those would be identified and analyzed in the future management action.

8.10.3.2.2 Annual Catch Limits and Accountability Measures

This element of the proposed action establishes an annual catch limits and comprehensive systems of accountability for catch, for each of the managed resources. Because the actions proposed in this section are administrative in nature, there are no marginal changes to the economic impacts on small entities associated with this element (see section 7.0). If in the future, the implementation of the administrative processes described in this document indirectly results in any economic impacts, those would be identified and analyzed in the future management action.

8.11.3.2.3 Future Revision and Modification of Action

This element of the proposed action would address. This action is administrative and there are no direct or indirect economic impacts to small entities (see section 7.0).

8.11.3.3 Criteria Used to Evaluate the Action

8.11.3.3.1 Significant Economic Impacts

The RFA requires Federal agencies to consider two criteria to determine the significance of regulatory impacts: Disproportionality and profitability. If either criterion is met for a substantial number of small entities, then the action should not be certified.

8.11.3.3.1.1 Disproportionality

All but 6 commercial fishing entities were determined to be small regulated entities based on the SBA size standard. The proposed action would establish a process for the setting of annual catch limits and accountability measures. Since these actions are administrative in nature, no marginal economic impacts associated with these processes are anticipated. Therefore, the proposed action would not create any disproportionate impacts between small and large entities. If in the future, the implementation of the administrative processes described in this Omnibus Amendment indirectly results in any economic impacts, those would be identified and analyzed in the future management action.

Since all party/charter operators were determined to be small the disproportionality standard does not apply.

8.11.3.3.1.2 Profitability

As noted above, none of the elements of this proposed action are associated with economic impacts on small entities. This is the case for both small regulated entities engaged in either commercial fishing or recreational party/charter activities. Since the proposed action would have no economic impact on small entities there would no change in expected profitability.

8.11.3.4 Substantial Number of Small Entities

Indirectly, the methodologies established by this action apply generally across all of the managed resource fisheries under the subject FMPs. However, although a substantial number of entities are involved in these fisheries, none of these entities are expected to incur any economic impacts as a result of this action.

8.11.3.5 Description of and Explanation of, the Basis for All Assumptions Used

Because the actions proposed in this Omnibus Amendment are all are focused on the administrative aspects of scientific and management uncertainty for these fisheries, along with a comprehensive system of accountability, there are no direct economic impacts associated with this Omnibus Amendment. No assumptions are necessary to conduct the analyses in support of this conclusion.

9.0 EFH ASSESSMENT

The managed resources 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. An overview of habitat information for the managed resources is available in section 6.3 of this document.

9.1 Description of Action

The purpose of the proposed action is to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and establishing a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources. 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 document, and the fact that any action taken is consistent with the current regulations implementing the FMP and the MSA, 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 fisheries for Atlantic mackerel, butterfish, bluefish, spiny dogfish, summer flounder, scup, black sea bass, and tilefish and hydraulic dredges are used in the commercial Atlantic surfclam and ocean quahog fisheries. Recreational fisheries in general are not associated with significant impacts on habitat (including EFH). Bottom otter trawls and hydraulic dredges can adversely impact EFH for federally-managed species within the affected environment. Increase in bottom trawling activity and gear contact time with the ocean bottom has the potential to increase adverse impacts on benthic EFH. However, the actions proposed within this document are administrative in nature and are not expected to directly result in any increases or decreases in fishing effort, and associated bottom trawling activity (see section 7.1-7.3). Indirectly, these measures are not expected to result in increases in catch levels, and by association increased effort, relative to the status quo. Therefore, habitat areas would be subjected to the same disturbance from being fished by mobile, bottom-tending gear used in this and other fisheries, but no additional impact to habitat and EFH are expected to result from the action contained within this document.

10.0 LITERATURE CITED

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

ASMFC TC (Atlantic States Marine Fisheries Commission Technical Committee). 2007. Special Report to the Atlantic Sturgeon Management Board: Estimation of Atlantic sturgeon bycatch in coastal Atlantic commercial fisheries of New England and the Mid-Atlantic. August 2007. 95 pp.

ASSRT (Atlantic Sturgeon Status Review Team). 2007. Status review of Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus). National Marine Fisheries Service. February 23, 2007. 188 pp.

Bass, R.E., A.I. Herson, and K.M. Bogdan. 2001. The NEPA book: A step-by-step guide on how to comply with the National Environmental Policy Act, 2nd ed. Solano Press Books, Point Arena, CA, 475 pp.

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

Braun-McNeill, J., and S.P. Epperly. 2004. Spatial and temporal distribution of sea turtles in the western North Atlantic and the U.S. Gulf of Mexico from Marine Recreational Fishery Statistics Survey (MRFSS). Mar. Fish. Rev. 64(4):50-56.

Cargnelli, L., S. Griesbach, D. Packer, and E. Weissberger. 1999a. Essential Fish Habitat Source Document: Atlantic Surfclam, Spisula solidissima, Life History and Habitat Characteristics. NOAA Tech. Memo. NMFS-NE-142.

Cargnelli, L.,S. Griesbach, D. Packer, and E. Weissberger. 1999b. Essential Fish Habitat Source Document: Ocean Quahog, Arctica islandica, Life History and Habitat Characteristics. NOAA Tech. Memo. NMFS-NE-148.

CEQ 1997. Considering Cumulative Effects Under the National Environmental Policy Act. Council on Environmental Quality. Executive Office of the President. January 1997. 129 pp.

Cross JN, Zetlin CA, Berrien PL, Johnson DL, McBride C. 1999. Essential fish habitat source document: Butterfish, *Peprilus triacanthus*, life history and habitat characteristics. NOAA Tech Memo NMFS NE 145; 42 p.

Dadswell, M. 2006. A review of the status of Atlantic sturgeon in Canada, with comparisons to populations in the United States and Europe. Fisheries 31: 218-229.

Drohan AF, Manderson JP, Packer DB. 2007. Essential fish habitat source document: Black sea bass, *Centropristis striata*, life history and habitat characteristics, 2nd edition. NOAA Tech Memo NMFS NE 200; 68 p.

Dovel, W. L. and T. J. Berggren. 1983. Atlantic sturgeon of the Hudson River estuary, New York. New York Fish and Game Journal 30: 140-172.

Dunton, K.J., A. Jordaan, K.A. McKown, D.O. Conover, and M.G. Frisk. 2010. Abundance and distribution of Atlantic sturgeon (Acipenser oxyrinchus) within the Northwest Atlantic Ocean determined from five fishery-independent surveys. Fish. Bull. 108:450-465.

Gentner, B. and S.Steinback. 2008. The economic contribution of marine angler expenditures in the United States, 2006. U.S. Dep. Commerce, NOAA Technical Memo. NMFS-F/SPO-94, 301 p.

Holland, B.F., Jr., and G.F. Yelverton. 1973. Distribution and biological studies of anadromous fishes offshore North Carolina. Division of Commercial and Sports Fisheries, North Carolina Dept. of Natural and Economic Resources, Special Scientific Report No. 24. 130pp.

Freeman, B.L. and S.C. Turner. 1977. Biological and fisheries data on tilefish, *Lopholatilus chamaeleonticeps* Goode and Bean. U.S. Natl. Mar. Fish. Serv., Northeast Fisheries Sci. Cent. Sandy Hook Lab. Tech. Ser. Rep. No. 5. 41 p.

James, M.C., R.A. Myers, and C.A. Ottenmeyer. 2005a. Behaviour of leatherback sea turtles, *Dermochelys coriacea*, during the migratory cycle. Proc. R. Soc. B, 272: 1547-1555.
Katona, S.K., V. Rough, and D.T. Richardson. 1993. A field guide to whales, porpoises, and seals from Cape Cod to Newfoundland. Smithsonian Institution Press, Washington, D.C. 316pp.

Keinath, J.A., J.A. Musick, and R.A. Byles. 1987. Aspects of the biology of Virginia's sea turtles: 1979-1986. Virginia J. Sci. 38(4): 329-336.

Kynard, B. and M. Horgan. 2002. Ontogenetic behavior and migration of Atlantic sturgeon, Acipenser oxyrinchus oxyrinchus, and shortnose sturgeon, A. brevirostrum, with notes on social behavior. Environmental Behavior of Fishes 63: 137-150.

Laney, R.W., J.E. Hightower, B.R. Versak, M.F. Mangold, W.W. Cole Jr., and S.E. Winslow. 2007. Distribution, habitat use, and size of Atlantic sturgeon captured during cooperative winter tagging cruises, 1988-2006. In Anadromous sturgeons: habitats, threats, and management (J. Munro, D. Hatin, J.E. Hightower, K. McKown, K.J. Sulak, A.W. Kahnle, and F. Caron (eds.)), p. 167-182. Am. Fish. Soc. Symp. 56, Bethesda, MD.

MAFMC. 1999. Amendment 1 to the Bluefish Fishery Management Plan. Dover, DE. 408 p. + append.

MAFMC. 1999. Spiny Dogfish Fishery Management Plan. Dover, DE. 494 p. + append.

MAFMC. 2000. Tilefish Fishery Management Plan. Dover, DE. 443 p. + appends.

MAFMC. 2002. Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan. Dover, DE. 552 p. + append.

MAFMC. 2003. Amendment 13 to the Atlantic Surfclam and Ocean Quahog Fishery Management Plan. Dover, DE. 344 p. + append.

MAFMC. 2004. Bluefish Specifications, Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis. Dover, DE. 108 p. + append.

MAFMC. 2008. Amendment 9 to the Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan. Dover, DE. 415 p. + append.

MAFMC. 2009. Amendment 1 to the Tilefish Fishery Management Plan. Dover, DE. 496 p. + append.

Morreale, S.J. and E.A. Standora. 1998. Early life stage ecology of sea turtles in northeastern U.S. waters. U.S. Dep. Commer. NOAA Tech. Mem. NMFS-SEFSC-413, 49 pp.

Morreale, S.J. and E.A. Standora. 2005. Western North Atlantic waters: Crucial developmental habitat for Kemp's ridley and loggerhead sea turtles. Chel. Conserv. Biol. 4(4):872-882.

Murray K.T. 2006. Estimated Average Annual Bycatch of Loggerhead Sea Turtles (*Caretta caretta*) in U.S. Mid-Atlantic Bottom Otter Trawl Gear, 1996-2004. U.S. Dep. Commer., Northeast Fish. Sci. Cent. Ref. Doc. 06-19; 26 p.

Murray K.T. 2007. Estimated bycatch of loggerhead sea turtles (Caretta caretta) in U.S. Mid-Atlantic scallop trawl gear, 2004-2005, and in sea scallop dredge gear, 2005. U.S. Dep. Commer., Northeast Fish. Sci. Cent. Ref. Doc. 07-04; 30 p.

Murray K.T. 2008. Estimated average annual bycatch of loggerhead sea turtles (Caretta caretta) in U.S. Mid-Atlantic bottom otter trawl gear, 1996-2004 (Second Edition). US Dept Commer, Northeast Fish Sci Cent Ref Doc. 08-20; 32p.

Murray K.T. 2009. Proration of estimated bycatch of loggerhead sea turtles in U.S. mid-Atlantic sink gillnet gear to vessel trip report landed catch, 2002-2006. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 09-19; 7 p.

Musick, J.A. and C.J. Limpus. 1997. Habitat utilization and migration in juvenile sea turtles. Pp. 137-164 In: Lutz, P.L., and J.A. Musick, eds., The Biology of Sea Turtles. CRC Press, New York. 432 pp.

O'Hara K.J., S. Iudicello, and R. Bierce. 1988. A citizens guide to plastic in the ocean: more than a litter problem. Center for Environmental Education, Washington, D.C. 131 p.

Packer, D. B, S. J. Griesbach, P. L. Berrien, C. A. Zetlin, D. L. Johnson, and W.W. Morse. 1999. Essential Fish Habitat Source Document: Summer Flounder, *Paralichthys dentatus*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-151

Shepherd, G. R. and D. B. Packer. 2006. Essential Fish Habitat Source Document: Bluefish, *Pomatomus saltatrix*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-198

Shoop, C.R. and R.D. Kenney. 1992. Seasonal distributions and abundance of loggerhead and leatherback sea turtles in waters of the northeastern United States. Herpetol. Monogr. 6: 43-67.

Stehlik, L. L. 2007. Essential Fish Habitat Source Document: Spiny Dogfish, *Squalus acanthias*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-203

Steimle FW, Zetlin CA, Berrien PL, Chang S. 1999. Essential fish habitat source document: Black sea bass, *Centropristis striata*, life history and habitat characteristics. NOAA Tech Memo NMFS NE 143; 42 p.

Steimle, F.W, C. A. Zetlin, P. L. Berrien, D. L. Johnson, and S. Chang. 1999. Essential Fish Habitat Source Document: Scup, *Stenotomus chrysops*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-149

Steimle, F.W, C. A. Zetlin, P. L. Berrien, D. L. Johnson, S. Chang. 1999. Essential Fish Habitat Source Document: Tilefish, *Lopholatilus chamaeleonticeps*, Life History and Habitat Characteristics. NOAA Technical Memorandum NMFS-NE-152, Highlands, NJ.

Stein, A. B., K. D. Friedland, and M. Sutherland. 2004a. Atlantic sturgeon marine bycatch and mortality on the continental shelf of the Northeast United States. North American Journal of Fisheries Management 24: 171-183.

Stein, A.B., K. D. Friedland, and M. Sutherland. 2004b. Atlantic sturgeon marine distribution and habitat use along the northeastern coast of the United States. Transaction of the American Fisheries Society 133:527-537.

Studholme AL, Packer DB, Berrien PL, Johnson DL, Zetlin CA, Morse WW. 1999. Essential fish habitat source document: Atlantic mackerel, *Scomber scombrus*, life history and habitat characteristics. NOAA Tech Memo NMFS NE 141; 35 p.

Thunberg, Eric. 2010. Personal communication. NMFS Northeast Fisheries Science Center. Woods Hole, Massachusetts.

USDC (US District Court For the District of Columbia) (1999) National Resoruces Defense Council, Inc., et al. V. William M. Daley. Civil Action No. 99cv221. January 29, 1999.

Waldman, J. R., J. T. Hart, and I. I. Wirgin. 1996. Stock composition of the New York Bight Atlantic sturgeon fishery based on analysis of mitochondrial DNA. Transactions of the American Fisheries Society 125: 364-371.

Wallace, D.H., and T.B.Hoff. 2004. Minimal bycatch in the Northeast Atlantic surfclam and ocean quahog fishery. *In*: Bycatch in Northeast Fisheries: Moving Forward. NMFS. Gloucester, MA. page 83.

Waring, G.T., E. Josephson, C.P. Fairfield, and K. Maze-Foley, Editors. 2006. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments-2005. NOAA Tech Memo. NMFS-NE-194, 352pp.

Waring GT, Josephson E, Fairfield-Walsh CP, Maze-Foley K, editors. 2009. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2008. NOAA Tech Memo NMFS NE 210; 440 p.

11.0 LIST OF PREPARERS OF THE ENVIRONMENTAL ASSESSMENT

This Omnibus Amendment was submitted to NMFS by the MAFMC. This document was prepared by the following members of the MAFMC technical staff: Jessica Coakley (lead) in consultation with James Armstrong, Jason Didden, Clay Heaton, Dr. Tom Hoff, Dr. José L. Montañez, and Rich Seagraves. In addition, input throughout Omnibus Amendment development was provided by the ACL/AM Amendment Fishery Management Action Team (FMAT): Michael Ruccio, Jen Anderson, Dr. Steven Cadrin, Joel MacDonald, Toni Kerns, Dr. Tom Sminkey, Dr. Eric Thunberg, and Stanley Wang.

Copies of the Omnibus Amendment may be obtained from Dr. Christopher M. Moore, Mid-Atlantic Fishery Management Council, 800 North State St., Suite 201, Dover, DE 19901, (telephone 302-674-2331).

12.0 LIST OF AGENCIES AND PERSONS CONSULTED

In preparing this Omnibus Amendment, 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. In addition, states that are members within the management unit were consulted by NMFS through the Coastal Zone Management Program consistency process.

In order to ensure compliance with NMFS formatting requirements, the advice of NMFS Northeast Region personnel, Michael Ruccio, Michael Pentony, and Jennifer Anderson, was sought.

GLOSSARY

Acceptable biological catch. A level of stock or stock complex's annual catch that accounts for scientific uncertainty in the estimate of the overfishing limit (OFL; see definition below), and other sources of scientific uncertainty.

Accountability measures. Management controls that prevent annual catch limits (ACLs; see definition below) from being exceeded (i.e., proactive measures), or where possible, correct or mitigate overages if they occur (i.e., reactive measures).

Amendment. A formal change to a fishery management plan (FMP). The Council prepares amendments and submits them to the Secretary of Commerce for review and approval. The Council may also change FMPs through an FMP framework adjustment (see below).

Annual catch limit. The level of annual catch of a stock or stock complex that serves as a basis for invoking accountability measures.

Annual catch target. The level of annual catch of a stock that is the management target of the fishery. Considered to be a type of accountability measure (AM).

B. Biomass, measured in terms of total weight, spawning capacity, or other appropriate units of production.

BMSY. Long-term average exploitable biomass that would be achieved if fishing at a constant rate equal to FMSY. For most stocks, BMSY is about ½ of the carrying capacity. Overfishing definition control rules usually call for action when biomass is below ¼ or ½ BMSY, depending on the species.

Bycatch. Fish that are harvested in a fishery, but which are not sold or kept for personal use. This includes economic discards and regulatory discards. The fish that are being targeted may be bycatch if they are not retained.

Commission. Atlantic States Marine Fisheries Commission (ASMFC).

Committee. The Monitoring Committee, made up of staff representatives of the Mid-Atlantic, New England, and South Atlantic Fishery Management Councils, the Commission, the Northeast Regional Office of NMFS, the Northeast Fisheries Center, and the Southeast Fisheries Center. The MAFMC Executive Director or his designee chairs the Committee.

Conservation equivalency. The approach under which states are required to develop, and submit to the Commission for approval, state-specific or region-specific management measures (i.e., possession limits, size limits, and seasons) designed to achieve state specific or region-specific harvest limits.

Control rule. A pre-determined method for determining actions.

Council. The Mid-Atlantic Fishery Management Council.

Exclusive Economic Zone. For the purposes of the Magnuson-Stevens Fishery Conservation and Management Act, the area from the seaward boundary of each of the coastal states to 200 nautical miles from the baseline.

Fishing for managed resources. Any activity, other than scientific research vessel activity, which involves: (a) the catching, taking, or harvesting of the managed resources; (b) any other activity which can reasonably be expected to result in the catching, taking, or harvesting of the managed resources; or (c) any operations at sea in support of, or in preparation for, any activity described in paragraphs (a) or (b) of this definition.

Fishing effort. The amount of time and fishing power used to harvest fish. Fishing power is a function of gear size, boat size, and horsepower.

Fishing mortality rate. The part of the total mortality rate (which also includes natural mortality) applying to a fish population that is caused by man's harvesting. Fishing mortality is usually expressed as an instantaneous rate (F), and can range from 0 for no fishing to very high values such as 1.5 or 2.0. The corresponding annual fishing mortality rate (A) is easily computed but not frequently used. Values of A that would correspond to the F values of 1.5 and 2.0 would be 78 percent and 86 percent, meaning that there would be only 22 percent and 14 percent of the fish alive (without any natural mortality) at the end of the year that were alive at the beginning of the year. Fishing mortality rates are estimated using a variety of techniques, depending on the available data for a species or stock.

FMSY. A fishing mortality rate that would produce MSY when the stock biomass is sufficient for producing MSY on a continuing basis.

Framework adjustments. Adjustments within a range of measures previously specified in a fishery management plan (FMP). A change usually can be made more quickly and easily by a FMP framework adjustment than through an amendment. For plans developed by the Mid-Atlantic Council, the procedure requires at least two Council meetings including at least one public hearing and an evaluation of environmental impacts not already analyzed as part of the FMP.

Landings. The portion of the catch that is harvested for personal use or sold.

Management uncertainty. Less than perfect application of management measures (i.e., implementation error). Management uncertainty can occur because of a lack of sufficient information about the catch or because of a lack of management precision in many fisheries.

Metric ton. A unit of weight equal to 1,000 kilograms (1 kg = 2.2 lb.). A metric ton is equivalent to 2,205 lb. A thousand metric tons is equivalent to 2.2 million lb.

Mortality rates. The rate at which the numbers in a population decline over time. Mortality rates are critical parameters for determining the effects of harvesting strategies on fish stocks and yields. Together, the natural mortality rate (M) and fishing mortality rate (F) make up the total mortality rate (Z). Natural mortality is the death of fish from all causes other than fishing (e.g. aging, predation, cannibalism, disease, etc.).

MSY. Maximum sustainable yield. The largest long-term average yield (catch) that can be taken from a stock under prevailing ecological and environmental conditions.

Optimum yield. MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery.

Overfished. An overfished stock is one “whose size is sufficiently small that a change in management practices is required to achieve an appropriate level and rate of rebuilding.” A stock or stock complex is considered overfished when its population size falls below the minimum stock size threshold (MSST). A rebuilding plan is required for stocks that are deemed overfished. A stock is considered “overfished” when exploited beyond an explicit limit beyond which its abundance is considered ”too low” to ensure safe reproduction.

Overfishing. According to the National Standard Guidelines, “overfishing occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce maximum sustainable yield (MSY) on a continuing basis.” Overfishing is occurring if the maximum fishing mortality threshold (MFMT) is exceeded for 1 year or more. In general, it is the action of exerting fishing pressure (fishing intensity) beyond the agreed optimum level. A reduction of fishing pressure would, in the medium term, lead to an increase in the total catch.

Overfishing limit. The annual amount of catch that corresponds to the fishing mortality rate at maximum sustainable yield applied to stock abundance (in no. or weight).

Party/Charter boat. Any vessel which carries passengers for hire to engage in fishing.

Scientific uncertainty. Less than perfect knowledge about the likely outcome of an event, based on estimates derived from scientific information (models and data).

Sector. A grouping of similar fish harvesting entities participating under a specified ACL. Examples include recreational fishery participants (i.e., recreational sector), commercial fishery participants (i.e., commercial sector) or smaller sub-components of each such as party/charter vessels (i.e., party/charter sector--sub sector of the recreational sector).

Status Determination. A determination of stock status relative to B-threshold (defines overfished) and F-threshold (defines overfishing). A determination of either overfished or overfishing triggers a SFA requirement for rebuilding plan (overfished), ending overfishing (overfishing) or both.

Stock. A grouping of a species usually based on genetic relationship, geographic distribution and movement patterns. A region may have more than one stock of a species (for example, Gulf of Maine cod and Georges Bank cod).

APPENDIX A – Considered But Rejected From Further Analysis by the Council

The following issues, organized by stock, were considered by the Council throughout the document development process, including scoping and public hearings, but rejected the measures from further analysis in the document for these reasons.

Atlantic Mackerel

The Council considered accounting for Canadian catch via another mechanism (i.e., creating a domestic OFL or by using a Canadian ACL) rather than setting the ACL equal the domestic ABC. These alternative approaches were considered but rejected from further analysis. The artificial splitting of the OFL into a stock and domestic portion was undesirable as it raised a number of policy issues. Utilization of a Canadian ACLs would require accountability that is beyond the scope of the MSA or current international agreements for those components of the Canadian fishery.

The Council considered a mechanism which would allow for inseason adjustments to management measures (i.e., fish size, season, and possession limits). This approach was considered but rejected from further analysis as no current management measures are presently utilized for the recreational fishery providing no basis for evaluating the effectiveness of measures for constraining landings. In addition, the development of triggers for recreational fishery closure based on recreational data availability (by wave) was also consider but rejected. The recreational fishery has landed 4 - 11 percent of the annual 33.01 million lb (15.00 million kg) allocation over the last 9 years. The recreational data available does not allow for the development of indicators of imminent fishery overages given no overages have occurred in the recreational fishery; therefore, the data do not support development of fixed/prescriptive triggers to close the fishery.

Butterfish

The Council considered additional reactive and proactive corrective measures; however, these could not be developed for butterfish at this time given the multiple sources of mortality for this fishery, many of which are non-directed.

Atlantic Bluefish

The Council considered using a three year average for observed recreational catch to compare to the ACL. This approach was considered but rejected from further analysis owing to complication associated with the transfer process for this fishery.

The Council considered having a recreational harvest limit overage deduction to be applied if ACL is exceeded and the recreational fishery landings is responsible for the overage when a transfer has occurred from the recreational to commercial fishery. This approach was considered but rejected from further analysis based on a policy decision not to penalize only the recreational fishery for that overage. The Council also considered but rejected the concept of having accountability for that overage occurs at the ACL (overall fishery-level adjustment), in the absence of a required reduction to the transfer amount the next year.

The Council considered a mechanism which would allow for automatic inseason adjustments to management measures (i.e., fish size, season, and possession limits) based on landings triggers. This approach was considered but rejected from further analysis as the lack of adjustment of management measures limits the ability to evaluate the effectiveness of measures at constraining landings (i.e., no history of landings response to regulations). In addition, triggers for recreational fishery closure based on recreational data availability (by wave) was also considered but rejected. Recreational landings have exceeded the RHL in 1 of the most recent 9 years from 2000-2008; the overage was 6 percent. The recreational data available does not allow for the development of indicators of recreational landings overages given only one overage has occurred recently in the recreational fishery; therefore, the data do not support development of fixed/prescriptive triggers to close the fishery. In addition, the effectiveness of these types of inseason measures may be limited unless concurrent state measures are implemented for these fisheries.

Spiny Dogfish

The Council considered accounting for Canadian catch via another mechanism (i.e., creating a domestic OFL or by using a Canadian ACL) rather than setting the ACL equal the domestic ABC. These alternative approaches were considered but rejected from further analysis. The artificial splitting of the OFL into a stock and domestic portion was undesirable as it raised a number of policy issues. Utilization of a Canadian ACLs would require accountability that is beyond the scope of the MSA or current international agreements for those components of the Canadian fishery.

The Council considered the development of proactive inseason adjustments and associated trip limit triggers, but rejected these approached from further analysis. An inseason adjustment to the Federal spiny dogfish commercial trip limit would affect the rate at which spiny dogfish landings from the EEZ accumulate and thus slow landings relative to the annual or periodic (seasonal) quota. Importantly, however, a substantial portion (~ 90 percent + according to dealer weighout data from 2000-2008) of reported commercial spiny dogfish landings do not come from the EEZ. Because of this, the prevailing source of landings is likely to remain unaffected by a potential Federal in-season adjustment. For vessels that currently possess a Federal spiny dogfish permit, the option of responding to reduced trip limits or even closure of the EEZ by relinquishing their Federal permit and fishing in state waters is available. Additionally, under Addendum II (October 2008), the Interstate Fishery Management Plan (ISFMP) allocates the commercial quota regionally rather than seasonally; thus as the Federal periodic (seasonal) quota is being approached, the regional quotas may be less than half landed. Lastly, Amendment 3 to the Federal Spiny Dogfish FMP is contemplating a transition to regional allocation of the commercial quota that would complement the ISFMP allocation scheme. The appropriateness of inseason adjustments to trip limits as a pro-active AM should be further evaluated through the development of that amendment.

Summer Flounder

The Council considered the use of a separate ACT for the party/charter component of the recreational fishery but rejected this approach further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

The Council considered a mechanism which would allow for inseason adjustments to recreational management measures (i.e., fish size, season, and possession limits) but rejected this approach from further analysis. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

The Council also considered prescriptive triggers for inseason recreational fishery closure. Specifically, they considered if 50 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the summer flounder recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based on MRFSS data from 2000-2008, which suggests in the six years in which overages occurred, in four of those six year about 50 percent or more of the recreational harvest limit had been utilized by wave 3. The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For summer flounder, self-reported area information from MRFSS which anglers specify where the majority of their fishing occurred, indicates an average of 10.1 percent of the landings from 1999-2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited. Ultimately, the Council considered but rejected this approach from further analysis on the basis these measures are unlikely to be highly effective; however general inseason closure authority (without prescriptive triggers) was retained as an action alternative within the document.

Scup

The Council considered the use of a separate ACT for the party/charter component of the recreational fishery but rejected this approach further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

The Council considered a mechanism which would allow for inseason adjustments to recreational management measures (i.e., fish size, season, and possession limits) but rejected this approach from further analysis. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

The Council also considered prescriptive triggers for inseason recreational fishery closure. Specifically, they considered if 15 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the scup recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based on MRFSS data from 2000-2008, which suggests in the seven years in which overages occurred, in all of those years 15 percent or more of the recreational harvest limit had been utilized by wave 3. The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For scup, self-reported area information from MRFSS which anglers specify where the majority of their fishing occurred, indicates an average of 6.1 percent of the landings from 1999-2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or an imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited. Ultimately, the Council considered but rejected this approach from further analysis on the basis these measures are unlikely to be highly effective; however general inseason closure authority (without prescriptive triggers) was retained as an action alternative within the document.

Black Sea Bass

The Council considered the use of a separate ACT for the party/charter component of the recreational fishery but rejected this approach further analysis on the basis that accountability measures could not be addressed without an allocation for that fishery component.

The Council considered a mechanism which would allow for inseason adjustments to recreational management measures (i.e., fish size, season, and possession limits) but rejected this approach from further analysis. The timing of the availability of the recreational data is insufficient to adequately inform when these measures should be deployed with sufficient time to be highly effective.

The Council also considered prescriptive triggers for inseason recreational fishery closure. Specifically, they considered if 40 percent of the recreational harvest limit has been utilized from MRFSS wave 1 through the end of MRFSS wave 3 (i.e., landings January through June, typically available in mid-August), then the black sea bass recreational fishery in the EEZ would be closed on September 1 for the remainder of the fishing season or year. This is based MRFSS data from 2000-2008, which suggests in the three years in which overages occurred, about 40 percent of the recreational harvest limit had been utilized by wave 3. The effectiveness of recreational inseason measures may be limited unless complementary actions are taken within state waters. For black sea bass, self-reported area information from MRFSS which anglers specify where the majority of their fishing occurred, indicates an average of 73.0 percent of the landings from 1999-

2008 occurred in the EEZ. Each state has a different set of requirements for application of inseason measures. Some states can take action through declaration; others must take action through emergency rulemaking. The criteria under which action can be taken varies and in many cases requires the stock be threatened, in jeopardy, or an imminent public health threat or danger to a fishing resource or habitat involving finfish can be cited. Ultimately, the Council considered but rejected this approach from further analysis on the basis these measures are unlikely to be highly effective; however general inseason closure authority (without prescriptive triggers) was retained as an action alternative within the document.

Tilefish

The Council considered eliminating the tilefish trip limit based on a trip limit analyses presented at the June 2010 Council Meeting in NYC, New York. The Council rejected this approach from further analysis on the basis that future impacts of the newly applied ITQ fishery on market prices are unknown. If tilefish market prices change, the behavior of the incidental fishery could also change. Similarly, changes in other fisheries being directly targeting when tilefish are caught could impact the landings in the incidental fishery, as those fisheries appear to be driving effort.

The Council also considered reactive accountability for the tilefish incidental fishery which would reduce the incidental allocation the subsequent year by the landings overage amount, as a single year adjustment, if the ACL is exceeded, and that overage is due to landings in excess of the incidental fishery allocation of 5percent. This approach was considered but rejected from further analysis based on information provided in the trip limit analyses which suggest that the tilefish incidental fishery is truly incidental and reducing the 5 percent allocation would not reduce fishing activity in the incidental fishery.

APPENDIX B – Tables of Terminology Which Already Exist and Potential New Terminology Under Proposed Action

Table Atlantic Mackerel. Atlantic Mackerel Terms

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Allowable Biological Catch (ABC)	Acceptable Biological Catch (ABC)	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. IOY is composed of RQ, DAH, DAP, and may include JVP and TALFF if specified.	ACL = Domestic ABC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For Atlantic Mackerel, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Initial Optimum Yield (IOY)	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery and accounts for management uncertainty in controlling the actual catch at or below ACL. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. The sector ACT could account for all these factors.	Recreational ACT, Commercial ACT
Domestic Annual Harvest (DAH)	Unchanged	Annual amount of total domestic commercial landings permitted after removing estimated discards.	DAH = ACT – discards – RSA

Domestic Annual Processing (DAP)	Not specified	DAP is the IOY minus the recreational sector ACT. It is part of the overall ACL structure.	DAP = IOY – recreational sector ACT
Research Quota (RQ)	Research set-Aside (RSA)	Amount of annual landings up to 3 percent that may be set aside to fund research activities.	ACT – X% (up to 3%) = DAH and Recreational fishery allocation
	Recreational Harvest Level (RHL)	Annual management target for the recreational sector landings after removing research set-aside.	Recreational Sector ACT – discards = RHL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY. For Atlantic Mackerel, OY is the quantity of catch that is less than or equal to the ABC in U.S. waters	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

Table Butterfish. Butterfish Terms

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Allowable Biological Catch (ABC)	Acceptable Biological Catch (ABC)	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. IOY is a modification of ABC, based on social, economic, and ecological factors. It must be less than or equal to ABC. IOY is composed of RQ, DAH, DAP, and may include JVP and TALFF if specified.	ACL = ABC
Initial Optimum Yield (IOY)	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery and accounts for management uncertainty in controlling the actual catch at or below ACL. IOY could be reduced from ABC, based on social, economic, and ecological factors. The ACT could account for all these factors.	IOY = ACT
Domestic Annual Harvest (DAH)	Unchanged	DAH is the IOY after removal of estimated discards.	DAH = IOY - discards
Domestic Annual Processing (DAP)	Unchanged	DAP is the *Loligo* and other fishery catch cap.	DAP = *Loligo* Fishery Cap + Commercial Fishery Cap
Research Quota (RQ)	Research set-Aside (RSA)	Amount of Annual Catch Limit (ACL) up to 3 percent that may be set aside to fund research activities	ACL – X% (up to 3%) = ACT
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

Table Bluefish. Atlantic Bluefish Terms

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Bluefish ACL is set equal to ABC.	ACL = ABC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For bluefish, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of landings TAL up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside and receiving transfer from the recreational harvest limit.	Commercial Quota = Commercial Sector TAL-RSA

Optimum Yield (OY)	Unchanged	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} or B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{THRESHOLD}$ (Also F_{MAX}, F_{MSY})	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{THRESHOLD}$ = F_{MSY} = F_{MAX}

Table Spiny Dogfish. Spiny Dogfish Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. For spiny dogfish ACL is set equal to ABC.	ACL = Domestic ABC
	Annual Catch Target (ACT)	An amount of annual catch of the stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	ACT
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted after removing estimated discards from the total catch level.	ACT – discards = TAL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
$B_{THRESHOLD}$	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = $B_{THRESHOLD}$
$F_{THRESHOLD}$	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{THRESHOLD}$

Table Summer Flounder. Summer Flounder Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For summer flounder, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limits (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For summer flounder Σ sector ACLs is set equal to ABC.	Σ sector ACLs = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TALs = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL - RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{35\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{35\%} = F_{MSY}$ Proxy

Table Scup. Scup Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For scup, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limits (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For scup Σ sector ACLs is set equal to ABC.	Σ sector ACLs = TAC = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL - RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{40\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{40\%} = F_{MSY}$ Proxy

Table Black Sea Bass. Black Sea Bass Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Sector	Distinct user group to which separate management strategies and separate catch quotas apply. For black sea bass, there are recreational and commercial sectors.	Recreational Sector, Commercial Sector
Total Allowable Catch (TAC)	Sum of Sector Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. The sum of the sector ACLs may not exceed ABC. For black sea bass Σ sector ACLs is set equal to ABC.	TAC = Σ sector ACLs = ABC
	Sector Annual Catch Target (ACT)	An amount of annual catch of a stock by sector that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	Recreational ACT, Commercial ACT
Total Allowable Landings (TAL)	Sector Total Allowable Landings (TAL)	Annual amount of total landings permitted by sector after removing estimated discards. For black sea bass Σ sector TALs is equal to TAL.	Sector TAL = sector ACT – sector discards
Research Set-Aside (RSA)	Unchanged	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = RHL and Commercial Quota
Recreational Harvest Limit (RHL)	Unchanged	Annual management target for the recreational sector after removing research set-aside.	RHL = Recreational Sector TAL-RSA
Commercial Quota	Unchanged	Annual management target for the commercial sector after removing research set-aside.	Commercial Quota = Commercial Sector TAL-RSA

Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
$F_{40\%} = F_{MSY}$ Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = $F_{40\%} = F_{MSY}$ Proxy

Table Atlantic Surfclam. Atlantic Surfclam Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of clams.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC established by SSC = TAC = ACL = TAL
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Surfclam ACL is set equal to ABC.	ACL = ABC
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted.	TAL < ACL
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
F_{MSY} Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY} Proxy

Table Ocean Quahog. Ocean Quahog Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of clams.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC = TAC = ACL
Total Allowable Catch (TAC)	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs. ACL may not exceed ABC. For Atlantic Surfclam ACL is set equal to ABC.	ACL = ABC
	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, exclusive of discards and broken clams, for controlling the actual catch at or below ACL. There are two subdivisions of ACTs in the ocean quahog plan: Maine fishery and non-Maine fishery.	Σ Maine Fishery ACT and Non-Maine Fishery ACT < ACL
F_{MSY} Proxy = Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY} Proxy	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY} Proxy
F_{MSY} Proxy	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY} Proxy

Table Tilefish. Tilefish Terms.

Previous Term	New Term	Definition	Use in Omnibus
Overfishing Limit (OFL)	Unchanged	The OFL is an estimate of the catch level above which overfishing is occurring. The amount of catch that corresponds to the estimate of MFMT applied to a stock and is expressed in terms of numbers or weight of fish.	OFL = catch level calculated by MFMT
Acceptable Biological Catch (ABC)	Unchanged	The level of a stock's annual catch that accounts for the scientific uncertainty in the estimate of OFL. May not exceed OFL.	ABC is established by SSC
	Annual Catch Limit (ACL)	The level of annual catch of a stock that serves as the basis for invoking AMs.	ACL = ABC
	Annual Catch Target (ACT)	An amount of annual catch of a stock that is the management target of the fishery, inclusive of discards, and accounts for management uncertainty in controlling the actual catch at or below ACL.	ACT
Total Allowable Landings (TAL)	Unchanged	Annual amount of total landings permitted after removing estimated discards.	TAL = ACT – discards
Research Total Allowable Catch (TAC)	Research Set-Aside (RSA)	Amount of Total Allowable Landings (TAL) up to 3 percent that may be set aside to fund research activities	TAL – X% (up to 3%) = IFQs + Incidental Category
Total IFQ Amount	Unchanged	95 percent of the annual TAL (After deducting RSA).	IFQ Allocations
Incidental Category	Unchanged	5 percent of the annual TAL (After deducting RSA).	Incidental Category
Optimum Yield (OY)	Optimum Yield (OY)	The long-term average amount of desired yield from a stock or fishery. OY cannot exceed MSY.	OY
½ B_{MSY}	Minimum Stock Size Threshold (MSST)	Level of stock biomass below which the stock is considered to be overfished.	MSST = ½ B_{MSY}
F_{MSY}	Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring.	MFMT = F_{MSY}

APPENDIX C – Description of Species Listed as Endangered and Threatened which inhabit the management units in the FMPs

Brief descriptions of species which have documented interactions with the managed resources fisheries are provided in section 6.3 of this EA.

<u>Detailed Descriptions of Endangered and Threatened Species within the Management Unit, as well as Species with Documented Interactions</u>

North Atlantic Right Whale

Right whales have occurred historically in all the world's oceans from temperate to subarctic latitudes. NMFS recognizes three major subdivisions of right whales: North Pacific, North Atlantic, and Southern Hemisphere. NMFS further recognizes two extant subunits in the North Atlantic: eastern and western. A third subunit may have existed in the central Atlantic (migrating from east of Greenland to the Azores or Bermuda), but this stock appears to be extinct (Waring et al. 2002).

The north Atlantic right whale has the highest risk of extinction among all of the large whales in the world's oceans. The scarcity of right whales is the result of an 800-year history of whaling that continued into the 1960s (Klumov 1962). Historical records indicate that right whales were subject to commercial whaling in the North Atlantic as early as 1059. Between the 11th and 17th centuries, an estimated 25,000-40,000 right whales may have been harvested. The size of the western north Atlantic right whale population at the termination of whaling is unknown, but the stock was recognized as seriously depleted as early as 1750. However, right whales continued to be taken in shore-based operations or opportunistically by whalers in search of other species as late as the 1920's. By the time the species was internationally protected in 1935, there may have been fewer than 100 western north Atlantic right whales in the western Atlantic (Hain 1975; Reeves et al. 1992; Waring et al. 2002).

Right whales appear to prefer shallow coastal waters, but their distribution is also strongly correlated to the distribution of their prey (zooplankton). In both the northern and southern hemispheres, right whales are observed in the lower latitudes and more coastal waters during winter where calving takes place, and then tend to migrate to higher latitudes during the summer. The distribution of right whales in summer and fall in both hemispheres appears linked to the distribution of their principal zooplankton prey (Winn et al. 1986). They generally occur in Northwest Atlantic waters west of the Gulf Stream and are most commonly associated with cooler waters (21º C). They are not found in the Caribbean and have been recorded only rarely in the Gulf of Mexico.

Right whales feed on zooplankton through the water column, and in shallow waters may feed near the bottom. In the Gulf of Maine they have been observed feeding on zooplankton, primarily copepods, by skimming at or below the water's surface with open mouths (NMFS 1991b; Kenney et al. 1986; Murison and Gaskin 1989; and Mayo and Marx 1990). Research suggests that right whales must locate and exploit extremely dense patches of zooplankton to feed efficiently (Waring et al. 2002). New England waters include important foraging habitat for right whales and at least some portion of the North Atlantic right whale population is present in these waters throughout most months of the year. They are most abundant in Cape Cod Bay between February and April (Hamilton and Mayo 1990; Schevill et al. 1986; Watkins and Schevill 1982) and in the Great South Channel in May and June (Payne et al. 1990) where they have been observed feeding predominantly on copepods, largely of the genera Calanus and Pseudocalanus (Waring et al. 2002). Right whales also frequent Stellwagen Bank and Jeffrey's Ledge, as well as Canadian waters including the Bay of Fundy and Browns and Baccaro Banks, in the spring and summer months. Mid-Atlantic waters are used as a migratory pathway from the spring and summer feeding/nursery areas to the winter calving grounds off the coast of Georgia and Florida.

NMFS designated right whale critical habitat on June 3, 1994 (59 FR 28793) to help protect important right whale foraging and calving areas within the U.S. These include the waters of Cape Cod Bay and the Great South Channel off the coast of Massachusetts, and waters off the coasts of southern Georgia and northern Florida. In 1993, Canada's Department of Fisheries declared two conservation areas for right whales; one in the Grand Manan Basin in the lower Bay of Fundy, and a second in Roseway Basin between Browns and Baccaro Banks (Canadian Recovery Plan for the North Atlantic Right Whale 2000).

The northern right whale was listed as endangered throughout its range on June 2, 1970 under the ESA. The current population is considered to be at a low level and the species remains designated as endangered (Waring et al. 2008). A Recovery plan has been published and currently is in effect (NMFS 1991). This is a strategic stock because the average annual fishery-related mortality and serious injury from all fisheries exceeds the PBR.

The western North Atlantic population of right whales was estimated to be 295 individuals in 1998 (Waring et al. 2008). An updated analysis using the same method gave an updated estimate of 299 animals in 1998. A review of the photo-id recapture database on June 15, 2006, indicated that 313 individually recognized whales were known to be alive in 2002 (Waring et al. 2008). PBR for this stock is zero.

Right whales may be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries. However, the major known sources of anthropogenic mortality and injury of right whales clearly are ship strikes and entanglement in commercial fishing gear. Waring et al. (2008) provide a detailed description of the annual human related mortalities of right whales.

Humpback Whale

The humpback whale was listed as endangered throughout its range on June 2, 1970. Humpback whales calve and mate in the West Indies and migrate to feeding areas in the northwestern Atlantic during the summer months. Six separate feeding areas are utilized in northern waters after their return (Waring et al. 2002). Only one of these feeding areas, the GOM, lies within U.S. waters and is within the action area of this FMP. Most of the humpbacks that forage in the GOM visit Stellwagen Bank and the waters of Massachusetts and Cape Cod Bays. Sightings are most frequent from mid-March through November between 41º N and 43º N, from the Great South Channel north along the outside of Cape Cod to Stellwagen Bank and Jeffreys Ledge (CeTAP 1982), and peak in May and August. Small numbers of individuals may be present in this area year-round. They feed on a number of species of small schooling fishes, particularly sand lance and Atlantic herring, by targeting fish schools and filtering large amounts of water for their associated prey. Humpback whales have also been observed feeding on krill (Wynne and Schwartz 1999).

Various papers (Barlow & Clapham 1997; Clapham et al. 1999) summarized information gathered from a catalogue of photographs of 643 individuals from the western North Atlantic population of humpback whales. These photographs identified reproductively mature western North Atlantic humpbacks wintering in tropical breeding grounds in the Antilles, primarily on Silver and Navidad Banks, north of the Dominican Republic. The primary winter range also includes the Virgin Islands and Puerto Rico (Waring et al. 2002). In general, it is believed that calving and copulation take place on the winter range. Calves are born from December through March and are about 4 meters at birth. Sexually mature females give birth approximately every 2 to 3 years. Sexual maturity is reached between 4 and 6 years of age for females and between 7 and 15 years for males. Size at maturity is about 12 meters.

Humpback whales use the mid-Atlantic as a migratory pathway, but it may also be an important feeding area for juveniles. Since 1989, observations of juvenile humpbacks in the mid-Atlantic have been increasing during the winter months, peaking January through March (Swingle et al. 1993). Biologists speculate that non-reproductive animals may be establishing a winter feeding range in the mid-Atlantic since they are not participating in reproductive behavior in the Caribbean. Swingle et al. (1993) identified a shift in distribution of juvenile humpback whales in the nearshore waters of Virginia, primarily in winter months. Those whales using this mid-Atlantic area that have been identified were found to be residents of the GOM and Atlantic Canada (Gulf of St. Lawrence and Newfoundland) feeding groups, suggesting a mixing of different feeding stocks in the mid-Atlantic region. A shift in distribution may be related to winter prey availability. Studies conducted by the Virginia Marine Science Museum indicate that these whales are feeding on, among other things, bay anchovies and menhaden. In concert with the increase in mid-Atlantic whale sightings, strandings of humpback whales have increased between New Jersey and Florida since 1985. Strandings were most frequent during September through April in North Carolina and Virginia waters, and were comprised primarily of juvenile humpback whales of no more than 11 meters in length (Wiley et al.

1995). Six of 18 humpbacks for which the cause of mortality was determined were killed by vessel strikes. An additional humpback had scars and bone fractures indicative of a previous vessel strike that may have contributed to the whale's mortality. Sixty percent of those mortalities that were closely investigated showed signs of entanglement or vessel collision.

New information has recently become available on the status and trends of the humpback whale population in the North Atlantic. Although current and maximum net productivity rates are unknown at this time, the Gulf of Maine stock has been steadily increasing (Waring et al. 2008). The minimum population estimate is the lower limit of the two-tailed 60% confidence interval of the lognormally distributed best abundance estimate. This is equivalent to the 20th percentile of the log-normal distribution as specified by Wade and Angliss (1997). The best estimate of abundance for Gulf of Maine humpback whales is 847 (CV=0.55). The minimum population estimate for this stock is 549 animals (Waring et al. 2008).

PBR is the product of minimum population size (549 animals), one-half the maximum productivity rate, and a "recovery" factor (MMPA Sec. 3. 16 U.S.C. 1362; Wade and Angliss 1997). The maximum productivity rate is the default value of 0.04. The "recovery" factor, which accounts for endangered, depleted, threatened stocks, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.10 because this stock is listed as an endangered species under the ESA. PBR for the Gulf of Maine humpback whale stock is 1.1 whales (Waring et al. 2008).

The major known sources of anthropogenic mortality and injury of humpback whales include entanglement in commercial fishing gear and ship strikes. Waring et al. (2008) provide a detailed description of the annual human related mortalities of humpback whales. Humpback whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries.

Fin Whale

Fin whales inhabit a wide range of latitudes between 20-75°N and 20-75°S (Perry et al. 1999). Fin whales spend the summer feeding in the relatively high latitudes of both hemispheres, particularly along the cold eastern boundary currents in the North Atlantic and North Pacific Oceans and in Antarctic waters (IWC 1992). Most migrate seasonally from relatively high-latitude Arctic and Antarctic feeding areas in the summer to relatively low-latitude breeding and calving areas in the winter (Perry et al. 1999).

As in the case of right and humpback whales, fin whale populations were heavily affected by commercial whaling. However, commercial exploitation of fin whales occurred much later than for right and humpback whales. Although some fin whales were taken as early as the 17th century by the Japanese using a fairly primitive open-water netting technique (Perry et al. 1999) and were hunted occasionally by sailing vessel whalers in the 19th century (Mitchell and Reeves 1983), wide-scale commercial exploitation of fin whales did not occur until the 20th century when the use of steam power and harpoon- gun technology made exploitation of this faster, more offshore species feasible. In the southern hemisphere, over 700,000 fin whales were landed in the 20th century. More than 48,000 fin whales were taken in the North Atlantic between 1860 and 1970 (Perry et al. 1999). Fisheries existed off of Newfoundland, Nova Scotia, Norway, Iceland, the Faroe Islands, Svalbard (Spitsbergen), the islands of the British coasts, Spain and Portugal. Fin whales were rarely taken in U.S. waters, except when they ventured near the shores of Provincetown, MA, during the late 1800's (Perry et al. 1999).

In the North Atlantic today, fin whales are widespread and occur from the Gulf of Mexico and Mediterranean Sea northward to the edges of the arctic pack ice (Waring et al. 2008). A number of researchers have suggested the existence of fin whale subpopulations in the North Atlantic. Mizroch et al. (1984) suggested that local depletions resulting from commercial overharvesting supported the existence of North Atlantic fin whale subpopulations. Others have used genetics information to provide support for the belief that there are several subpopulations of fin whales in the North Atlantic and Mediterranean (Bérubé et al. 1998). In 1976, the IWC's Scientific Committee proposed seven stocks for North Atlantic fin whales. These are: (1) North Norway; (2) West Norway-Faroe Islands; (3) British Isles-Spain and Portugal; (4) East Greenland-Iceland; (5) West Greenland; (6) Newfoundland-Labrador; and (7) Nova Scotia (Perry et al. 1999). However, it is uncertain whether these stock boundaries define biologically isolated units (Waring et al. 2002). The NMFS has designated one stock of fin whale for U.S. waters of the North Atlantic where the species is commonly found from Cape Hatteras northward.

The overall distribution of fin whales may be based on prey availability. This species preys opportunistically on both invertebrates and fish. The predominant prey of fin whales varies greatly in different geographical areas depending on what is locally available. In the western North Atlantic fin whales feed on a variety of small schooling fish (i.e., herring, capelin, sand lance) as well as squid and planktonic crustaceans. As with humpback whales, fin whales feed by filtering large volumes of water for their prey through their baleen plates. Photo identification studies in western North Atlantic feeding areas, particularly in Massachusetts Bay, have shown a high rate of annual return by fin whales, both within years and between years (Seipt et al. 1990).

The major known sources of anthropogenic mortality and injury of fin whales include ship strikes and entanglement in commercial fishing gear. However, many of the reports of mortality cannot be attributed to a particular source. Fin whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries.

The fin whale was listed as endangered throughout its range on June 2, 1970 under the ESA. Hain et al. (1992) estimated that about 5,000 fin whales inhabit the northeastern United States continental shelf waters. Waring et al. (2008) present a more recent abundance estimate of 2,269 (CV=0.37) and minimum population estimate of 1,678 for fin whales in the western North Atlantic. PBR for the western North Atlantic fin whale is 3.4 animals. For the period 2001-2005, Waring et al. (2008) report that the average annual rate of human-caused mortality and serious injury to fin whales was 2.4 animals per year.

Blue Whale

Like the fin whale, blue whales occur worldwide and are believed to follow a similar migration pattern from northern summering grounds to more southern wintering areas (Perry et al. 1999). Three subspecies have been identified: *Balaenoptera musculus musculus, B.m. intermedia*, and *B.m. brevicauda* (Waring et al. 2002). Only *B. musculus* occurs in the northern hemisphere. Blue whales range in the North Atlantic extends from the subtropics to Baffin Bay and the Greenland Sea. The IWC currently recognizes these whales as one stock (Perry et al. 1999).

Blue whales are only occasional visitors to east coast U.S. waters. They are more commonly found in Canadian waters, particularly the Gulf of St. Lawrence where they are present for most of the year, and other areas of the North Atlantic. It is assumed that blue whale distribution is governed largely by food requirements. In the Gulf of St. Lawrence, blue whales appear to predominantly feed on *Thysanoessa raschii* and *Meganytiphanes norvegica*. In the eastern North Atlantic, *T. inermis* and *M. norvegica* appear to be the predominant prey.

There is limited information on the factors affecting natural mortality of blue whales in the North Atlantic. Ice entrapment is known to kill and seriously injure some blue whales, particularly along the southwest coast of Newfoundland, during late winter and early spring. Habitat degradation has been suggested as possibly affecting blue whales such as in the St. Lawrence River and the Gulf of St. Lawrence where habitat has been degraded by acoustic and chemical pollution. However, there is no data to confirm that blue whales have been affected by such habitat changes (Perry et al. 1999).

Entanglement in fishing gear, and ship strikes are believed to be the major sources of anthropogenic mortality and injury of blue whales. However, confirmed deaths or serious injuries from either are few. In 1987, concurrent with an unusual influx of blue whales into the Gulf of Maine, one report was received from a whale watch boat that spotted a blue whale in the southern Gulf of Maine entangled in gear described as probable lobster pot gear. A second animal found in the Gulf of St. Lawrence apparently died from the effects of an entanglement. In March 1998, a juvenile male blue whale was carried into Rhode Island waters on the bow of a tanker. The cause of death was determined to be due to a ship strike, although not necessarily caused by the tanker on which it was observed, and the strike may have occurred outside the U.S. EEZ (Waring et al. 2002). No recent entanglements of blue whales have been reported from the U.S. Atlantic. Other impacts noted above for other baleen whales may occur.

Sei Whale

Sei whales are a widespread species in the world's temperate, subpolar and subtropical and even tropical marine waters. However, they appear to be more restricted to temperate waters than other balaenopterids (Perry et al. 1999). The IWC recognized three stocks in the North Atlantic based on past whaling operations as opposed to biological information: (1) Nova Scotia; (2) Iceland Denmark Strait; (3) Northeast Atlantic (Donovan 1991 in Perry et al. 1999). Mitchell and Chapman (1977) suggested that the sei whale population in the western North Atlantic consists of two stocks, a Nova Scotian Shelf stock and a Labrador Sea stock. The Nova Scotian Shelf stock includes the continental shelf waters of the northeastern United States, and extends northeastward to south of Newfoundland. The IWC boundaries for this stock are from the U.S. east coast to Cape Breton, Nova Scotia and east to longitude 42° (Waring et al. 2002). This is the only sei whale stock within the FMP management area.

Sei whales winter in warm temperate or subtropical waters and summer in more northern latitudes. The species occurs in deep water throughout their range, typically over the continental slope or in basins situated between banks. In the northwest Atlantic, the whales travel along the eastern Canadian coast in autumn, June and July on their way to and from the Gulf of Maine and Georges Bank where they occur in winter and spring. Within the action area, the sei whale is most common on Georges Bank and into the Gulf of Maine/Bay of Fundy region during spring and summer, primarily in deeper waters. Individuals may range as far south as North Carolina. It is important to note that sei whales are known for inhabiting an area for weeks at a time then disappearing for year or even decades; this has been observed all over the world, including in the southwestern GOM in 1986. The basis for this phenomenon is not clear.

There are insufficient data to determine trends of the sei whale population. Waring et al. (2008) present a minimum population estimate of 128 fin whales in the western North Atlantic. PBR for the Nova Scotia stock of sei whales is 0.3 animals. Few instances of injury or mortality of sei whales due to entanglement or vessel strikes have been recorded in U.S. waters. Entanglement is not known to impact this species in the U.S. Atlantic, possibly because sei whales typically inhabit waters further offshore than most commercial fishing operations, or perhaps entanglements do occur but are less likely to be observed. Waring et al. (2008) reported that there were no fishery-related mortalities or serious injuries to fin whales observed by NMFS for the period 2001-2005. A small number of ship strikes of this species have been recorded. The most recent documented incident occurred in 1994 when a carcass was brought in on the bow of a container ship in Charlestown, Massachusetts. Other impacts noted above for other baleen whales may also occur. Due to the deep-water distribution of this species, interactions that do occur are less likely to be observed or reported than those involving right, humpback, and fin whales that often frequent areas within the continental shelf.

Sperm Whale

Sperm whales inhabit all ocean basins, from equatorial waters to polar regions (Perry et al. 1999). In the western North Atlantic they range from Greenland to the Gulf of Mexico and the Caribbean. The sperm whales that occur in the western North Atlantic are believed to represent only a portion of the total stock (Blaylock et al. 1995). Sperm whales generally occur in waters greater than 180 meters in depth. While they may be encountered almost anywhere on the high seas, their distribution shows a preference for continental margins, sea mounts, and areas of upwelling, where food is abundant (Leatherwood and Reeves 1983). Sperm whales in both hemispheres migrate to higher latitudes in the summer for feeding and return to lower latitude waters in the winter where mating and calving occur. Mature males typically range to much higher latitudes than mature females and immature animals but return to the lower latitudes in the winter to breed (Perry et al. 1999).

Waring et al. (2008) suggest sperm whale distribution is closely correlated with the Gulf Stream edge. Like swordfish, which feed on similar prey, sperm whales migrate to higher latitudes during summer months, when they are concentrated east and northeast of Cape Hatteras. In the U.S. EEZ, sperm whales occur on the continental shelf edge, over the continental slope, and into the mid-ocean regions, and are distributed in a distinct seasonal cycle; concentrated east-northeast of Cape Hatteras in winter and shifting northward in spring when whales are found throughout the mid-Atlantic Bight. Distribution extends further northward to areas north of Georges Bank and the Northeast Channel region in summer and then south of New England in fall, back to the mid-Atlantic Bight (Waring et al. 2008).

Total numbers of sperm whales off the USA or Canadian Atlantic coast are unknown, although eight estimates from selected regions of the habitat do exist for select time periods. The best estimate of abundance for the North Atlantic stock of sperm whales is 4,804 (CV=0.38). The minimum population estimate for the western North Atlantic sperm whale is 3,539 (Waring et al. 2008).

Few instances of injury or mortality of sperm whales due to human impacts have been recorded in U.S. waters. Because of their generally more offshore distribution and their benthic feeding habits, sperm whales are less subject to entanglement than right or humpback whales. Sperm whales are also struck by ships. In May 1994 a ship struck sperm whale was observed south of Nova Scotia (Waring et al. 2002). A sperm whale was also seriously injured as a result of a ship strike in May 2000 in the western Atlantic. Due to the offshore distribution of this species, interactions that do occur are less likely to be reported than those involving right, humpback, and fin whales that more often occur in nearshore areas. Other impacts noted above for baleen whales may also occur. Due to their offshore distribution, sperm whales tend to strand less often than, for example, right whales and humpbacks.

Long-finned (Globicephala melas) and short-finned (Globicephala macrorhynchus) pilot whales

There are two species of pilot whales in the Western Atlantic - the Atlantic (or long-finned) pilot whale, Globicephala melas, and the short-finned pilot whale, G. macrorhynchus. These species are difficult to identify to the species level at sea; therefore, the descriptive material below refers to Globicephala sp., and is identified as such. The species boundary is considered to be in the New Jersey to Cape Hatteras area. Sightings north of this are likely G. melas.

Pilot whales (Globicephala sp.) are distributed principally along the continental shelf edge in the winter and early spring off the northeast USA coast, (CETAP 1982; Payne and Heinemann 1993). In late spring, pilot whales move onto Georges Bank and into the Gulf of Maine and more northern waters, and remain in these areas through late autumn (CETAP 1982; Payne and Heinemann 1993). In general, pilot whales occupy areas of high relief or submerged banks. They are also associated with the Gulf Stream north wall and thermal fronts along the continental shelf edge (Waring et al. 1992; Waring et al. 2002).

The long-finned pilot whale is distributed from North Carolina to North Africa (and the Mediterranean) and north to Iceland, Greenland and the Barents Sea (Leatherwood et al. 1976; Abend 1993; Buckland et al. 1993). The stock structure of the North Atlantic population is uncertain (Fullard et al. 2000). Recent morphometrics and genetics (Siemann 1994; Fullard et al. 2000) studies have provided little support for stock structure across the Atlantic (Fullard et al. 2000). However, Fullard et al. (2000) have proposed a stock structure that is correlated to sea surface temperature: 1) a cold-water population west of the Labrador/North Atlantic current and 2) a warm-water population that extends across the Atlantic in the Gulf Stream (Waring et al. 2002).

The short-finned pilot whale is distributed worldwide in tropical to warm temperate water (Leatherwood and Reeves 1983). The northern extent of the range of this species within the USA Atlantic Exclusive Economic Zone (EEZ) is generally thought to be Cape Hatteras, North Carolina (Leatherwood and Reeves 1983). Sightings of these animals in U.S. Atlantic EEZ occur primarily within the Gulf Stream [Southeast Fisheries Science Center (SEFSC) unpublished data], and along the continental shelf and continental slope in the northern Gulf of Mexico. There is no information on stock differentiation for the Atlantic population (Waring et al. 2002).

The total number of pilot whales off the eastern USA and Canadian Atlantic coast is unknown, although the best abundance estimate for Globicephala sp. is 31,139 (CV=0.27) based on 2004 survey data. The minimum population size for Globicephala sp. is 24,866. The maximum productivity rate is 0.04, the default value for cetaceans. The “recovery” factor, which accounts for endangered, depleted, threatened stocks, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.5 because the CV of the average mortality estimate is less than 0.3 (Wade and

Angliss 1997) and because this stock is of unknown status. PBR for the western North Atlantic Globicephala sp. is 249 (Waring et al. 2009).

Harbor porpoise

This species is found in U.S. and Canadian Atlantic waters. During summer (July to September), harbor porpoises are concentrated in the northern Gulf of Maine and southern Bay of Fundy region, generally in waters less than 150 m deep (Gaskin 1977; Kraus et al. 1983; Palka 1995a; Palka 1995b), with a few sightings in the upper Bay of Fundy and on the northern edge of Georges Bank (Palka 2000). During fall (October-December) and spring (April-June), harbor porpoises are widely dispersed from New Jersey to Maine, with lower densities farther north and south. They are seen from the coastline to deep waters (>1800 m; Westgate et al. 1998), although the majority of the population is found over the continental shelf. During winter (January to March), intermediate densities of harbor porpoises can be found in waters off New Jersey to North Carolina, and lower densities are found in waters off New York to New Brunswick, Canada. There does not appear to be a temporally coordinated migration or a specific migratory route to and from the Bay of Fundy region. However, during the fall, several satellite tagged harbor porpoises did favor the waters around the 92 m isobath, which is consistent with observations of high rates of incidental catches in this depth range (Read and Westgate 1997). There were two stranding records from Florida during the 1980s (Smithsonian strandings database) and one in 2003 (NE Regional Office/NMFS strandings and entanglement database).

Gaskin (1984; 1992) proposed that there were four separate populations in the western North Atlantic: the Gulf of Maine/Bay of Fundy, Gulf of St. Lawrence, Newfoundland, and Greenland populations. Recent analyses involving mtDNA (Wang et al. 1996; Rosel et al. 1999a; Rosel et al. 1999b), organochlorine contaminants (Westgate et al. 1997; Westgate and Tolley 1999), heavy metals (Johnston 1995), and life history parameters (Read and Hohn 1995) support Gaskin's proposal. Genetic studies using mitochondrial DNA (Rosel et al. 1999a) and contaminant studies using total PCBs (Westgate and Tolley 1999) indicate that the Gulf of Maine/Bay of Fundy females were distinct from females from the other populations in the Northwest Atlantic. Gulf of Maine/Bay of Fundy males were distinct from Newfoundland and Greenland males, but not from Gulf of St. Lawrence males according to studies comparing mtDNA (Palka et al. 1996; Rosel et al. 1999a) and CHLORs, DDTs, PCBs and CHBs (Westgate and Tolley 1999). Nuclear microsatellite markers have also been applied to samples from these four populations, but this analysis failed to detect significant population sub-division in either sex (Rosel et al. 1999a). These patterns may be indicative of female philopatry coupled with dispersal of males. Both mitochondrial DNA and microsatellite analyses indicate that the Gulf of Maine/Bay of Fundy stock is not the sole contributor to the aggregation of porpoises found in the Mid-Atlantic States during winter (Rosel et al. 1999a; Hiltunen 2006). Mixed-stock analyses using twelve microsatellite loci in both Bayesian and likelihood frameworks indicate that the Gulf of Maine/Bay of Fundy is the largest contributor (~60%), followed by Newfoundland (~25%) and then the Gulf of St. Lawrence (~12%), with Greenland making a small contribution (<3%). For Greenland, the lower confidence interval of the likelihood analysis includes zero. For the Bayesian analysis, the lower 2.5% posterior quantiles include zero for both Greenland and the Gulf of St. Lawrence. Intervals that reach zero provide the possibility that these populations contribute no animals to the mid-Atlantic aggregation. The most recent stock assessment followed Gaskin's hypothesis on harbor porpoise stock structure in the western North Atlantic, where the Gulf of Maine and Bay of Fundy harbor porpoises are recognized as a single management stock separate from harbor porpoise populations in the Gulf of St. Lawrence, Newfoundland, and Greenland.

The best estimate of abundance for harbor porpoises is 89,054 (CV=0.47). The minimum population estimate for the Gulf of Maine/Bay of Fundy harbor porpoise is 60,970. Potential Biological Removal (PBR) is the product of minimum population size, one-half the maximum productivity rate, and a "recovery" factor (MMPA Sec. 3. 16 U.S.C. 1362; Wade and Angliss 1997). The minimum population size is 60,970. The maximum productivity rate is 0.046. The "recovery" factor, which accounts for endangered, depleted, threatened stocks, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.5 because the CV of the average mortality estimate is less than 0.3 (Wade and Angliss 1997). PBR for the Gulf of Maine/Bay of Fundy harbor porpoise is 703 (Waring et al. 2009).

Atlantic white sided dolphin

Atlantic white-sided dolphins are found in temperate and sub-polar waters of the North Atlantic, primarily in continental shelf waters to the 100m depth contour. The species inhabits waters from central West Greenland to North Carolina (about 35° N) and perhaps as far east as 43° W (Evans 1987). Distribution of sightings, strandings and incidental takes suggest the possible existence of three stocks units: Gulf of Maine, Gulf of St. Lawrence and Labrador Sea stocks (Palka *et al*. 1997). Evidence for a separation between the well documented unit in the southern Gulf of Maine and a Gulf of St. Lawrence population comes from a hiatus of summer sightings along the Atlantic side of Nova Scotia. This has been reported in Gaskin (1992), is evident in Smithsonian stranding records, and was seen during abundance surveys conducted in the summers of 1995 and 1999 that covered waters from Virginia to the entrance of the Gulf of St. Lawrence. White-sided dolphins were seen frequently in Gulf of Maine waters and in waters at the mouth of the Gulf of St. Lawrence, but only a few sightings were recorded between these two regions. The Gulf of Maine stock of white sided dolphins is most common in continental shelf waters from Hudson Canyon (approximately 39°N) north through Georges Bank, and in the Gulf of Maine to the lower Bay of Fundy. Sightings data indicate seasonal shifts in distribution (Northridge *et al.* 1997). During January to May, low numbers of white-sided dolphins are found from Georges Bank to Jeffrey's Ledge (off New Hampshire), and even lower numbers are south of Georges Bank, as documented by a few strandings collected on beaches of Virginia and North Carolina. From June through September, large numbers of white-sided dolphins are found from Georges Bank to lower Bay of Fundy. From October to December, white-sided dolphins occur at intermediate densities from southern Georges Bank to southern Gulf of Maine (Payne and Heinemann 1990). Sightings south of Georges Bank, particularly around

Hudson Canyon, have been seen at all times of the year but at low densities. The Virginia and North Carolina observations appear to represent the southern extent of the species range. Prior to the 1970's, white-sided dolphins in U.S. waters were found primarily offshore on the continental slope, while whitebeaked dolphins (L. albirostris) were found on the continental shelf. During the 1970’s, there was an apparent switch in habitat use between these two species. This shift may have been a result of the decrease in herring and increase in sand lance in the continental shelf waters (Katona *et al*. 1993; Kenney *et a*l. 1996).. The minimum population size is 50,883. The maximum productivity rate is 0.04, the default value for cetaceans. The “recovery” factor, which accounts for endangered, depleted, threatened, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.5 because the CV of the average annual mortality estimate is less than 0.3. PBR for the western North Atlantic stock of white-sided dolphin is 509 (Waring *et al*. 2009).

Risso's dolphin

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). In general, the population occupies the mid-Atlantic continental shelf edge year round, and is rarely seen in the Gulf of Maine (Payne et al. 1984). During 1990, 1991 and 1993, spring/summer surveys conducted along the continental shelf edge and in deeper oceanic waters sighted Risso's dolphins associated with strong bathymetric features, Gulf Stream warm-core rings, and the Gulf Stream north wall (Waring et al. 1992; 1993; Hamazaki 2002). There is no information on stock structure of Risso's dolphin in the western North Atlantic, or to determine if separate stocks exist in the Gulf of Mexico and Atlantic. In 2006, a rehabilitated adult male Risso’s dolphin stranded and released in the Gulf of Mexico off Florida was tracked via satellite to waters off Delaware (Wells et al. 2008). The Gulf of Mexico and Atlantic stocks are currently being treated as two separate stocks (Waring et al. 2009).

The best estimate of abundance for Risso’s dolphins is 20,479 (CV=0.59), obtained from the 2004 surveys. The minimum population estimate for the western North Atlantic Risso’s dolphin is 12,920. There are insufficient data to determine population trends for this species. Current and maximum net productivity rates are unknown for this stock. For purposes of the most recent assessment, the maximum net productivity rate was assumed to be 0.04 (Waring et al. 2009). This value is based on theoretical modeling showing that cetacean populations may not grow at rates much greater than 4% given the constraints of their reproductive life history (Barlow et al. 1995). Potential Biological Removal (PBR) is the product of minimum population size, one-half the maximum productivity rate, and a “recovery” factor (MMPA Sec. 3. 16 U.S.C. 1362; Wade and Angliss 1997). The minimum population size is 12,920. The maximum productivity rate is 0.04, the default value for cetaceans (Barlow et al. 1995). The “recovery” factor, which accounts for endangered, depleted, threatened stocks, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.48 because the CV of the average mortality estimate is between 0.3 and 0.6 (Wade and Angliss 1997). PBR for the western North Atlantic stock of Risso's dolphin is 124 (Waring et al. 2009).

Short-Beaked Common dolphin

The common dolphin may be one of the most widely distributed species of cetaceans, as it is found worldwide in temperate, tropical, and subtropical seas. In the North Atlantic, common dolphins appear to be present along the coast over the continental shelf along the 200-2000 m isobaths or over prominent underwater topography from 50° N to 40°S latitude (Evans 1994). The species is less common south of Cape Hatteras, although schools have been reported as far south as eastern Florida (Gaskin 1992). They are widespread from Cape Hatteras northeast to Georges Bank (35 to 42 North latitude) in outer continental shelf waters from mid-January to May (Hain et al. 1981; CETAP 1982; Payne et al. 1984). Common dolphins move northward onto Georges Bank and the Scotian Shelf from mid-summer to autumn. Selzer and Payne (1988) reported very large aggregations (greater than 3,000 animals) on Georges Bank in autumn. Common dolphins are occasionally found in the Gulf of Maine, where temperature and salinity regimes are lower than on the continental slope of the Georges Bank/mid-Atlantic region (Selzer and Payne 1988). Migration onto the Scotian Shelf and continental shelf off Newfoundland occurs during summer and autumn when water temperatures exceed 11°C (Sergeant et al. 1970; Gowans and Whitehead 1995).

The following information was taken from the most recent Stock Assessment Report for the species (Waring et al. 2009) Total numbers of common dolphins off the USA or Canadian Atlantic coast are unknown, although several estimates from selected regions of the habitat do exist for selected time periods. However, the most recent SAR considers the best abundance estimate for common dolphins to be 120,743 animals (CV=0.23). This is the sum of the estimates from two 2004 U.S. Atlantic surveys, where the estimate for the northern U.S. Atlantic is 90,547 (CV=0.24) and 30,196 (CV=0.54) for the southern U.S. Atlantic. This joint estimate is considered best because together these two surveys have the most complete coverage of the species' habitat. The minimum population size is 99,975. The maximum productivity rate is 0.04, the default value for cetaceans. The "recovery" factor, which accounts for endangered, depleted, threatened stocks, or stocks of unknown status relative to optimum sustainable population (OSP) is assumed to be 0.5 because the CV of the average mortality estimate is less than 0.3 (Wade and Angliss 1997). PBR for the western North Atlantic common dolphin is 1000.

Harbor seal

The harbor seal is found in all nearshore waters of the Atlantic Ocean and adjoining seas north of 30ºN (Katona et al. 1993). In the western North Atlantic, they are distributed from the eastern Canadian Arctic and Greenland south to southern New England and New York, and occasionally to the Carolinas (Mansfield 1967; Boulva and McLaren 1979; Katona et al. 1993; Gilbert and Guldager 1998; Baird 2001). Stanley et al. (1996)

examined worldwide patterns in harbor seal mitochondrial DNA, which indicate that western and eastern North Atlantic harbor seal populations are highly differentiated. Further, they suggested that harbor seal females are only regionally philopatric, thus population or management units are on the scale of a few hundred kilometers. Although the stock structure of the western North Atlantic population is unknown, it is thought that harbor seals found along the eastern U.S. and Canadian coasts represent one population (Temte et al. 1991). In U.S. waters, breeding and pupping normally occur in waters north of the New Hampshire/Maine border, although breeding occurred as far south as Cape Cod in the early part of the twentieth century (Temte et al. 1991; Katona et al. 1993).

Harbor seals are year-round inhabitants of the coastal waters of eastern Canada and Maine (Katona et al. 1993), and occur seasonally along the southern New England, to New Jersey coasts from September through late May (Schneider and Payne 1983; Barlas 1999; Schroeder 2000; deHart 2002). Scattered sightings and strandings have been recorded as far south as Florida (NMFS unpublished data). A general southward movement from the Bay of Fundy to southern New England waters occurs in autumn and early winter (Rosenfeld et al. 1988; Whitman and Payne 1990; Barlas 1999; Jacobs and Terhune 2000). A northward movement from southern New England to Maine and eastern Canada occurs prior to the pupping season, which takes place from mid-May through June along the Maine Coast (Richardson 1976; Wilson 1978; Whitman and Payne 1990; Kenney 1994; deHart 2002). While earlier research identified no pupping areas in southern New England (Payne and Schneider 1984; Barlas 1999), more recent information suggests that some pupping is occurring at high-use haulout sites off Manomet, Massachusetts (Waring et al. 2009). The overall geographic range throughout coastal New England has not changed significantly during the last century (Payne and Selzer 1989).

The best estimate of abundance for harbor seals is 99,340 (CV=.097). The minimum population estimate is 91,546 based on corrected total counts along the Maine coast in 2001 (Waring et al. 2009). The maximum net productivity rate was assumed to be 0.12 in the most recent stock assessment based on theoretical modeling showing that pinniped populations may not grow at rates much greater than 12% given the constraints of their reproductive life history (Barlow et al. 1995). Potential Biological Removal (PBR) is the product of minimum population size, one-half the maximum productivity rate (½ of 12%), and a "recovery" factor (MMPA Sec. 3. 16 U.S.C. 1362; Wade and Angliss 1997). The minimum population size is 91,546. The recovery factor (FR) for this stock is 0.5, the value for stocks of unknown status. Therefore, PBR for harbor seals in U.S. waters is 2,746 (Waring et al. 2009).

Gray seal

The gray seal is found on both sides of the North Atlantic, with three major populations: eastern Canada, northwestern Europe and the Baltic Sea (Katona et al. 1993). The western North Atlantic stock is equivalent to the eastern Canada population, and ranges from New York to Labrador (Davies 1957; Mansfield 1966; Katona et al. 1993; Lesage and Hammill 2001). This stock is separated by geography, differences in the breeding

season, and mitochondrial DNA variation from the northeastern Atlantic stock (Bonner 1981; Boskovic et al. 1996; Lesage and Hammill 2001). There are two breeding concentrations in eastern Canada; one at Sable Island, and one that breeds on the pack ice in the Gulf of St. Lawrence (Laviguer and Hammill 1993). Tagging studies indicate that there is little intermixing between the two breeding groups (Zwanenberg and Bowen 1990) and, for management purposes, they are treated by the Canadian DFO as separate stocks (Mohn and Bowen 1996). In the mid 1980s, small numbers of animals and pupping were observed on several isolated islands along the Maine coast and in Nantucket-Vineyard Sound, Massachusetts (Katona et al. 1993; Rough 1995). In the late 1990's, a year-round breeding population of approximately 400+ animals was documented on outer Cape Cod and Muskeget Island (Waring et al. 2009)). In December 2001, NMFS initiated aerial surveys to monitor gray seal pup production on Muskeget Island and adjacent sites in Nantucket Sound, and Green and Seal Islands off the coast of Maine (Wood et al. 2007).
The minimum population size for gray seals is unknown (Waring et al. 2009). The maximum productivity rate is 0.12, the default value for pinnipeds. The recovery factor (FR) for this stock is 1.0, the value for stocks of unknown status, but is known to be increasing. PBR for the western North Atlantic gray seals in U.S. waters is unknown (Waring et al. 2009).

Leatherback Sea Turtle

Leatherback turtles (*Dermochelys coriacea*) were listed as endangered under the ESA on June 2, 1970. Leatherback turtles are widely distributed throughout the oceans of the world, and are found in waters of the Atlantic, Pacific, Caribbean, and the Gulf of Mexico (Ernst and Barbour 1972). It is the largest living turtle and ranges farther than any other sea turtle species, exhibiting broad thermal tolerances (NMFS and USFWS, 1995). Evidence from tag returns and strandings in the western Atlantic suggests that adults engage in routine migrations between boreal, temperate and tropical waters (NMFS and USFWS, 1992). Located in the northeastern waters during warmer months, this species is found in coastal waters of the continental shelf and near the Gulf Stream edge, but rarely in the inshore areas. A 1979 aerial survey of the outer Continental Shelf from Cape Hatteras, North Carolina to Cape Sable, Nova Scotia showed leatherbacks to be present throughout the area with the most numerous sightings made from the Gulf of Maine south to Long Island. Shoop and Kenney (1992) also observed concentrations of leatherbacks during the summer off the south shore of Long Island and off New Jersey. This aerial survey estimated the leatherback population for the northeastern U.S. at approximately 300-600 animals (from near Nova Scotia, Canada to Cape Hatteras, North Carolina).

Leatherbacks are predominantly pelagic and feed on jellyfish (i.e., *Stomolophus, Chryaora*, and *Aurelia* (Rebel 1974)), cnidarians (*medusae*, *siphonophores*) and tunicates (*salps, pyrosomas*). Time-Depth-Recorder data recorded by Eckert et al. (1998b) indicate that leatherbacks are night feeders and are deep divers, with recorded dives to depths in excess of 1000 meters. However, leatherbacks may come into shallow waters if there is an abundance of jellyfish nearshore. Leary (1957) reported a large group of up to 100 leatherbacks just offshore of Port Aransas, Texas associated with a dense aggregation of *Stomolophus*. Leatherbacks also occur annually in places such as Cape Cod and Narragansett Bays during certain times of the year, particularly the fall.

Anthropogenic impacts to the leatherback population are similar to those for the loggerhead sea turtle, including fishery interactions as well as intense exploitation of the eggs (Ross 1979). Eckert (1996) and Spotila et al. (1996) recorded that adult mortality has also increased significantly, particularly as a result of driftnet and longline fisheries. Zug and Parham (1996) attribute the sharp decline in leatherback populations to the combination of the loss of long-lived adults due to fishery related mortality and the lack of recruitment (because of intense egg harvesting). Poaching is not known to be a problem for U.S. nesting populations. However, numerous fisheries that occur in both U.S. state and federal waters are known to negatively impact juvenile and adult leatherback sea turtles, including incidental takes in several commercial and recreational fisheries. Fisheries known or suspected to incidentally capture leatherbacks include those deploying bottom trawls, off-bottom trawls, purse seines, bottom longlines, hook and line, gill nets, drift nets, traps, haul seines, pound nets, beach seines, and surface longlines (NMFS and USFWS 1992). Leatherback interactions with the southeast shrimp fishery are also common. Turtle Excluder Devices (TEDs), typically used in the southeast shrimp fishery to minimize sea turtle/fishery interactions are less effective for the large-sized leatherbacks. As such, NMFS has used several alternative measures to protect leatherback sea turtles from lethal interactions with the shrimp fishery including establishment of a Leatherback Conservation Zone (60 FR 25260) and emergency measures such as the implementation of area specific 30-day TED requirements (December 8, 1999 (64 FR 69416)) when warranted. Leatherbacks are also susceptible to entanglement in lobster and crab gear, possibly as a result of attraction to gelatinous organisms and algae that collect on buoys and buoy lines at or near the surface, attraction to the buoys which could appear as prey, or the gear configuration which may be more likely to wrap around flippers.

Nest counts are currently the only reliable indicator of population status available for leatherback turtles. The status of the leatherback population in the Atlantic is difficult to assess since major nesting beaches occur over broad areas within tropical waters outside the United States. The most recent 5-year leatherbacks where the species appears to be stable or increasing (NMFS & USFWS 2007c). However, the East Pacific and Malaysian leatherback populations appear to have collapsed. Given the best available information, NMFS & USFWS (2007) concluded that the leatherback turtle should not be reclassified under the ESA and should remain listed as endangered. In addition, the review also concluded that available information indicates that an analysis and review of the species should be conducted in the future to determine if application of the Distinct Population Segment policy under the ESA to the endangered leatherback turtle is warranted.

Green Sea Turtle

Green sea turtles are more tropical in distribution than loggerheads, and are generally found in waters between the northern and southern 20°C isotherms. In the western

Atlantic region, the summer developmental habitat encompasses estuarine and coastal waters as far north as Long Island Sound, Chesapeake Bay, and the North Carolina sounds, and south throughout the tropics (NMFS 1998). Most of the individuals reported in U.S. waters are immature (NMFS 1998). Green sea turtles found north of Florida during the summer must return to southern waters in autumn or risk the adverse effects of cold temperatures.

There is evidence that green turtle nesting has been on the increase during the past decade. For example, increased nesting has been observed along the Atlantic coast of Florida on beaches where only loggerhead nesting was observed in the past (NMFS 1998). Recent population estimates for the western Atlantic area are not available. Green turtles are threatened by incidental captures in fisheries, pollution and marine habitat degradation, destruction/disturbance of nesting beaches, and other sources of man-induced and natural mortality.

Juvenile green sea turtles occupy pelagic habitats after leaving the nesting beach. At approximately 20 to 25 cm carapace length, juveniles leave pelagic habitats, and enter benthic foraging areas, shifting to a chiefly herbivorous diet (NMFS 1998). Post-pelagic green turtles feed primarily on sea grasses and benthic algae, but also consume jellyfish, salps, and sponges. Known feeding habitats along U.S. coasts of the western Atlantic include shallow lagoons and embayments in Florida, and similar shallow inshore areas elsewhere (NMFS 1998). Sea sampling data from the summer flounder bottom trawl fishery has recorded incidental takes of green turtles

i.e., ≥ 20 years) are available for nine sites, all of which are increasing. Despite the apparent global increase in numbers, NMFS & USFWS (2007a) noted that this positive overall trend should be viewed with caution because trend data are available for just over half of all sites examined. Within the Western Atlantic/Caribbean, there are five threatened breeding populations, all of which appear to be stable or increasing (NMFS & USFWS 2007a). The green turtle nesting population of Florida, which is listed as endangered, also appears to be increasing based on 18 years (1989-2006) of index nesting data collected throughout the state (NMFS & USFWS 2007a). While green turtle nest counts have generally increased, NMFS & USFWS (2007a) concluded that populations of both endangered and threatened green turtles should not be reclassified under the ESA. However, the review also concluded that available information indicates that an analysis and review of the species should be conducted in the future to determine if application of the Distinct Population Segment policy under the ESA to both endangered and threatened green turtle populations is warranted.

Kemp's Ridley Sea Turtle

Kemp's ridley turtles (*Lepidochelys kempii*) were listed as endangered under the ESA on December 2, 1970. The only major nesting site for ridleys is a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico (Carr 1963). Juvenile Kemp's ridleys inhabit northeastern US coastal waters where they forage and grow in shallow coastal areas during the summer months. Juvenile ridleys migrate southward with autumnal cooling and are found predominantly in shallow coastal embayments along the Gulf Coast during the late fall and winter months. Ridleys found in mid-Atlantic waters are primarily post-pelagic juveniles averaging 40 cm in carapace length, and weighing less than 20 kg. After loggerheads, they are the second most abundant sea turtle in Virginia and Maryland waters, arriving there during May and June and then emigrating to more southerly waters from September to November. In the Chesapeake Bay, ridleys frequently forage in shallow embayments, particularly in areas supporting submerged aquatic vegetation (Lutcavage and Musick 1985).

The model presented by Crouse et al. (1987) illustrates the importance of subadults to the stability of loggerhead populations and may have important implications for Kemp's ridleys. The vast majority of ridleys identified along the Atlantic Coast have been juveniles and subadults. Sources of mortality in this area include incidental takes in fishing gear, pollution and marine habitat degradation, and other man-induced and natural causes. Loss of individuals in the Atlantic, therefore, may impede recovery of the Kemp's ridley sea turtle population. Sea sampling data from the northeast otter trawl fishery and southeast shrimp and summer flounder bottom trawl fisheries has recorded takes of Kemp's ridley turtles.

The Kemp's ridley population, as measured by number of nesting females, declined precipitously from the late 1940's through the mid-1980's. Due to intensive conservation actions, the Kemp's ridley began to slowly rebound during the 1990's and this increasing trend has continued to this day (NMFS & USFWS 2007d). Approximately 4,000 females are currently documented nesting annually, which is less than half of the downlisting criterion of 10,000 nests. As a result, the most recent five year review conducted by NMFS & USFWS 2007d concluded that the species should not be reclassified under the ESA and should remain listed as endangered. In addition, a full revision of the current Recovery Plan for the Kemp's ridley Sea Turtle (which was signed in 1992) is currently under way by the services.

Loggerhead Sea Turtle

The loggerhead sea turtle occurs throughout the temperate and tropical regions of the Atlantic, Pacific and Indian Oceans (Dodd 1998). The loggerhead turtle was listed as "threatened" under the ESA on July 28, 1978, but is considered endangered by the World Conservation Union (IUCN) and under the Convention on International Trade in Endangered Species of Flora and Fauna (CITES). It is noted that on March 16, 2010, NMFS and the US Fish and Wildlife Service announced 12-month findings on the petitions to list the North Pacific populations and the Northwest Atlantic populations of the loggerhead sea turtle as Distinct Population Segments (DPSs) with endangered status. On March 22, 2011, the timeline for the final determination was extended for six months until September 16, 2011 (76 FR 15932). 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. Loggerheads are primarily benthic feeders, opportunistically foraging on crustaceans and mollusks (NMFS & USFWS 1995).

ESA. However, the review also concluded that available information indicates that an analysis and review of the species should be conducted in the future to determine if application of the Distinct Population Segment policy under the ESA is warranted for the species. Additionally, the Center for Biological Diversity and the Turtle Island Restoration Network filed a petition to reclassify loggerhead turtles in the North Pacific Ocean as a distinct population segment (DPS) with endangered status and designate critical habitat under the ESA (72 *Federal Register* 64585; November 16, 2007). NMFS has found that the petition presented substantial scientific information and in 2008, NMFS and FWS convened a biological review team (BRT), which recently completed a status review on the loggerhead sea turtle. The BRT evaluated genetic data, tagging and telemetry data, demographics information, oceanographic features, and geographic barriers to determine whether population segments exist. The BRT submitted their independent report to NMFS and FWS on August 11, 2009, to review and determine what, if any, action is appropriate under the ESA.

Hawksbill Sea Turtle

The following is a summary of information on the Hawksbill sea turtle made available by NMFS at the following website:
http://www.nmfs.noaa.gov/pr/species/turtles/hawksbill.html

The hawksbill occurs in tropical and subtropical seas of the Atlantic, Pacific and Indian Oceans. The species is widely distributed in the Caribbean Sea and western Atlantic Ocean, with representatives of at least some life history stages regularly occurring in southern Florida and the northern Gulf of Mexico (especially Texas); in the Greater and Lesser Antilles; and along the Central American mainland south to Brazil. Within the United States, hawksbills are most common in Puerto Rico and its associated islands, and in the U.S. Virgin Islands. In the continental U.S., the species is recorded from all the gulf states and from along the eastern seaboard as far north as Massachusetts, with the exception of Connecticut, but sightings north of Florida are rare.

The hawksbill is a small to medium-sized sea turtle. In the U.S. Caribbean, nesting females average about 62-94cm in straight carapace length. Weight is typically to 80 kg in the wider Caribbean, with a record weight of 127 kg. Hatchlings average about 42 mm straight carapace length and range in weight from 13.5-19.5 g. The following characteristics distinguish the hawksbill from other sea turtles: two pairs of prefrontal scales; thick, posteriorly overlapping scutes on the carapace; four pairs of coastal scutes; two claws on each flipper; and a beak-like mouth. The carapace is heart-shaped in very young turtles, and becomes more elongate or subovate with maturity. Its lateral and posterior margins are sharply serrated in all but very old individuals.

Hawksbills utilize different habitats at different stages of their life cycle. Posthatchling hawksbills occupy the pelagic environment, taking shelter in weedlines that accumulate at convergence points. Hawksbills reenter coastal waters when they reach approximately 20-25 cm carapace length. Coral reefs are widely recognized as the resident foraging habitat of juveniles, subadults and adults. This habitat association is undoubtedly related to their diet of sponges, which need solid substrate for attachment. The ledges and caves of the reef provide shelter for resting both during the day and night. Hawksbills are also found around rocky outcrops and high energy shoals, which are also optimum sites for sponge growth. Hawksbills are also known to inhabit mangrove-fringed bays and estuaries, particularly along the eastern shore of continents where coral reefs are absent. In Texas, juvenile hawksbills are associated with stone jetties.

Hawksbills utilize both low- and high-energy nesting beaches in tropical oceans of the world. Both insular and mainland nesting sites are known. Hawksbills will nest on small pocket beaches, and, because of their small body size and great agility, can traverse fringing reefs that limit access by other species. They exhibit a wide tolerance for nesting substrate type. Nests are typically placed under vegetation.

Incidental catch of hawksbill turtles during fishing operations is an unquantified and potentially significant source of mortality. Gill nets, longlines and shrimp trawls all take turtles in Gulf of Mexico waters. The extent to which hawksbills are killed or debilitated after becoming entangled in marine debris are unknown, but it is believed to be a serious and growing problem. Hawksbills have been reported entangled in monofilament gill nets, "fish nets", fishing line and rope. Hawksbill turtles eat a wide variety of debris such as plastic bags, plastic and styrofoam pieces, tar balls, balloons and plastic pellets. Effects of consumption include interference in metabolism or gut function, even at low levels of ingestion, as well as absorption of toxic byproducts.

Shortnose Sturgeon

Shortnose sturgeon occur in large rivers along the western Atlantic coast from the St. Johns River, Florida (possibly extirpated from this system), to the Saint John River in New Brunswick, Canada. The species is anadromous in the southern portion of its range (i.e., south of Chesapeake Bay), while northern populations are amphidromous (NMFS 1998). Population sizes vary across the species' range with the smallest populations occurring in the Cape Fear and Merrimack Rivers and the largest populations in the Saint John and Hudson Rivers (Dadswell 1979; NMFS 1998).

Shortnose sturgeon are benthic and mainly inhabit the deep channel sections of large rivers. They feed on a variety of benthic and epibenthic invertebrates including mollusks, crustaceans (amphipods, chironomids, isopods), and oligochaete worms (Vladykov and Greeley 1963; Dadswell 1979). Shortnose sturgeon are long-lived (30 years) and mature at relatively old ages. In northern areas, males reach maturity at 5-10 years, while females reach sexual maturity between 7 and 13 years.

In the northern part of their range, shortnose sturgeon exhibit three distinct movement patterns that are associated with spawning, feeding, and overwintering periods. In spring, as water temperatures rise above 8° C, pre-spawning shortnose sturgeon move from overwintering grounds to spawning areas. Spawning occurs from mid/late April to mid/late May. Post-spawned sturgeon migrate downstream to feed throughout the summer.

As water temperatures decline below 8° C again in the fall, shortnose sturgeon move to overwintering concentration areas and exhibit little movement until water temperatures rise again in spring (NMFS 1998). Young-of-the-year shortnose sturgeon are believed to move downstream after hatching (NMFS 1998) but remain within freshwater habitats. Older juveniles tend to move downstream in fall and winter as water temperatures decline and the salt wedge recedes. Juveniles move upstream in spring and feed mostly in freshwater reaches during summer.

Shortnose sturgeon spawn in freshwater sections of rivers, typically below the first impassable barrier on the river (e.g., dam). Spawning occurs over channel habitats containing gravel, rubble, or rock-cobble substrates (NMFS 1998). Environmental conditions associated with spawning activity include decreasing river discharge following the peak spring freshet, water temperatures ranging from 9 -12 C, and bottom water velocities of 0.4 - 0.7 m/sec (NMFS 1998).

Atlantic salmon

The recent ESA-listing for Atlantic salmon covers the wild population of Atlantic salmon found in rivers and streams from the lower Kennebec River north to the U.S.-Canada border. These include the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Atlantic salmon are an anadromous species with spawning and juvenile rearing occurring in freshwater rivers followed by migration to the marine environment. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams, and remain at sea for two winters before returning to their U.S. natal rivers to spawn from mid October through early November. While at sea, salmon generally undergo an extensive northward migration to waters off Canada and Greenland. Data from past commercial harvest indicate that post-smolts overwinter in the southern Labrador Sea and in the Bay of Fundy. The numbers of returning wild Atlantic salmon within the Gulf of Maine Distinct Population Segment (DPS) are perilously small with total run sizes of approximately 150 spawners occurring in 1999 (Baum 2000). Although capture of Atlantic salmon has occurred in commercial fisheries (usually otter trawl or gillnet gear) or by research/survey, no salmon have been reported captured in the Atlantic surfclam and ocean quahog fisheries.

Smalltooth sawfish

NMFS issued a final rule to list the DPS of smalltooth sawfish in the United States as an endangered species on April 1, 2003. Smalltooth sawfish are tropical marine and estuarine fish that have the northwestern terminus of their Atlantic range in the waters of the eastern United States. In the United States, smalltooth sawfish are generally a shallow water fish of inshore bars, mangrove edges, and seagrass beds, but larger animals can be found in deeper coastal waters. In order to assess both the historic and the current distribution and abundance of the smalltooth sawfish, a status review team collected and compiled literature accounts, museum collection specimens, and other records on the species. This information indicated that prior to around 1960, smalltooth sawfish occurred commonly in shallow waters of the Gulf of Mexico and eastern seaboard up to North Carolina, and more rarely as far north as New York. Subsequently their distribution has contracted to peninsular Florida and, within that area, they can only be found with any regularity off the extreme southern portion of the state. The current distribution is centered in the Everglades National Park, including Florida Bay (NMFS 2003).

Smalltooth sawfish have declined dramatically in U.S. waters over the last century, as indicated by publication and museum records, negative scientific survey results, anecdotal fishermen observations, and limited landings per unit effort (NMFS 2003). The fact that documented smalltooth sawfish catch records have declined during the twentieth century despite tremendous increases in fishing effort underscores the population reduction in the species. While NMFS lacks time-series abundance data to quantify the extent of the DPS's decline, the best available information indicates that the abundance of the U.S. DPS of smalltooth sawfish is at an extremely low level relative to historic levels.

The smalltooth sawfish continues to face threats from: (1) loss of wetlands, (2) eutrophication, (3) point and non point sources of pollution, (4) increased sedimentation and turbidity, (5) hydrologic modifications, and (6) incidental catch in fisheries (NMFS 2003). Commercial bycatch has played the primary role in the decline of this species. While Federal, state, and interjurisdictional laws, regulations, and policies lead to overall environmental enhancements indirectly aiding smalltooth sawfish, very few have been applied specifically for the protection of smalltooth sawfish. Based on the species' low intrinsic rate of increase resulting from their slow growth, late maturation, and low fecundity, population recovery potential for the species is limited and the species is at risk of extinction. Current protective measures and conservation efforts underway to protect the smalltooth sawfish are confined to: actions directed at increasing general awareness of this species and the risks it faces; possession prohibitions in the state waters of Florida and Louisiana; and research being pursued by the Mote Marine Laboratory's Center for Shark Research. There are no Federal or state conservation plans for the smalltooth sawfish.

Atlantic Sturgeon

At this time, Atlantic sturgeon have been proposed for listing under the ESA. A status review for Atlantic sturgeon was completed in 2007. NMFS has concluded that the U.S. Atlantic sturgeon spawning populations comprise five Distinct Population Segments (DPSs) (ASSRT, 2007). On October 6, 2010, NMFS proposed listing five populations of Atlantic sturgeon along the U.S. East Coast as either threatened or endangered species. The Gulf of Maine 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 expected by October 6, 2011.

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. 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 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. 2004b, ASMFC TC 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.

Seabirds

Most of the following information about seabirds is taken from the Mid-Atlantic Regional Marine Research Program (1994) and Peterson (1963). Fulmars occur as far south as Virginia in late winter and early spring. Shearwaters, storm petrels (both Leach's and Wilson's), jaegers, skuas, and some terns pass through this region in their annual migrations. Gannets and phalaropes occur in the Mid-Atlantic during winter months. Nine species of gulls breed in eastern North America and occur in shelf waters off the northeastern US. These gulls include: glaucous, Iceland, great black-backed, herring, laughing, ring-billed, Bonaparte's and Sabine's gulls, and black-legged caduceus. Royal and sandwich terns are coastal inhabitants from Chesapeake Bay south to the Gulf of Mexico. The Roseate tern is listed as endangered under the ESA, while the least tern is considered threatened (Safina pers. comm.). In addition, the bald eagle is listed as threatened under the ESA and is a bird of aquatic ecosystems. Piping plover are listed as threatened and their critical habitat includes prairie alkali wetlands and surrounding shoreline; river channels and associated sandbars and islands; and reservoirs and inland lakes and their sparsely vegetated shorelines, peninsulas, and islands. These areas provide primary courtship, nesting, foraging, sheltering, brood-rearing and dispersal habitat for piping plovers.

Like marine mammals, seabirds are vulnerable to entanglement in commercial fishing gear. Human activities such as coastal development, habitat degradation, and the presence of organochlorine contaminants are considered the major threats to some seabird populations.

<u>Literature Cited</u>

Abend, A. 1993. Long-finned pilot whales distribution and diet as determined from stable carbon and nitrogen ratio isotope tracers. M.S. thesis. University of Massachusetts, Amherst, MA. 147 pp.

ASMFC TC (Atlantic States Marine Fisheries Commission Technical Committee). 2007. Special Report to the Atlantic Sturgeon Management Board: Estimation of Atlantic sturgeon bycatch in coastal Atlantic commercial fisheries of New England and the Mid-Atlantic. August 2007. 95 pp.

ASSRT (Atlantic Sturgeon Status Review Team). 2007. Status review of Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus). National Marine Fisheries Service. February 23, 2007. 188 pp.

Baird, R.W. and P.J. Stacey 1990. Status of Risso's dolphin, *Grampus griseus*, in Canada. Can. Field-Nat. 105: 233-242.

Baird, R.W. 2001. Status of harbor seals, *Phoca vitulina*, in Canada. Can. Field-Nat. 115: 663-675.

Barlas, M.E. 1999. The distribution and abundance of harbor seals (*Phoca vitulina concolor*) and gray seals (*Halichoerus grypus*) in southern New England, winter 1998-summer 1999. M.A. thesis. Graduate School of Arts and Sciences Boston University, Boston, MA. 52 pp.

Barlow, J., S.L. Swartz, T.C. Eagle and P.R. Wade 1995. U.S. marine mammal stock assessments: Guidelines for preparation, background, and a summary of the 1995 assessments. NOAA Tech. Memo. NMFS-OPR-6. 73 pp.

Barlow, J., and P.J. Clapham. 1997. A new birth- interval approach to estimating demographic parameters of humpback whales. Ecology, 78: 535-546.

Baum, E. 1997. Maine Atlantic Salmon, A National Treasure. Atlantic Salmon Unlimited, Hermon, Maine. 224 p.

Bonner, W.N. 1981. Grey seal *Halichoerus grypus Fabricu*s, 1791. Pages 111-144 in: S.H. Ridgway and R.J. Harrison, (eds.) Handbook of marine mammals, Vol. 2: Seals. Academic Press, London.

Boulva, J. and I.A. McLaren 1979. Biology of the harbor seal, *Phoca vitulina*, in eastern Canada. Bull. Fish. Res. Bd. Can 200: 1-24.

Boskovic, R., K.M. Kovacs, M.O. Hammill and B.N. White 1996. Geographic distribution of mitochondrial DNA haplotypes in grey seals (*Halichoerus grypus*). Can. J. Zool. 74: 1787-1796.

Buckland, S.T., D.R. Andersen, K.P. Burnham and J.L. Laake 1993. Distance sampling: Estimating abundance of biological populations. Chapman and Hall, New York. 446 pp.

Carr, A.F. 1963. Panspecific convergence in *Lepidochelys kempii*. Ergebn. Biol., 26: 298-303.

Cetacean and Turtle Assessment Program (CeTAP). 1982. Final report or the cetacean and turtle assessment program, University of Rhode Island, to Bureau of Land Management, U.S. Department of the Interior. Ref. No. AA551-CT8-48. 568 p.

Crouse, D.T., L.B. Crowder, H. Caswell. 1987. A stage based population model for loggerhead sea turtles and implications for conservation. Ecology 68(5):1412-1423.

Dadswell, M.J. 1979. Biology and population characteristics of the shortnose sturgeon, *Acipenser brevirostrum,* LeSueur 1818 (Osteichthyes: Acipenseridae), in the Saint John River Estuary, New Brunswick, Canada. Can. J. Zool. 57:2186-2210.

Dadswell, M. 2006. A review of the status of Atlantic sturgeon in Canada, with comparisons to populations in the United States and Europe. Fisheries 31: 218-229.

Davies, J.L. 1957. The geography of the gray seal. J. Mamm. 38: 297-310.

deHart, P.A.P. 2002. The distribution and abundance of harbor seals (*Phoca vitulina concolor*) in the Woods Hole region. M.A. thesis. Graduate School of Arts and Sciences Boston University, Boston, MA. 88 pp.

Dovel, W. L. and T. J. Berggren. 1983. Atlantic sturgeon of the Hudson River estuary, New York. New York Fish and Game Journal 30: 140-172.

Dunton, K.J., A. Jordaan, K.A. McKown, D.O. Conover, and M.G. Frisk. 2010. Abundance and distribution of Atlantic sturgeon (Acipenser oxyrinchus) within the Northwest Atlantic Ocean determined from five fishery-independent surveys. Fish. Bull. 108:450-465.

Eckert, S.A., D.W. Nellis, K.L. Eckert, and G.L. Kooyman. 1996. Diving Patterns of Two Leatherback Sea Turtles, (*Demochelys coriacea*) During Interesting Intervals at Sandy Point, St. Croix, U.S. Virgin Islands. Herpetologica. Sep. 42(3):381-388.

Evans, P.G.H. 1987. The natural history of whales and dolphins. Facts on File Publications, New York. 343 pp.

Evans, W.E. 1994. Common dolphin, white-bellied porpoise. Pp 191-224. In: S. H. Ridgway and R. Harrison (eds.). Handbook of marine mammals, Volume 5: The first book of dolphins. Academic Press, San Diego, CA.

Finlayson, A.C. and B.J. McCay. 1994. Social and economic impacts of the draft management plans for black sea bass and scup. Report to the MAFMC. Dept. of Human Ecology, Rutgers Univ., New Brunswick, NJ. 79 p.

Fullard, K.J., G. Early, M.P. Heide-Jorgensen, D. Bloch, A. Rosing-Asvid and W. Amos 2000. Population structure of long-finned pilot whales in the North Atlantic: a correlation with sea surface temperature? Mol. Ecol. 9: 949-958.

Gaskin, D.E. 1977. Harbour porpoise, *Phocoena phocoena* (L.), in the western approaches to the Bay of Fundy 1969-75. Rep. Int. Whal. Comm. 27: 487-492.

Gaskin, D.E. 1984. The harbor porpoise *Phocoena phocoena* (L.): Regional populations, status, and information on direct and indirect catches. Rep. Int. Whal. Comm. 34: 569-586.

Gaskin, D.E. 1992. The status of the harbour porpoise. Can. Field-Nat. 106: 36-54.

Gilbert, J.R. 1987. Marine Mammal Interaction with New England Gillnet Fisheries. NMFS. NA84EAC00070. draft report 21 pp.

Gilbert, J.R. and N. Guldager 1998. Status of harbor and gray seal populations in northern New England. NMFS, Northeast Fisheries Science Center, 166 Water St., Woods Hole, MA. NMFS/NER Cooperative Agreement 14-16-009-1557. Final Report

Goff, G.P. and J. Lien. 1988. Atlantic leatherback turtle, *Dermochelys coriacea*, in cold water off Newfoundland and Labrador. Can. Field Nat. 102(1):1-5.

Gowans, S. and H. Whitehead. 1995. Distribution and habitat partitioning by small odontocetes in the Gully, a submarine canyon on the Scotian Shelf. Can. J. Zool. 73:1599-1608.

Hain, J. H. W. 1975. The international regulation of whaling. Marine Affairs J. 3: 28-48.

Hain, J.H.W., R.K. Edel, H.E. Hays, S.K. Katona, and J.D. Roanowicz. 1981. General distribution of cetaceans in the continental shelf waters of the northeastern U.S. Pages

II1-II277. In: CETAP (Cetacean and Turtle Assessment program), A characterization of marine mammals and turtles in the mid- and north Atlantic areas of the U.S. outer continental shelf, Annual Report for 1979. Contract No. AA551-CT8-48, U.S. Dept. of Interior, Bureau of Land Management, Washington, DC.

Hain, J.H.W., M.J. Ratnaswamy, R.D. Kenney, and H.E. Winn. 1992. The fin whale, *Balaenoptera physalus*, in waters of the northeastern United States continental shelf. Rep. Int. Whal. Comm. 42: 653-669.

Hamazaki, T. 2002. Spatiotemporal prediction models of cetacean habitats in the mid-western North Atlantic Ocean (from Cape Hatteras, No. Carolina, USA to Nova Scotia, Canada). Mar. Mamm. Sci. 18(4): 920-939.

Hiby, L. 1999. The objective identification of duplicate sightings in aerial survey for porpoise. Pages 179-189 in: G.W. Garner, S.C. Amstrup, J.L. Laake et al., (eds.) Marine Mammal Survey and Assessment Methods. Balkema, Rotterdam.

Hiltunen, K.H. 2006. Mixed-stock analysis of harbor porpoises (*Phocoena phocoena*) along the U.S. mid-Atlantic coast using microsatellite DNA markers. MS thesis. The College of Charleston.

Holland, B.F., Jr., and G.F. Yelverton. 1973. Distribution and biological studies of anadromous fishes offshore North Carolina. Division of Commercial and Sports Fisheries, North Carolina Dept. of Natural and Economic Resources, Special Scientific Report No. 24. 130pp.

Hooker, S.K., R.W. Baird and M.A. Showell 1997. Cetacean strandings and bycatches in Nova Scotia, Eastern Canada, 1991-1996. Meeting document SC/49/O5 submitted to the 1997 International Whaling Commission Scientific Committee meeting in Bournemouth, UK.

IWC (International Whaling Commission). 1992. Report of the comprehensive assessment special meeting on North Atlantic fin whales. Rep. Int. Whal. Comm 42:595-644.

Jacobs, S.R. and J.M. Terhune 2000. Harbor seal (*Phoca vitulina*) numbers along the New Brunswick coast of the Bay of Fundy in autumn in relation to aquaculture. Northeast. Nat. 7(3): 289-296.

Johnston, D.W. 1995. Spatial and temporal differences in heavy metal concentrations in the tissues of harbour porpoises (*Phocoena phocoena* L.) from the western North Atlantic. M.S. thesis. University of Guelph, Guelph, Ontario, Canada. 152 pp.

Katona, S.K., and J.A. Beard. 1990. Population size, migrations, and feeding aggregations of the humpback whale (*Megaptera novaeangliae*) in the Western North Atlantic Ocean. Rep. Int. Whal. Comm., Special Issue 12: 295-306.

Katona, S.K., V. Rough and D.T. Richardson 1993. A field guide to whales, porpoises, and seals from Cape Cod to Newfoundland. Smithsonian Institution Press, Washington, DC. 316 pp.

Kenney, R.D., P.M. Payne, D.W. Heinemann and H.E. Winn 1996. Shifts in Northeast shelf cetacean distributions relative to trends in Gulf of Maine/Georges Bank finfish abundance. Pages 169-196 in: K. Sherman, N.A. Jaworski and T. Smada, (eds.) The northeast shelf ecosystem: assessment, sustainability, and management. Blackwell Science, Cambridge, MA.

Kraus, S.D., J.H. Prescott and G.S. Stone 1983. Harbor porpoise, *Phocoena phocoena*, in the U.S. coastal waters off the Gulf of Maine: a survey to determine seasonal distribution and abundance. NMFS. NA82FAC00027 22 pp.

Klumov, S.K. 1962. The right whale in the Pacific Ocean. In P.I. Usachev (Editor), Biological marine studies. Trud. Inst. Okeanogr. 58: 202-297.

Kynard, B. and M. Horgan. 2002. Ontogenetic behavior and migration of Atlantic sturgeon, Acipenser oxyrinchus oxyrinchus, and shortnose sturgeon, A. brevirostrum, with notes on social behavior. Environmental Behavior of Fishes 63: 137-150.

Laney, R.W., J.E. Hightower, B.R. Versak, M.F. Mangold, W.W. Cole Jr., and S.E. Winslow. 2007. Distribution, habitat use, and size of Atlantic sturgeon captured during cooperative winter tagging cruises, 1988-2006. In Anadromous sturgeons: habitats, threats, and management (J. Munro, D. Hatin, J.E. Hightower, K. McKown, K.J. Sulak, A.W. Kahnle, and F. Caron (eds.)), p. 167-182. Am. Fish. Soc. Symp. 56, Bethesda, MD.

Laviguer, L. and M.O. Hammill 1993. Distribution and seasonal movements of grey seals, *Halichoerus grypus*, born in the Gulf of St. Lawrence and eastern Nova Scotia shore. Can. Field-Nat. 107: 329-340.

Leary, T.R. 1957. A schooling of leatherback turtles, *Dermochelys coriacea*, on the Texas coast. Copeia 1957:232.

Leatherwood, S., D.K. Caldwell and H.E. Winn 1976. Whales, dolphins, and porpoises of the western North Atlantic. A guide to their identification. NOAA Tech. Rep. NMFS Circ. 396. 176 pp.

Leatherwood, S., and R.R. Reeves. 1983. The Sierra Club handbook of whales and dolphins. Sierra Club Books, San Francisco, California. 302 p.

Lesage, V. and M.O. Hammill 2001. The status of the grey seal, *Halichoerus grypus*, in the Northwest Atlantic. Can. Field-Nat. 115(4): 653-662.

Lutcavage, M. and J.A. Musick. 1985. Aspects of the biology of sea turtles in Virginia. Copeia 1985(2):449-456.

Mansfield, A.W. 1966. The grey seal in eastern Canadian waters. Can. Audubon Mag. 28: 161-166.

Mansfield, A.W. 1967. Distribution of the harbor seal, *Phoca vitulina Linnaeus*, in Canadian Arctic waters. J. Mamm. 48(2): 249-257.

Mitchell E. and D.G. Chapman. 1977. Preliminary assessment of North Atlantic sei whales (*Balaenoptera borealis*). Rep. Intl. Whaling Comm. Special Issue 1:117-120.

Mohn, R. and W.D. Bowen 1996. Grey seal predation on the eastern Scotian Shelf: Modeling the impact on Atlantic cod. Can. J. Fish. Aquat. Sci 53: 2722-2738.

NMFS (National Marine Fisheries Service). 1998. Endangered Species Act Section 7 consultation, biological opinion and conference. Consultation in accordance with Section 7(a) of the Endangered Species Act Regarding the Federal Monkfish Fishery. National Marine Fisheries Service, Northeast Regional Office, Gloucester, MA. December 21, 1998.

NMFS. 1991b. Final recovery plan for the North Atlantic right whale (*Eubalaena glacialis*). Prepared by the Right Whale Recovery Team for the National Marine Fisheries Service, Silver Spring, Maryland. 86 p.

NMFS and USFWS (United States Fish and Wildlife Service). 1992. Recovery plan for leatherback turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico. National Marine Fisheries Service, Washington, D.C. 65 p.

NMFS and USFWS. 1995. Status reviews for sea turtles listed under the Endangered Species Act of 1973. National Marine Fisheries Service, Silver Spring, Maryland. 139 p.

Northridge, S., M. Tasker, A. Webb, K. Camphuysen and M. Leopold 1997. White-beaked *Lagenorhynchus albirostris* and Atlantic white-sided dolphin *L. acutus* distributions in northwest European and U.S. North Atlantic waters. Rep. Int. Whal. Comm. 47: 797-805.

Palka, D. 1995a. Influences on spatial patterns of Gulf of Maine harbor porpoises. Pages 69-75 in: A.S. Blix, L. Walloe and O. Ulltang, (eds.) Whales, Seals, Fish and Man. Elsevier Science.

Palka, D.L. 1995b. Abundance estimate of Gulf of Maine harbor porpoise. Rep. Int. Whal. Comm. (Special Issue) 16: 27-50.

Palka, D.L., A.J. Read, A.J. Westgate and D.W. Johnston 1996. Summary of current knowledge of harbour porpoises in US and Canadian Atlantic waters. Rep. Int. Whal. Comm. 46: 559-565.

Palka, D., A. Read and C. Potter 1997. Summary of knowledge of white-sided dolphins (*Lagenorhynchus acutus*) from U.S. and Canadian Atlantic waters. Rep. Int. Whal. Comm. 47: 729-734.

Palka, D. 2000. Abundance of the Gulf of Maine/Bay of Fundy harbor porpoise based on shipboard and aerial surveys during 1999. Northeast Fish. Sci. Cent. Ref. Doc. 00-07. 29 pp. http://www.nefsc.noaa.gov/psb/pubs/palkalabref00-07.pdf

Payne, M. and D.W. Heinemann 1990. A distributional assessment of cetaceans in the shelf and shelf edge waters of the northeastern United States based on aerial and shipboard surveys, 1978-1988. Report to NMFS.

Payne, P.M., L.A. Selzer, and A.R. Knowlton. 1984. Distribution and density of cetaceans, marine turtles, and seabirds in the shelf waters of the northeastern United States, June 1980-December 1983, based on shipboard observations. NOAA/NMFS Contract No. NA-81-FA-C-00023. 245 pp.

Payne, P.M. and L.A. Selzer 1989. The distribution, abundance and selected prey of the harbor seal, *Phoca vitulina concolor*, in southern New England. Mar. Mamm. Sci. 5(2): 173-192.

Payne, P.M. and D.W. Heinemann 1993. The distribution of pilot whales (*Globicephala sp.*) in shelf/shelf edge and slope waters of the northeastern United States, 1978-1988. Rep. Int. Whal. Comm. (Special Issue) 14: 51-68.

Perry, S.L., D.P. DeMaster, and G.K. Silber. 1999. The Sperm Whale In: The great whales: History and status of six species listed as endangered under the U.S. Endangered Species Act of 1973. Mar. Fish. Rev. Special Edition. 61(1): 59-74.

Prescott, R.L. 1988. Leatherbacks in Cape Cod Bay, Massachusetts, 1977-1987, p 83-84 In: B.A. Schroeder (comp.), Proceedings of the Eighth Annual Workshop on Sea Turtle Conservation and Biology. NOAA Technical Memorandum NMFS-SEFC- 214.

Pritchard, P.C.H. 1982. Nesting of the leatherback turtle, *Dermochelys coriacea*, in Pacific, Mexico, with a new estimate of the world population status. Copeia 1982:741-747.

Read, A.J. and A.A. Hohn 1995. Life in the fast lane: the life history of harbour porpoises from the Gulf of Maine. Mar. Mamm. Sci. 11(4): 423-440.

Read, A.J. and A.J. Westgate 1997. Monitoring the movements of harbour porpoises (*Phocoena phocoena*) with satellite telemetry. Marine Biology 130: 315-22.

Rebel, T.P. 1974. Sea turtles and the turtle industry of the West Indies, Florida and the Gulf of Mexico. Univ. Miami Press, Coral Gables, Florida.

Reeves, R.R., Breiwick, J.M., and Mitchell, E. 1992. Pre-exploitation abundance of right whales off the eastern United States. Pp. 5-7 in J. Hain (ed.), The right whale in the western North Atlantic: a science and management workshop, 14-15 April 1992, Silver Spring, Maryland. National Marine Fisheries Service, NEFSC Ref. Doc. 92-05.

Robbins, J. and D.K. Mattila. 2001. Monitoring entanglements of humpback whales (*Megaptera novaeangliae*) in the Gulf of Maine on the basis of caudal peduncle scarring. Paper SC/53/NAH25 presented to the IWC Scientific Committee.

Rosel, P.E., S.C. France, J.Y. Wang and T.D. Kocher 1999a. Genetic structure of harbour porpoise *Phocoena phocoena* populations in the northwest Atlantic based on mitochondrial and nuclear markers. Mol. Ecol. 8: S41-S54.

Rosel, P.E., R. Tiedemann and M. Walton 1999b. Genetic evidence for limited trans-Atlantic movements of the harbor porpoise *Phocoena phocoena*. Marine Biology 133: 583-591.

Ross, J.P. 1979. Green turtle, *Chelonia mydas*, Background paper, summary of the status of sea turtles. Report to WWF/IUCN. 4 p.

Rough, V. 1995. Gray seals in Nantucket Sound, Massachusetts, winter and spring, 1994. Final report to Marine Mammal Commission. Contract T10155615 28 pp.

Schneider, D.C. and P.M. Payne 1983. Factors affecting haul-out of harbor seals at a site in southeastern Massachusetts. J. Mamm. 64(3): 518-520.

Schroeder, C.L. 2000. Population status and distribution of the harbor seal in Rhode Island waters. M.S. thesis. University of Rhode Island, Kingston, RI. 197 pp.

Selzer, L.A. and P.M. Payne. 1988. The distribution of white-sided (*Lagenorhynchus acutus*) and common dolphins (*Delphinus delphis*) vs. environmental features of the continental shelf of the northeastern United States. Mar. Mammal. Sci. 4(2):141-153.

Sergeant, D. E., A. W. Mansfield, and B. Beck. 1970. Inshore records of cetacea for eastern Canada, 1949-68. J. Fish. Res. Bd. Can. 27:1903-1915.

Shoop, C.R. and R.D. Kenney. 1992. Seasonal distributions and abundance of loggerhead and leatherback sea turtles in waters of the northeastern United States. Herpetol. Monogr. 6: 43-67.

Siemann, L. 1994. Mitochondrial DNA sequence variation in North Atlantic long-finned pilot whales, *Globicephala melas*. Ph.D. thesis. Massachusetts Institute of Technology/ Woods Hole Oceanographic Institution.

Spotila, J.R., A.E. Dunham, A.J. Leslie, A.C. Steyermark, P.T. Plotkin, and F.V. Paladino. 1996. Worldwide Population Decline of *Demochelys coriacea*: Are Leatherback Turtles Going Extinct? Chelonian Conservation and Biology 2(2): 209-222.

Stanley, H.F., S. Casey, J.M. Carnahan, S. Goodman, J. Harwood and R.K. Wayne 1996. Worldwide patterns of mitochondrial DNA differentiation in the harbor seal (*Phoca vitulina*). Mol. Biol. Evol. 13: 368-382.

Stein, A. B., K. D. Friedland, and M. Sutherland. 2004a. Atlantic sturgeon marine bycatch and mortality on the continental shelf of the Northeast United States. North American Journal of Fisheries Management 24: 171-183.

Stein, A.B., K. D. Friedland, and M. Sutherland. 2004b. Atlantic sturgeon marine distribution and habitat use along the northeastern coast of the United States. Transaction of the American Fisheries Society 133:527-537.

Stobo, W.T. and G.M. Fowler 1994. Aerial surveys of seals in the Bay of Fundy and off southwest Nova Scotia. Can. Tech. Rep. Fish. Aquat. Sci. 1943: 57.

Stobo, W.T. and Z. Lucas 2000. Shark-inflicted mortality on a population of harbour seals (*Phoca vitulina*) at Sable Island, Nova Scotia. J. Zool., London 252: 405-414.

Temte, J.L., M.A. Bigg and O. Wiig 1991. Clines revisited: the timing of pupping in the harbour seal (*Phoca vitulina*). J. Zool., London 224: 617-632.

TEWG (Turtle Expert Working Group). 1998. An assessment of the Kemp's ridley (*Lepicochelys kempii*) and loggerhead (*Caretta caretta*) sea turtle populations in the Western North Atlantic. NOAA Technical Memorandum NMFS-SEFSC-409. 96 p.

TEWG. 2000. Assessment update for the Kemp's ridley and loggerhead sea turtle populations in the western North Atlantic. U.S. Dep. Commer. NOAA Tech. Mem. NMFS-SEFSC-444, 115 p.

Vladakov, V.D. and R. Greeley. 1963. Order Aciperseroidei: In Fishes of the North Atlantic. Part III. Mem. Sears Found. Mar. Res. 1, p, 24-60.

Wade, P.R. and R.P. Angliss 1997. Guidelines for assessing marine mammal stocks: Report of the GAMMS Workshop April 3-5, 1996, Seattle, Washington. NOAA Tech. Memo. NMFS-OPR-12. 93 pp.

Wang, J.Y., D.E. Gaskin and B.N. White 1996. Mitochondrial DNA analysis of harbour porpoise, *Phocoena phocoena*, subpopulations in North American waters. Can. J. Fish. Aquat. Sci 53: 1632-45.

Waldman, J. R., J. T. Hart, and I. I. Wirgin. 1996. Stock composition of the New York Bight Atlantic sturgeon fishery based on analysis of mitochondrial DNA. Transactions of the American Fisheries Society 125: 364-371.

Waring, G.T., C.P. Fairfield, C.M. Ruhsam and M. Sano 1992. Cetaceans associated with Gulf Stream Features off the Northeastern USA Shelf. ICES [Int. Counc. Explor. Sea] C.M. 1992/N:12.

Waring, G.T., C.P. Fairfield, C.M. Ruhsam, and M. Sano. 1993. Sperm whales associated with Gulf Stream features off the northeastern USA shelf. Fish. Oceanogr. 2(2):101-105.

Waring, G.T., J.M. Quintal, C.P. Fairfield (eds). 2002 . U.S. Atlantic and Gulf of Mexico marine mammal stock assessments - 2002. NOAA Technical Memorandum NMFS-NE-169.

Waring, G.T., E. Josephson, C.P. Fairfield and K. Maze-Foley, eds. 2007. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments – 2006. NOAA Tech. Memo. NMFS-NE-201.

Waring GT, Josephson E, Fairfield-Walsh CP, Maze-Foley K, editors. 2009. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2008. NOAA Tech Memo NMFS NE 210; 440 p.

Wells, R.S., C.A. Manire, L. Byrd, D.R. Smith, J.G. Gannon, D. Fauquier and K.D. Mullin 2008. Movements and dive patterns of a rehabilitated Risso's dolphin, *Grampus griseus*, in the Gulf of Mexico and Atlantic Ocean. Mar. Mamm. Sci. 25(2): 420-429.

Westgate, A.J., D.C.G. Muir, D.E. Gaskin and M.C.S. Kingsley 1997. Concentrations and accumulation patterns of organochlorine contaminants in the blubber of harbour porpoises, *Phocoena phocoena*, from the coast of Newfoundland, the Gulf of St. Lawrence and the Bay of Fundy/Gulf of Maine. Envir. Pollut. 95: 105-119.

Westgate, A.J., A.J. Read, T.M. Cox, T.D. Schofield, B.R. Whitaker and K.E. Anderson 1998. Monitoring a rehabilitated harbor porpoise using satellite telemetry. Mar. Mamm. Sci. 14(3): 599-604.

Westgate, A.J. and K.A. Tolley 1999. Geographical differences in organochlorine contaminants in harbour porpoises *Phocoena phocoena* from the western North Atlantic. Mar. Ecol. Prog. Ser. 177: 255-268.

Whitman, A.A. and P.M. Payne 1990. Age of harbour seals, *Phoca vitulina concolor*, wintering in southern New England. Can. Field-Nat. 104(4): 579-582.

Wood, S.A., S. Brault and J.R. Gilbert 2007. 2002 Aerial survey of grey seals in the Northeastern United States. Pages 117-121 in: T. Haug, M. Hammill and D. Ólafsdóttir, (eds.) Grey seals in the North Atlantic and Baltic. NAMMCO Sci. Pub. 6, Tromsø, Norway.

Wynne, K. and M. Schwartz. 1999. Guide to marine mammals and turtles of the U.S. Atlantic and Gulf of Mexico. Rhode Island Sea Grant, Narragansett. 115 p.

Zug, G. R. and J.F. Parham. 1996. Age and growth in leatherback turtles, *Dermochelys coriacea*: a skeletochronological

Zwanenberg, K.C.T. and W.D. Bowen 1990. Population trends of the grey seal (*Halichoerus grypus*) in eastern Canada. Pages 185-197 in: W. D. Bowen, (ed.) Population biology of sealworm (Pseudoterranova decipiens) in relation to its intermediate and seal hosts. Can. Bull. Fish. and Aq. Sci. 222.

APPENDIX D – Comments

<u>Comments Received on this Document During the Public Hearing Process.</u>

The MAFMC held public hearings to provide interested parties and stakeholders the opportunity to comment on the issues relevant to this Omnibus ACL/AM Amendment, and ensure the Council had the opportunity to consider the diverse range of viewpoints on these issues. Four public hearings were held:

<u>Omnibus ACL/AM Public hearings</u>
May 3, 2010 - Alexandria, Virginia
May 10, 2010 - Newport News, VA
May 12, 2010 - East Setauket, NY
May 18, 2010 - Pomona, NJ

The Council was provided with transcripts of the verbal comments provided at the meetings themselves, as well as any written comments that were provided. These comments are provided below.

FRAMEWORK ADJUSTMENT 6

TO THE

ATLANTIC MACKEREL, SQUIDS, AND BUTTERFISH FISHERY MANAGEMENT PLAN

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

May 2012

Mid-Atlantic Fishery Management Council

in cooperation with

the National Marine Fisheries Service

First Framework Meeting: February 15, 2012
Second Framework Meeting: April 12, 2012
Final approved by NOAA: August 7, 2012

A Publication of the Mid-Atlantic Fishery Management Council pursuant to National Oceanic and Atmospheric Administration Award No. NA10NMF4410009

1.0 EXECUTIVE SUMMARY

This framework supplemental environmental assessment (SEA) updates the previously approved environmental assessment (EA; attached) that analyzed the Omnibus Annual Catch Limit (ACL) and Accountability Measure (AM) Amendment (Omnibus Amendment). This Amendment was published by NOAA's National Marine Fisheries service (NMFS) in the *Federal Registe*r on September 29, 2011 (76 FR 60606), and became effective on October 31, 2011. This framework document is not a stand-alone document, but rather a SEA, intended to be utilized in conjunction with the attached Omnibus Amendment Environmental Assessment (EA), September 2011 approved version. Unless otherwise noted, the initial EA prepared for this action and attached to this SEA remains applicable, including the affected environment. Therefore, sections addressed in this supplement should be considered within the context of the full EA.

This framework presents and evaluates action intended to provide a more clearly defined management process when applying a single provision of the Mid-Atlantic Fishery Management Council (Council) risk policy on overfishing, while retaining the flexibility afforded to the Scientific and Statistical Committee (SSC) in deriving acceptable biological catch (ABC) recommendations when no overfishing limit (OFL) or OFL proxy has been identified. The specific provision to which this action applies is described in section 5.2.2 of the Omnibus Amendment and implemented in §648.21(d) of the Code of Federal Regulations (CFR). This action describes the limited circumstances under which ABC could be increased for stocks without status determination criteria on overfishing.

In response to the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) that was signed into law by President George W. Bush on January 12, 2007, the Council prepared an Omnibus Amendment to address NOAA's National Marine Fisheries Service (NMFS) revised guidance for implementing National Standard 1 (74 FR 3178; January 16, 2009; NS1 guidelines). To address the MSA[1] requirements and revised guidelines, the Council worked with its SSC to develop recommendations for ABC control rules for all the managed resources subject to this requirement. These ABC control rules establish the pre-agreed process the SSC uses to derive ABC recommendations for the Council that address scientific uncertainty. Scientific uncertainty is essentially imperfect knowledge of the data input into stock assessments, the stock assessment modeling, and the projections to determine what upcoming fishing year catches should be. One required variable in the ABC derivation is the Council tolerance for overfishing of stocks (i.e., probability of overfishing) as expressed through a Council risk policy. Therefore, the Council developed a formal Council risk policy to be used in conjunction with the ABC control rules, and intended to guide the SSC in how to derive ABC. These recommended measures were implemented through the Omnibus Amendment. The ABC control rules and risk policy provisions apply to multiple FMPs and multiple Council species, including Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass,

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

Atlantic surfclam, ocean quahog, and tilefish (referred to collectively as "the managed resources") contained within the six Council Fishery Management Plans (FMPs[2]).

The regulations pertinent to the risk policy reside in the CFR Atlantic Mackerel, Squid, and Butterfish section; therefore, the framework would amend that section.

Summary of Alternatives

The following section presents a qualitative summary of expected indirect impacts for the alternatives under consideration (Box 1). No direct impacts are expected as a result of the alternatives. For the purpose of impact evaluation, status quo alternatives are compared to the current condition, while all other alternatives are compared to the status quo alternative. 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

Box 1. Overall qualitative summary of the expected indirect impacts of alternatives considered in this document. 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.

	Biological	**EFH**	**Protected Resources**	**Economic**	**Social**
Alternative 1 (No action/status quo)	S(0)/L(0)	0	0	S(0)/L(0)	S(0)/L(0)
Alternative 2 (Clarifies Provision of Council Risk Policy)	S(sl-/0)/L(0)	sl-/0	sl-/0	S(sl+)/L(0)	S(sl+)/L(0)

[2] Atlantic Mackerel, Squid, and Butterfish FMP, Bluefish FMP, Spiny Dogfish FMP, Summer Flounder, Scup, and Black Sea Bass FMP, Surfclam and Ocean Quahog FMP and Tilefish FMP.

2.0 LIST OF ACRONYMS

ABC	Acceptable Biological Catch
ACL	Annual Catch Limit
ACT	Annual Catch Target
AM	Accountability Measure
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
ESA	Endangered Species Act of 1973
F	Fishing Mortality Rate
FR	Federal Register
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
MAFMC	Mid-Atlantic Fishery Management Council
MSY	Maximum Sustainable Yield
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS1	National Standard 1
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Act (portions retained plus revisions)
MSRA	Magnuson-Stevens Fishery Conservation and Management Reauthorization Act
OFL	Overfishing limit
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RHL	Recreational Harvest Limit
RIR	Regulatory Impact Review
SEA	Supplemental Environmental Assessment
SSC	Scientific and Statistical Committee

3.0 TABLE OF CONTENTS

4.0 PURPOSE AND NEED, MANAGEMENT UNIT, MANAGEMENT OBJECTIVES, AND HISTORY OF FMP DEVELOPMENT

Purpose and Need

The purpose of this framework is to provide a more clearly defined management process when applying a single provision of the Council risk policy for overfishing described in section 5.2.2 of the Omnibus Amendment and implemented in §648.21(d) of the Code of Federal Regulations (CFR). Specifically, this action will define the circumstances under which ABC can be increased if no OFL or OFL proxy is available, and eliminate the conflicting policies that were implemented with a more clearly defined alternative. This action is needed to provide the flexibility to adopt an ABC recommended by the SSC under accepted protocols even when no OFL or OFL proxy is available.

Section 5.2.1 of the Omnibus Amendment affords the SSC the flexibility to deviate from the ABC control rule methods framework or level criteria and recommend an ABC that differs from the result of the ABC control rule calculations. The implementing regulations §648.20 state, "The SSC may deviate from the control rule methods or level criteria and recommend an ABC that differs from the result of the ABC control rule calculation; however, any such deviation must include the following: A description of why the deviation is warranted, description of the methods used to derive the alternative ABC, and an explanation of how the deviation is consistent with National Standard 2." However, section 5.2.2 indicates that if no OFL is available (i.e., No F_{MSY} or F_{MSY} proxy provided through the stock assessment to identify it) and no OFL proxy is provided by the SSC at the time of ABC recommendations, then an upper limit (cap) on allowable increases in ABC will be established. ABC may not be increased until an OFL has been identified. The implementing regulations §648.21(d) state, "If an OFL cannot be determined from the stock assessment, or if a proxy is not provided by the SSC during the ABC recommendation process, ABC levels may not be increased until such time that an OFL has been identified." In summary, while the SSC is permitted to deviate from the ABC control rule methods when recommending an ABC, the risk policy is firm with regards to stocks without an OFL. This conflict has resulted in the need to more clearly define the management process relative to this single provision contained within the Council risk policy. The action proposed is needed to provide both clarity and to retain the flexibility afforded to the SSC in deriving ABC recommendations when no OFL or OFL proxy has been identified.

The Council risk policy and the action proposed apply to the managed resources; therefore, this action would apply to the managed resources contained within six Council FMPs.

Management Unit, Management Objectives, and History of FMP Development

The management units, management objectives, and history of FMP development, as defined in section 4.3 of the EA, for the managed resources and their applicable FMPs is incorporated by reference in this SEA.

5.0 MANAGEMENT ALTERNATIVES

The definition of the no action alternative described in section 5.1 of the EA also applies here and is incorporated by reference in this SEA. The management regimes and associated management measures within the FMPs for the managed resources have been refined over time and codified in regulation. The *status quo* management measures for the managed resources, therefore, each involve a set of indefinite (i.e., in force until otherwise changed) measures that have been established. These measures will continue as implemented, even if the actions contained within this framework are not taken (i.e., no action). The no action alternative for these managed resources is therefore equivalent to *status quo*. On that basis, the status quo and no action are presented in conjunction for comparative impact analysis relative to the action alternative.

5.1 Alternative 1 (Status Quo/no action)

Under this status quo/no action alternative, no action will be taken to more clearly define the management process when no OFL or OFL proxy is available. The measures established in the FMPs by the Omnibus Amendment continue in place as described. As such, if the SSC is unable to establish an OFL or OFL proxy for a stock, then the ABC level may not be increased until an OFL or OFL proxy has been identified by the SSC.

5.2 Alternative 2 (Preferred: Clarify Risk Policy Application)

Under this alternative, the flexibility that the Council intended for the SSC to use with the single provision under §648.21(d) will be more clearly defined. This FMP provision specifically addresses the Council risk policy on increasing ABC when no OFL is available (i.e., No F_{MSY} or F_{MSY} proxy provided through the stock assessment to identify it) and no OFL proxy is provided by the SSC.

The SSC already has the flexibility to deviate from the ABC control rule methods, of which the Council risk policy is one component. The SSC must provide a description of why the deviation is warranted, description of the methods used to derive the alternative ABC, and an explanation of how the deviation is consistent with National Standard 2.

The Council intent for the application of this risk policy provision is to prevent overfishing on the managed resources when no OFL or OFL proxy is available. This policy was designed to prevent catch from being increased when there are no criteria available to determine if overfishing will be occurring for the upcoming fishing year (as noted in Section 5.2.2 of the EA). However, it is possible that, under limited circumstances, ABC could be increased for stocks without status determination criteria on overfishing, and still would not be expected to result in overfishing. The SSC may not consider the stock assessment information reliable enough to derive a specific value for an overfishing reference point (OFL or OFL proxy), particularly in data poor situations, but may instead rely on other quantitative or qualitative sources of information to inform the SSC as to the overfishing status of a stock. For example, trends in stock demographics (e.g., compression or expansion of stock age or length structure), fishery independent or dependent survey information, relative trends in F or biomass (e.g., catch-per-unit effort), or other data sources may not lend themselves directly to a quantitative reference point calculation, but may enable the SSC to determine whether or not the current or projected fishery catch rates are having a negative impact on the stock size or are likely to result in overfishing of the stock. Essentially, alternative 2 would allow the SSC to use all available scientific information when recommending an ABC.

Therefore, the intent of the management process could still be met if ABC was increased and the following two circumstances are met:

1. Biomass-based reference points suggest that the stock is greater than B_{MSY}, and the stock biomass is stable or increasing. If biomass-based reference points are not available, best available science indicates that stock biomass is stable or increasing, and,

2. The SSC must provide a determination that, based on best available science, the proposed increase to the ABC is not expected to result in overfishing of the stock.

Under these circumstances 1 and 2 described above, the SSC must provide a description of why the increase is warranted, describe the method used to derive the increased ABC, and provide a certification that the increase in ABC is not likely to result in overfishing on the stock.

6.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND FISHERIES

The affected environment and fisheries, as described in section 6.0 of the EA, is incorporated by reference in this SEA. The following supplements the information provided on the affected environment in the EA. A description of the managed resources, 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. The affected environment section also describes the social and economic environment.

6.1 Description of the Managed Resources

Updates on the status of the U.S. stocks are summarized in a report to Congress quarterly and are available on the following website:
http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm

The information provided in this section of the SEA updates Table 8 in section 6.4 of the EA, which summarized information from the 2010 second quarter NMFS status of the stocks report to Congress. Based on the 2012 first quarter update (Box 2), none of the managed resources have overfishing occurring. Butterfish is considered overfished and under a rebuilding plan. Tilefish is under a rebuilding plan. With the exception of butterfish and bluefish, all of the managed resources have stock biomass (either total or spawning stock biomass) above biomass at maximum sustainable yield (BMSY).

Box 2. Stock Status based on NMFS 2012 first quarter Status of Stocks Report to Congress.						
FMP	**Stock**	**Overfishing? (Is Fishing Mortality above Threshold?)**	**Overfished? (Is Biomass below Threshold?)**	**Management Action Required**	**Rebuilding Program Progress**	**B/Bmsy or B/Bmsy proxy**
Atlantic Mackerel, Squid and Butterfish	Atlantic mackerel	No	No[a]	N/A	N/A	3.57
Atlantic Mackerel, Squid and Butterfish	Butterfish	No	Yes[b]	Continue Rebuilding	Year 2 of 4-year plan	0.38
Bluefish	Bluefish	No	No	N/A	N/A	0.95
Spiny Dogfish	Spiny dogfish	No	No	N/A	N/A	1.03
Summer Flounder, Scup and Black Sea Bass	Black sea bass	No	No	N/A	N/A	1.11
Summer Flounder, Scup and Black Sea Bass	Scup	No	No	N/A	N/A	2.02
Summer Flounder, Scup and Black Sea Bass	Summer flounder	No	No - Rebuilt	N/A	Rebuilt	1.00
Atlantic Surfclam and Ocean Quahog	Atlantic surfclam	No	No	N/A	N/A	1.62
Atlantic Surfclam and Ocean Quahog	Ocean quahog	No	No	N/A	N/A	1.62
Tilefish	Tilefish	No	No - Rebuilding[c]	Continue Rebuilding	Year 11 of 10-year plan	1.05

[a] Although this stock is currently listed as not subject to overfishing and not overfished, the most recent stock assessment conducted for Atlantic mackerel (2010) could not determine the overfishing or overfished status.

[b] Although the butterfish stock is listed as overfished, the status of the butterfish stock is unknown because biomass reference points could not be determined in the most recent assessment (SAW 49). Though the butterfish population appears to be declining over time, the underlying causes for population decline are unknown. Despite considerable uncertainty in the recent assessment, no evidence suggests the status of the butterfish stock has improved since the previous assessment (SAW 38). The status of the butterfish stock will remain as overfished in this report until biological reference points can be determined in a future assessment.

[c] Although the most recent B/Bmsy = 1.05, this stock has not been declared rebuilt. SARC 48 notes the following: *The biomass estimates for recent years from the ASPIC model are likely over-optimistic because trends in commercial VTR CPUE declined recently in a manner consistent with the passage of the strong 1999 cohort through the population (an interpretation further supported by the length frequency data). The current assessment model (ASPIC) does not account for those factors. Much of the confidence interval around the 2008 biomass estimate falls below the updated BMSY listed above. Based on these considerations there is no convincing evidence that the stock has rebuilt to levels above.*

6.2 Endangered and Protected Resources

The information provided in this section of the SEA updates the information provided in the affected environment of the EA on Endangered Species Act (ESA) listed and Marine Mammal Protected Act (MMPA) protected resources.

River Herring

On August 5, 2011, NMFS received a petition requesting that alewife (*Alosa pseudoharengus*) and blueback (*Alosa aestivalis*) be listed under the Endangered Species Act (ESA) as threatened throughout all or a significant portion of their range. On November 2, 2011, NMFS published a 90-day finding for the petition (76 FR 67652), and announced the initiation of a status review of alewife and blueback to determine if the petition is warranted. Alewife and blueback are now considered candidate species. Within 12 months of the receipt of the petition, NMFS will make a finding as to whether listing alewife or blueback as threatened or endangered is warranted. If listing either species is warranted, NMFS will publish a proposed listing determination and solicit public comments before deciding whether to publish a final determination to list them under the ESA.

Atlantic Sturgeon

A status review for Atlantic sturgeon was completed in 2007 which indicated that five distinct population segments (DPS) of Atlantic sturgeon exist in the United States (ASSRT 2007). On October 6, 2010, NMFS proposed listing these five DPSs of Atlantic sturgeon along the U.S. East Coast as either threatened or endangered species (75 FR 61872 and 75 FR 61904). Final listing rules were published on February 6th, 2012 (77 FR 5880 and 75 FR 5914). The GOM DPS of Atlantic sturgeon has been listed as threatened, and the New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs of Atlantic sturgeon have been listed as endangered. Atlantic sturgeon from any of the five DPSs could occur in areas where the MSB fisheries operate.

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).

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 sturgeon bycatch (ASMFC TC 2007). Sturgeon deaths were rarely reported in the otter trawl observer dataset (ASMFC TC 2007). However, the level of mortality after release from the gear is unknown (Stein et al. 2004a).

In a review of the Northeast Fishery Observer Program (NEFOP) database for 2001-2006, bycatch rates were calculated using observed Atlantic sturgeon bycatch to fishing effort to estimate total commercial fishery bycatch of Atlantic sturgeon. This review 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 sturgeon encounters tended to occur in waters less than 50 m throughout the year, although seasonal patterns exist (ASMFC TC 2007). The ASMFC analysis determined that an average of 650 Atlantic sturgeon mortalities occurred per year (during 2001 to 2006) in sink gillnet fisheries. Stein et al. (2004a), based on a review of the NMFS Observer Database 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 in all months.

There was an average of 114 estimated encounters and 11 estimated Atlantic sturgeon mortalities in small-mesh otter trawl from 2006-2010. Interactions are at the lowest levels in Quarter 1 (January – March) and Quarter 3 (July-September) for small-mesh otter trawl. This is likely due to both how the fisheries that use small-mesh otter are prosecuted and the biology of the target species. Atlantic sturgeons are the least active during their overwintering period, which includes Quarter 1.

In an updated, preliminary analysis, the Northeast Fisheries Science Center (NEFSC) used data from the NEFOP database to provide updated estimates for the 2006 to 2010 timeframe by fishery management plan. Data were limited by observer coverage to waters outside the coastal boundary (fzone>0) and north of Cape Hatteras, NC. Sturgeon included in the data set were those identified by federal observers as Atlantic sturgeon, as well as those categorized as unknown sturgeon. Limited data collected in the At-Sea Monitoring Program were not included, although preliminary views suggest the incidence of sturgeon encounters was low. The analysis estimates that between 2006 and 2010, a total of 15,587 lb of Atlantic sturgeon was taken in bottom otter trawl (7,740 lb) and sink gillnet (7,848 lb) gear. These gear types are used in the prosecution of several Mid-Atlantic fisheries, including Atlantic mackerel, longfin squid, *Illex* squid, butterfish, bluefish, spiny dogfish, summer flounder, scup and black sea bass. The total take numbers for bottom otter trawl and sink gillnet includes takes in fisheries under the jurisdiction of the New England Fisheries Management Council.

Since the Atlantic sturgeon DPSs have been listed as endangered and threatened under the ESA, the ESA Section 7 consultation for the the Summer Flounder, Scup and Black Sea Bass fishery, the Atlantic Mackerel, Squid Butterfish, Bluefish, and Spiny Dogfish FMPs have been reinitiated, and additional evaluation will be included in the resulting Biological Opinion to describe any impacts of the fisheries on Atlantic sturgeon and define any measures needed to mitigate those impacts, if necessary.

Biological Opinions are not being reinitiated for the Surfclam/Ocean quahog and Tilefish FMPs, as very few interactions are expected between Atlantic sturgeon and gears deployed to prosecute these fisheries. Atlantic sturgeon are not known to interact with hydraulic clam dredgegear, which is the only gear type used in the surfclam and ocean quahog fishery. Hydraulic clam dredge gear is not known to pose a bycatch risk for Atlantic sturgeon. No documented Atlantic sturgeon interactions with surfclam and ocean quahog gear have been documented (Stein *et al.* 2004; ASMFC TC 2007). Atlantic sturgeon are not known to interact with longline gear, which is the primary gear type used in the tilefish fishery. Otter trawl gear is known to capture Atlantic sturgeon, but it makes up a very small percentage of the tilefish fishery effort. There have been no documented Atlantic sturgeon interactions with tilefish gear. In addition, Atlantic sturgeon prefer shallower waters, with a higher preference for depths less than 50 meters in the Atlantic Ocean (ASMFC TC 2007). Tilefish gear is set in deeper canyons and outcroppings (250-1,200 feet) on the outer continental shelf and upper slope of the U.S. Atlantic coast.

7.0 SUPPLEMENTAL ENVIRONMENTAL IMPACTS

Consistent with the findings of the EA, the actions proposed in this SEA are administrative and have no direct impacts on the valued ecosystem components VECs (i.e., biological, habitat, ESA listed and MMPA protected resources, socioeconomic environment). The Omnibus Amendment established measures in the FMPs to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establish a comprehensive system of accountability for catch for the managed resources. The Council risk policy is one component of that process and intended to be used as a variable in the ABC derivation and recommendation process used by the SSC. Clarification of the application of the Council risk policy through the action contained in this SEA does not result in direct impacts because the existence of the risk policy within the FMP and implementing regulations does not result in direct impacts (as described in the EA). It is through the application of this administrative process in the future with respect to catch limits, that impacts will be realized; therefore, indirect impacts are anticipated and described in the sections that follow.

7.1 Biological Impacts

None of the alternatives analyzed in the EA or the proposed measures contained in this SEA would result in direct biological impacts on any of the managed resources. Because alternative 2 more clearly describes the application of a provision of the risk policy that has already been implemented, the indirect impacts of this alternative and the no action/status quo alternative 1 are not expected to differ substantially. Under either alternative, the SSC would be expected to derive an ABC which prevents overfishing on the managed resources and stocks. Neither of these alternatives is expected to alter how the fishery interacts with non-target species in a manner not previously considered nor is it expected to increase encounter rates with other non-target species.

Under the status quo alternative, if a stock does not have an OFL or OFL proxy, the SSC cannot recommend an increase in the ABC relative to the status quo. In addition, the Council would be unable to increase the ACL or associated annual catch targets (ACTs), even if the scientific information suggests the risk of overfishing the stock is sufficiently low and the stock biomass is stable and/or increasing.

Under the action alternative, the SSC can recommend ABC increases for such stocks in limited circumstances with sufficient scientific basis. There could be indirect impacts associated with the resulting catch limits that are derived from the application of a Council risk policy by the SSC that results in higher catch levels relative to the status quo. However, these impacts would not be expected to depart substantially from those levels associated with status quo.

The short-term impacts on the managed resources range from slight negative to neutral, and are directly related to the unquantifiable risk associated with increasing the ABC for such stocks. If the SSC recommends an ABC increase that does not ultimately result in overfishing of the stock, the impacts to the managed resource are neutral as the risk of overfishing was not increased. If the SSC recommends an increase in ABC that does ultimately result in overfishing, the impacts to the managed resource could be negative because this alternative allowed for a higher risk of overfishing. The NS1 Guidelines indicate the upper limit on the probability of overfishing at a given catch should not exceed 50 percent and should be something lower. The Council risk policy indicates a maximum tolerance for the probability of overfishing a typical stock at 40 percent and an atypical stock at 35 percent. These provisions and the SSC responsibility to provide the Council with an ABC which prevents overfishing mitigate these indirect negative biological impacts on the managed resources. As such, the potential indirect biological impacts that result from an increase in ABC would be considered slight negative as the SSC must certify that the proposed increase in ABC is not expected, based on the best scientific information available, to result in overfishing of the stock.

Future catch levels for the managed resources that result from the SSC recommended ABC and reduce the risk of overfishing would be expected to result in indirect long-term positive biological impacts. As such, the anticipated indirect biological impacts associated with alternative 2, would range from slight negative to neutral short-term, and neutral long-term impacts, when compared to the status quo.

7.2 Habitat Impacts

None of the alternatives analyzed in the EA or the proposed measures contained in this SEA would result in direct impacts on habitat. Because alternative 2 more clearly describes the application of the risk policy, the indirect impacts of this alternative and the no action/status quo alternative 1 are expected to be similar. Under either alternative, the SSC would be expected to derive an ABC which prevents overfishing on the managed resources and stocks. There could be indirect impacts on habitat associated with the resulting catch limits that are derived from the application of a Council risk policy by the SSC that results in lower or higher fishing effort depending on how the managed resource fisheries respond, and associated gear contact with habitat, relative to the status quo. Increases in catch limits (as could occur under alternative 2), do not necessarily translate to increased fishing effort as the fleet may opt to fish more efficiently in response to regulation changes (i.e., catch more fish in fewer trips; less effort) or changes in fish availability may alter the catch per unit effort. Therefore, these habitat impacts would not be expected to depart substantial from those levels associated with status quo. The NS1 Guidelines indicate the upper limit on the probability of overfishing at a given catch should not exceed 50 percent and should be something lower, and the Council risk policy indicates a maximum tolerance for the probability of overfishing a typical stock at 40 percent and an atypical stock at 35 percent. These provisions and the SSC responsibility to provide the Council with an ABC which prevents overfishing would prevent unconstrained increases in catch levels and associated unconstrained fishing effort. As such, the anticipated indirect habitat impacts associated with alternative 2 would be neutral to slight negative, when compared to the status quo.

7.3 Impacts on ESA Listed and MMPA Protected Resources

None of the alternatives analyzed in the EA or the proposed measures contained in this SEA would result in direct impacts on ESA listed or MMPA protected resources. Because alternative 2 more clearly describes the application of the risk policy, the indirect impacts of this alternative and the no action/status quo alternative 1 are expected to be similar. Under either alternative, the SSC would be expected to derive an ABC which prevents overfishing on the managed resources and stocks. There could be indirect impacts on ESA listed or MMPA protected resources associated with the resulting catch limits that are derived from the application of a Council risk policy by the SSC that results in lower or higher fishing effort depending on how the fishery responds, and associated interactions with protected resources, relative to the status quo. Increases in catch limits (as could occur under alternative 2), do not necessarily translate to increased fishing effort as the fleet may opt to fish more efficiently in response to regulation changes (i.e., catch more fish in fewer trips; less effort) or changes in fish availability may alter the catch per unit effort. Therefore, these impacts would not be expected to depart substantial from those levels associated with status quo. The NS1 Guidelines indicate the upper limit on the probability of overfishing at a given catch should not exceed 50 percent and should be something lower. The Council risk policy indicates a maximum tolerance for the probability of overfishing a typical stock at 40 percent and an atypical stock at 35 percent. These provisions and the SSC responsibility to provide the Council with an ABC which prevents overfishing would prevent unconstrained increases in catch levels and associated unconstrained fishing effort. As such, the anticipated indirect ESA listed or MMPA protected resources associated with alternative 2 would be neutral to slight negative, when compared to the status quo.

7.4 Socioeconomic Impacts

None of the alternatives analyzed in the EA or the proposed measures contained in this SEA would result in direct impacts on social and economic environment. Because alternative 2 more clearly describes the application of the risk policy, the indirect impacts of this alternative and the no action/status quo alternative 1 are expected to be similar. Under either alternative, the SSC would be expected to derive an ABC which prevents overfishing on the managed resources and stocks. There could be indirect impacts on fishing vessels, fleets, or ports associated with the resulting catch limits that are derived from the application of the Council risk policy by the SSC, depending on the resulting catch limits that are derived. However, these impacts would be expected to be similar to those under the status quo. The NS1 Guidelines indicate the upper limit on the probability of overfishing at a given catch should not exceed 50 percent and should be something lower. The Council risk policy indicates a maximum tolerance for the probability of overfishing a typical stock at 40 percent and an atypical stock at 35 percent. These provisions and the SSC responsibility to provide the Council with an ABC which prevents overfishing would be expected to ensure the resource is managed sustainably and should result in long-term positive social and economic impacts under either the status quo or alternative 2. Under the action alternative, the SSC can recommend ABC increases under limited circumstances with sufficient scientific basis, which could result in slight short term positive social and economic impacts if the increase results in additional landings of the target species. As such, the anticipated indirect impacts on the social and economic environment associated with alternative 2 would be neutral to slight positive short-term, and neutral long-term when compared to the status quo.

7.5 Cumulative Impacts

The Cumulative Effects Assessment, as described in section 7.0 of the EA, is incorporated by reference in this SEA. The following supplements the information provided on the cumulative effects in the EA which indicated that all the actions that have been implemented from that document were expected to result in neutral to positive impacts on biological, habitat, and protected resources, and long-term positive impacts on the socioeconomic environment.

Alternative 2 would not have a significant cumulative effect on any of the valued ecosystem components (VECs) outlined and described in section 6.0 of the EA. This is consistent with the findings of the EA, which considered the cumulative effects of the previous Council risk policy, of which the action alternative in this SEA more clearly describes. It is expected that the cumulative impacts under this action are merely an extension of those impacts considered when evaluating the comprehensive administrative program to set annual catch limits that address both scientific and management uncertainty, with a system of catch accountability, of which the risk policy is one component. Therefore the patterns of expected positive cumulative effects from those actions would be expected by extension from this action.

When the proposed action in this SEA (i.e., alternative 2) 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 (Box 3).

Box 3. Magnitude and significance of the cumulative effects; the additive and synergistic effects of the proposed action, as well as past, present, and future actions.

VEC	Status in 2010	Net Impact of P, Pr, and RFF Actions	Impact of the Proposed Action in this SEA	Significant Cumulative Effects
Managed Resource	Complex and variable (Section 6.1)	Positive (Sections 7.4.4 and 7.4.5.1)	Short-term slight negative to neutral; Long-term neutral (Sections 7.1-7.3)	**None**
Non-target Species	Complex and variable (Section 6.2)	Positive (Sections 7.4.4 and 7.4.5.2)	Neutral to slight negative (Sections 7.1-7.3)	**None**
Habitat	Complex and variable (Section 6.3)	Neutral to positive (Sections 7.4.4 and 7.4.5.3)	Neutral to slight negative (Sections 7.1-7.3)	**None**
Protected Resources	Complex and variable (Section 6.4)	Positive (Sections 7.4.4 and 7.4.5.4)	Neutral to slight negative (Sections 7.1-7.3)	**None**
Human Communities	Complex and variable (Section 6.5)	Positive (Sections 7.4.4 and 7.4.5.5)	Short-term slight positive to neutral; Long-term neutral (Sections 7.1-7.3)	**None**

8.0 APPLICABLE LAWS

8.1 Magnuson-Stevens Fishery Conservation and Management Act (MSA) and 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 for the managed resources 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 the managed resources and the U.S. fishing industry.

Specifically, this action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The risk policy implemented from the EA and the action described in this SEA were developed to address the revised NS1 guidelines; therefore, the Council action, when taken in conjunction with existing measures, is part of a complex process of setting catch limits which address both scientific and management uncertainty, consider the Council risk policy for overfishing of stocks, and applies a comprehensive system of accountability for all components of the catch for each of the manage resources. By addressing both scientific and management uncertainty, and considering the Council's risk policy and its provisions when setting catch limits less than the OFL, the risk of overfishing these managed resources will be reduced and OY can be achieved in these fisheries. The Council uses the best scientific information available (National Standard 2) and the Council's SSC will continue to provide advice such that the Council's decisions are informed by the best science available, and all sources of available science as a result of this more clearly described risk policy provision addressed within this document. The Council manages all of its resources throughout their range (National Standard 3) and this action does not alter the management units or management jurisdictions for any of these resources. These management measures do not discriminate among residents of different states (National Standard 4) because the application of catch limits, of which the risk policy is one variable, and accountability measures, are applied to the fishery as a whole or to the fishing sectors (i.e., recreational or commercial). The positive impacts which result from preventing overfishing and achieving OY should be realized by all fishery participants, irrespective of state of residency. The actions taken within this document do not have economic allocation as their sole purpose (National Standard 5); these measures specifically address the NS1 objectives of preventing overfishing and achieving OY, by providing for a more clearly described Council risk policy, and the catch limits and system of accountability merely overlay the fishery allocations that were previously established and deemed consistent with these National Standards. These measures account for variations in these fisheries (National Standard 6) through consideration of the inherent scientific and management uncertainty associated with assessing these resources, as well as the variability in scientific information and Council tolerance for risk of overfishing the stocks, when implementing fishery management measures and establishing catch limits for these fisheries. This action avoids unnecessary duplication (National Standard 7) and more clearly describes a provision of the Council risk policy which will be applied in conjunction with existing FMP measures to address any inconsistencies with existing regulations. This action would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished, and therefore should not alter the manner in which fishing communities participant in these fisheries. This action considers fishing communities (National Standard 8); this system of catch limits, and associated risk policy, is designed to prevent overfishing, rebuild stocks that are overfished, and to maintain stocks at a level that produces OY. Achieving these objectives will provide the greatest social and economic benefits to fishery participants and fishing communities. This action does not propose any measures that would affect safety at sea (National Standard 10). Finally, actions taken are consistent with National Standard 9, because the proposed measures more clearly describes the application of a provision of the risk policy that has already been implemented as part of the comprehensive process of addressing scientific uncertainty and management uncertainty when setting catch limits, which consider all components of the catch, including bycatch.

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, FMP framework adjustments, and specifications, the Council will insure that cumulative impacts of these actions will remain positive overall for the ports and communities that depend on these fisheries, the Nation as a whole, and certainly for the resources.

8.2 NEPA (FONSI)

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 Council on Environmental Quality regulations at 40 C.F.R. §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 is not expected to jeopardize the sustainability of any target species affected by the action (section 6.0 of the SEA and EA). The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. As such, the impacts of these alternatives on any species that may be affected by the measures are administrative in nature; there are no significant physical or biological impacts associated with the alternatives (section 7.0 of the SEA and EA).

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

The proposed action is not expected to jeopardize the sustainability of any non-target species (section 6.0 of the SEA and EA). These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. The proposed action is administrative in nature and will therefore have no direct physical or biological impacts, and only insignificant indirect and cumulative impacts (section 7.0 of the SEA and EA).

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

The proposed action is not expected to cause substantial damage to the ocean, coastal habitats, and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMP. In general, bottom-tending mobile gear, primarily otter trawls and hydraulic dredges, has the potential to adversely affect EFH for the species as detailed in section 6.0 of the SEA and EA. The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits with a comprehensive system of accountability for catch (including both landings and discards) for each of the managed resources. The direct impacts of the preferred alternatives on habitat are wholly administrative in nature; there are no direct impacts, and only insignificant indirect and cumulative effects associated with the preferred alternatives (section 7.0 of the SEA and EA and 9.0 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 would not alter the manner in which the industry conducts fishing activities for the managed resources (section 6.0 of the SEA and EA). 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 (section 7.0 of the SEA and EA). 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?

The proposed action is not expected to adversely affect ESA listed, threatened, or endangered, marine mammals, or critical habitat of these species (section 6.0 of the SEA and EA). These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the alternatives on any species that may be affected by the measures are wholly administrative in nature; there are no expected significant impacts on ESA proposed, threatened, or endangered, and MMPA protected species associated with the alternatives (section 7.0 of the SEA and EA).

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

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area (section 6.0 of the SEA and EA). The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the preferred alternatives on biodiversity and ecosystem function within the affected area are administrative in nature; there are no significant impacts on biodiversity and ecosystem function associated with the alternatives (section 7.0 of the SEA and EA).

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 (section 6.0 of the SEA and EA). The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. These measures would not impose or result in any changes to fishing operations, fishing behavior, fishing gears used, or areas fished. As such, the impacts of the preferred alternatives are administrative in nature and not expected to result in significant social or economic impacts interrelated with natural or physical environmental effects (section 7.0 of the SEA and EA).

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 this SEA and the EA. The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. These measures are administrative in nature and build on measures contained in the FMP which have been in place for many years. 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?

The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The fisheries for the managed resources 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 (section 6.0 of the SEA and EA). Therefore, the alternatives are not expected to have a substantial impact on any of these areas (section 7.0 of the SEA and EA).

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 and the EA. The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. These measures are administrative in nature and build on measures contained in the FMP which have been in place for many years. The measures contained in this action are not expected to have highly uncertain effects or to involve unique or unknown risks on the human environment.

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

As discussed in section 7.0 of the SEA and EA, 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 described in section 5.0 of the SEA on the human environment are provided in section 7.0 of the SEA and the EA. The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The fisheries for the managed resources 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 (section 6.0 of the SEA and EA). 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?

The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. There is no evidence or indication that the managed resources fisheries have ever resulted in the introduction or spread of nonindigenous species. None of the proposed measures is expected to substantially change the manner in which these fisheries are prosecuted. 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?

The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The performance of the fisheries relative to catch limits and the entire system of catch limits and accountability will be monitored and measures contained within the FMP will be adjusted in response to those conditions in the future. Therefore, these actions are not expected to result in significant effects, nor 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?

The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The action is not expected to alter fishing methods or activities such that they threaten a violation of federal, State, or local law or requirements imposed for the protection of the environment. In fact, the proposed measures have been found to be consistent with other applicable laws (see sections 8.2-8.11 below in this SEA and EA).

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 of this SEA and the EA. The cumulative effects of the proposed action on target and non-target species are detailed in section 7.0 of the SEA and the EA. None of the proposed measures are expected significantly alter the manner in which the fishery is prosecuted. The synergistic interaction of improvements in the manner in which scientific and management uncertainty is addressed when specifying catch limits for the managed resources fisheries is expected to generate positive impacts overall.

DETERMINATION

In view of the information presented in this supplemental Environmental Assessment framework and the analysis contained in the original Environmental Assessment prepared for the Omnibus Amendment document, it is hereby determined that the proposed actions in this framework will not significantly impact the quality of the human environment as described above and in the Environmental Assessment. 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.

[signature] for John Bullard — 8/7/12
Regional Administrator for NERO, NMFS, NOAA — Date

8.3 Endangered Species Act

Sections 6.2 in this SEA and 6.4 of the EA should be referenced for an assessment of the impacts of the proposed action on endangered species and protected resources. None of the actions proposed in this document are expected to alter fishing methods or activities. On February 9, 2012, formal consultations were reinitiated for the Summer Flounder, Scup and Black Sea Bass fishery, the Atlantic Mackerel, Squid Butterfish, Bluefish, and Spiny Dogfish FMPs. NMFS 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 also determined that the continued authorization of these fisheries 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 Biological Opinion to mitigate harm to Atlantic sturgeon. Therefore, this action is not expected to affect proposed, threatened, or endangered species or critical habitat in any manner not considered in previous consultations on the fisheries. As detailed above, the five Atlantic sturgeon DPSs listed under the ESA do not meet the criteria to reinitiate consultation on Tilefish, Surfclam and Ocean Quahog FMPs.

8.4 Marine Mammal Protection Act

Sections 6.2 in this SEA and 6.4 of the EA should be referenced for an assessment of the impacts of the proposed action on marine mammals. None of the actions 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 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) and forward this consistency determination to those states for concurrence prior to the publication of a proposed rule.

8.6 Administrative Procedure Act

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

The Administrative Procedure Act requires solicitation and review of public comments on actions taken in the development of an FMP and subsequent FMP amendment and framework adjustments. Development of this framework provided many opportunities for public review, input, and access to the rulemaking process. This proposed action and the document were developed through multi-stage process that was open to review by affected members of the public. The public had the opportunity to review and comment on this action at Council meetings from February 14-16, 2012 (Virginia Beach, VA) and April 10-12, 2012 (Duck, NC). In addition, the public will have further opportunity to comment on this document once NMFS publishes a request for comments notice in the Federal Register (FR).

8.7 Section 515 (Data Quality Act)

Utility of Information Product

The action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. This document includes: a description of the alternatives considered, the Council-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 the actions proposed and this SEA and the EA serves as a supporting document for the proposed rule.

The action contained within this 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 the same meetings listed above in section 8.6. The public will have further opportunity to comment once NMFS publishes a request for comments on the proposed regulations 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 SEA and EA which evaluates the impacts of those alternatives (see sections 5.0, 6.0, 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 Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish fisheries.

The review process for this 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 Framework action 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 (PRA)

The purpose of the PRA is to control and, to the extent possible, minimize the paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by or for the Federal Government. The preferred alternatives currently associated with this action do not propose to modify any existing collections, or to add any new collections; therefore, no review under the PRA is necessary.

8.9 Impacts of the Plan Relative to Federalism/EO 13132

This 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 action contained within this document are not expected to affect participation in the Atlantic mackerel, butterfish, Atlantic bluefish, spiny dogfish, summer flounder, scup, black sea bass, Atlantic surfclam, ocean quahog, and tilefish 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 Impact Review/Initial Regulatory Flexibility Analysis (RIR/IRFA)

A Regulatory Impact Review (RIR) is required by NMFS for all regulatory actions that either implement a new FMP or significantly amend an existing FMP. An RIR is required by NMFS for all regulatory actions that are part of the "public interest." The RIR is a required component of the process of preparing and reviewing FMPs or amendments and provides a comprehensive review of the economic impacts associated with proposed regulatory actions. The RIR addresses many concerns posed by the regulatory philosophy and principles of E.O. 12866. The RIR serves as the basis for assessing whether or not any proposed regulation is a "significant regulatory action" under criteria specified by E.O. 12866. The RIR must provide the following information: (1) A comprehensive review of the level and incidence of economic impacts associated with a proposed regulatory action or actions; (2) a review of the problems and policy objectives prompting the regulatory proposals; and (3) an evaluation of the major alternatives that could be used to meet these objectives. In addition, an RIR must ensure that the regulatory agency systematically and comprehensively consider all available alternatives such that the public welfare can be enhanced in the most efficient and cost effective manner. Under the Regulatory Flexibility Act (RFA) of 1980, as amended by Public Law 104-121, new FMPs or amendments also require an assessment of whether or not proposed regulations would have a significant economic impact on a substantial number of small business entities. The primary purposes of the RFA are to relieve small businesses, small organizations, and small Government agencies from burdensome regulations and record-keeping requirements, to the extent possible.

This section of the Framework provides an assessment and discussion of the potential economic impacts, as required of an RIR and the RFA, of various proposed actions consistent with the purpose of this action.

8.11.1 Basis and Purpose for the Action

The legal basis for this Framework can be found in the MSA (16 U.S.C. §1853(a)(15)), which includes requirements for ACLs and AMs and other provisions regarding preventing and ending overfishing including a Council risk policy. This is described further in section 4.0. The action is needed to provide both clarity and to retain the flexibility afforded to the SSC in deriving ABC recommendations when no OFL or OFL proxy has been identified. The purpose of the action is to more clearly describe the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. The purpose, need, and objectives of this Framework are described further in section 4.0.

8.11.2 Evaluation of E.O 12866 Significance

8.11.2.1 Description of the Management Objectives

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

8.11.2.2 Description of the Fishery

A description of the managed resources fisheries is presented in section 6.0 of the SEA and EA and includes information on landings, ex-vessel prices, and an analysis of permit data. Detailed descriptions of the economic aspects of the commercial and recreational fisheries for the managed resources, descriptions of important ports and communities, as well as the management regimes are available in the respective FMPs.

8.11.2.3 A Statement of the Problem

A statement of the problem for resolution is presented under section 1.0. The purpose and need for this amendment is found in section 4.0.

8.11.2.4 A Description of Each Alternative

A full description of the alternatives analyzed in this section is presented in section 5.0.

Description of the Affected Entities

A description of the affected entities is provided in section 8.11.3.1 of the IRFA. As noted in earlier sections (see section 5.0), this action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. Thus, the scope of the impacts associated with this Framework is atypical.

Most actions focus on changes to fishing regulations in order to effect a direct change in either fishing effort or fishing practices, and these regulatory changes generally result in direct effect on fishing vessel operations (by modifying where, when, and/or how fishing may take place). These types of changes to fishing vessel operations almost always have socio-economic impacts on the participants of the subject fisheries.

However, as the focus of this Framework is on more clearly describing and aspect of the administrative processes that have already been developed to be consistent with NS1 and implemented, there are therefore no direct impacts. Although this Framework addresses all fisheries operating for the managed resources, the actual economic impacts associated with this Framework are considered to be negligible. More details on these fisheries are available in section 6.0 of the SEA and EA.

8.11.2.5 Determination of Significance under E.O. 12866

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be significant. A “significant regulatory action” is one that is likely to: (1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, safety, or state, local, or tribal Governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive Order. A regulatory program is “economically significant” if it is likely to result in the effects described above. The RIR is designed to provide information to determine whether the proposed regulation is likely to be “economically significant.”

A complete evaluation of the expected economic effects of the various alternatives, including cumulative impacts, is presented throughout sections 7.0. The proposed action more clearly describes the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. These actions would not affect the conservation objectives associated with each of the managed fisheries. Thus, while having no immediate direct economic impact, these actions will provide greater assurance that the current and future flow of commercial and recreational economic benefits from the managed fisheries will be maintained.

The Council has determined that, given the information presented above, there would no substantive change in net benefits derived from the implementation of the proposed Omnibus Amendment. Because none of the factors defining “significant regulatory action” are triggered by this proposed action, the action has been determined to be not significant for purposes of E.O. 12866.

8.11.3 Initial Regulatory flexibility Analysis

The objective of the RFA is to require consideration of the capacity of regulated small entities affected by regulations to bear the direct and indirect costs of regulation. If an action would have a significant impact on a substantial number of small entities, an Initial Regulatory Flexibility Analysis must be prepared to identify the need for action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of whether the proposed action would have a significant economic impact on a substantial number of small entities. Depending on the nature of the proposed regulations assessment of the economic impacts on small businesses, small organizations, and small Governmental jurisdictions may be required. If an action is determined to affect a substantial number of small entities, the analysis must include:

> 1) A description and estimate of the number of regulated small entities and total number of entities in a particular affected sector, and the total number of small entities affected; and
> 2) Analysis of the economic impact on regulated small entities, including the direct and indirect compliance costs of completing paperwork or recordkeeping requirements, effect on the competitive position of small entities, effect on the small entity's cash flow and liquidity, and ability of small entities to remain in the market.

If it is clear that an action would not have a significant economic impact on a substantial number of small regulated entities, the RFA allows Federal agencies to certify the proposed action to that effect to the SBA. The decision on whether or not to certify is generally made after the final decision on the preferred alternatives for the action and may be documented at either the proposed rule or the final rule stage.

Based on the information and analyses provided in earlier sections of this Framework, it is clear that this action would not have a significant economic impact on a substantial number of small entities, and that certification under the RFA is warranted. The remainder of this section establishes the factual basis for this determination, as recommended by the Office of Advocacy at the SBA.

8.11.3.1 Description and Estimate of Number of Small Entities to Which the Action Applies

The implementation of this action will result in a more clearly described provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits. Because this action would modify the Council risk policy which is part of the process to set catch for all the Council managed resources fisheries described in this SEA and EA, the small entities to which this action applies include all federally permitted fishing vessels for the managed resources operating in the Northeast Region. These vessels include both small regulated entities engaged in either commercial harvesting or a party/charter business activity. The small business size standard for commercial fishing (NAICS 1411) is $4 million in gross sales while the size standard for party/charter businesses (NAICS

487210) is $6.5 million in gross sales. During fishing year 2011, the total number of Federal fishing permits issued either a recreational or a commercial permit for the managed resources in the Northeast Region were 13,874 and 3,533, respectively (Northeast Federal permit database, as of May 9, 2012). However, since many vessels are issued multiple permits the number of unique fishing entities totaled 2,875. Of these vessels, 2,113 held only a commercial harvesting permit, 167 held only a party/charter permit, while the remaining 595 operating units held at least one commercial harvest permit and at least one party/charter permit. Nearly 60 percent (1,720 vessels) of the 2,875 permitted vessels did report at least some sales of commercially caught species in the Northeast region. In addition, 164 vessels that did not hold a commercial permit for the managed species under the FMP reported landings of the managed species covered by the proposed action resources since they may have held other commercial permits. However, only about one-third of these vessels (934) reported landing of at least one pound of the managed species covered by the proposed action. Based on total sales, none of the 934 participating regulated commercial fishing entities that had sales exceeding $4 million (Northeast Federal dealer database, as of April 27, 2012).

A total of 762 vessels were issued at least one recreation party/charter permit during 2011. Of these small entities 506 carried for-hire passengers on at least one occasion of which 483 retained at least one pound of any of the species managed under the proposed action (Northeast Federal trip report database, as of May 10, 2012). Note that this number includes 91 of the 167 permitted vessels that only held recreational permits and 314 of the 597 permitted vessels that held both commercial and recreational party/charter permits. Based on average passenger fees of $64.46[3] none of the participating party/charter operators would exceed $6.5 million so all participating entities were determined to be small entities under the SBA size standards.

8.11.3.2 Economic Impacts on Small Entities

The economic impacts associated with each alternative considered in the development of this Framework are evaluated throughout section 7.0. For the purposes of the RFA certification review, the following addresses the economic impacts associated with each element of the proposed action.

This element of the proposed action focuses on more clearly describing the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits (see section 5.0). Because the actions proposed in this section are focused on methods and procedures, of which the Council risk policy is one component, to specify ABC, and are administrative in nature, there are no marginal changes to the economic impacts on small entities associated with this element (see section 7.0). If in the future, the implementation of the administrative processes described in this document indirectly results in any economic impacts, those would be identified and analyzed in the future management action.

[3] The 2006 party/charter average expenditure estimate ($57.76; Table 12) was adjusted to its 2011 equivalent using the Bureau of Labor's Consumer Price Index.

8.11.3.3 Criteria Used to Evaluate the Action

8.11.3.3.1 Significant Economic Impacts

The RFA requires Federal agencies to consider two criteria to determine the significance of regulatory impacts: Disproportionality and profitability. If either criterion is met for a substantial number of small entities, then the action should not be certified.

8.11.3.3.1.1 Disproportionality

All of the commercial and recreational fishing entities were determined to be small regulated entities based on the SBA size standard. The proposed action would more clearly describe the application of a provision of the risk policy. Since these actions are administrative in nature, no marginal economic impacts associated with these processes are anticipated. Therefore, the proposed action would not create any disproportionate impacts between small and large entities. If in the future, the implementation of the administrative processes described in this Framework indirectly results in any economic impacts, those would be identified and analyzed in the future management action.

Since all party/charter operators were determined to be small the disproportionality standard does not apply.

8.11.3.3.1.2 Profitability

As noted above, none of the elements of this proposed action are associated with economic impacts on small entities. This is the case for both small regulated entities engaged in either commercial fishing or recreational party/charter activities. Since the proposed action would have no economic impact on small entities there would no change in expected profitability.

8.11.3.4 Substantial Number of Small Entities

Indirectly, the methodologies established by this action apply generally across all of the managed resource fisheries under the subject FMPs. However, although a substantial number of entities are involved in these fisheries, none of these entities are expected to incur any economic impacts as a result of this action.

8.11.3.5 Description of and Explanation of, the Basis for All Assumptions Used

Because the actions proposed in this Framework are all are focused on more clearly describing the application of a provision of the risk policy that has already been implemented as part of the process of addressing scientific uncertainty and management uncertainty when setting catch limits, there are no direct economic impacts associated with this Framework. No assumptions are necessary to conduct the analyses in support of this conclusion.

9.0 LITERATURE CITED

ASMFC TC (Atlantic States Marine Fisheries Commission Technical Committee). 2007. Special Report to the Atlantic Sturgeon Management Board: Estimation of Atlantic sturgeon bycatch in coastal Atlantic commercial fisheries of New England and the Mid-Atlantic. August 2007. 95 pp.

ASSRT (Atlantic Sturgeon Status Review Team). 2007. Status review of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). National Marine Fisheries Service. February 23, 2007. 188 pp.

Dadswell, M. 2006. A review of the status of Atlantic sturgeon in Canada, with comparisons to populations in the United States and Europe. Fisheries 31: 218-229.

Dovel, W. L. and T. J. Berggren. 1983. Atlantic sturgeon of the Hudson River estuary, New York. *New York Fish and Game Journal* 30: 140-172.

Dunton, K.J., A. Jordaan, K.A. McKown, D.O. Conover, and M.G. Frisk. 2010. Abundance and distribution of Atlantic sturgeon (*Acipenser oxyrinchus*) within the Northwest Atlantic Ocean determined from five fishery-independent surveys. *Fish. Bull.* 108:450-465.

Holland, B.F., Jr., and G.F. Yelverton. 1973. Distribution and biological studies of anadromous fishes offshore North Carolina. Division of Commercial and Sports Fisheries, North Carolina Dept. of Natural and Economic Resources, Special Scientific Report No. 24. 130pp.

Kahnle, A.W., K.A. Hattala, and K.A. McKown. 2007. Status of Atlantic sturgeon of the Hudson River estuary, New York, USA. In Anadromous sturgeons: habitats, threats, and management (J. Munro, D. Hatin, J.E. Hightower, K. McKown, K.J. Sulak, A.W. Kahnle, and F. Caron (eds.)), p. 347-363. *Am. Fish. Soc. Symp.* 56, Bethesda, MD.

Kynard, B. and M. Horgan. 2002. Ontogenetic behavior and migration of Atlantic sturgeon, *Acipenser oxyrinchus oxyrinchus*, and shortnose sturgeon, *A. brevirostrum*, with notes on social behavior. *Environmental Behavior of Fishes* 63: 137-150.

Laney, R.W., J.E. Hightower, B.R. Versak, M.F. Mangold, W.W. Cole Jr., and S.E. Winslow. 2007. Distribution, habitat use, and size of Atlantic sturgeon captured during cooperative winter tagging cruises, 1988-2006. In Anadromous sturgeons: habitats, threats, and management (J. Munro, D. Hatin, J.E. Hightower, K. McKown, K.J. Sulak, A.W. Kahnle, and F. Caron (eds.)), p. 167-182. *Am. Fish. Soc. Symp.* 56, Bethesda, MD.

Schuller, P. and D. L. Peterson. 2006. Population status and spawning movements of Atlantic sturgeon in the Altamaha River, Georgia. Presentation to the 14th American Fisheries Society Southern Division Meeting, San Antonio, February 8-12th, 2006.

Stein, A. B., K. D. Friedland, and M. Sutherland. 2004a. Atlantic sturgeon marine bycatch and mortality on the continental shelf of the Northeast United States. *North American Journal of Fisheries Management* 24: 171-183.

Stein, A.B., K. D. Friedland, and M. Sutherland. 2004b. Atlantic sturgeon marine distribution and habitat use along the northeastern coast of the United States. *Transaction of the American Fisheries Society* 133:527-537.

Waldman, J. R., J. T. Hart, and I. I. Wirgin. 1996. Stock composition of the New York Bight Atlantic sturgeon fishery based on analysis of mitochondrial DNA. *Transactions of the American Fisheries Society* 125: 364-371.

10.0 LIST OF AGENCIES AND PERSONS CONSULTED

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

Copies of the Framework Supplemental Environmental Assessment, the Omnibus ACL/AM Environmental Assessment, and other associated documents are available from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901 and Daniel Morris, Acting Regional Administrator, NMFS Northeast Regional Office, 55 Great Republic Drive, Gloucester, MA 01930