DRAFT

Amendment 31

to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region

Atlantic Cobia Management

December 2017

Environmental Assessment | Regulatory Impact Review | Regulatory Flexibility Analysis

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Abbreviations and Acronyms Used in the FMP

ABC	acceptable biological catch
ACL	annual catch limits
AM	accountability measures
ACT	annual catch target
B	a measure of stock biomass in either weight or other appropriate unit
B_{MSY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{MSY}
B_{OY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{OY}
B_{CURR}	The current stock biomass
CLM	Commercial Landings Monitoring System
CMP	coastal migratory pelagics
CPUE	catch per unit effort
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
ESA	Endangered Species Act
F	a measure of the instantaneous rate of fishing mortality
$F_{30\%SPR}$	fishing mortality that will produce a static SPR = 30%
F_{CURR}	the current instantaneous rate of fishing mortality
F_{MSY}	the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}
F_{OY}	the rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of B_{OY}
FEIS	final environmental impact statement
FMP	fishery management plan
FMU	fishery management unit
HAPC	Habitat Area of Particular Concern
M	natural mortality rate
MARMAP	Marine Resources Monitoring Assessment and Prediction Program
MFMT	maximum fishing mortality threshold
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Statistics Survey
MRIP	Marine Recreational Information Program
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS	National Standard
OFL	overfishing limit
OY	optimum yield
PSE	percent standard error
RIR	regulatory impact review
SEDAR	Southeast Data Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SPR	spawning potential ratio
SRD	Science and Research Director
SSC	Scientific and Statistical Committee

Amendment 31 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region with Environmental Assessment and Regulatory Impact Review

Proposed action:	Revise the management system for Atlantic cobia
Lead agency:	Amendment – South Atlantic Fishery Management Council (South Atlantic Council) Environmental Assessment – National Marine Fisheries Service (NMFS) Southeast Regional Office
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Summary

The South Atlantic Fishery Management Council (South Atlantic Council) and Gulf of Mexico Fishery Management Council (Gulf Council) are proposing Amendment 31 to the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (CMP FMP). Amendment 31 includes one action to remove Atlantic cobia from the CMP FMP or to establish a management process with the Atlantic States Marine Fisheries Commission.

The action in Amendment 31 is in accordance with the provisions set forth in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The intent of this amendment is to allow for more equitable distribution of harvest and facilitate better coordination between state and federal management of Atlantic cobia. Amendment 31, with the integrated Environmental Assessment, has been made available for public review before and during each South Atlantic Council meeting and during the proposed rule phase.

Atlantic Cobia Management

ACTION/ Preferred

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Chapter 1. Introduction

1.1 What Action is Being Proposed?

Amendment 31 amends the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (CMP FMP). Amendment 31 includes one action to remove Atlantic migratory group cobia (Atlantic cobia) from the CMP FMP or to establish a management process with the Atlantic States Marine Fisheries Commission (ASMFC) that would allow for consistent regulations in federal and state waters.

Who's Who?

- ***Gulf of Mexico*** and ***South Atlantic Fishery Management Councils*** – Engage in a process to determine a range of actions and alternatives, and recommends action to the National Marine Fisheries Service.
- ***National Marine Fisheries Service*** and ***Council staffs*** – Develop alternatives based on guidance from the Council, and analyze the environmental impacts of those alternatives.
- ***Secretary of Commerce*** – Will approve, disapprove, or partially approve the amendment as recommended by the Councils.
- ***Atlantic States Marine Fisheries Commission*** – will manage Atlantic cobia in state waters through an interstate FMP starting in April 2018.

1.2 Who is Proposing these Action?

The coastal migratory pelagics (CMP) fishery is managed jointly by the Gulf of Mexico Fishery Management Council (Gulf Council) and the South Atlantic Fishery Management Council (South Atlantic Council). Amendments to the FMP (plan amendments) and framework amendments affecting both Gulf of Mexico and Atlantic cobia must be approved by both the Gulf Council and the South Atlantic Council. Because this amendment applies only to Atlantic cobia, the South Atlantic Council is proposing the action and will give final approval on the action. Following approval by the both Councils, this amendment will be submitted to the National Marine Fisheries Service (NMFS) for approval and implementation by the Secretary of Commerce. NMFS is a line office in the National Oceanic and Atmospheric Administration.

1.3 Why are the Councils Considering Action?

After the 2015 overage and subsequent shortened 2016 recreational season for Atlantic cobia, the South Atlantic Council started work on an amendment to revise Atlantic cobia management measures to help reduce the rate of harvest (extend the season) and to reduce the likelihood that the ACL would be exceeded in future years.[1] Additionally, the South Atlantic Council requested that the Atlantic States Marine Fisheries Commission (ASMFC) consider complementary management for cobia, and the Commission began work on an interstate management plan.

[1] The final rule for CMP Framework Amendment 4 was published on August 4, 2017, with an effective date of September 5, 2017.

The recreational closure in federal waters for 2016 became effective on June 20, 2016, at which time South Carolina also closed their state waters to recreational harvest. Virginia and North Carolina implemented harvest limits but kept state waters open through August and September, respectively. Georgia did not close state waters, but most cobia are caught in federal waters off Georgia.

Following notification that 2016 landings had again exceeded the Atlantic cobia ACL, NMFS closed the recreational season on January 24, 2017. South Carolina closed state waters to track the federal closure. Georgia did not close state waters but requested that NMFS open federal waters to allow Georgia fishermen to have some access to cobia. Virginia implemented harvest limits with a season in state waters of June 1 through September 15, 2017, and North Carolina specified harvest limits during a season in state waters of May 1 through August 31, 2017.

In May 2017, the ASMFC's South Atlantic State/Federal Fisheries Management Board approved a motion to request that the South Atlantic Council transfer sole management of cobia to the ASMFC, which would require that Atlantic cobia be removed from the federal fishery management plan. In June 2017, the South Atlantic Council directed staff to start work on an amendment with options to remove Atlantic cobia from the federal fishery management plan, or for complementary management of Atlantic cobia with ASMFC. The ASFMC approved their Interstate FMP for Atlantic cobia in October 2017 and plans to implement the FMP by April 2018.

1.3.1 Purpose and Need Statement

Purpose for Actions

The purpose is to reduce complexity of management and facilitate improved coordination of state and federal management of Atlantic cobia.

Need for Actions

The need is to provide for effective management of Atlantic Cobia without reducing protection to the stock.

1.4 What are the Current Regulations for Atlantic Cobia in State and Federal Waters?

Federal regulations for commercial harvest of Atlantic cobia in the EEZ (Georgia through New York) include a minimum size limit of 33 inches fork length (FL) and a possession limit of 2 fish per person per day or 6 fish per vessel per day, whichever is more restrictive. Federal regulations for recreational harvest of Atlantic cobia in the EEZ include a minimum size limit of 36 inches FL and a trip limit of 1 fish per person per day or 6 fish per vessel per day, whichever is more restrictive.

Regulations in state waters are consistent with regulations in federal waters for Georgia and some areas of South Carolina (see explanation below). Virginia has different regulations for state waters (see explanation below). Recreational landings estimates from MRIP show low landings of Atlantic cobia north of Virginia, with only small numbers in the MRIP estimates from Delaware, New Jersey, and Maryland every few years. In the Mid-Atlantic, New Jersey and New

York are subject to a minimum size limit of 37 inches total length (TL) and a recreational bag limit of 2 fish per person per day. Maryland and Delaware do not have harvest regulations for cobia in state waters.

Virginia, North Carolina, and South Carolina have recently implemented management changes for cobia harvest in state waters. Effective April 1, 2017, the recreational harvest limits in Virginia state waters are 1 fish per person and 3 fish per vessel; the minimum size limit is 40 inches TL and no more than one cobia over 50 inches TL is allowed per boat; no gaffing is allowed; all anglers fishing for cobia must obtain a Recreational Cobia Permit from the Virginia Marine Resources Commission and report all harvest and cobia fishing activity. In 2017, state waters were open from June 1 through September 15. (see: http://mrc.virginia.gov/regulations/fr510.shtm)

In February 2016, the North Carolina Marine Fisheries Commission (North Carolina Commission) approved a reduction in the recreational bag limit for cobia in North Carolina state waters to 1 fish per person per day, effective February 27, 2016 (see http://portal.ncdenr.org/web/mf/proclamation-ff-09-2016). The North Carolina Commission made additional changes to cobia harvest in state waters in May 2016. Effective May 23, 2016, the recreational minimum size limit is 37 inches FL, and state waters closed on September 30, 2016. On for-hire trips, the harvest limit is 4 cobia per vessel per day or 1 cobia per person per day if fewer than four people are on board. Private recreational harvest is only allowed on Monday, Wednesday, and Saturday, with a vessel limit of 2 cobia per day and a bag limit of 1 cobia per person per day if there is only one person on board. Shore-based cobia harvest is allowed seven days a week with a recreational bag limit of 1 fish per person per day (see: http://portal.ncdenr.org/web/mf/proclamation-ff-25-2016). In 2017 the recreational minimum size limit was set to 36 inches FL, and state waters were open from May 1 through August 31, 2017 (see: http://portal.ncdenr.org/web/mf/proclamation-ff-13-2017).

In April 2016, the governor of South Carolina approved legislation to establish a Southern Cobia Management Zone, which includes South Carolina state waters from Jeremy Inlet, Edisto Island, to the South Carolina/Georgia boundary. Effective May 1, 2016, cobia harvest in the Southern Cobia Management Zone is limited to catch and release only from May 1 through May 31, and is limited to 1 fish per person per day or 3 fish per vessel per day, whichever is lower, from June 1 through April 30. The full language of the bill is available here: https://legiscan.com/SC/text/H4709/2015. In 2017, South Carolina closed their state waters to recreational harvest of cobia on January 24 to track the federal closure.

In March 2016, the South Atlantic Council sent a letter to the Atlantic States Marine Fisheries Commission (ASMFC) requesting that the ASMFC consider complementary management measures for cobia. In May 2016, the Interstate Fisheries Management Program Policy Board discussed cobia and the ASMFC started exploring options for the development of an interstate fishery management plan for cobia. The Policy Board directed the South Atlantic Board of the ASMFC to develop alternatives for developing an FMP that is either joint, complementary, or exclusively managed by the Commission to determine what type of FMP is the best way to move forward. In August 2016, the ASFMC's South Atlantic Board discussed management of cobia and approved the development of a new Interstate FMP for the Atlantic Migratory Group of Cobia, which would allow for complementary management. In September 2017, public hearings on the draft Interstate FMP were held throughout the South Atlantic states.

In October 2017, the ASFMC's South Atlantic Board approved the final Interstate FMP for implementation in April 2018. The Interstate FMP is available at: TBD.

1.5 Which species and areas would be affected by the action?

Though king mackerel, Spanish mackerel, and cobia are included in the CMP FMP, cobia is the only species addressed in this amendment. Cobia is managed as two migratory groups (Atlantic and Gulf of Mexico). The action in this amendment addresses management of Atlantic migratory group cobia (Atlantic cobia) only.

The stock boundary between the Atlantic and Gulf of Mexico (Gulf) migratory groups of cobia extends due east of the Georgia/Florida border. The northern stock boundary of Atlantic cobia is at the jurisdictional boundary between the Mid-Atlantic and New England Fishery Management Councils (**Figure 1.5.1**). The southern boundary is based on the approach used in the most recent stock assessment (SEDAR 28, 2013), which incorporated new information about the Gulf and Atlantic stocks through genetic data and tagging studies. Cobia caught off the east coast of Florida are considered Gulf migratory group cobia (Gulf cobia) and are counted towards the Florida East coast zone's allocation of the Gulf ACL. However, the South Atlantic Council manages harvest of cobia off the east coast of Florida since it is in the South Atlantic's jurisdiction. Cobia caught in state and federal waters count towards that area or zone's ACL.

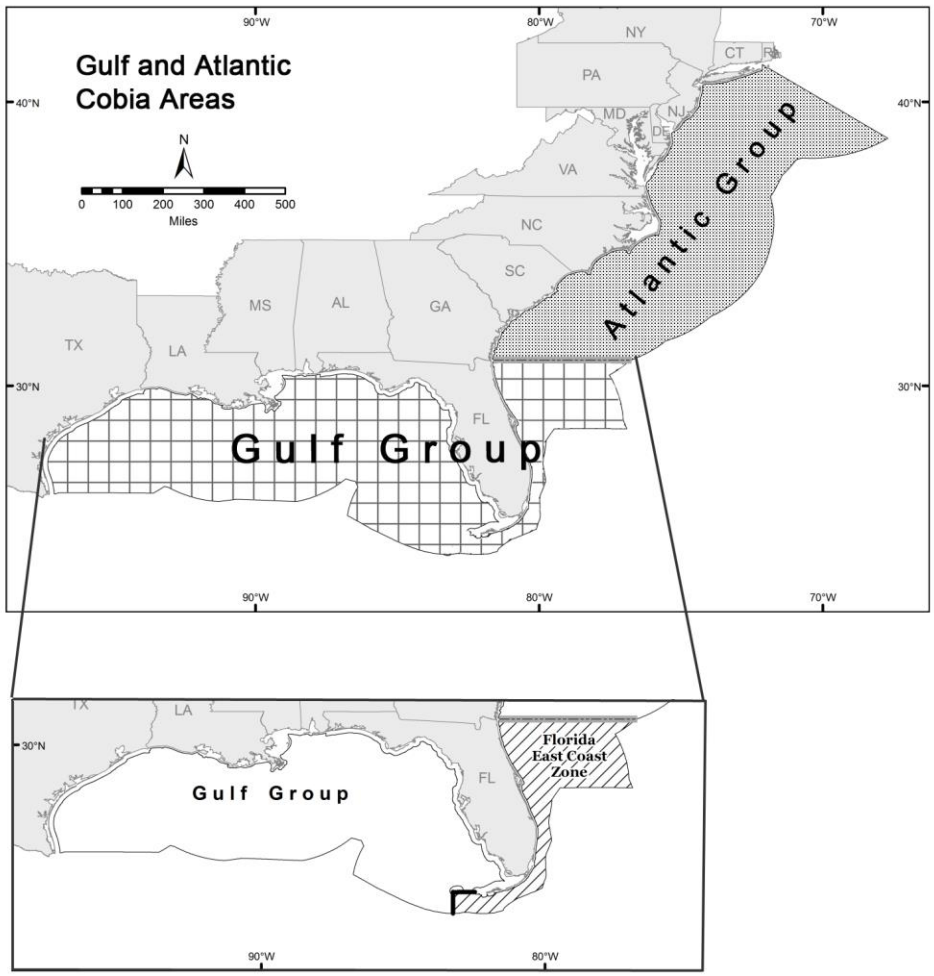

Figure 1.5.1. Boundary between Atlantic and Gulf cobia.

Chapter 2. Proposed Action and Alternatives

Action: Revise the management system for Atlantic cobia

Alternative 1 (No Action): Retain Atlantic cobia in the Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic regions (CMP FMP).

Alternative 2: Remove Atlantic cobia from the CMP FMP. The Atlantic States Marine Fisheries Commission (ASMFC) would manage cobia through the interstate management plan.

Alternative 3: Do not remove Atlantic cobia from the CMP FMP. Establish process for complementary management of Atlantic cobia with the ASMFC.

- NMFS would continue to apply the mandated annual catch limit (ACL) for Atlantic cobia and implement accountability measures, as necessary. The South Atlantic Council would establish the ACLs and AMs through the CMP FMP.

- ASMFC would establish management measures for cobia harvest in state waters. Harvest would be subject to the Atlantic cobia ACL.

- South Atlantic Council would update the CMP FMP to provide consistent regulations for cobia harvest in federal waters through the amendment process, with Gulf Council approval of actions not suitable for a framework amendment.

Alternative 4: Do not remove Atlantic cobia from the CMP FMP. Establish process for complementary management of Atlantic cobia with the ASMFC.

- South Atlantic Council would establish a process in which NMFS would update the federal regulations to be consistent with the ASMFC plan, without action by the Council(s).

Alternative 5. Remove Atlantic cobia from the CMP FMP after the stock assessment is complete.

Discussion:

This **Action** includes alternatives to revise the management system for Atlantic cobia. The Council is considering this change to facilitate coordination between state and federal management in order to prevent overharvest of Atlantic cobia and ensure equitable distribution of access.

Alternative 1 (No Action) would not change the current management structure for Atlantic cobia. **Alternative 2** would remove Atlantic cobia from the CMP FMP. ASMFC would have the

option of extending state management measures into federal waters. **Alternative 3** updates the CMP FMP to acknowledge ASMFC's role and how the Council would go about considering changes made in state waters for implementation in federal waters (i.e. case by case). **Alternative 4** sets up a procedure in which ASMFC can propose rules directly to NMFS, without formal action from the Council. Rules would still need to meet Magnuson-Stevens Act standards and FMP objectives. The Council will be informed of ASMFC rules and provide comment on whether the rules meet appropriate federal and FMP standards. The Council can still adjust Cobia management through the normal amendment process. **Alternative 5** would remove Atlantic cobia from the CMP FMP after the benchmark stock assessment scheduled to begin in early 2019.

Removal of Atlantic cobia from the CMP FMP under **Alternatives 2 and 5** would require consideration of NFMS guidelines from including a species in a fishery management unit (50 CFR §600.340(b)(2)) including:

1. the importance of the fishery to the Nation and the regional economy;
2. whether an FMP can improve the condition of the stock;
3. the extent to which the fishery could be or already is adequately managed by states;
4. whether an FMP can further the resolution of competing interests and conflicts;
5. whether an FMP can produce more efficient utilization of the fishery;
6. whether an FMP can foster orderly growth of a developing fishery; and
7. costs of the FMP balanced against benefits.

Removal would also result in Essential Fish Habitat (EFH) for cobia no longer being identified and described pursuant to 50 CFR §600.15(a)

Under **Alternative 2 and 5**, scientific support would still be available to ASMFC through NMFS. Section 5103(a) of the Atlantic Coastal Fisheries Cooperative Management Act of 1993 (Atlantic Coastal Act) states that the federal government will provide support for state coastal fisheries programs in the form of "collection, management, and analysis of fishery data; law enforcement; habitat conservation; fishery research, including biological and socioeconomic research; and fishery management planning." Additionally, Section 5103(b) states in the absence of a federal FMP, the Secretary may extend state regulations into federal waters.

Currently, Gulf cobia is managed by the Gulf of Mexico Fishery Management Council. This action addresses management for Atlantic cobia only. Management of Gulf cobia will not be affected. Should the upcoming Stock ID workshop for Cobia (results anticipated late 2019) indicate a shift in the boundary between Atlantic and Gulf cobia, the state of Florida may experience some complexity wherein part of the state's coast would be subject to ASMFC management and the other part of the coast to the Gulf Council's management. Should the stock boundary shift, any Gulf Council amendments and ASFMC FMP addendums that address the shift should ideally be implemented in a coordinated fashion.

Proposed language for a protocol and procedure in the CMP FMP for an enhanced cooperative management system with the ASMFC (**Alternative 4**):

Note: The two separate policies work together to form the guidelines for the overall policy agreement.

Protocol (based on the proposed protocol for federal and State of Florida roles in the management of Spiny Lobster):

1. The South Atlantic Fishery Management Councils (Council) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service acknowledge that cobia harvest occurs primarily in state waters, and extends into the exclusive economic zone (EEZ), in terms of current participants in the directed fishery, fishing, and historical management of the species. As such, cobia management requires cooperative state/federal efforts for effective management through the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic Region (CMP FMP).
2. The Council and NOAA Fisheries Service acknowledge that the Atlantic States Marine Fisheries Commission (ASFMC) will manage the resource to protect and increase the long-term yields and prevent depletion of cobia stocks and that the Atlantic Coastal Fisheries Cooperative Management Act (1993) and ASFMC Interstate Fishery Management Plan Charter, rule implementation procedures, including final approval of the rules by ASFMC's South Atlantic State/Federal Fisheries Management Board, provide ample and fair opportunity for all persons to participate in the rulemaking procedure.
3. ASFMC acknowledges that rules proposed for implementation under any fishery management plan amendment, regulatory or otherwise, must be consistent with the management objectives of the CMP FMP, the National Standards, the Magnuson-Stevens Act, and other applicable law. Federal rules will be implemented in accordance with the Administrative Procedure Act.
4. The Councils and NOAA Fisheries Service agree that, for any rules falling within the scope of those identified in Paragraph 6 of the Procedure below, pertaining only to Atlantic cobia, ASFMC may propose the rule directly to NOAA Fisheries Service, concurrently informing the Council of the nature of the rule, and that NOAA Fisheries Service will implement the rule within the EEZ provided it is consistent under paragraph three. If either of the Councils informs NOAA Fisheries Service of their concern over the rule's inconsistency with paragraph three, NOAA Fisheries Service may not implement the rule until the Council, ASFMC, and NOAA Fisheries Service resolve the issue.
5. ASMFC will have the responsibility for collecting and developing the information upon which to base the rules, including information provided by NOAA Fisheries Service, and cooperatively share the responsibility for enforcement with federal agencies.
6. ASMFC will provide to NOAA Fisheries Service and the Council written explanations of its decisions related to each of the rules; summaries of public comments; biological, economic and social analysis of the impacts of the proposed rule and alternatives; and such other relevant information.
7. The rules will apply to the EEZ for the management area from the Georgia/Florida border to New York and will only apply to the Atlantic cobia stock, unless the Regional Administrator (RA) determines those rules may adversely impact other state and federal fisheries. In that event, the RA may limit the application of the rule, as necessary, to address the problem.

8. NOAA Fisheries Service and the Council agree that their staffs will prepare the proposed and final rules and the associated National Environmental Policy Act documentation and other documents required to support the rule.

Procedure (based on language being drafted for Spiny Lobster Amendment 13):

1. This procedure will function under and be governed by the protocols for cooperative management agreed upon by the Atlantic States Marine Fisheries Commission (ASMFC) and NMFS.

2. Based on the best available scientific information, ASFMC may develop alternative proposed rules (within the categories identified in Paragraph 6) and socioeconomic analyses on the effects of these alternatives, hold public hearings, and at a final hearing the South Atlantic States/Federal Fisheries Management Board will select each preferred option and approve the final rule(s). After approval of the rule or rules ASFMC will advise the Council and SE Regional Administrator (RA) of NMFS of the recommended rule(s) and proposed implementation date and will provide to the RA and to the Council the analyses of the effects and impacts of the recommended and alternative rules and summaries of public comment. For rules to be implemented by the start of the fishing season (currently January 1, ASFMC must complete these actions on or before July 1. The Council will submit the rule and supporting analyses to the Scientific and Statistical Committees (SSCs) who will advise the RA, through the Council, of the scientific validity of the analyses. The Council will also submit the rule and supporting analyses to the advisory panels for comment.

3. The RA will review the recommended rule, analyses, and public record, and if the RA preliminarily determines that the rule is consistent with the objectives of the CMP FMP, the National Standards, and other applicable law, the RA will notify the Council and ASFMC of his intent to implement the rule in the EEZ. If in the judgment of the RA, the rule or its supporting record are not consistent with these statutory criteria or the CMP FMP objectives, the RA will immediately notify the Council and ASMFC of the deficiencies in the rule or supporting record. ASMFC may submit additional information or analyses to correct the deficiencies in the record.

4. When in the judgment of the Council the rule is not consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) or the objectives of the FMP, the Council will inform the RA and ASFMC. In this case the RA will not proceed with implementation of the rule until this issue has been resolved.

5. When the RA has preliminarily concluded the rule is acceptable, the RA will draft and publish the proposed rule for implementation. Based on ASFMC analyses of impacts, the Council staff, with assistance from ASFMC staff, will prepare the supporting documentation (environmental assessment, regulatory impact review, etc.) that accompany the proposed rule. A reasonable period for public comment on the proposed rule shall be provided.

After reviewing public comment if the RA has concluded the rule is not consistent with the CMP FMP objectives, the national standards, other applicable law, or the provisions of this procedure, the RA will notify the Council and ASFMC of that fact and/or the need for proceeding with implementation by CMP FMP amendment. If the supporting record is still deficient, the RA will delay taking action until the record has been supplemented by ASFMC and/or Council staff. If the RA has concluded the rule is consistent, the RA will publish the final rule. The effective date of rules promulgated under this procedure will be the starting date of the next fishing season following publication of the final rule, unless otherwise agreed upon by ASMFC, the Council, and the RA.

6. PART A (GEAR RESTRICTIONS) Appropriate rules or regulatory changes that can be implemented under this part include:
    a) Specification of gear and vessel identification requirements.
    b) Specification of gear that may be utilized or prohibited in directed fishery and specification of bycatch levels that may be taken as incidental catch in non-directed fisheries.

    PART B (HARVEST RESTRICTIONS) Appropriate rules or regulatory changes that can be implemented under this part include:
    a) Recreational bag and possession limits.
    b) Commercial trip limits.
    c) Changes in fishing seasons.
    d) Changes in minimum legal size.
    e) Changes to permit requirements.

Chapter 3. Affected Environment

This section describes the affected environment in the proposed project area. The affected environment is divided into five major components:

- **Habitat environment** (Section 3.1)
- **Biological environment** (Section 3.2)
- **Economic environment** (Section 3.3)
- **Social environment** (Section 3.4)
- **Administrative environment** (Section 3.5)

3.1 Habitat Environment

The South Atlantic Fishery Management Council (South Atlantic Council) has management jurisdiction of the federal waters (3-200 nautical miles) offshore of North Carolina, South Carolina, Georgia, and Florida. Under the Fishery Management Plan for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (CMP FMP), the South Atlantic Council manages Atlantic migratory group cobia (Atlantic cobia) through the Mid-Atlantic region.

South Atlantic Region

The continental shelf off the southeastern U.S., extending from the Dry Tortugas, Florida, to Cape Hatteras, North Carolina, encompasses an area in excess of 100,000 square km (Menzel 1993). Based on physical oceanography and geomorphology, this environment can be divided into two regions: Dry Tortugas, Florida, to Cape Canaveral, Florida, and Cape Canaveral, Florida, to Cape Hatteras, North Carolina. The continental shelf from the Dry Tortugas, Florida, to Miami, Florida, is approximately 25 km wide and narrows to approximately 5 km off Palm Beach, Florida. The shelf then broadens to approximately 120 km off Georgia and South Carolina before narrowing to 30 km off Cape Hatteras, North Carolina. The Florida Current/Gulf Stream flows along the shelf edge throughout the region. In the southern region, this boundary current dominates the physics of the entire shelf (Lee et al. 1994).

In the northern region, additional physical processes are important, and the shelf environment can be subdivided into three oceanographic zones (Atkinson et al. 1985; Menzel 1993), the outer shelf, mid-shelf, and inner shelf. The outer shelf (40-75 meters (m)) is influenced primarily by the Gulf Stream and secondarily by winds and tides. On the mid-shelf (20-40 m), the water

column is almost equally affected by the Gulf Stream, winds, and tides. Inner shelf waters (0-20 m) are influenced by freshwater runoff, winds, tides, and bottom friction. Water masses present from the Dry Tortugas, Florida, to Cape Canaveral, Florida, include Florida Current water, waters originating in Florida Bay, and shelf water.

Spatial and temporal variation in the position of the western boundary current has dramatic effects on water column habitats. Variation in the path of the Florida Current near the Dry Tortugas induces formation of the Tortugas Gyre (Lee et al. 1992, 1994). This cyclonic eddy has horizontal dimensions of approximately 100 km and may persist near the Florida Keys for several months. The Pourtales Gyre, which has been found to the east, is formed when the Tortugas Gyres moves eastward along the shelf. Upwelling occurs in the center of these gyres, thereby adding nutrients to the near surface (<100 m) water column. Wind and input of Florida Bay water also influence the water column structure on the shelf off the Florida Keys (Smith 1994; Wang et al. 1994). Further, downstream, the Gulf Stream encounters the "Charleston Bump", a topographic rise on the upper Blake Ridge where the current is often deflected offshore resulting in the formation of a cold, quasi-permanent cyclonic gyre and associated upwelling (Brooks and Bane 1978). The North Carolina coast consists of a series of cuspate bays or coastal compartments, each with different spatial orientations and a geologic character reflecting the adjacent continental shelf (McNinch and Luettich 2000). Offshore projecting shoals at Cape Fear, Cape Lookout, and Cape Hatteras, North Carolina, are prominent features that extend to the continental shelf break. They are an accretional feature formed by processes of longshore drift and prevailing wind and wave conditions. The cape-associated shoal complexes demarcate where the Labrador Current flowing south collides with the Gulf Stream flowing north. Further, the shoals affect longshore coastal currents that interact with Gulf Stream intrusions to produce local upwelling (Blanton et al. 1981; Janowitz and Pietrafesa 1982). Shoreward of the Gulf Stream, seasonal horizontal temperature and salinity gradients define the mid-shelf and inner-shelf fronts. Upwelling in frontal eddies and summer bottom intrusions driven by the Gulf Stream contribute to a high level of productivity by providing nutrient rich waters and a succession of biological responses (Lee et al. 1991). In coastal waters, river discharge and estuarine tidal plumes contribute to the water column structure.

The water column from Dry Tortugas, Florida, to Cape Hatteras, North Carolina, serves as habitat for many species of fish, invertebrates, turtles, and marine mammals. Most marine fish and shellfish release pelagic eggs when spawning and thus, most species utilize the water column during some portion of their early life history (Leis 1991; Yeung and McGowan 1991). Many fish inhabit the water column as adults. Pelagic fishes include numerous clupeoids, flying fish, jacks, cobia, bluefish, dolphin, barracuda, and the mackerels, tunas, and sharks (Schwartz 1989). Some pelagic species are associated with particular benthic habitats, while other species are truly pelagic.

Mid-Atlantic Region

Information about the physical environment of the Mid-Atlantic region was provided by the Mid-Atlantic Fishery Management Council and adapted from the 2016 Mackerel, Squid, and Butterfish Specifications Environmental Assessment, available at: http://www.greateratlantic.fisheries.noaa.gov/regs/2016/January/16msb2016specspr.html.

Climate, physiographic, and hydrographic differences separate the Atlantic Ocean from Maine to Florida into the New England-Middle Atlantic Area and the South Atlantic Area (division/mixing at Cape Hatteras, North Carolina). The inshore New England-Middle Atlantic area is fairly uniform physically and is influenced by many large coastal rivers and estuarine areas. The continental shelf (characterized by water less than 650 ft. in depth) extends seaward approximately 120 miles off Cape Cod, narrows gradually to 70 miles off New Jersey, and is 20 miles wide at Cape Hatteras. Surface circulation is generally southwesterly on the continental shelf during all seasons of the year, although this may be interrupted by coastal indrafting and some reversal of flow at the northern and southern extremities of the area. Water temperatures range from less than 33^{o}F from the New York Bight north in the winter to over 80^{o}F off Cape Hatteras in summer.

Within the New England-Middle Atlantic Area, the Northeast U.S. Continental Shelf Large Marine Ecosystem includes the area from the Gulf of Maine to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream. The Northeast U.S. Continental Shelf Large Marine Ecosystem is a dynamic, highly productive, and intensively studied system providing a broad spectrum of ecosystem goods and services. This region, encompassing the continental shelf area between Cape Hatteras and the Gulf of Maine, spans approximately 250,000 km^2 and supports some of the highest revenue fisheries in the U.S. The system historically underwent profound changes due to very heavy exploitation by distant-water and domestic fishing fleets. Further, the region is experiencing changes in climate and physical forcing that have contributed to large-scale alteration in ecosystem structure and function. Projections indicate continued future climate change related to both short and medium terms cyclic trends as well as non-cyclic climate change.

A number of distinct subsystems comprise the region. The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with 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 fast-moving currents. The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, North Carolina. Detailed information on the affected physical and biological environments inhabited by the managed resources is available in Stevenson et al. (2006).

Essential Fish Habitat for Coastal Migratory Pelagics

The Magnuson-Stevens Act requires federal fishery management councils and the NMFS to designate EFH for species managed under FMPs. Federal regulations that implement the EFH program encourage fishery management councils and NMFS also to designate subsets of EFH as a way to highlight priority areas within EFH for conservation and management. These subsets of EFH are called EFH-Habitat Areas of Particular Concern (EFH-HAPCs or HAPCs) and are designated based on ecological importance, susceptibility to human-induced environmental degradation, susceptibility to stress from development, or rarity of the habitat type.

A description of the EFH for CMP species is provided in Amendment 18 to the CMP FMP (GMFMC and SAFMC 2011), and is incorporated herein by reference. EFH for CMPs include coastal estuaries from the US/Mexico border to the boundary between the areas covered by the Gulf of Mexico Fishery Management Council and the South Atlantic Fishery Management

Council from estuarine waters out to depths of 100 fathoms (GMFMC 2004). In the South Atlantic, EFH for coastal migratory pelagic species includes sandy shoals of capes and offshore bars, high profile rocky bottom and barrier island ocean-side waters, from the surf to the shelf break zone, but from the Gulf Stream shoreward, including *Sargassum*. In addition, all coastal inlets, all state-designated nursery habitats of particular importance to coastal migratory pelagics (for example, in North Carolina this would include all primary nursery areas and all secondary nursery areas).

For cobia, EFH also includes high salinity bays, estuaries, and seagrass habitat. In addition, the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse coastal migratory species with pelagic larvae. For king and Spanish mackerel and cobia, essential fish habitat occurs in the South Atlantic and Mid-Atlantic Bights.

HAPCs for Coastal Migratory Pelagics (CMP)

A description of the HAPCs for CMP species is provided in Amendment 18 to the CMP FMP (GMFMC/ SAFMC 2011), and is incorporated herein by reference. Areas which meet the criteria for HAPCs include sandy shoals of Capes Lookout, Cape Fear, and Cape Hatteras from shore to the ends of the respective shoals, but shoreward of the Gulf stream; The Point, The Ten- Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump and Hurl Rocks (South Carolina); The Point off Jupiter Inlet (Florida); *Phragmatopoma* (worm reefs) reefs off the central east coast of Florida; nearshore hard bottom south of Cape Canaveral; The Hump off Islamorada (Florida); The Marathon Hump off Marathon (Florida); The "Wall" off of the Florida Keys; Pelagic *Sargassum*; and Atlantic coast estuaries with high numbers of cobia based on abundance data from the Estuarine Living Marine Resources Program. Estuaries meeting this criteria for cobia include Broad River (South Carolina).

EFH Consultation

The consultation requirements of §305(b) of the Magnuson-Stevens Act (Magnuson-Stevens Act;16 U.S.C. 1855(b)) provide that:

- Federal agencies must consult with the Secretary on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;
- The Secretary shall provide recommendations (which may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH) to conserve EFH to federal or state agencies for activities that would adversely affect EFH;
- The federal action agency must provide a detailed response in writing to the National Marine Fisheries Service (NOAA Fisheries Service) and to any Council commenting under §305(b)(3) of the Magnuson-Stevens Act within 30 days after receiving an EFH Conservation Recommendation.

An EFH consultation is the process of satisfying the federal agency consultation and response requirements of section 305(b)(2) and 305(b)(4)(B) of the Magnuson-Stevens Act, and the EFH Conservation Recommendation requirement of section 305(b)(4)(A) of that Act. When completed, an EFH consultation generally consists of: 1) notification to NOAA Fisheries Service of a federal action that may adversely affect EFH, 2) an EFH assessment provided to NOAA Fisheries Service, 3) EFH Conservation Recommendations provided by NOAA Fisheries Service to the federal action agency, and 4) the federal agency's response to NOAA Fisheries Service's

EFH Conservation Recommendations. EFH guidelines allow the NOAA Fisheries Assistant Administrator to request further review of Federal action agency decisions that are contrary to NOAA Fisheries Service's recommendations (50 CFR 600.920(k)(2)). The federal agency response must be provided within 30 days after receiving an EFH Conservation Recommendation and at least 10 days before final action on the project if the response is inconsistent with any of the conservation recommendations (50 CFR 600.920(k)(1)).

3.2 Biological and Ecological Environment

3.2.1 Fish Populations Affected by this Amendment

The action in this amendment only applies to the cobia component of the coastal migratory pelagics fishery.

3.2.1.1

Cobia is a member of the family Rachycentridae but is managed in the CMP FMP because of its migratory behavior. Cobia is distributed worldwide in tropical, subtropical and warm-temperate waters. In the western Atlantic it occurs from Nova Scotia, Canada, south to Argentina, including the Caribbean Sea. It is abundant in warm waters off the coast of the U.S. from the Chesapeake Bay south and throughout the Gulf of Mexico. Cobia prefer water temperatures between 68-86°F. Seeking shelter in harbors and around wrecks and reefs, cobia are often found off south Florida and the Florida Keys. As a pelagic fish, cobia are found over the continental shelf as well as around offshore rocky outcrops, coral reefs, and artificial reefs. Cobia prefers to reside near any structure that interrupts the open water such as pilings, buoys, platforms, anchored boats, and flotsam. Cobia are also found inshore inhabiting bays, inlets, and mangroves. Research by Darden et al. (2014) supports the conclusion that offshore stocks of cobia are genetically homogeneous, but finds two genetically distinct inshore aggregations of cobia for South Carolina and Virginia.

Stock Description

Two migratory groups, Gulf of Mexico and Atlantic, are recognized for cobia. Cobia from federal waters off the east coast of Florida are part of the Gulf of Mexico migratory group. Cobia from the Florida/Georgia border north to New York are considered the Atlantic migratory group. Genetics research has demonstrated a distinct population segment for the Gulf of Mexico extending around the Florida peninsula into southeast Florida (Darden 2012). Recent research supports the conclusion that offshore populations of cobia within the Atlantic migratory group are genetically homogenous, but finds two genetically distinct aggregations of cobia for South Carolina and Virginia (Darden et al. 2014). These aggregations are known to utilize inshore estuarine habitats. Tag-recapture data from several long-term studies suggest that a high number of tagged fish demonstrate little movement or exchange between stocks in the Atlantic and Gulf of Mexico (Perkinson and Denson 2012).

3.2.1.2 Cobia Reproduction

Cobia form large aggregations, spawning during daylight hours between June and August in the Atlantic Ocean near the Chesapeake Bay, off North Carolina in May and June, and in the Gulf during April through September. Spawning frequency is once every 9-12 days, spawning

15-20 times during the season. During spawning, cobia undergo changes in body coloration from brown to a light horizontal-striped pattern, releasing eggs and sperm into offshore open water. Cobia have also been observed spawning in estuaries and shallow bays with the young heading offshore soon after hatching. Inshore spawning of cobia has been documented in Port Royal Sound and St. Helena Sound, South Carolina, based on the presence of eggs, newly hatched larvae and reproductively mature females (Lefebvre and Denson, 2012). Cobia eggs are spherical, averaging 1.24 mm in diameter. Larvae are released approximately 24-36 hours after fertilization.

3.2.1.3 Cobia Development Growth and Movement Patterns

Newly hatched larvae are 2.5 mm (1 inch) long and lack pigmentation. Five days after hatching, the mouth and eyes develop, allowing for active feeding. A pale yellow streak is visible, extending the length of the body. By day 30, the juvenile takes on the appearance of the adult cobia with two color bands running from the head to the posterior end of the juvenile.

Weighing up to a record 61 kg (135 pounds whole weight [lbs ww]), cobia are more common at weights of up to 23 kg (50 lbs ww). They reach lengths of 50-120 cm (20-47 inches), with a maximum of 200 cm (79 inches). Cobia grow quickly and have a moderately long life span. Maximum ages observed for cobia in the Gulf were 9 and 11 years for males and females, respectively, while off the North Carolina coast maximum ages were 14 and 13 years, respectively. Females reach sexual maturity at 3 years of age and males at 2 years in the Chesapeake Bay region. During autumn and winter months, cobia migrate south and offshore to warmer waters. In early spring, migration occurs northward along the Atlantic coast.

3.2.2 Description of the Cobia Portion of the Coastal Migratory Pelagics Fishery

Currently, no commercial vessel permit is required for harvest or sale of cobia. Cobia is considered a limited harvest species, and the possession limit for recreational or commercial harvest is 2 fish per person per day.

Two migratory groups, Gulf of Mexico and Atlantic, are recognized for cobia. Cobia from federal waters off the east coast of Florida are part of the Gulf of Mexico migratory group. Cobia from the Florida/Georgia border north to New York are considered the Atlantic migratory group. In 2016, the Atlantic cobia annual catch limit (ACL) was 50,000 lbs ww for the commercial sector and 620,000 lbs ww for the recreational sector.

Over the last 5 years (2011-2015), annual landings have averaged approximately 50,516 lbs ww (**Table 3.2.2.1**). Recreational landings from federal waters off Virginia and North Carolina have been increasing in recent years, and in 2015, landings off Virginia and North Carolina accounted for the highest landings in the region (**Table 3.2.2.1**). Landings in New York are relatively minor. According to landings data, the majority of these landings originate from state waters (e.g., pound net landings or landings originating within Chesapeake Bay).

Table 3.2.2.1. Annual commercial and recreational landings (lbs ww*) of cobia in the state and Federal waters of the Atlantic (New York-Georgia).

Year	Commercial Landings	Recreational Landings
2005	29,290	915,300
2006	31,990	980,071
2007	32,037	745,776
2008	33,739	537,767
2009	42,385	760,841
2010	56,393	938,527
2011	33,963	347,527
2012	42,176	496,173
2013	53,108	895,925
2014	69,197	544,952
2015	71,790 (lbs landed weight)	1,565,186
2016	87,905	1,341,597

* All years are in whole weight except for 2015 commercial landings, which are landed weight (gutted weight plus whole weight)
Source: Southeast Fisheries Science Center (SEFSC) ACL Landings Dataset, 2016 Commercial Quota Monitoring Program

Table 3.2.2.2. Recreational landings (lbs ww) of cobia from state and Federal waters, Georgia through New York during 2013-2015.

Year	GA	SC	NC	Mid-Atlantic	Total
2012	103,180	222,353	66,645	105,844	498,022
2013	29,304	19,159	492,998	365,848	907,309
2014	20,670	32,010	277,846	221,193	551,719
2015	68,448	125,365	642,906	721,589	1,558,308
2016	223	75,919	331,082	934,374	1,341,598
Average	44,365	94,961	362,295	469,770	971,391

Source: Southeast Fisheries Science Center

3.2.3 Status of Stock

Cobia

Both the Gulf and Atlantic migratory groups of cobia were assessed by SEDAR 28 in 2013. The SEDAR 28 stock assessment for Atlantic migratory group cobia (Atlantic cobia) determined that the stock is not overfished or experiencing overfishing. The Gulf of Mexico Fishery Management Council Scientific and Statistical Committee's (SSC) review of the SEDAR 28 stock assessment of Gulf migratory group cobia (Gulf cobia) determined that the stock was not overfished or experiencing overfishing. A stock assessment is planned for cobia beginning in 2017 and will be completed in 2018.

3.2.4 Bycatch

Cobia is normally an incidentally caught species while fishermen are fishing for other species. **Table 3.2.4.1** lists the top three species caught on trips where at least one pound of cobia was caught in the Gulf of Mexico and South Atlantic and cobia contributed only 7% of harvest on these trips. Red Grouper, red snapper and king mackerel contributed to most of the landings on these trips.

Table 3.2.4.1 Top three species caught on trips where at least one pound of cobia was caught with all gear types in the Gulf of Mexico and South Atlantic from 2010-2014. Cobia were not listed in the top three species by harvest on these trips. Cobia contributed only 7% of harvest on these trips.

Species	% of Harvest (All Gear Types)
Red Grouper	35.4%
Red Snapper	15.9%
King mackerel	9.0%

Source: Southeast Fisheries Science Center Commercial Logbook (April 2016)

The Bycatch Practicability Analysis in **Appendix D** describes bycatch in the CMP fishery in more detail.

3.2.5 Protected Species

Protected species or distinct population segments (DPSs) of sea turtles, fish, coral, and marine mammals can be found within the action area of the CMP fishery. Six species or distinct DPSs of sea turtles listed under the Endangered Species Act (ESA) may be affected by the proposed action: the endangered leatherback, the endangered hawksbill, the endangered Kemp's ridley, the threatened Northwest Atlantic DPS of loggerhead, and the threatened North Atlantic and South Atlantic DPSs of green sea turtles.

Five DPSs of Atlantic sturgeon also occur in the action area and may be affected by the proposed action. The New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs are listed as endangered. The Gulf of Maine DPS is listed as threatened. The U.S. DPS of smalltooth sawfish is listed as endangered and may also occur in the action area and be affected by the proposed action.
Additionally, seven species of coral (elkhorn, staghorn, lobed star, mountainous star, boulder star, pillar, and rough cactus corals) can be found in the action area.

Species of large whales protected by the ESA that occur throughout the Atlantic Ocean include the blue whale, fin whale, North Atlantic right whale, sei whale, and the sperm whale. Additionally, the West Indian manatee also occurs in both the Gulf of Mexico and the Atlantic Ocean. These species are also considered depleted under the Marine Mammal Protection Act (MMPA). Depleted and endangered designations afford special protections from captures, and further measures to restore populations to recovery or the optimum sustainable population are identified through required recovery (ESA species) or conservation plans (MMPA depleted species). Numerous other species of marine mammals listed under the MMPA occur throughout the Atlantic Ocean.

Portions of designated critical habitat for elkhorn and staghorn corals, the Northwest Atlantic loggerhead sea turtle, and the North Atlantic right whale also occur within the proposed action area.

National Marine Fisheries Service (NMFS) completed a biological opinion on June 18, 2015 (2015 Opinion), evaluating the impacts of the continued authorization of the CMP fishery on ESA-listed species. In the biological opinion, NMFS determined that the continued authorization of the CMP fishery, is not likely to adversely affect any ESA-listed whales, Gulf sturgeon, or corals. NMFS also determined that the continued authorization of the CMP fishery is not likely to adversely affect designated critical habitats for elkhorn and staghorn corals or the Northwest Atlantic loggerhead sea turtle, and will have no effect on designated critical habitat for the North Atlantic right whale.

The 2015 Opinion concluded that the CMP fishery's continued authorization is likely to adversely affect but is not likely to jeopardize green, hawksbill, Kemp's ridley, leatherback, or the Northwest Atlantic DPS of loggerhead sea turtles, Atlantic sturgeon, or the smalltooth sawfish.

An incidental take statement for sea turtles, smalltooth sawfish, and Atlantic sturgeon was issued. Reasonable and prudent measures to minimize the impact of these incidental takes were specified, along with terms and conditions to implement them.

On April 6, 2016, NMFS and the U.S. Fish and Wildlife Service published a final rule (81 FR 20057), effective May 6, 2016, listing eleven DPSs of green sea turtle. The final rule, which superseded the previous listing, listed eight DPSs as threatened and three DPSs as endangered. On June 29, 2016, NMFS published a final rule (81 FR42268) to list Nassau grouper as threatened under the ESA, effective July 29, 2016. Because the range of both the North Atlantic and South Atlantic DPSs of green sea turtles and the Nassau grouper occur within the action area of the CMP fishery, NMFS reinitiated consultation on the CMP fishery in March 2017.

NMFS completed an Amendment to the 2015 Opinion on November 13, 2017. The Amended Biological Opinion concluded that the CMP fishery's continued authorization is not likely to adversely affect Nassau grouper and is likely to adversely affect but is not likely to jeopardize the North Atlantic and South Atlantic DPSs of green sea turtle. A revised incidental take statement was issued.

The Gulf and South Atlantic CMP hook-and-line fishery is classified in the 2017 MMPA List of Fisheries as a Category III fishery (81 FR 54019), meaning the annual mortality and serious injury of a marine mammal resulting from the fishery is less than or equal to 1% of the maximum number of animals, not including natural moralities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

The Gulf and South Atlantic CMP gillnet fishery is classified as Category II fishery in the 2017 MMPA List of Fisheries. This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50% annually of the

potential biological removal). The fishery has no documented interaction with marine mammals; NMFS classifies this fishery as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

3.3 Economic Environment

A description of the Atlantic cobia stock is provided in **Section 3.2.**

Economic information pertaining to cobia can be found in Vondruska (2010), as well as Amendment 18 (GMFMC/SAFMC 2011), Amendment 20B (GMFMC/SAFMC 2014), and Amendment 4 (GMFMC/SAFMC 2016) and is incorporated herein by reference. The following section contains updated information on the economic environment of this fishery.

3.3.1. Commercial Sector

There is no federal permit required for the commercial harvest of Atlantic migratory group cobia. However, commercial harvest of cobia in the EEZ may only be sold to dealers with a federal dealer permit. As of October 17, 2017, there were 433 entities with a Gulf and South Atlantic Dealer permit.

Total Landings and Dockside Revenues

Prior to 2015, the South Atlantic Council's management area for Atlantic cobia extended from the east coast of Florida through New York. As implemented through Amendment 20B (GMFMC/SAFMC 2014) and effective in 2015, the current management area for Atlantic cobia extends from Georgia through New York. The tables presented below include cobia landings and revenues from Georgia through New York only to be consistent with the current stock boundaries of the Atlantic cobia migratory group. Also, all states from Virginia to New York are combined as one area and denoted as Mid-Atlantic (Mid-Atl). Landings are reported in whole weight (ww) for years prior to 2015, to align with the manner in which the commercial ACL (quota) was monitored prior to 2015. From 2015 on, the commercial ACL has been specified and monitored in terms of landed weight ("as reported"), which is a combination of gutted and whole weight. This means landings in gutted weight are not converted to whole weight, or vice-versa, but landings in whole or gutted weight are simply added together to track landings against the ACL. Landings prior to 2015 cannot be directly converted to landed weight.

From 2012 through 2016, total annual commercial landings of Atlantic cobia increased steadily (**Table 3.3.1.1**). This increase was driven by landings in North Carolina and the Mid-Atlantic states. Georgia through South Carolina landings remained low and stable. The average annual dockside price for 2012 through 2016 was $2.34 per lb (2016 $).[2] North Carolina has consistently been the top producer of cobia, followed by the Mid-Atlantic states and Georgia/South Carolina (**Table 3.3.1.1**). Virginia (not shown in the table) accounted for most of the Mid-Atlantic landings. One notable feature for the Mid-Atlantic area is the very high rate of growth in cobia landings from 2012 through 2016, which resulted in an increase of almost 450% overall.

[2]This average price calculation treats lbs ww and lbs lw as equivalent.

Table 3.3.1.1. Commercial Atlantic cobia landings (lbs ww for 2012-2014; lbs lw for 2015-2016) and revenues (2016 $) by state/area.

	GA/SC*	NC	Mid-Atl	Total
	Landings (lbs ww for 2012-2014; lbs lw for 2015-2016)			
2012	3,887	32,008	6,448	42,343
2013	4,477	35,496	13,093	53,066
2014	4,009	41,848	23,111	68,968
2015	2,768	52,729	27,283	82,780
2016	4,270	48,275	35,360	87,905
Average**	3,882	42,071	21,059	67,012
	Dockside Revenue (2016 $)			
2012	$15,174	$65,258	$14,215	$94,647
2013	$15,856	$76,232	$36,489	$128,577
2014	$12,000	$90,043	$63,016	$165,059
2015	$8,894	$114,675	$76,476	$200,045
2016	$15,673	$107,957	$73,823	$197,453
Average	$13,519	$90,833	$52,804	$157,156

Source: SEFSC Commercial ACL Dataset (October 2017)
*Georgia and South Carolina are combined for confidentiality purposes.
**This 5-year average treats ww and lw as equivalent.

Commercial fishermen harvest cobia using various gear types. **Table 3.3.1.2** shows commercial Atlantic cobia landings and revenues by gear type. In **Table 3.3.1.2**, "Hook and Line" includes handline, longline, power-assisted line, and troll line, while "Others" includes traps, other net gear, dredges/gigs/spears, and unclassified gear. The dominant gear type varied from 2012 through 2016, with gillnets generating the highest average annual landings overall (**Table 3.3.1.2**). Although not shown in the table, handline accounted for the biggest share of the hook and line landings (~77%); whereas longline accounted for only a small share (~2%).

Table 3.3.1.2. Commercial Atlantic cobia landings (lbs ww for 2012-2014; lbs lw for 2015-2016) and revenue (2016$) by gear.

	Hook and Line	Gillnets	Others	Total
	Landings (lbs ww for 2012-2014; lbs lw for 2015-2016)			
2012	12,996	21,224	8,123	42,343
2013	23,581	13,205	16,280	53,066
2014	37,158	23,540	8,270	68,968
2015	35,217	36,758	10,805	82,780
2016	14,710	33,736	39,459	87,905
Average*	24,732	25,693	16,587	67,012
	Dockside Revenue (2016 $)			
2012	$29,007	$42,806	$22,834	$94,647
2013	$53,772	$28,552	$46,253	$128,577
2014	$94,506	$51,392	$19,161	$165,059
2015	$92,726	$80,360	$26,959	$200,045
2016	$38,420	$75,755	$83,278	$197,453
Average	$61,686	$55,773	$39,697	$157,156

Source: SEFSC Commercial ACL Dataset (October 2017)
*This 5-year average treats ww and lw as equivalent.
Note: "Hook and Line" includes handline, longline, power assisted line, and troll line; "Others" include traps, dredges/gigs/spears, other net gear, and unclassified gear.

On average, June is the peak month for cobia landings and dockside revenue (**Figure 3.3.1.1**). January through April are the lowest months for landings and revenue. There are, however, some notable variations from the general average. Two peak landings occurred in 2012 (June and October) and in 2014 (May and August) (**Figure 3.3.1.2**). Also, in 2015 and 2016, peak landings occurred during the months of November and December, respectively (**Figure 3.3.1.2**). This may suggest an increasing interest in fishing for cobia later in the year. Seasonal variations in prices tended to cause peak revenue months to diverge slightly from peak landings months (**Figure 3.3.1.2** and **Figure 3.3.1.3**).

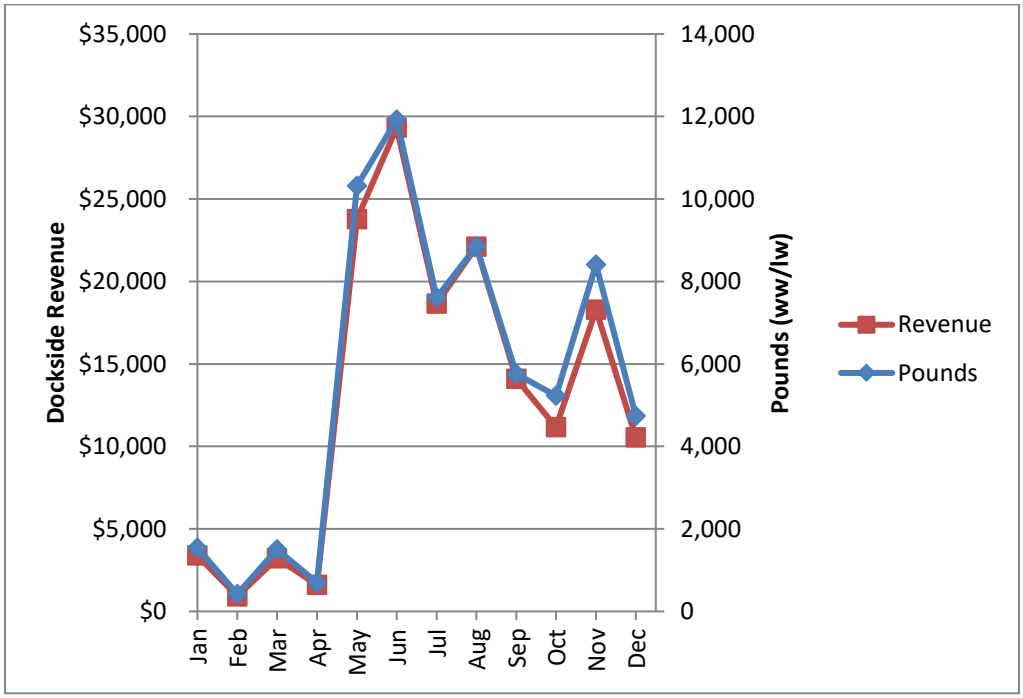

Figure 3.3.1.1. Average (2012-2016)* monthly Atlantic cobia landings (lbs ww/lw) and revenue (2016 $).
Source: SEFSC Commercial ACL Dataset (October 2017)
*Landings in ww and lw are treated as equivalent.

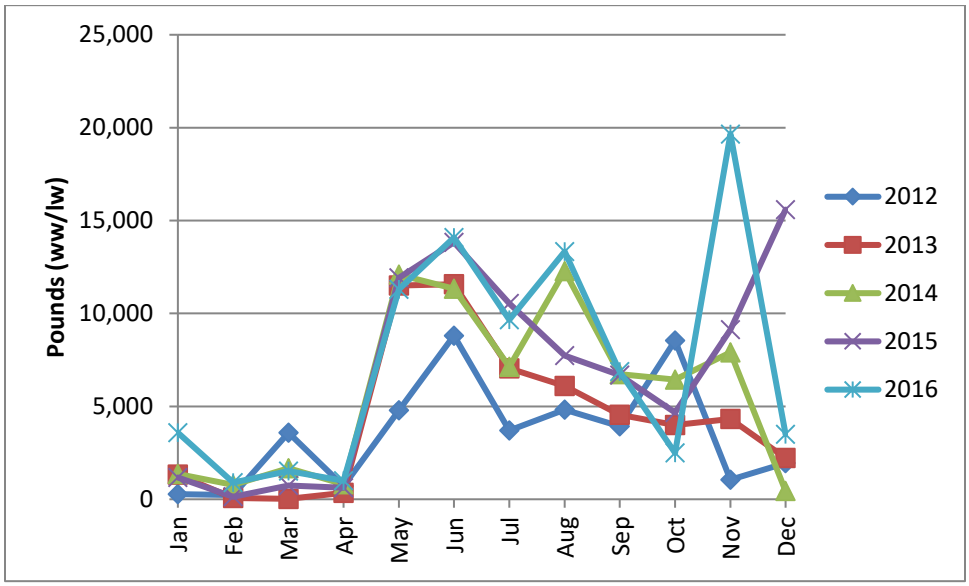

Figure 3.3.1.2. Monthly Atlantic cobia landings (lbs ww for 2012-2014; lbs lw for 2015-2016).
Source: SEFSC Commercial ACL Dataset (October 2017)

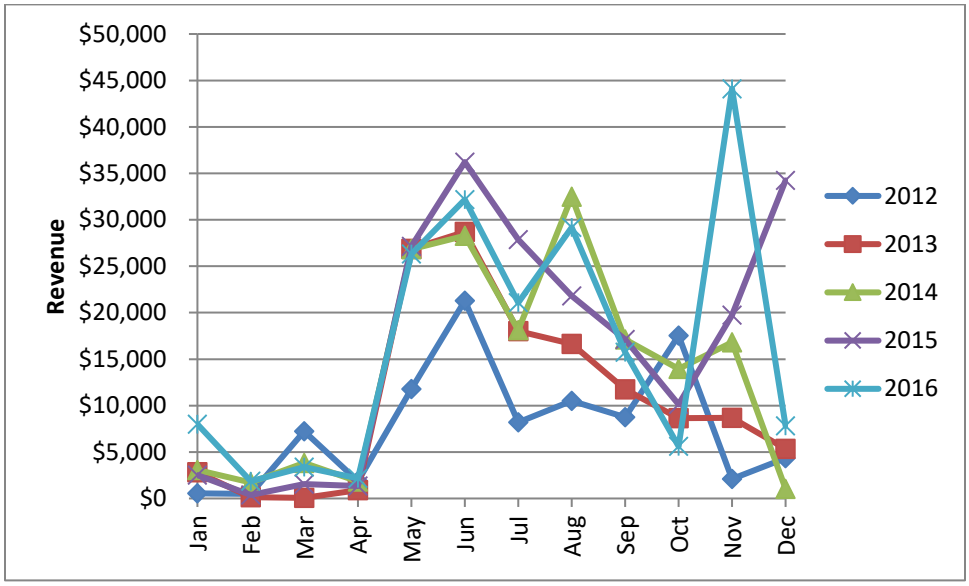

Figure 3.3.1.3. Monthly Atlantic cobia revenue (2016 $), 2012–2016.
Source: SEFSC Commercial ACL Dataset (October 2017)

Vessels, Trips, Landings, and Dockside Revenues

The following summaries of landings, value, and effort (**Tables 3.3.1.3** and **3.3.1.4**) are based on logbook information and the NMFS Accumulated Landings System (ALS) for prices and so would not exactly match with the landings and revenues presented above. In addition, the landings are presented in gutted weight rather than in total or landed weight. Landings for all species in the Southeast Fisheries Science Center Social Science Research Group's (SEFSC-SSRG) Socioeconomic Panel data are expressed in gutted weight to provide one unit for all species. This is because data summarizations, as presented in **Table 3.3.1.3** and **Table 3.3.1.4** below, generally involve a multitude of species. It is also important to note that federally-permitted vessels that are required to submit logbooks generally report their harvest of most species regardless of whether the fish were caught in state or federal waters.

The number of South Atlantic vessels that harvested Atlantic cobia increased from 2012 through 2014 and then dropped in 2015 through 2016. On average (2012 through 2016), these vessels landed cobia on approximately 12% of their South Atlantic trips (excluding Florida) and cobia accounted for less than 1% of their annual all species revenue (**Table 3.3.1.3** and **Table 3.3.1.4**).[3] Total landings and dockside revenue estimates for vessels that harvested Atlantic cobia (presented here) are only for Georgia through North Carolina trips and thus may be considered underestimates.

[3]Florida is excluded to be consistent with the current stock boundaries for Atlantic cobia.

Table 3.3.1.3. Number of South Atlantic vessels, trips, and landings (lbs gw) by year for Atlantic cobia.

Year	# of vessels that caught cobia (> 0 lbs gw)	# of trips that caught cobia	cobia landings (lbs gw)	Other species' landings jointly caught w/ cobia (lbs gw)	# of South Atlantic trips that only caught other species	Other species' landings on South Atlantic trips w/o cobia (lbs gw)
2012	92	331	13,026	307,054	2,319	2,121,282
2013	103	335	14,079	311,009	2,422	2,263,747
2014	110	385	15,467	340,977	2,759	2,440,923
2015	97	295	14,595	262,883	2,100	1,812,060
2016	97	340	18,451	312,181	2,602	2,203,170
Average	100	337	15,124	306,821	2,440	2,168,236

Source: SEFSC-SSRG Socioeconomic Panel v.4 July 2017

Table 3.3.1.4. Number of South Atlantic vessels and ex-vessel revenues by year (2016 dollars) for Atlantic cobia.

Year	# of vessels that caught cobia (> 0 lbs gw)	Dockside revenue from cobia	Dockside revenue from 'other species' jointly caught w/ cobia	Dockside revenue from 'other species' caught on South Atlantic trips w/o cobia	Total dockside revenue	Average total dockside revenue per vessel
2012	92	$30,864	$745,073	$5,130,172	$5,906,109	$64,197
2013	103	$35,900	$921,208	$5,938,209	$6,895,317	$66,945
2014	110	$37,726	$862,564	$5,622,852	$6,523,142	$59,301
2015	97	$36,907	$727,385	$4,330,259	$5,094,551	$52,521
2016	97	$45,262	$709,832	$5,420,732	$6,175,826	$63,668
Average	100	$37,332	$793,212	$5,288,445	$6,118,989	$61,326

Source: SEFSC-SSRG Socioeconomic Panel v.4 July 2017

Tabulation of vessel/trip level information for Mid-Atlantic vessels similar to that in **Table 3.3.1.3** or **Table 3.3.1.4** is not available. However, an approximation of similar information for the Mid-Atlantic vessels is presented in **Table 3.3.1.5** that focuses exclusively on cobia landings and revenues. Total cobia landings and revenue are the same as those presented in **Table 3.3.1.1** and vessel/trip information is based on the dealer weigh-out database (Larkin, pers. comm. 2016). The numbers of commercial vessels and trips that harvested cobia from 2012 through 2016 in the Mid-Atlantic were more or less stable, with the exception of a spike in cobia trips in

2015 (**Table 3.3.1.5**). During this time period, average vessel-level revenue from cobia was highest during 2014 through 2015; however, it was quite low in general.

Table 3.3.1.5. Mid-Atlantic vessels, trips, cobia landings by weight, and dockside revenue (2016 $), 2012–2016.

Year	Number of vessels that landed cobia	Number of trips that landed cobia	Cobia landings (lbs ww for 2012-2014; lbs lw for 2015-2016)	Dockside revenue from cobia (2016 $)	Revenue per vessel from cobia (2016 $)
2012	22	131	6,448	$14,215	$646
2013	32	134	13,093	$36,489	$1,140
2014	21	153	23,111	$63,016	$3,001
2015	25	383	27,283	$76,476	$3,059
2016	38	152	35,360	$73,823	$1,943
Average	28	191	21,059	$52,804	$1,958

Source: **Table 3.3.1.1** for cobia landings and revenue; dealer weigh-out database for the number of vessels and trips.

Imports

Imports of seafood products compete in the domestic seafood market and have in fact dominated many segments of the seafood market. Imports affect the price for domestic seafood products and tend to set the price in the market segments in which they dominate. Seafood imports have downstream effects on the local fish market. At the harvest level for coastal migratory pelagic (CMP) species, including cobia, imports affect the returns to fishermen through the ex-vessel prices they receive for their landings. As substitutes to domestic production of CMP species, imports tend to cushion the adverse economic effects on consumers resulting from a reduction in domestic landings. The following describes the imports of fish products that directly compete with domestic harvest of cobia.

Imports[4] of fresh cobia ranged from 0.9 million lbs product weight (pw) to 1.7 million lbs pw during 2012 through 2016, with a peak in 2014. Annual revenue from these imports ranged from $2.6 million to $7.5 million (2016 dollars[5]). Imports of fresh cobia primarily originated in Panama, and entered the U.S. through the port of Miami.

Imports of frozen cobia were sparse, with average annual imports of approximately 52,000 lbs pw from 2012 through 2016, worth approximately $124,000 (2016 dollars). Imports of frozen snapper primarily originated in Panama and entered the U.S. through the ports of Savannah, Los Angeles, and Miami.

[4]NOAA Fisheries Service purchases fisheries trade data from the Foreign Trade Division of the U.S. Census Bureau. Data are available for download at http://www.st.nmfs.noaa.gov/st1/trade/index.html.
[5]Converted to 2016 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Commercial Sector Business Activity

The commercial harvest and subsequent sales and consumption of fish generates business activity as fishermen expend funds to harvest the fish and consumers spend money on goods and services, such as cobia purchased at a local fish market and served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods, such as other finfish or seafood products, and services, such as visits to different food service establishments. As a result, the analysis presented below represents a distributional analysis only; that is, it only shows how economic effects may be distributed through regional markets and should not be interpreted to represent the impacts if these species are not available for harvest or purchase.

Estimates of the U.S. average annual business activity associated with the commercial harvest of cobia were derived using the model developed for and applied in NMFS (2017) and are provided in **Table 3.3.1.6.**[6] This business activity is characterized as jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts, which represent the contribution made to the U.S. Gross Domestic Product (GDP). These impacts should not be added together because this would result in double counting. It should be noted that the results provided should be interpreted with caution and demonstrate the limitations of these types of assessments. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models to address individual species are not available. For example, the results provided here apply to an "all other finfish" category rather than just cobia, and a harvester job is "generated" for approximately every $33,000 (2016 dollars) in ex-vessel revenue. These results contrast with the number of harvesters (vessels) with recorded landings of cobia presented in **Table 3.3.1.3** and **Table 3.3.1.5.**

Table 3.3.1.6. Average annual business activity (2012 through 2016) associated with the commercial harvest of cobia. All monetary estimates are in 2016 dollars.*

Species	Average Ex-vessel Value (thousands $)	Total Jobs	Harvester Jobs	Output (Sales) Impacts ($ thousands)	Income Impacts ($ thousands)	Value Added ($ thousands)
Cobia	$157	21	5	$1,563	$566	$804

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2017).
*Converted to 2016 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

3.3.2 Recreational Sector

The recreational sector is comprised of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter boats and headboats (also called partyboats). Charter boats

[6]A detailed description of the input/output model is provided in NMFS (2011).

generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species since larger concentrations of fish are required to satisfy larger groups of anglers.

Permits

A federal charter/headboat (for-hire) vessel permit is required for harvesting CMP species, including cobia, when fishing on for-hire vessels. The South Atlantic for-hire permit is an open access system. As of Oct 17, 2017, there were 1,732 valid South Atlantic charter/headboat CMP permits. Although the for-hire permit application collects information on the primary method of operation, the resultant permit itself does not identify the permitted vessel as either a headboat or a charter boat. Operation as either a headboat or charter boat is not restricted by the permitting regulations and vessels may operate in both capacities. However, only selected headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (SRHS). Participation in the SRHS is based on determination by the SEFSC that the vessel primarily operates as a headboat. As of February 17, 2017, 63 South Atlantic headboats were registered in the SRHS (K. Fitzpatrick, NMFS SEFSC, pers. comm.). The majority of these headboats were located in Florida/Georgia (36), followed by North Carolina (16), and South Carolina (11).

There are no specific federal permitting requirements for recreational anglers to fish for or harvest cobia. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed amendment.

Landings

On average, from 2012 through 2016, the recreational sector landed approximately 971,000 lbs of Atlantic cobia (**Table 3.3.2.1**). Average cobia landings in the Mid-Atlantic states were the highest and were driven by large increases in 2015 and 2016. Virginia (not shown in the table) accounted for most of these landings (~97%). North Carolina generated the second highest average landings from 2012 through 2016, followed by South Carolina, and then Georgia. Landings fluctuated in most states during this time period (**Table 3.3.2.1**). The private/rental mode generated the majority of cobia landings from 2012 through 2016, while landings of cobia on headboats were minimal (**Table 3.3.2.2**).

Table 3.3.2.1. Annual recreational landings (lbs ww for 2012-2014; lbs lw for 2015-2016) of Atlantic cobia, by state.

	Georgia	South Carolina	North Carolina	Mid-Atl	Total
2012	103,180	222,353	66,645	105,844	498,022
2013	29,304	19,159	492,998	365,848	907,309
2014	20,670	32,010	277,846	221,193	551,719
2015	68,448	125,365	642,906	721,589	1,558,308
2016	223	75,919	331,082	934,374	1,341,598
Average*	44,365	94,961	362,295	469,770	971,391

Source: SEFSC Recreational ACL file (October 2017)
*This 5-year average treats ww and lw as equivalent.

Table 3.3.2.2. Annual recreational landings (lbs ww for 2012-2014; lbs lw for 2015-2016) of Atlantic cobia, by fishing mode.

	Charter	Headboat	Private/Rental	Shore	Total
2012	40,084	1,855	386,048	70,035	498,022
2013	78,725	6,363	822,223	0	907,310
2014	49,503	6,604	457,662	37,950	551,719
2015	87,629	2,338	1,431,897	36,444	1,558,307
2016	128,241	1,426	1,125,580	86,351	1,341,598
Average*	76,836	3,717	844,682	46,156	971,391

Source: SEFSC Recreational ACL file (October 2017)
*This 5-year average treats ww and lw as equivalent.

Peak recreational landings of Atlantic cobia occurred in the May-June wave each year from 2012 through 2015 and then in the July-August wave in 2016 (**Figure 3.3.2.1**). Atlantic cobia landings in general were heavily concentrated during May through August.

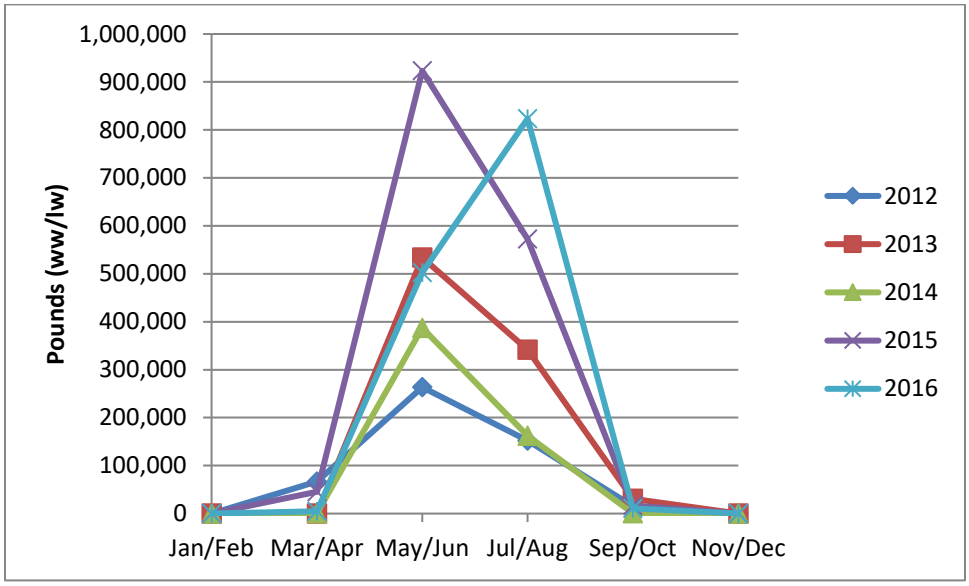

Figure 3.3.2.1. Distribution of Atlantic cobia recreational harvest (lbs ww for 2012-2014; lbs lw for 2015-2016), by wave.
Source: SEFSC Recreational ACL file (October 2017)

Angler Effort

Recreational effort derived from the Marine Recreational Information Program (MRIP) database can be characterized in terms of the number of trips as follows:

- Target effort - The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or the second primary target for the trip. The species did not have to be caught.
- Catch effort - The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.
- Total recreational trips - The total estimated number of recreational trips in the Gulf, regardless of target intent or catch success.

Estimates of annual Atlantic cobia effort (in terms of individual angler trips) for 2012-2016 are provided in **Table 3.3.2.3** for target trips and **Table 3.3.2.4** for catch trips. Target and catch trips are shown by fishing mode (charter, private/rental, shore) for Georgia, South Carolina, North Carolina, and the Mid-Atlantic states combined. Cobia, like dolphin, is one of the few species where target trips generally exceed catch trips. On average (2012-2016), there were more than 3 times as many Atlantic cobia target trips as there were catch trips (**Table 3.3.2.3** and **Table 3.3.2.4**). This is suggestive of a relatively strong interest in fishing for cobia among recreational anglers across all fishing modes. For each state, the private/rental mode has been the dominant fishing mode both in target and catch effort.

Other measures of effort are possible, such as directed trips (the number of individual angler trips that either targeted or caught a particular species). Estimates of cobia trips for additional years, and other measures of directed effort, are available at http://www.st.nmfs.noaa.gov/recreational-fisheries/access-data/run-a-data-query/queries/index.

Table 3.3.2.3. Target trips for Atlantic cobia, by fishing mode and state, 2012-2016.

	Georgia	North Carolina	South Carolina	Mid-Atlantic*	Total
	Shore Mode				
2012	0	12,444	914	14,939	28,297
2013	0	15,976	627	5,693	22,296
2014	0	17,086	2,395	18,565	38,046
2015	0	22,249	372	19,684	42,305
2016	0	23,736	86	16,608	40,430
Average	0	18,298	879	15,098	34,275
	Charter Mode				
2012	0	345	1,025	156	1,526
2013	160	2,446	0	24	2,630
2014	0	1,703	1,452	295	3,450
2015	742	2,714	1,182	2,075	6,713
2016	0	4,801	1,576	911	7,288
Average	180	2,402	1,047	692	4,321
	Private/Rental Mode				
2012	2,495	23,320	57,543	37,706	121,064
2013	12,235	50,883	22,373	53,981	139,472
2014	1,322	50,112	23,365	49,075	123,874
2015	12,343	59,971	9,877	76,617	158,808
2016	2,959	60,919	17,647	111,775	193,300
Average	6,271	49,041	26,161	65,831	147,304
	All Modes				
2012	2,495	36,110	59,482	52,801	150,888
2013	12,395	69,305	23,000	59,697	164,397
2014	1,322	68,900	27,212	67,934	165,368
2015	13,085	84,934	11,430	98,376	207,825
2016	2,959	89,457	19,309	129,298	241,023
Average	6,451	69,741	28,087	81,621	185,900

Source: MRIP database, NOAA Fisheries, NMFS, SERO.
*Virginia accounted for over 99% of Mid-Atlantic trips that targeted cobia (on average; 2012-2016).

Table 3.3.2.4. Catch trips for Atlantic cobia, by fishing mode and state, 2012-2016.

	Georgia	North Carolina	South Carolina	Mid-Atlantic*	Total
	Shore Mode				
2012	0	7,983	0	2,055	10,038
2013	0	2,673	0	0	2,673
2014	0	6,128	3,268	0	9,396
2015	0	3,556	2,753	0	6,309
2016	0	7,316	0	7,583	14,899
Average	0	5,531	1,204	1,928	8,663
	Charter Mode				
2012	140	472	372	156	1,140
2013	160	2,798	48	24	3,030
2014	55	1,559	110	72	1,796
2015	0	2,598	805	1,140	4,543
2016	0	3,331	1,591	754	5,676
Average	71	2,152	585	429	3,237
	Private/Rental Mode				
2012	3,296	4,869	5,134	6,658	19,957
2013	1,157	21,047	3,699	14,256	40,159
2014	1,436	10,561	2,957	14,803	29,757
2015	2,372	19,162	4,484	24,254	50,272
2016	389	13,109	5,445	35,054	53,997
Average	1,730	13,750	4,344	19,005	38,828
	All Modes				
2012	3,436	13,324	5,506	9,038	31,304
2013	1,317	26,518	3,747	14,280	45,862
2014	1,492	18,248	6,335	14,876	40,951
2015	2,372	25,316	8,043	25,395	61,126
2016	389	23,757	7,036	43,391	74,573
Average	1,801	21,433	6,133	21,396	50,763

Source: MRIP database, NOAA Fisheries, NMFS, SERO.
*Virginia accounted for over 97% of Mid-Atlantic trips that caught cobia (on average; 2012-2016).

Similar analysis of recreational angler trips is not possible for the headboat mode because headboat data are not collected at the angler level in the Southeast.[7] Estimates of effort by the headboat mode are provided in terms of angler days, or the total number of standardized full-day angler trips.[8] Headboat effort in the South Atlantic (excluding Florida), in terms of angler days, was mostly stable during 2012-2016 and was the highest, on average, during the summer months of June through August (**Table 3.3.2.5** and **Table 3.3.2.6**).

Table 3.3.2.5. South Atlantic headboat angler days and percent distribution by state, 2012-2016, excluding Florida.

	Angler Days		Percent Distribution	
	GA/SC*	NC	GA/SC*	NC
2012	42,064	20,766	66.95%	33.05%
2013	42,853	20,547	67.59%	32.41%
2014	44,092	22,691	66.02%	33.98%
2015	41,479	22,716	64.61%	35.39%
2016	43,954	21,565	67.09%	32.91%
Average	42,888	21,657	66%	34%

*Georgia and South Carolina are combined for confidentiality purposes.
Source: NMFS Southeast Region Headboat Survey (SRHS).

[7]MRIP does sample headboats in the Northeast region; however, there were only 3 estimated heaboat trips that targeted cobia and 169 headboat trips that caught cobia in the Mid-Atlantic sub-region from 2012-2016.
[8]Headboat trip categories include half-, three-quarter-, full-, and 2-day trips. A full-day trip equals one angler day, a half-day trip equals .5 angler days, etc. Angler days are not standardized to an hourly measure of effort and actual trip durations may vary within each category.

Table 3.3.2.6. South Atlantic headboat angler days and percent distribution by month, 2012-2016.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Headboat Angler Days											
2012	9,230	9,663	17,307	19,587	18,232	27,819	35,115	25,052	15,894	8,677	6,564	8,252
2013	10,182	10,892	14,541	16,129	20,969	33,079	39,463	33,830	16,335	14,534	6,698	10,537
2014	8,748	13,512	19,808	22,570	25,764	39,115	44,066	32,886	15,203	15,235	9,088	14,611
2015	12,661	11,148	21,842	25,128	25,172	36,907	42,558	30,772	15,649	13,375	9,623	12,562
2016	9,818	12,243	23,872	22,217	27,374	37,454	45,744	29,223	17,061	9,202	12,820	13,404
Avg	10,128	11,492	19,474	21,126	23,502	34,875	41,389	30,353	16,028	12,205	8,959	11,873
	Percent Distribution											
2012	5%	5%	9%	10%	9%	14%	17%	12%	8%	4%	3%	4%
2013	4%	5%	6%	7%	9%	15%	17%	15%	7%	6%	3%	5%
2014	3%	5%	8%	9%	10%	15%	17%	13%	6%	6%	3%	6%
2015	5%	4%	8%	10%	10%	14%	17%	12%	6%	5%	4%	5%
2016	4%	5%	9%	9%	11%	14%	18%	11%	7%	4%	5%	5%
Avg	4%	5%	8%	9%	10%	14%	17%	13%	7%	5%	4%	5%

Source: NMFS Southeast Region Headboat Survey (SRHS).

Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional cobia kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). There is no available estimate of CS for cobia, but dolphin or king mackerel CS estimates may be close proxies. The estimated values of the CS per fish for a second, third, fourth, and fifth king mackerel kept on a trip are approximately $100, $66, $49, and $39 respectively. For dolphin, the values for the second, third, fourth, and fifth kept fish are approximately $15, $10, $7, and $6, respectively (Carter and Liese 2012; values updated to 2016 dollars).[9]

The foregoing estimates of economic value should not be confused with economic impacts associated with recreational fishing expenditures. Although expenditures for a specific good or service may represent a proxy or lower bound of value (a person would not logically pay more for something than it was worth to them), they do not represent the net value (benefits minus cost), nor the change in value associated with a change in the fishing experience.

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. The estimated NOR value for an average South Atlantic charter angler trip is $165 (2016 dollars) and the estimated NOR value for a South Atlantic

[9]Converted to 2016 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

headboat angler trip is $45 (2016 dollars) (C. Liese, NMFS SEFSC, pers. comm.). Estimates of NOR per cobia target trip are not available.

Recreational Sector Business Activity

The desire for recreational fishing generates economic activity as consumers spend their income on various goods and services needed for recreational fishing. This spurs economic activity in the region where recreational fishing occurs. It should be clearly noted that, in the absence of the opportunity to fish, the income would presumably be spent on other goods and services and these expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only.

Estimates of the business activity (economic impacts) associated with recreational angling for Atlantic cobia were calculated using average trip-level impact coefficients derived from the 2015 Fisheries Economics of the U.S. report (NMFS 2017) and underlying data provided by the National Oceanic and Atmospheric Administration (NOAA) Office of Science and Technology. Economic impact estimates in 2015 dollars were adjusted to 2016 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Business activity (economic impacts) for the recreational sector is characterized in the form of jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts (contribution to the GDP in a state or region). Estimates of the average annual economic impacts (2012-2016) resulting from Atlantic cobia target trips are provided in **Table 3.3.2.7.** Of the Mid-Atlantic states, only Virginia is included as it accounted for 99% of recreational cobia target trips in the sub-region. The average impact coefficients, or multipliers, used in the model are invariant to the "type" of effort and can therefore be directly used to measure the impact of other effort measures such as cobia catch trips. To calculate the multipliers from **Table 3.3.2.7**, simply divide the desired impact measure (sales impact, value-added impact, income impact or employment) associated with a given state by the number of target trips for that state.

The estimates provided in **Table 3.3.2.7** only apply at the state-level. Addition of the state-level estimates to produce a regional (or national) total may underestimate the actual amount of total business activity, because state-level impact multipliers do not account for interstate and interregional trading. It is also important to note, that these economic impacts estimates are based on trip expenditures only and do not account for durable expenditures. Durable expenditures cannot be reasonably apportioned to individual species. As such, the estimates provided in **Table 3.3.2.7** may be considered a lower bound on the economic activity associated with those trips that targeted cobia.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in MRIP in the Southeast, so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted. Headboat vessels in the Northeast are covered by MRIP; however, headboat trips that targeted or caught cobia there are negligible.

Table 3.3.2.7. Estimated annual average economic impacts (2012-2016) from recreational trips that targeted Atlantic cobia, by state and mode, using state-level multipliers. All monetary estimates are in 2016 dollars in thousands.

	NC	SC	GA	VA*
	Charter Mode			
Target Trips	2,402	1,047	180	692
Value Added Impacts	$832	$425	$45	$72
Sales Impacts	$1,556	$785	$82	$129
Income Impacts	$565	$277	$31	$49
Employment (Jobs)	13	7	1	1
	Private/Rental Mode			
Target Trips	49,041	26,161	6,271	65,027
Value Added Impacts	$1,804	$531	$126	$1,948
Sales Impacts	$3,208	$964	$219	$3,337
Income Impacts	$1,127	$318	$76	$1,163
Employment (Jobs)	33	11	2	32
	Shore			
Target Trips	18,298	879	0	15,098
Value Added Impacts	$1,153	$50	$0	$413
Sales Impacts	$2,001	$86	$0	$661
Income Impacts	$707	$29	$0	$247
Employment (Jobs)	22	1	0	7
	All Modes			
Target Trips	69,741	28,087	6,451	80,817
Value Added Impacts	$3,789	$1,006	$171	$2,433
Sales Impacts	$6,765	$1,835	$301	$4,127
Income Impacts	$2,399	$623	$106	$1,459
Employment (Jobs)	68	19	3	40

*Headboat target trips in Virginia are negligible and are excluded.
Source: Effort data from MRIP; economic impact results calculated by NMFS SERO using NMFS (2017) and underlying data provided by the NOAA Office of Science and Technology.

3.4 Social Environment

This section provides information on the fishermen, communities and businesses that may be affected by the proposed action. Descriptions of fishing communities with high levels of commercial involvement and with recreational engagement are included, and community level data are presented in order to meet the requirements of National Standard 8 of the Magnuson-Stevens Act. Lastly, social vulnerability data are presented to assess the potential for environmental justice concerns.

The recent harvesting patterns for cobia reflect shifts in effort or changes in species range/status, which follow the establishment of two migratory groups of cobia and setting of

ACLs and annual catch targets in Amendment 18 (GMFMC/SAFMC 2011) and a modified stock boundary in Amendment 20B (GMFMC/SAFMC 2014). The community description for Atlantic cobia includes only communities north of the Georgia/Florida line through Mid-Atlantic region with both recreational and commercial fishing communities identified. For more comprehensive demographic descriptions of the communities, see the SERO Community Snapshots [10] and for Mid-Atlantic communities, see the Northeast Fisheries Science Center Community Snapshots.[11]

South Atlantic Recreational Fishing Communities

There are little data on cobia harvest at the community level for recreational fishing communities, but the NMFS Southeast Region headboat survey does provide quantitative information of where cobia is recreationally harvested. **Figure 3.4.1** provides cobia landings trends for fishing communities in the South Atlantic for the time series from 2010 to 2014. The communities of Calabash, North Carolina, Tybee Island, Georgia and Atlantic Beach, North Carolina have all seen increases in their landings trend since 2010 in **Figure 3.4.1**. Others like Myrtle Beach, South Carolina and Carolina Beach, North Carolina have seen a recent downturn in their landings from 2013 to 2014.

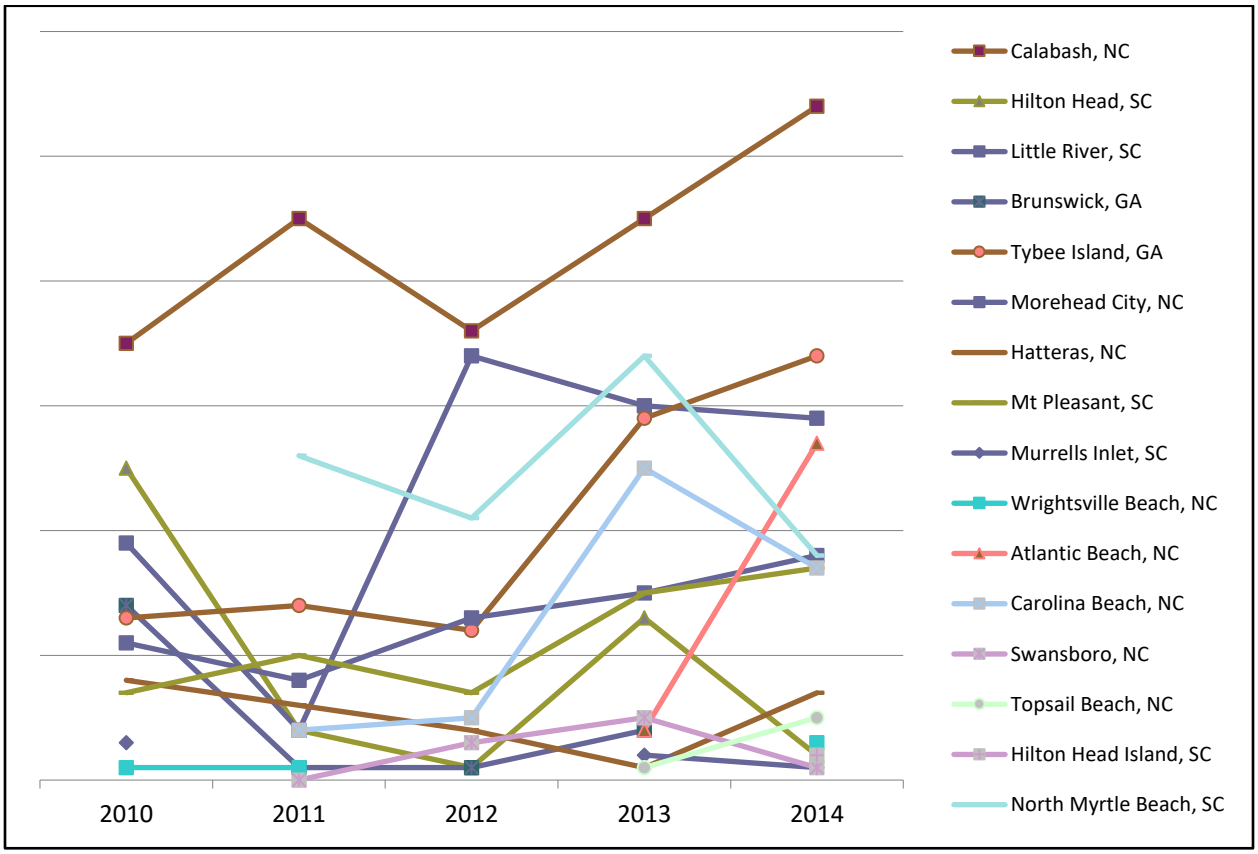

Figure 3.4.1. Cobia Headboat Landing Trends for South Atlantic Fishing Communities.
Source: NMFS Southeast Region Headboat Survey (SRHS).

[10] http://sero.nmfs.noaa.gov/sustainable_fisheries/social/community_snapshot/index.html
[11] http://www.nefsc.noaa.gov/read/socialsci/communitySnapshots.php

Recreational fishing communities for the South Atlantic are listed in **Figure 3.4.2**. These communities were selected by their index ranking based on a factor analysis of a number of criteria including number of charter permits and recreational fishing infrastructure as listed under the MRIP survey identified within each community. There are two thresholds included in **Figure 3.4.2** that correspond to both1 and ½ standard deviations from the mean. The recreational engagement score is standardized so the mean is zero. Several communities in North Carolina and South Carolina exceed the threshold of 1 standard deviation which suggests those communities are highly engaged in recreational fishing. While this measure is not specific to cobia, but an overall recreational engagement measure, it is assumed that there would be more harvest of cobia from these ports recreationally because of increased effort.

The communities of Atlantic Beach, Hatteras, Manteo, Morehead City, North Carolina and Charleston, Hilton Head, Little River and Murrells Inlet, South Carolina all exceed the threshold of 1 standard deviation and likely have some dependence upon recreational fishing. The communities of Carolina Beach, Kill Devil Hills, Nags Head, Oak Island, Wanchese, Wilmington, North Carolina and Mount Pleasant, South Carolina all exceed the ½ standard deviation threshold and would also likely have some dependence upon recreational fishing within their economies, but not as much as those that exceed both thresholds. These communities may experience some effects of changes to management as they exhibit substantial recreational fishing activity. Unfortunately, we are unable at this time to describe cobia harvest within a community and must rely on an overall recreational fishing measure.

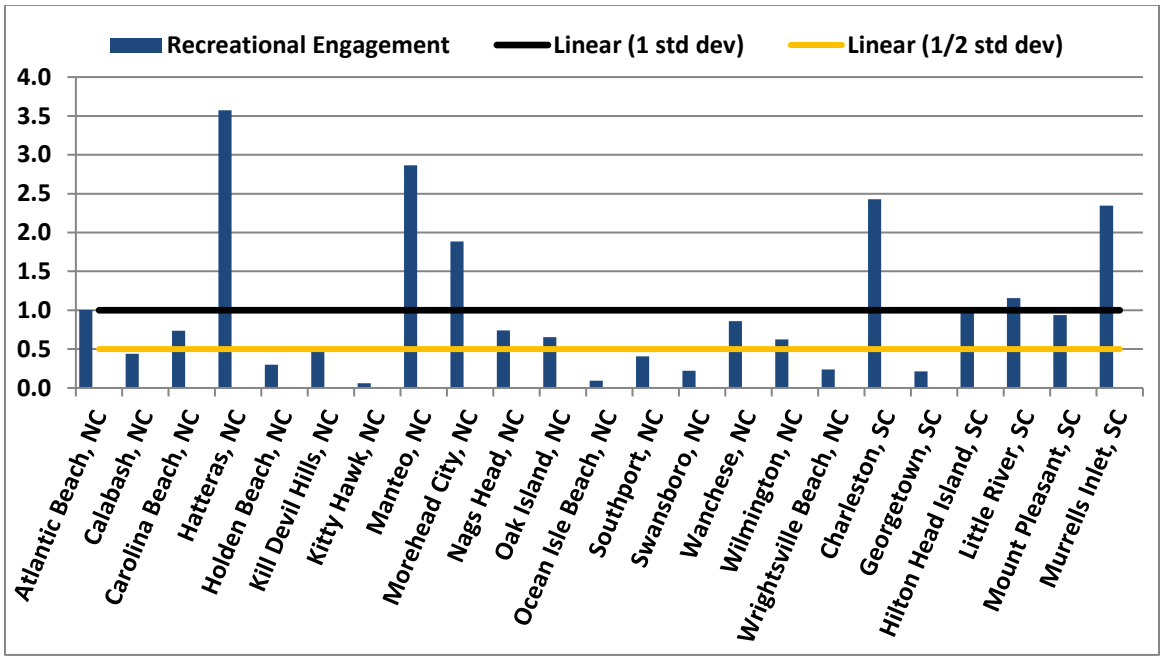

Figure 3.4.2. Recreational Engagement for Cobia Atlantic Group Fishing Communities.
Source: SERO Community Social Vulnerability Indicators 2016.

South Atlantic Commercial Fishing Communities

The communities ranked in **Figure 3.4.3** represent those top 16 communities in terms of their commercial landings of cobia within the South Atlantic states, based on a regional quota (RQ) in 2016. The RQ measures the highest proportions of commercial harvest of a species throughout

the region to indicate the "top commercial communities." These communities will be the most likely to be affected by changes to commercial management for cobia. The data are based upon dealer data aggregated at the community level. The community of Washington has seen a marked increase in its RQ for cobia in 2015 and 2016, especially since it had little to no landings previously. Avon saw a marked decrease in their RQ in 2014, but has seen a rise in the past two years. Wanchese was previously in the top 16 but has dropped out over the past two years and in fact, most communities in **Figure 3.4.3** have seen decreases in their RQ.

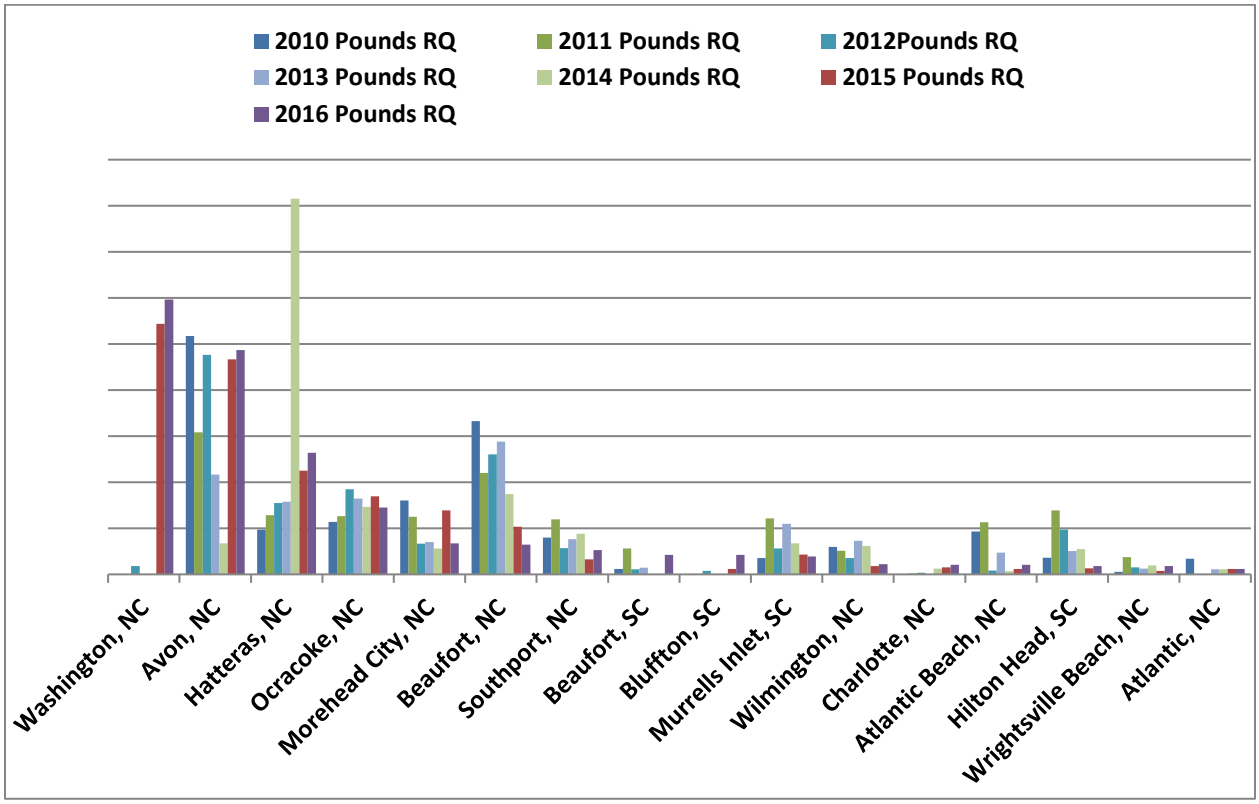

Figure 3.4.3. Cobia Commercial Regional Quotient for South Atlantic Fishing Communities.
Data source: SEFSC Commercial ALS Dataset with dealer address 2016

Mid-Atlantic Group Recreational Fishing Communities

Quantitative information on the recreational harvest of cobia from the Northeast headboat survey is sparser than for the South Atlantic. Many landings data do not have a homeport associated with them. From the data that are available, the communities of Northumberland, Virginia, and Hampton, Virginia, have seen recent increases in their cobia harvest. Most of the recreational harvest of cobia in the Mid-Atlantic is from private boat sector (Personal communication, Eric Thunberg NEFSC) for which we do not have data at the community level. However, input from public comments and attendance at public hearings indicate that Virginia Beach, Virginia, is an important community for recreational cobia.

Mid-Atlantic Commercial Fishing Communities

Commercial landings of cobia in the Mid-Atlantic have recently increased as shown in **Figure 3.4.4**. The communities of Arlington (County), Virginia; Norfolk, Virginia; and Frederick (County), Virginia have seen substantial increases in their cobia harvest in 2014.

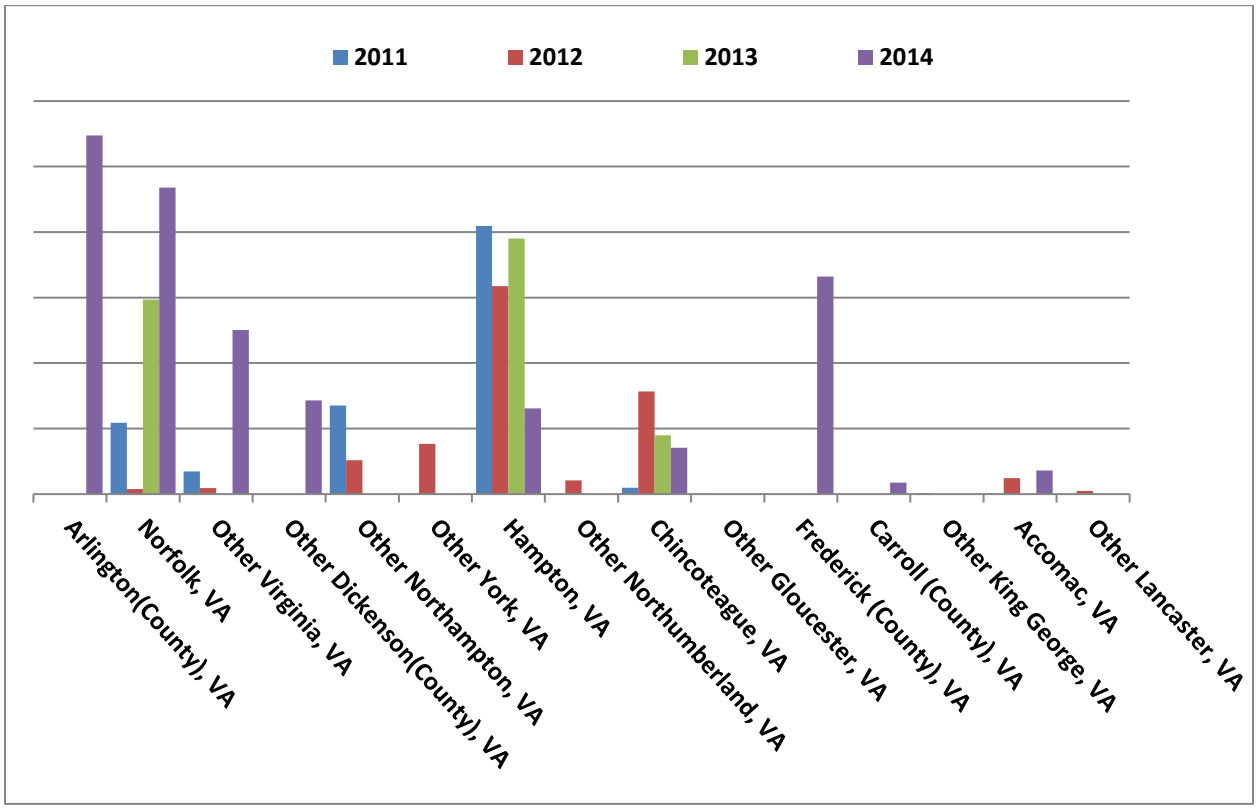

Figure 3.4.4. Cobia Commercial Regional Quotient for Mid-Atlantic Fishing Communities.
Source: NEFSC Commercial Landings Dataset with dealer address. Eric Thunberg (Pers Comm 2016).

Environmental Justice

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. This executive order is generally referred to as environmental justice (EJ).

The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability (Jepson and Colburn 2013; Jacob et al. 2013). Indicators such as increased poverty rates for different groups, more single female-headed households and households with children under the age of 5, disruptions such as higher separation rates, higher crime rates and unemployment all are signs of populations experiencing vulnerabilities. These vulnerabilities signify that it may be difficult for someone living in these communities to recover from significant social disruption that might stem from a change in their ability to work or maintain a certain income level. For those communities that exceed the threshold of 1 standard deviation for all indices, it would be expected that they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

The suite of indices created to examine the social vulnerability of Atlantic Group fishing communities are depicted in **Figures 3.4.5** and **3.4.6**. No community exceeds both thresholds for all three vulnerabilities in **Figure 3.4.5**. The community of Manteo seems to demonstrate the most vulnerability by exceeding the 1 standard deviation threshold for Poverty and exceeding the ½ standard deviation for Personal Disruption. Calabash, Southport, Morehead City and Wilmington are the only other communities that exceed a threshold for any of their indicators.

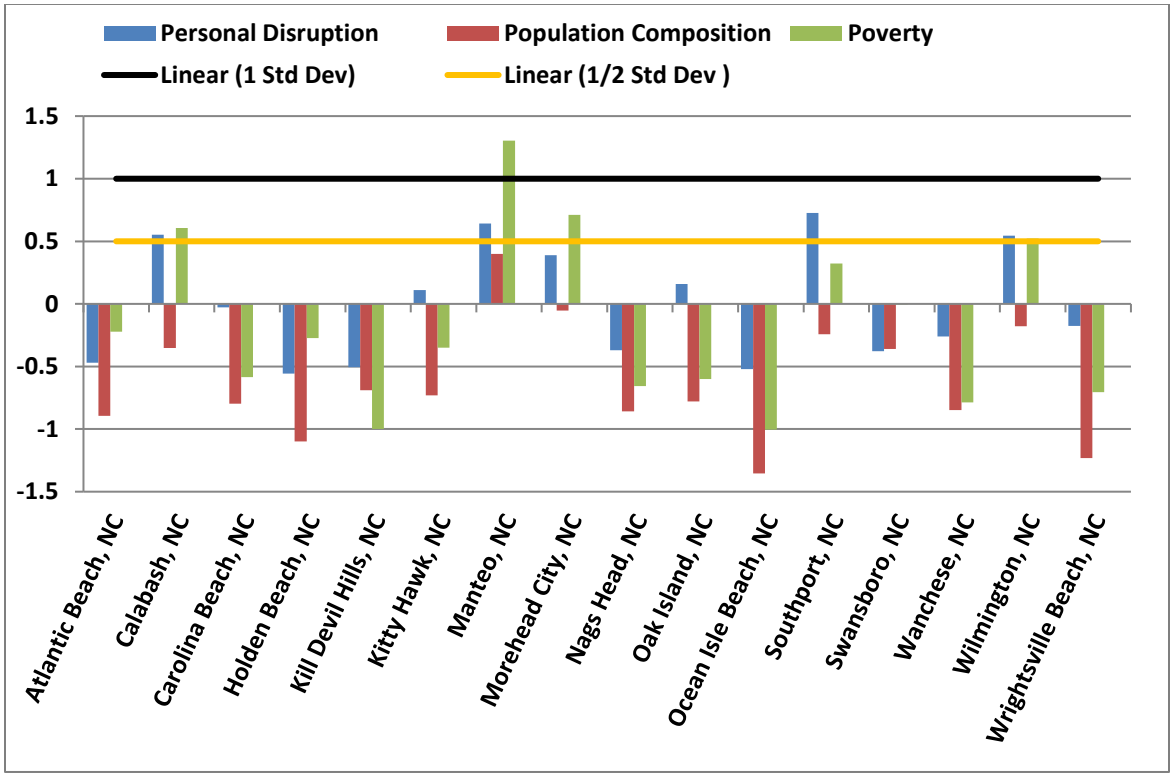

Figure 3.4.5. Social Vulnerability Indices for Atlantic Group Fishing Communities.
Source: SERO Community Social Vulnerability Indicators 2016 (ACS 2010-2014).

The other communities that were included in the Atlantic Group also demonstrate little vulnerability, except Georgetown, South Carolina, and Beaufort, North Carolina. These two communities exceed the 1 standard deviation thresholds for both personal disruption and poverty. Georgetown, South Carolina, has a relatively high score for the population composition measure, which includes number of minorities.

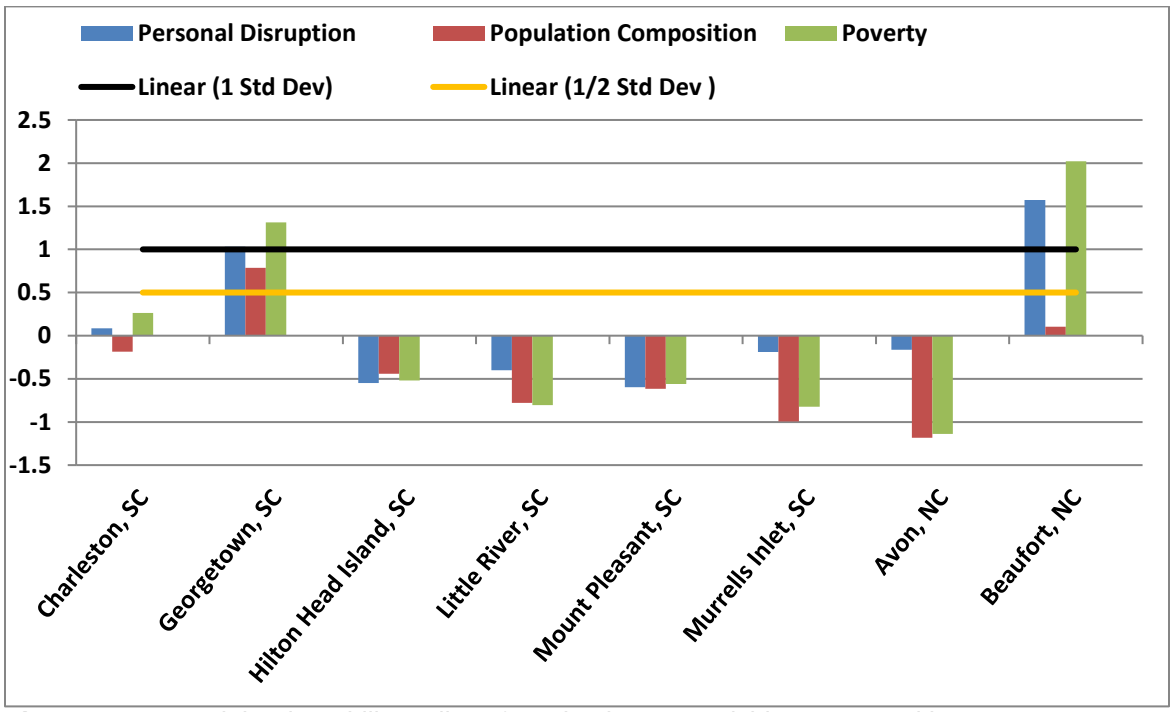

Figure 3.4.6. Social Vulnerability Indices for Atlantic Group Fishing Communities, cont.
Source: SERO Community Social Vulnerability Indicators 2016 (ACS 2010-2014).

For the Mid-Atlantic communities presented in **Figure 3.4.7**, District 9 in Accomack County, Virginia and Norfolk are the only communities that exceed one or both thresholds for all three indices. Districts 3 and 6 in Accomack County also demonstrate some vulnerability with both personal disruption and poverty exceeding one or both thresholds; the same is true for District 5 in Northampton County, Virginia.

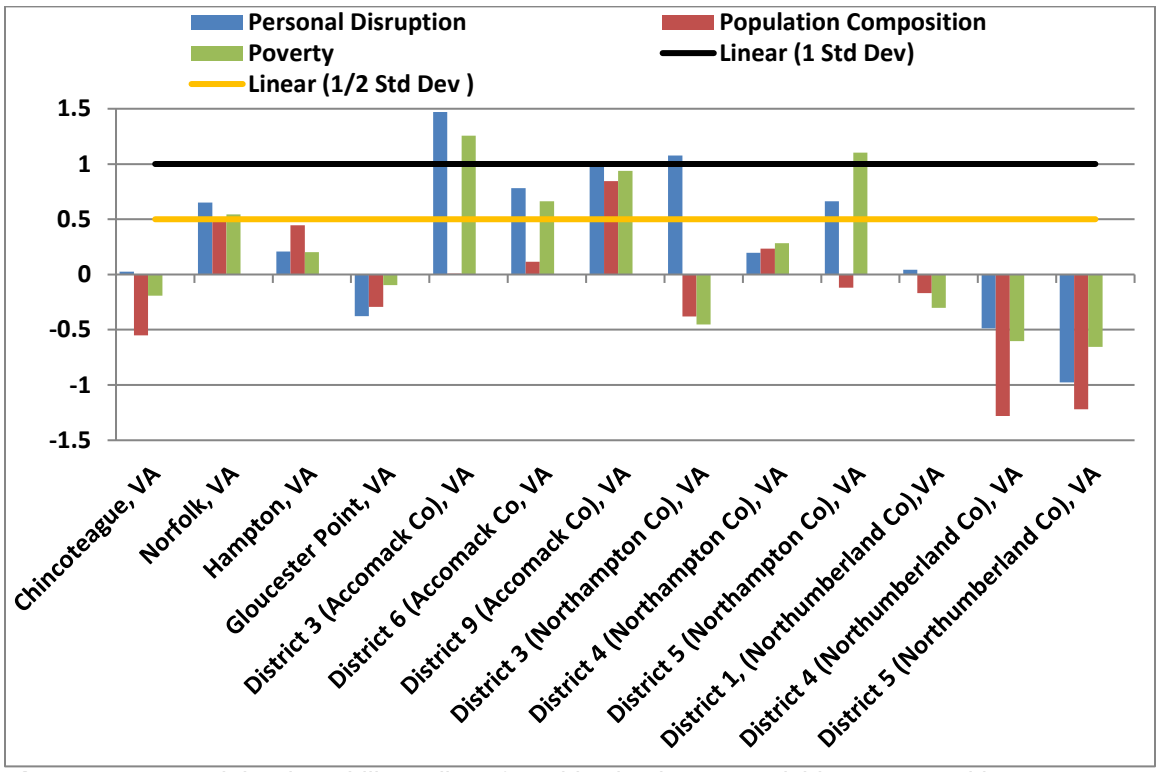

Figure 3.4.7. Social Vulnerability Indices for Mid-Atlantic Group Fishing Communities
Source: SERO Community Social Vulnerability Indicators 2016 (ACS 2010-2014).

While these measures identify those communities that demonstrate social vulnerability, we cannot say for sure that fishermen in these communities will suffer the same vulnerabilities. Although we have information concerning the community's overall status with regard to minorities and poverty and other social vulnerabilities, we do not have such information for fishermen themselves. Therefore, we can only place our fishing activity within the community as a proxy for understanding the role that these social indicators have in the vulnerability of those being affected by regulatory change. While subsistence fishing is also an activity that can be affected by regulatory change, we have very little, if any, data on this activity at this time. We assume that the effects to other sectors will be similar to those that affect subsistence fishermen who may rely on cobia.

3.5 Administrative Environment

3.5.1 The Fishery Management Process and Applicable Laws

3.5.1.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 et seq.), originally enacted in 1976 as the Fishery Conservation and Management Act. The U.S. claims through the Magnuson-Stevens Act, sovereign rights and exclusive fishery management authority over most fishery resources within the EEZ, an area extending 200 nautical miles (nm) from the seaward boundary of each of the coastal states, and

authority over U.S. anadromous species and continental shelf resources that occur beyond the U.S. EEZ.

Responsibility for federal fishery management decision-making is divided between the U.S. Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for collecting and providing the data necessary for the councils to prepare fishery management plans and for promulgating regulations to implement proposed plans and amendments after ensuring that management measures are consistent with the Magnuson-Stevens Act and with other applicable laws. In most cases, the Secretary has delegated this authority to NMFS.

The South Atlantic Council is responsible for conservation and management of fishery resources in federal waters of the U.S. South Atlantic. These waters extend from 3 to 200 nm offshore from the seaward boundary of the States of North Carolina, South Carolina, Georgia, and east Florida to Key West. The South Atlantic Council has 13 voting members: one from NMFS; one each from the state fishery agencies; and eight public members appointed by the Secretary. Non-voting members include representatives of the U.S. Fish and Wildlife Service, US Coast Guard (USCG), and Atlantic States Marine Fisheries Commission (ASMFC).

The Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) has two voting seats on the South Atlantic Council's Mackerel Cobia Committee but does not vote during Council sessions. The Mid-Atlantic Council is responsible for fishery resources in federal waters off New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. The coastal migratory pelagic fishery is jointly managed with the Gulf of Mexico Fishery Management Council (Gulf Council).

The Councils use their respective SSCs to review data and science used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NMFS' Office for Law Enforcement (NOAA/OLE), the USCG, and various state authorities. The public is involved in the fishery management process through participation at public meetings, on advisory panels, and through council meetings that, with some exceptions, are open to the public. The regulatory process is in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

3.5.1.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments have the authority to manage their respective state fisheries including enforcement of fishing regulations. Each of the states exercises legislative and regulatory authority over their states' natural resources through discrete administrative units. Although each agency listed below is the primary administrative body with

respect to the state's natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

The states are also involved through the Gulf States Marine Fisheries Commission and the Atlantic States Marine Fisheries Commission in management of marine fisheries. These commissions were created to coordinate state regulations and develop management plans for interstate fisheries.

NMFS' State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national programs (Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional programs (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act). Additionally, it works with the commissions to develop and implement cooperative State-Federal fisheries regulations.

More information about these agencies can be found from the following web pages:
Florida Fish and Wildlife Conservation Commission http://www.myfwc.com
Georgia Department of Natural Resources, Coastal Resources Division http://crd.dnr.state.ga.us/
South Carolina Department of Natural Resources http://www.dnr.sc.gov/
North Carolina Department of Environmental Qualityhttp://portal.ncdenr.org/web/guest/
Virginia Marine Resources Commission http://www.mrc.virginia.gov/
New York State Department of Environmental Conservation http://www.dec.ny.gov/
Maryland Department of Natural Resources, Estuarine and Marine Fisheries Division
http://dnr.maryland.gov/fisheries/Pages/default.aspx
Pennsylvania Fish and Boat Commission http://fishandboat.com/mpag1.htm
New Jersey Department of Environmental Protection, Division of Fish and Wildlife
http://www.nj.gov/dep/fgw/
Delaware Department of Natural Resources and Environmental Conservation
http://www.dnrec.delaware.gov/fw/Pages/DFW-Portal.aspx

3.5.1.3 Enforcement

Both the NOAA/OLE and the USCG have the authority and the responsibility to enforce regulations. NOAA/OLE agents, who specialize in living marine resource violations, provide fisheries expertise and investigative support for the overall fisheries mission. The USCG is a multi-mission agency, which provides at sea patrol services for the fisheries mission.

Neither NOAA/OLE nor the USCG can provide a continuous law enforcement presence in all areas due to the limited resources of NOAA/OLE and the priority tasking of the USCG. To supplement at sea and dockside inspections of fishing vessels, NOAA entered into Cooperative Enforcement Agreements with all but one of the states in the Southeast Region (North Carolina), which granted authority to state officers to enforce the laws for which NOAA/OLE has jurisdiction. In recent years, the level of involvement by the states has increased through Joint Enforcement Agreements, whereby states conduct patrols that focus on federal priorities and, in

some circumstances, prosecute resultant violators through the state when a state violation has occurred.

NOAA General Counsel issued a revised Southeast Region Magnuson-Stevens Act Penalty Schedule in June 2003, which addresses all Magnuson-Stevens Act violations in the Southeast Region. In general, this penalty schedule increases the amount of civil administrative penalties that a violator may be subject to up to the current statutory maximum of $120,000 per violation. The Final Penalty Policy was issued and announced on April 14, 2011 (76 FR 20959).

Chapter 4. Environmental Effects

4.1 Action: Revise the management system for Atlantic cobia

Alternative 1 (No Action): Retain Atlantic cobia in the Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic regions (CMP FMP).

Alternative 2: Remove Atlantic cobia from the CMP FMP. The Atlantic States Marine Fisheries Commission (ASMFC) would manage cobia through the interstate management plan.

Alternative 3: Do not remove Atlantic cobia from the CMP FMP. Establish process for complementary management of Atlantic cobia with the ASMFC.

Alternative 4: Do not remove Atlantic cobia from the CMP FMP. Establish process for complementary management of Atlantic cobia with the ASMFC.

Alternative 5. Remove Atlantic cobia from the CMP FMP after the stock assessment is complete.

4.1.1 Biological Effects

Recreational cobia landings for the Atlantic migratory group (Georgia to New York) in 2015 were substantially higher than previous years including 2013 and 2014. Landings in 2016 continue to be high considering the fishery in federal waters was closed mid-year. (**Table 4.1.1.1**).

Table 4.1.1.1 Recreational landings by state.

	Georgia	South Carolina	North Carolina	Mid-Atlantic	Total
2012	103,180	222,353	66,645	105,844	498,022
2013	29,304	19,159	492,998	365,848	907,309
2014	20,670	32,010	277,846	221,193	551,719
2015	68,448	125,365	642,906	721,589	1,558,308
2016	223	75,919	331,082	934,374	1,341,598
Average	44,365	94,961	362,295	469,770	971,391

Source: SEFSC Recreational ACL file (October 2017)

In 2015, recreational landings reached 251% of the recreational annual catch limit (ACL) and 233% of the stock ACL (recreational and commercial ACLs combined). On June 20th, 2016, Atlantic cobia for the recreational sector closed in federal waters because the recreational and

total annual catch limits were exceeded in 2015, and the recreational AM was triggered (81 FR 12601). However, North Carolina and Virginia did not adopt compatible regulations, and harvest continued in state waters after harvest was prohibited in the EEZ.

In 2016, a similar situation emerged. Recreational landings reached 216% of the recreational ACL and 200% of the stock ACL (recreational and commercial ACLs combined) and as such the AM was triggered and the 2017 fishing season was shortened to January 24, 2017 (82 FR 8363). Once again, North Carolina and Virginia did not adopt compatible fishing regulations and harvest has continued in state waters.

The majority of the landings of Atlantic group cobia occur in North Carolina and Virginia, with much lower landings off Georgia and South Carolina. Florida landings (both east and west coast) are considered to be part of the Gulf of Mexico migratory group cobia (Gulf cobia).

Since 2013, landings have been significantly higher in the state waters versus Federal waters (**Table 4.1.1.2**). However, there have been years in which landings were higher from federal waters versus state waters. In 2015 and 2016, federal waters were closed for part of the year, contributing to the lower landings.

Table 4.1.1.2 Percentage of Commercial and Recreational Atlantic cobia landings that were harvested Federal and State waters. The Atlantic cobia stock is New York through Georgia.

Year	Commercial Landings			Recreational Landings		
	Federal	State	Unknown	Federal	State	Unknown
2006	43%	40%	17%	11%	89%	0%
2007	45%	29%	26%	49%	49%	1%
2008	39%	37%	23%	63%	36%	1%
2009	29%	53%	18%	19%	81%	0%
2010	28%	55%	17%	28%	72%	0%
2011	40%	33%	27%	52%	48%	1%
2012	32%	53%	15%	59%	41%	0%
2013	38%	37%	25%	18%	81%	1%
2014	27%	40%	34%	16%	83%	1%
2015	18%	49%	33%	18%	82%	0%
2016*	17%	43%	40%	6%	94%	0%

Source: SEFSC

*Commercial sector closed federal waters on December 6, 2016 and recreational sector closed federal waters on June 20, 2017.

Under **Alternative 1**, the current management of Atlantic cobia would continue. Atlantic cobia would remain in the fishery management unit (FMU) under the Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic regions (CMP FMP) and the management measures, annual catch limits, and accountability measures would continue to apply in Federal waters. Federal regulations for commercial harvest of Atlantic cobia in the

EEZ (Georgia through New York) include a minimum size limit of 33 inches fork length (FL) and a possession limit of 2 fish per person per day or 6 fish per vessel per day, whichever is more restrictive. Federal regulations for recreational harvest of Atlantic cobia in the EEZ include a minimum size limit of 36 inches FL and a trip limit of 1 fish per person per day or 6 fish per vessel per day, whichever is more restrictive. The current AM is to reduce the length of the following recreational season by the amount necessary to ensure recreational landings achieve the recreational annual catch target, but do not exceed the recreational ACL of 620,000 pounds. The recreational fishing year begins January 1.

Under **Alternative 1**, with North Carolina and Virginia choosing not to issue compatible regulations, it would be expected that the Atlantic cobia landings would not decrease from previous years, the ACL would likely be exceeded, and the biological and ecological impacts to the stock would be negative.

Alternative 2 and **Alternative 5** would remove Atlantic cobia from the FMP and there would no longer be federal management for the stock. **Alternative 5** would not remove Atlantic cobia from the FMP until after the stock assessment is completed, which is planned for April 2018. These alternatives would remove all of the existing federal regulations for Atlantic cobia including the ACL, AM and other management measures. Under these alternatives, the Atlantic States Marine Fisheries Commission (ASFMC) could extend management into Federal waters and Atlantic group cobia could be managed under the ASFMC Interstate FMP.

NMFS guidelines to define FMUs specify that they may be organized around biological, geographic, economic, technical, social, or ecological goals (50 CFR §600.320(d)(1)). NMFS guidelines for determining whether to include species in an FMU for purposes of federal conservation and management direct the Councils to consider the following seven factors (50 CFR §600.340(b)(2)):
1. the importance of the fishery to the Nation and the regional economy;
2. whether an FMP can improve the condition of the stock;
3. the extent to which the fishery could be or already is adequately managed by states;
4. whether an FMP can further the resolution of competing interests and conflicts;
5. whether an FMP can produce more efficient utilization of the fishery;
6. whether an FMP can foster orderly growth of a developing fishery; and
7. costs of the FMP balanced against benefits.

The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished species and for other species where regulation would serve some useful purpose, and where the present or future benefits of regulation would justify the costs. The overall objective of this action is to identify potential management efficiencies that could be achieved without compromising federal conservation and management objectives. NMFS' National Standard guidelines state that the principle implicit in National Standard 7 (NS7) is that not every species needs federal management.

It can be argued that Atlantic group cobia may not need federal management and management by the states would be more appropriate. As shown in Table 4.1.1.2, most of the

recreational and commercial landings of Atlantic group cobia were from state waters and the majority of these landings were from North Carolina and Virginia. Removal of Atlantic group cobia from the CMP FMP with no plan for future management, could lead to uncontrolled harvest of the species in federal waters where approximately 17% of the recreational and 6% of the commercial harvest occurred in 2016. Uncontrolled harvest from federal waters could result in negative biological impacts on the stock.

In 2015 and 2016, the recreational AM was triggered, leading to shortened fishing seasons in Georgia, where most of the landings are in federal waters, and South Carolina, which issues compatible regulations and closes state waters when the federal waters close. North Carolina and Virginia did not issue compatible regulations and harvest in state waters continued. This harvest contributes to the recreational and total ACL making it very likely the recreational AM will be triggered and the following fishing year shortened. The CMP FMP cannot address state landings and as such does not provide a sufficient management structure for this species. Removing the species from the FMU and allowing the states to manage the fishery may be more effective and could resolve conflicts that arise under federal management.

Realizing that constraining catch in federal waters is not enough, the South Atlantic Council sent a letter to the ASMFC requesting that the ASMFC consider complementary management measures for cobia. In May 2016, the Interstate Fisheries Management Program Policy Board discussed cobia and the ASMFC started exploring options for the development of an interstate fishery management plan for cobia. The Policy Board directed the South Atlantic Board of the ASMFC to develop alternatives for developing an FMP that is either joint, complementary, or exclusively managed by the Commission to determine what type of FMP is the best way to move forward. In August 2016, the ASFMC's South Atlantic Board discussed management of cobia and approved the development of a new Interstate FMP for the Atlantic Migratory Group of Cobia (Interstate FMP), which would allow for complementary management. In September 2017, public hearings on the draft Interstate FMP were held throughout the South Atlantic states. In October 2017, the ASFMC's South Atlantic Board approved the final Interstate FMP for implementation in April 2018.

The management measures included in the interstate FMP include: a recreational bag limit of one fish per person; a minimum size limit of 36" fork length (FL) or total length equivalent; vessel limits will be determined once individual states set their seasonal restrictions, but may not exceed six fish per vessel. The interstate FMP would also set state-specific allocations of a coastwide recreational harvest limit that is equivalent to the federal Atlantic group cobia ACL of 620,000 pounds result in the following state-specific soft targets, Georgia: 58,311 pounds, South Carolina: 74,885 pounds, North Carolina: 236,316 pounds, and Virginia: 244,292 pounds. The interstate FMP would require evaluation of recreational harvest overages of specific-state allocations over a three-year time period. If overages occur, states would be required to adjust management measures to reduce harvest in the subsequent three-year period.

Under the interstate FMP, the management of the commercial sector would not change from what is in the current CMP FMP. The commercial sector will continue to be managed with a 33" FL minimum size limit and 2 fish limit per person, with a 6 fish maximum vessel limit. The

federal ACL of 50,000 pounds would be allocated to the entire commercial fishery from Georgia through New York. The commercial Atlantic group cobia fishery will close once the ACL is projected to be reached.

The interstate FMP also provides the opportunity for states to declare de minimis status for their recreational fishery if landings constitute less than 1% of the recreational Atlantic group cobia harvest. De minimis states will be required to adopt the regulations (including season) of the closest adjacent non-de minimis state or accept a 1 fish per vessel per day trip limit and 29" fork length minimum size.

When a species is removed from an FMP, as would be the case under **Alternative 2** or **Alternative 5**, that species is no longer subject to federal management, and could be subject to an uncontrolled harvest in federal waters, and negative biological impacts to the stock. It is expected that if **Alternative 2** or **Alternative 5** were selected as preferred, the ASFMC would extend their jurisdiction into federal waters and Atlantic group cobia would be managed under the Interstate FMP. The Interstate FMP contains management measures that are more restrictive than those in the CMP FMP and as such the biological and ecological benefits to the stock are expected to be beneficial. Under these alternatives, the South Atlantic Council and NMFS would have no regulatory authority to manage harvest of the species in federal waters. However, in some cases federal management may not be needed if other entities can or are already managing a resource.

Under **Alternative 3,** a policy would be established in the CMP FMP that would outline complimentary management of Atlantic cobia with the ASFMC. This process would defer to the Interstate FMP for management of Atlantic cobia but Atlantic group cobia would remain in the CMP FMP. Under **Alternative 3**, NMFS would continue to maintain regulations consistent with the ASFMC Interstate FMP and would make changes to these regulations as they are made by the ASFMC. This alternative gives the South Atlantic Council the flexibility to continue to manage Atlantic group cobia but the majority of the management responsibility would be by the states through the ASFMC Interstate FMP. **Alternative 3** would have positive biological impacts to the species because the Interstate FMP would be the primary management vehicle for the species but the South Atlantic Council and NMFS continue to have regulatory authority to manage harvest of the species in federal waters if deemed necessary. Most of the impacts of this alternative would be administrative and the impacts on the species are expected to be positive.

Alternative 4 would establish a framework procedure in the CMP FMP for an enhanced cooperative management system with the ASMFC that allows changes to Atlantic cobia management through NMFS rulemaking. This alternative sets up a procedure in which ASMFC can propose new regulations directly to NMFS, without formal action from the Council. Rules would still need to meet Magnuson-Stevens Act standards and FMP objectives. The Council would be informed of ASMFC rules and provide comment on whether the rules meet appropriate federal and FMP standards. The South Atlantic Council would still have the ability to manage Atlantic group cobia through the amendment process but routine changes to the regulations would not require South Atlantic Council action. **Alternative 4** would be expected to have positive biological impacts to the stock because management would be conducted by the

ASFMC through their Interstate FMP. This would likely better suit the needs of Atlantic cobia, which is predominately harvested in state waters.

As discussed above, **Alternative 5** and **Alternative 2** would have similar biological impacts. If the species is removed from the FMP and harvest in federal waters goes uncontrolled, the impacts would be negative to the stock. However, it is expected that the ASFMC would extend jurisdiction into federal waters and manage Atlantic group cobia with the Interstate FMP. This FMP would be better able to address landings in state waters and would lead to positive biological impacts to the species. It is unclear under **Alternative 5** if the South Atlantic Council would remove Atlantic group cobia from the FMP regardless of the results of the stock assessment. If the stock assessment determines Atlantic group cobia is overfished, and requires a rebuilding plan, removal from the FMU may not be an option.

This action would not significantly modify the way in which the cobia fishery is prosecuted in terms of gear types used or effort. Therefore, there are no additional impacts on Endangered Species Act (ESA)-listed species or designated critical habitats anticipated as a result of this action (see Section 3.2.4 for a detailed description of ESA-listed species and critical habitat in the action area).

With regards to Essential Fish Habitat designation (see **Section 3.1**), **Alternative 2** or **Alternative 5** removal of Atlantic cobia from the CMP FMP would mean the removal of considerable habitat designated as an HAPC for all life stages of cobia, including all coastal inlets, the cape associated shoal complexes of North Carolina, and the Broad River Estuary in South Carolina. The Broad River Estuary is the only South Carolina estuary designated as an HAPC. **Alternative 2** or **Alternative 5** would diminish the effectiveness of the NMFS to protect localized areas within EFH that are vulnerable to degradation and especially important ecologically for coastal migratory species. Further, **Alternative 2** or **Alternative 5** would diminish the effectiveness of the NMFS to protect genetically distinct inshore spawning populations of Atlantic Cobia through the EFH consultation process. **Alternative 1, Alternative 3,** and **Alternative 4** would not result in a change to EFH habitat designations.

4.1.2 Economic Effects

There will be no direct economic effects to the commercial sector or the private and for-hire components of the recreational sector under this action, as the action does not implement management measures in the Atlantic cobia fishery. The indirect economic effects of this action will be highly dependent upon the subsequent actions of the South Atlantic Fishery Management Council (SAFMC) and the Atlantic States Marine Fisheries Commission (ASMFC) under **Alternatives 2** through **5**.

Recreational harvest of Atlantic cobia was closed in-season on June 20th 2016 and on January 24th in 2017 for federal waters. Based on these recent trends, it is assumed that a harvest closure of Atlantic cobia in federal waters will continue in the near future under this **Alternative 1 (No Action)**. While this does not affect the recreational cobia fishery occurring in the state waters of North Carolina and Virginia, the recreational cobia fishery occurring off of Georgia and South

Carolina will likely see a harvest closure remain in place since the majority of cobia harvested off of Georgia are found in federal waters and South Carolina automatically adopts federal fishery regulations, including harvest closures, within its state waters. This will continue to create negative economic effects for recreational cobia fishery participants in these two states and inequitable distribution of cobia harvest between states within the South and Mid-Atlantic regions in comparison to the historical distribution.

Alternatives 2 through **5** would establish a role for the ASMFC in the management of Atlantic cobia. It is unclear how these alternatives may affect commercial harvest of cobia; however, the alternatives could create a scenario where the recreational harvest of cobia remains open in federal waters and thus re-establish recreational harvest of cobia for anglers fishing off of Georgia and South Carolina. This would lead to positive economic effects for recreational cobia fishery participants, for-hire operations, and other recreational fishing-related businesses in these two states, however, the opposite effects may be seen in North Carolina and Virginia if more strict regulations are implemented to limit harvest there. This scenario may be a transfer of benefits between states rather than a net change in economic effects for the Atlantic cobia fishery, since the recreational ACL is currently being met or nearly met. There is potential for a net economic change, depending on how the negative economic effects of constraining harvest in some states may be offset by a more equitable distribution of harvest and potential benefits to the cobia stock. If the intent of **Alternative 5** is to remove Atlantic cobia from the CMP FMP after the stock assessment is complete, regardless of the outcome of the assessment, then the economic effects previously described will be delayed until the stock assessment has been conducted.

Given the ranges of potential indirect economic effects and transfer of benefits between states, there is no clear ranking of the alternatives. **Alternative 1 (No Action)** would likely be most beneficial for recreational Atlantic cobia fishery participants in North Carolina and Virginia, but least beneficial for participants in South Carolina and Georgia from an economic perspective. **Alternative 2** and **Alternative 5** would likely be the least costly from an administrative standpoint since cobia would be removed from a federal fishery management plan, but the net economic benefits will be dependent on the actions taken by the ASMFC as to how harvest is constrained and how those constraints may affect the Atlantic cobia stock in the long-term. **Alternative 3** and **Alternative 4** would likely provide economic benefits in some circumstances through redistributing landings across states within the South and Mid-Atlantic regions and constraining landings to the ACL, thereby preserving the cobia stock and the long-term sustained economic benefits associated with a robust stock. As previously mentioned, the redistribution of landings would cause positive economic effects for some states but negative economic effects for others.

4.1.3 Social Effects

The social effects on the commercial sector and the for-hire and private components of the recreational sector under this **Action** are expected to be minimal. However, long-term impacts on the social environment will be highly dependent on the outcome of the Atlantic States Marine Fisheries Commission's (Commission) interstate fishery management plan (FMP) for Atlantic

cobia as well as management measures implemented by the South Atlantic Fishery Management Council under **Alternatives 3** and **4**.

Due to harvest exceeding the ACL, the recreational harvest in federal waters was closed in-season on June 20, 2016, followed the next year by an in-season closure on January 24, 2017. South Carolina closed state waters to track the federal closures. Virginia and North Carolina implemented harvest limits but kept state waters open. Georgia did not close state waters, but most Atlantic cobia are caught in federal waters off Georgia. Under **Alternative 1 (No Action)**, it is expected that South Carolina and Georgia will continue to experience recreational harvest closures. This would cause negative social effects for participants in the recreational cobia fishery in South Carolina and Georgia by providing an inequitable distribution of access when compared to landings prior to the 2016 and 2017 federal closures. Additionally, pending approval of ASMFC's interstate FMP for Atlantic cobia, **Alternative 1 (No Action)** could cause inconsistent regulations between state and federal waters, increasing regulatory complexity.

Alternatives 2 through **5** acknowledge the role of ASMFC in the management of Atlantic cobia. The social effect of ASMFC's plan on the commercial sector and for-hire and private components of the recreational sector are currently unknown. However, their draft interstate FMP would create a scenario in which recreational harvest remains open in federal waters. This would increase access for participants in the recreational cobia fishery in South Carolina and Georgia creating beneficial effects on the social environment. On the other hand, recreational participants in North Carolina and Virginia are likely to experience decreased access to the fishery due to state-by-state allocations that would restrict landings**.**

Alternatives 2 and **5** are expected to have negligible social effect because, as shown in Table 4.1.1.2, most of the recreational and commercial landings of Atlantic cobia occur in state waters. **Alternative 5** would delay the decision to remove Atlantic cobia from the CMP FMP until after the upcoming stock assessment. This delay could result in inconsistent regulations in state and federal waters, causing regulatory complexity.

Alternative 3 would keep Atlantic cobia in the CMP FMP, but would update the FMP to acknowledge the role of the Commission. This would allow the South Atlantic Council to provide consistency with regulatory changes on a case-by-case basis. Any changes made to the CMP FMP to be consistent with Commission regulations would need to go through the full amendment process, which may prevent inconsistencies from being addressed in a timely manner. **Alternative 4** would create a cooperative framework procedure for implementing Commission regulations in federal waters through NMFS rulemaking. Development of a framework procedure would create positive social effects as management can react to changes in the stock status or fishery in a timelier manner. However, framework actions that are done rapidly do not always provide for as much public input and comment on the actions as other regulatory processes. While public input and participation by advisory panels can be beneficial, it is time consuming and can slow the process. Yet, that participation can provide a more acceptable regulation which may lead to better compliance.

There is no clear ranking of alternatives, as many cause positive and negative social effects to different coastal communities. **Alternative 1 (No Action)** could generate positive social effects for Virginia and North Carolina, and negative social effects for South Carolina and Georgia if recreational harvest of Atlantic cobia continues to exceed the ACL, resulting in harvest closures in federal waters. The social effects of **Alternatives 2** and **5** would decrease management complexity, but long-term social effects are largely dependent on the management choices made by ASMFC. **Alternatives 3** and **4** would have the positive social effect of redistributing catch equitably across South Atlantic and Mid-Atlantic States and constraining harvest to the ACL. However, redistribution of catch will increase recreational access in some states, while decreasing recreational access in other states. **Alternative 3** allows for more public participation than **Alternative 4**, but is time consuming. **Alternative 4** allows managers to react to changes quickly, but may result in less time for public participation.

4.1.4 Administrative Effects

Alternative 1 would have neutral to increasing administrative impacts. Under this alternative, the recreational fishery is likely to continue to trigger the AM, resulting in shortened fishing seasons and potential future management measures to further constrain catch in federal waters. Administrative impacts are associated with monitoring the fishery landings, rulemaking, enforcement and outreach. If more management measures are needed in the future to constrain harvest, administrative impacts will increase. **Alternative 2** and **Alternative 5** would have the least administrative impacts. The South Atlantic Council would remove Atlantic group cobia from the FMU and then would have no management authority over the species. Under these alternatives, there would no longer be administrative impacts associated with Atlantic group cobia. **Alternative 3** would establish the ASMFC Interstate FMP as the management structure for Atlantic group cobia but would require the Council and NMFS to implement federal regulations that mirror those in the Interstate FMP. Administratively, this could be burdensome, especially if the ASFMC plans to make changes to these regulations on a regular basis. Administrative impacts of this alternative are associated with FMP amendment development, rule-making, outreach and enforcement. **Alternative 4** would establish a framework process in which NMFS could modify the amendment and regulations as they are established through the ASFMC Interstate FMP. Administrative impacts of Alternative 3 and Alternative 4 would be similar. However, Alternative 4 would not require formal action by the Council for changes to the regulations and FMP.

Chapter 5. Councils' Choice for the Preferred Alternatives

Action: Revise the management system for Atlantic cobia

5.1.1 Public Comments and Recommendations

5.1.2 Councils' Choice for Preferred Alternatives

Chapter 6. Cumulative Effects

As directed by the National Environmental Policy Act (NEPA), federal agencies are mandated to assess not only the indirect and direct effects, but cumulative effects of actions as well. NEPA defines cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.

"Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect occurs when the combined effects are greater than the sum of the individual effects. The following are some past, present, and future actions that could impact the environment in the area where the CMP fishery is prosecuted.

1. Affected Area

The South Atlantic Fishery Management Council (South Atlantic Council) in cooperation with the Gulf of Mexico Fishery Management Council (Gulf Council) is responsible for the Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and the Atlantic Region. The immediate impact area for this amendment, which includes actions only for Atlantic cobia, is the federal 200-mile exclusive economic zone (EEZ) of the Atlantic off the coasts of New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia. **Section 3.1** describes the essential fish habitat designation and requirements for CMP species. The range of the affected stock is described in **Section 3.2.**

2. Past, Present, and Reasonably Foreseeable Actions Impacting the Affected Area

For this action, the cumulative effects analysis (CEA) includes an analysis of actions and events dating back to when the original CMP FMP was implemented, and through what is expected to take place approximately before or within 2017-2018. Refer to **Appendix C** for a comprehensive list of past regulatory activity for the CMP FMP. For the purposes of this discussion the past, present and foreseeable actions listed below are those related to data collection in the CMP Fishery.

Past Actions

CMP Fishery

The following amendments to the CMP FMP contained actions that pertained to the Atlantic cobia sector of the CMP Fishery:

- The CMP FMP (1982) established the management unit for cobia, specified biological parameters and harvest limits.
- Amendment 1 (1985) specified the minimum size limit as 33 inches fork length or 37 inches total length for cobia.

- Amendment 2 (1987) to the CMP FMP (implemented in 1987) required that charter vessels and headboats fishing in the EEZ of the Gulf of Mexico or Atlantic for CMP species have permits.
- Amendment 3 (1990) prohibited drift gillnets for CMP species.
- Amendment 5 (1990) modified the biological parameters, provided guidance on assessments and review, and specified that the possession limit was a 1-day possession limit.
- Amendment 8 (1998) extended management through the Mid-Atlantic region, established allowable gear, revised the biological parameters, and modified the framework procedure.
- Amendment 11 (1999) modified the biological parameters for the CMP fishery as a whole.
- Amendment 13 (2002) established prohibitions on CMP harvest in the Dry Tortugas.
- Amendment 18 (2012) established the Gulf and Atlantic stocks of cobia, established the biological parameters, annual catch limits, and accountability measures for each stock.
- Amendment 22 (SAFMC 2013) required electronic logbook reporting for headboat vessels fishing for snapper grouper, dolphin wahoo, and CMP species.
- Amendment 20B (2014) revised the framework procedure for the FMP to allow modification to management measures under the standard documentation process of the open framework procedure, including accountability measures; created a Florida East Coast Subzone for cobia to adjust for a difference between the Councils' jurisdictional areas and modified management of the portion of the Gulf migratory group annual catch limit attributable to the Florida East Coast Subzone was assigned to the South Atlantic Council.
- Framework Amendment 4 (2016) revised the recreational harvest limits for Atlantic cobia to be 1/person and 6/vessel, whichever is more restrictive, and a minimum size limit of 36" fork length (FL). Additionally, the commercial limits were specified at 2/person or 6/vessel, whichever is more restrictive. The amendment also modified the recreational accountability measures to remove the use of the 3-year moving average to evaluate an overage; and specified that if there is an overage, the vessel limit of the following fishing year will be reduced to no fewer than 2/vessel, and then the recreational season may be also shortened if the reduced vessel limit is not sufficient.

Present Actions

There are no actions under consideration by the Councils at this time.

There are no other CMP amendments related to Atlantic cobia under consideration by the Councils at this time.

Reasonably Foreseeable Actions

SEDAR will be conducting a Stock ID Workshop for cobia, as well as a benchmark stock assessment. Stock ID Workshop results are anticipated late-2018, assessment results are anticipated early 2020.

The Joint Commercial Logbook Reporting Amendment would require electronic reporting of landings information by federally permitted commercial vessels, which would increase the timeliness and accuracy of landings data. Currently, fishermen report using paper logbooks.

3. Consideration of Climate Change and Other Non-Fishery Related Issues

Climate Change

Global climate changes could have significant effects on Atlantic fisheries. However, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Link et al., 2015).

It is unclear how climate change would affect fish species in the Atlantic. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Climate change may significantly impact species in the future, but the level of impacts cannot be quantified at this time, nor is the time frame known in which these impacts will occur.

The National Marine Fisheries Service (NMFS) the Southeast Fisheries Science Center and the Southeast Regional Office are developing a Climate Change Regional Action Plan for the South Atlantic, Gulf, and Caribbean to identify action items that can be undertaken to better understand the impacts climate change will have on the Southeast region.

Weather Variables

Hurricane season is from June 1 to November 30, and accounts for 97% of all tropical activity affecting the Atlantic basin. These storms, although unpredictable in their annual occurrence, can devastate areas when they occur. Although these effects may be temporary, those fishing-related businesses whose profitability is marginal may go out of business if a hurricane strikes.

Deepwater-Horizon Oil Spill

On April 20, 2010, an explosion occurred on the Deepwater Horizon MC252 oilrig, resulting in the release of an estimated 4.9 million barrels of oil into the Gulf. In addition, 1.84 million gallons of Corexit 9500A dispersant were applied as part of the effort to constrain the spill. The cumulative effects from the oil spill and response may not be known for several years. The oil

spill affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the Deepwater Horizon MC252 oil spill on the physical environment are expected to be significant and may be long-term.

Oil is dispersed on the surface, and because of the heavy use of dispersants, oil is also documented as being suspended within the water column, some even deeper than the location of the broken wellhead. Floating and suspended oil washed onto shore in several areas of the Gulf, as well as non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are more persistent in the environment and can be transported hundreds of miles. Oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion. Zooplankton that feed on algae could also be negatively impacted, thus allowing more of the hypoxia-fueling algae to grow.

The highest concern is that the oil spill may have impacted spawning success of species that spawn in the summer months, either by reducing spawning activity or by reducing survival of the eggs and larvae. Effects on the physical environment, such as low oxygen, could lead to impacts on the ability of larvae and post-larvae to survive, even if they never encounter oil. In addition, effects of oil exposure may create sub-lethal effects on the eggs, larva, and early life stages. The stressors could potentially be additive, and each stressor may increase the susceptibility to the harmful effects of the other.

The oil from the spill site was not detected in the South Atlantic region, and does not likely pose a threat to the South Atlantic species addressed in this amendment. However, the effects of the oil spill on fish species would be taken into consideration in future Southeast Data Assessment and Review assessments. Indirect and inter-related effects on the biological and ecological environment of the fisheries in concert with the Deepwater Horizon MC252 oil spill are not well understood. Changes in the population size structure could result from shifting fishing effort to specific geographic segments of populations, combined with any anthropogenically induced natural mortality that may occur from the impacts of the oil spill. The impacts on the food web from phytoplankton, to zooplankton, to mollusks, to top predators may be significant in the future.

4. Overall Impacts Expected from Past, Present, and Future Actions

This amendment proposes management measures for the Atlantic cobia sector of the CMP fishery in the form of revisions to the management system with the intent of allowing for more equitable distribution of harvest and facilitating better coordination between state and federal management. **Chapters 2** and **4** of this document describe in detail the magnitude and significance of effects of the alternatives for these actions for the recreational and commercial Atlantic cobia sectors, and none of the impacts have been determined to be significant.

The cumulative effects of the proposed action in combination with the effects of other past, present, and future actions, are not expected to affect the magnitude of bycatch, diversity, and the ecosystem structure of fish communities, or safety at sea of fishermen. The actions in this amendment combined with past, present and foreseeable actions would not cause significant impacts to the resource or to the fishery participants.

This action is not likely to result in direct, indirect, or cumulative effects to unique areas, such as significant scientific cultural or historical resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas as the proposed action is not expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort within the Atlantic region. The Stellwagen Bank off the Northeastern U.S., USS Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries are within the boundaries of the Atlantic EEZ.

5. Monitoring and Mitigation

The effects of the proposed actions are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. The proposed actions do not itself introduce non-indigenous species such as lionfish, and is not reasonably expected to facilitate the spread of such species through depressing the populations of native species. Additionally, the actions in the amendment do not propose any activity, such as increased ballast water discharge from foreign vessels, which is associated with the introduction or spread on nonindigenous species.

None of the beneficial or adverse impacts from the proposed management actions (as summarized in **Chapter 2** of this document) have been determined to be significant. See **Chapter 4** for the detailed discussions of the magnitude of the impacts of the preferred alternatives on the human environment. The action in Amendment 31 would not have significant adverse biological, social, or economic effects because the action would allow for more equitable distribution of harvest and increased federal and state coordination None of the alternatives are expected to have negative biological or ecological impacts and in fact would benefit the species. Therefore, the cumulative effects of the action proposed in the Amendment 31 are not expected to affect the magnitude of bycatch, diversity, and the ecosystem structure of fish communities, or safety at sea of fishermen targeting cobia. Based on the cumulative effects analysis presented herein, the proposed action would not have any significant adverse cumulative impacts compared to, or combined with, other past, present, and foreseeable future actions.

Chapter 7. List of Interdisciplinary Plan Team (IPT) Members

Name	Agency/Division	Title
Christina Wiegand	SAFMC	IPT Lead/Fishery Social Scientist
Karla Gore	SERO /SF	IPT Lead/Fishery Biologist
Ryan Rindone	GMFMC	IPT Lead/Fishery Biologist
Brian Cheuvront	SAFMC	Deputy Executive Director for Management
Cynthia Cooksey	SERO/HC	Fishery Biologist
Kevin Craig	SEFSC	Stock Assessment Analyst
David Dale	SERO/HC	Essential Fish Habitat Coordinator
Rick DeVictor	SERO/SF	South Atlantic Branch Chief
Susan Gerhart	SERO/SF	Gulf Branch Chief
Shepherd Grimes	NOAA GC	General Counsel
John Hadley	SAFMC	Fishery Economist
Michael Jepson	SERO/SF	Fishery Social Scientist
Mike Larkin	SERO/LAPP	Biologist
David Records	SERO/SF	Economist
Ken Riley	SERO/HC	Fishery Biologist
Scott Sandorf	SERO	Technical Writer
Noah Silverman	SERO	NEPA Specialist

NMFS = National Marine Fisheries Service, GMFMC = Gulf of Mexico Fishery Management Council, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, OLE= Office of Law Enforcement

Chapter 8. Agencies Consulted

Responsible Agencies
South Atlantic Fishery Management Council (Administrative Lead)
4055 Faber Place Drive, Suite 201
N. Charleston, South Carolina 29405
843-571-4366/ 866-SAFMC-10 (TEL)
843-769-4520 (FAX)
www.safmc.net

Environmental Assessment:
NMFS, Southeast Region
263 13th Avenue South
St. Petersburg, Florida 33701
727- 824-5301 (TEL)
727-824-5320 (FAX)

List of Agencies, Organizations, and Persons Consulted
Gulf of Mexico Fishery Management Council
SAFMC Law Enforcement Advisory Panel
SAFMC Scientific and Statistical Committee
North Carolina Coastal Zone Management Program
South Carolina Coastal Zone Management Program
Georgia Coastal Zone Management Program
Florida Coastal Zone Management Program
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources
South Carolina Department of Natural Resources
North Carolina Division of Marine Fisheries
Virginia Marine Resources Commission
Mid-Atlantic Fishery Management Council
Atlantic States Marine Fisheries Commission
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

Chapter 9. References

Atkinson L.P., D.W. Menzel, and K.A.E. Bush. 1985. *Oceanography of the southeastern U.S. continental shelf.* American Geophysical Union: Washington, DC.

Blanton, J.O., L.P. Atkinson, L.J. Pietrafesa, and T.N. Lee. 1981. The intrusion of Gulf Stream water across the continental shelf due to topographically-induced upwelling. Deep-Sea Research 28:393-405.

Brooks, D.A., and J.M. Bane. 1978. Gulf Stream deflection by a bottom feature off Charleston, South Carolina. Science 201:1225-1226.

Carter, D.W. and C. Liese. 2012. The Economic Value of Catching and Keeping or Releasing Saltwater Sport Fish in the Southeast USA. North American Journal of Fisheries Management, 32:4, 613-625. http://dx.doi.org/10.1080/02755947.2012.675943

GMFMC (Gulf of Mexico Fishery Management Council)/SAFMC (South Atlantic Fishery Management Council). 2011. Amendment 18 to the fishery management plan for coastal migratory pelagic resources in the Gulf of Mexico and Atlantic regions including environmental assessment, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council, Tampa, Florida, and South Atlantic Fishery Management Council, North Charleston, South Carolina. Available at: http://safmc.net/Library/pdf/Final_CMP_Amend18.pdf.

GMFMC/SAFMC. 2014. Amendment 20B to the fishery management plan for coastal migratory pelagic resources in the Gulf of Mexico and Atlantic regions including environmental assessment, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council, Tampa, Florida, and South Atlantic Fishery Management Council, North Charleston, South Carolina. Available at: http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_sa/cmp/2014/am20b/documents/pdfs/cmp_a20b_ea.pdf.

IPCC (Intergovernmental Panel on Climate Change). 2007. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden, and C. E. Hanson (eds). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Jacob, S., P. Weeks, B. Blount, and M. Jepson. 2013. Development and evaluation of social indicators of vulnerability and resiliency for fishing communities in the Gulf of Mexico. Marine Policy 37:86-95.

Janowitz, G.S., and L.J. Pietrafesa. 1982. The effects of alongshore variation in bottom topography on a boundary current - topographically-induced upwelling. Continental Shelf Research 1: 123-141.

Jepson, M. and L. L. Colburn. 2013. Development of social indicators of fishing community vulnerability and resilience in the U.S. Southeast and Northeast Regions. U.S. Dept. of Commerce, NOAA Technical Memorandum NMFS-F/SPO-129, 64 p.

Lee, T.N., C. Rooth, E. Williams, M.F. McGowan, A.F. Szmant, and M.E. Clarke. 1992. Influence of Florida Current, gyres and wind-driven circulation on transport of larvae and recruitment in the Florida Keys coral reefs. Continental Shelf Research 12:971-1002.

Lee, T.N., M.E. Clarke, E. Williams, A.F. Szmant, and T. Berger. 1994. Evolution of the Tortugas Gyre. Bulletin of Marine Science 54(3):621-646.

Leis, J.M. 1991. The pelagic stage of reef fishes: the larval biology of coral reef fishes. In *The ecology of fishes on coral reefs*, pp. 183-230, P.F. Sale, ed. Academic Press: New York, NY.

Link, J.S., R. Griffis, and S. Busch (Eds). 2015. NOAA Fisheries Climate Science Strategy. U.S. Dept. of Commerce, NOAA Technical Memorandum NMFS-F/SPO-155, 70pp.

Menzel D.W., editor. 1993. Ocean processes: U.S. southeast continental shelf. DOE/OSTI -- 11674. U.S. Department of Energy.

NMFS (National Marine Fisheries Service). 2011. Fisheries Economics of the United States, 2009. U.S. Department of Commerce, NOAA Technical Memorandum. National Marine Fisheries Service-F/SPO-118. Available at: http://www.st.nmfs.noaa.gov/st5/publication/fisheries_economics_2009.html

NMFS (National Marine Fisheries Service). 2015. Endangered Species Act (ESA) Section 7 Consultation on the Continued Authorization of the Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources in the Atlantic and Gulf of Mexico under the Magnuson-Stevens Fishery Management and Conservation Act. Consultation No. SER-20 15-15985. NOAA, NMFS, SERO, Protected Resources Division (F/SER3) and Sustainable Fisheries Division (F/SER2). Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/fisheries_bo/2015_cmp_opinion.pdf

Schwartz, F. J. 1989. Zoogeography and ecology of fishes inhabiting North Carolina's marine waters to depths of 600 meters. Pages 335-374 *In* R. Y. George, and A. W. Hulbert, editors. North Carolina coastal oceanography symposium. U.S. Dep. Commerce, NOAA-NURP Rep. 89-2.

SEDAR 28. 2012, 2013. Southeast Data, Assessment, and Review Stock Assessment of South Atlantic Spanish Mackerel and Cobia. Available at: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops. jsp?WorkshopNum=28

Smith, N.P. 1994. Long-term Gulf-to-Atlantic transport through tidal channels in the Florida Keys. Bulletin of Marine Science 54:602-609.

Stevenson D, Chiarella L, Stephan D, Reid R, Wilhelm K, McCarthy J, Pentony M. 2004. Characterization of the fishing practices and marine benthic ecosystems of the Northeast U.S. Shelf, and an evaluation of the potential effects of fishing on essential fish habitat. Woods Hole (MA): National Marine Fisheries Service, Northeast Fisheries Science Center, NOAA Technical Memorandum NMFS-NE-181. 179 pp.

Vondruska, J. 2010. Fishery analysis of the commercial fisheries for eleven coastal migratory pelagic species. SERO-FSSB-2010-01. National Marine Fisheries Service, Southeast Regional Office. St. Petersburg, Florida.

Wang, J.D., J. van de Kreeke, N. Krishnan, and D. Smith. 1994. Wind and tide response in Florida Bay. Bulletin of Marine Science 54:579-601.

Yeung, C., and M.F. McGowan. 1991. Differences in inshore-offshore and vertical distribution of phyllosoma larvae of *Panulirus, Scyllarus, and Scyllarides* in the Florida Keys in May-June, 1989. Bulletin of Marine Science 49:699-714.

Appendix A. Glossary

Allowable Biological Catch (ABC): Maximum amount of fish stock than can be harvested without adversely affecting recruitment of other components of the stock. The ABC level is typically higher than the total allowable catch, leaving a buffer between the two.

Atlantic States Marine Fisheries Commission (ASMFC): Management authority of Atlantic states from Maine through Florida that manages shared migratory fishery resources in state waters.

Bycatch: Fish harvested in a fishery, but not sold or kept for personal use. Bycatch includes economic discards and regulatory discards, but not fish released alive under a recreational catch and release fishery management program.

Charter Boat: A fishing boat available for hire by recreational anglers, normally by a group of anglers for a short time period.

Directed Fishery: Fishing directed at a certain species or species group.

Discards: Fish captured, but released at sea.

Effort: The amount of time and fishing power (i.e., gear size, boat size, horsepower) used to harvest fish.

Exclusive Economic Zone (EEZ): Zone extending from the shoreline out to 200 nautical miles in which the country owning the shoreline has the exclusive right to conduct certain activities such as fishing. In the United States, the EEZ is split into state waters (typically from the shoreline out to 3 nautical miles) and federal waters (typically from 3 to 200 nautical miles).

Fishery Dependent Data: Fishery data collected and reported by fishermen and dealers.

Fishery Independent Data: Fishery data collected and reported by scientists who catch the fish themselves.

Fishery Management Plan: Management plan for fisheries operating in the federal produced by regional fishery management councils and submitted to the Secretary of Commerce for approval.

Fishing Effort: Usually refers to the amount of fishing. May refer to the number of fishing vessels, amount of fishing gear (nets, traps, hooks), or total amount of time vessels and gear are actively engaged in fishing.

Fork Length (FL): The length of a fish as measured from the tip of its snout to the fork in its tail.

Framework: An established procedure within a fishery management plan that has been approved and implemented by NMFS, which allows specific management measures to be modified via regulatory amendment.

Gear restrictions: Limits placed on the type, amount, number, or techniques allowed for a given type of fishing gear.

Gulf of Mexico Fishery Management Council (GMFMC): One of eight regional councils mandated in the Magnuson-Stevens Fishery Conservation and Management Act to develop management plans for fisheries in federal waters. The GMFMC develops fishery management plans for fisheries off the coast of Texas, Louisiana, Mississippi, Alabama, and the west coast of Florida.

Head Boat: A fishing boat that charges individual fees per recreational angler onboard.

Highgrading: Form of selective sorting of fishes in which higher value, more marketable fishes are retained, and less marketable fishes, which could legally be retained are discarded.

Magnuson-Stevens Fishery Conservation and Management Act: Federal legislation responsible for establishing the fishery management councils and the mandatory and discretionary guidelines for federal fishery management plans.

Marine Recreational Information Program (MRIP): Survey operated by NMFS in cooperation with states that collects marine recreational data.

Multispecies fishery: Fishery in which more than one species is caught at the same time and location with a particular gear type.

National Marine Fisheries Service (NMFS): Federal agency within NOAA responsible for overseeing fisheries science and regulation.

National Oceanic and Atmospheric Administration: Agency within the Department of Commerce responsible for ocean and coastal management.

Overfished: A stock or stock complex is considered overfished when stock biomass falls below the minimum stock size threshold (MSST) (e.g., current biomass < MSST = overfished).

Overfishing: Overfishing occurs when a stock or stock complex is subjected to a rate of fishing mortality that exceeds the maximum fishing mortality threshold (e.g., current fishing mortality rate > MFMT = overfishing).

Quota: % or annual amount of fish that can be harvested.

Scientific and Statistical Committee (SSC): Fishery management advisory body composed of federal, state, and academic scientists, which provides scientific advice to a fishery management council.

South Atlantic Fisheries Management Council (SAFMC): One of eight regional councils mandated in the Magnuson-Stevens Fishery Conservation and Management Act to develop management plans for fisheries in federal waters. The SAFMC develops fishery management plans for fisheries off North Carolina, South Carolina, Georgia, and the east coast of Florida.

Total Length (TL): The length of a fish as measured from the tip of the snout to the tip of the tail.

Appendix B. Alternatives Considered but Rejected

Appendix C. History of Management

The Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and South Atlantic Region (CMP FMP; 1982), with an environmental impact statement (EIS), was approved in 1982 and implemented by regulations effective in February 1983. Managed species included king mackerel, Spanish mackerel, and cobia. The CMP FMP treated cobia as one stock in the Atlantic and Gulf of Mexico (Gulf) and established the maximum sustainable yield (MSY) at 1.057 million pounds (mp). The optimum yield (OY) was defined as all cobia equal to or larger than 33 inches fork length (FL) that can be harvested by U.S. fishermen under current fishery conditions, and possession of cobia less than at 33 inches FL was prohibited. The management objective for cobia was to institute management measures necessary to increase yield per recruit and average size and to prevent overfishing.

CMP FMP Amendments

Amendment 1, with EIS, implemented in September 1985, provided a framework procedure for pre-season adjustment of total allowable catch (TAC) and established the fishing year as January 1 through December 31. The minimum size limit was designated as 33 inches FL or 37 inches total length (TL). Additionally, the Councils designated Problem #5 for the CMP FMP to address as: Cobia are presently harvested at a size below that necessary for maximum yield and may be overfished in some areas beyond the management area; most southeastern states have not yet adopted the recommended minimum size limit; no management action has been taken by states which have jurisdiction over cobia populations in Chesapeake Bay, which appear to have been overfished; and federal enforcement capability is limited and not believed to be very effective in this case.

Amendment 2, with an environmental assessment (EA), implemented in July 1987, except for the charter vessel permit requirements that became effective in August 1987. The amendment established federal permit requirements for for-hire vessels fishing for coastal migratory pelagics in the EEZ. For-hire vessels would comply with bag limits but could fish under a commercial quota with a commercial permit when not on under charter.

Amendment 3, with EA, was partially approved in August 1989, revised, resubmitted, and approved in April 1990. It prohibited drift gillnets for coastal pelagic species and purse seines for the overfished migratory groups of mackerels.

Amendment 5, with EA, implemented in August 1990, made the following changes in the management regime:

- Revised a specified problem that the condition of the cobia stock is unknown and increased landings over the last ten years have prompted concern about overfishing. The MSY is set at 1 mp.
- Specified parameters for ‘overfishing’ and ‘overfished’ designations
- Added cobia to the annual stock assessment procedure;
- Cobia possession limit is 2 fish per person per day with a 1-day possession limit.

Amendment 6, with EA, implemented in November of 1992, made the following changes:

- Identified additional problems and an objective in the fishery;
- Provided for rebuilding overfished stocks of mackerels within specific periods;
- Provided for biennial assessments and adjustments;
- Specified the minimum size limit 33 inches FL (remove reference to 37 inches TL).
- MSY set at 2.2 mp based on the 1992 Report of the Mackerel Stock Assessment Panel.

Amendment 8, with EA, implemented in March 1998, made the following changes to the management regime:

- Extend the management area for cobia through New York, i.e., through the jurisdiction of the Mid-Atlantic Fishery Management Council. Note: This action extended the 2 fish bag limit and 33"FL minimum size limit through the Mid-Atlantic Council's area.
- Established allowable gear in the South Atlantic and Mid-Atlantic areas as well as providing for the Regional Administrator to authorize the use of experimental gear;
- Overfishing: For species like cobia, when there is insufficient information to determine whether the stock or migratory group is overfished (transitional SPR), overfishing is defined as a fishing mortality rate in excess of the fishing mortality rate corresponding to a default threshold static SPR of 30 percent. If overfishing is occurring, a program to reduce fishing mortality rates to at least the level corresponding to management target levels will be implemented.
- Modified the Stock Assessment Panel process.
- Optimum Yield (OY) for cobia is set at MSY, currently 2.2 million pounds, in accord with the recommendation of the SPRMSC that, because of limited data, SPR not be used for cobia.
- Established various data consideration and reporting requirements under the framework procedure;
- Modified the seasonal framework adjustment measures and specifications; and revised specified problems in the fishery for the FMP

Amendment 11, with SEIS, partially approved in December 1999, included Maximum sustainable yield for species in the coastal migratory pelagic management unit is unknown. The Council reviewed alternatives and concluded the best available data supports using 30% Static SPR as a proxy for MSY. Note: This was not approved.

- Optimum Yield (OY) for the coastal migratory pelagic fishery is the amount of harvest that can be taken by U.S. fishermen while maintaining the Spawning Potential Ration (SPR) at or above 40% Static SPR.
- Overfishing for all species in the coastal migratory pelagics management unit is defined as a fishing mortality rate (F) in excess of the fishing mortality rate at 30% Static SPR (F30%Static SPR) which is the coastal migratory pelagics MSY proxy. The "threshold level" for all species in the coastal migratory pelagic management unit is defined as 10% Static SPR.

Amendment 13, with SEIS, implemented August 2002, established two marine reserves in the EEZ of the Gulf in the vicinity of the Dry Tortugas, Florida known as Tortugas North and Tortugas South in which fishing for coastal migratory pelagic species is prohibited. This action complements previous actions taken under the National Marine Sanctuaries Act.

Amendment 18, with EA, implemented in January 2012 established ACLs, ACTs, and AMs for cobia. The amendment established Atlantic and Gulf migratory groups for cobia with the stock boundary set at the management boundary between the councils, and also modified the framework procedures.

Amendment 20B, with EA, implemented in March 2015 revised the ACLs and ACTs for Atlantic and Gulf cobia based on the recent stock assessment (SEDAR 28). The amendment also modified the boundary between Atlantic and Gulf cobia to be at the Georgia/Florida state line, to align with the stock boundary used in SEDAR 28.

Framework Amendment 4, with EA, implemented in September 2017, revised the recreational harvest limits for Atlantic cobia to be 1/person and 6/vessel, whichever is more restrictive, and a minimum size limit of 36" fork length (FL). Additionally, the commercial limits were specified at 2/person or 6/vessel, whichever is more restrictive. The amendment also modified the recreational accountability measures to remove the use of the 3-year moving average to evaluate an overage; and specified that if there is an overage, the vessel limit of the following fishing year will be reduced to no fewer than 2/vessel, and then the recreational season may be also shortened if the reduced vessel limit is not sufficient.

Appendix D. Bycatch Practicability Analysis

Background

In the Gulf of Mexico (Gulf) and Atlantic (Florida through New York) regions, most king mackerel and cobia are harvested with hook and line gear; however, gillnets and castnets are the predominant gear type used to harvest Spanish mackerel.

Commercial Sector

Currently, discard data are collected using a supplemental form that is sent to a 20% stratified random sample of the active permit holders in coastal migratory pelagics (CMP) fishery. However, in the absence of any observer data, there are concerns about the accuracy of logbook data in collecting bycatch information. Biases associated with logbooks primarily result from inaccuracy in reporting of species that are caught in large numbers or are of little economic interest (particularly of bycatch species), and from low compliance rates. During 2010 – 2014, the commercial sector for CMP species in both the Gulf and Atlantic landed 226,411 pounds (lbs) and had no reported discards (**Table D-1**) per year. The commercial sector predominantly harvested king and Spanish mackerel, with relatively few cobia (**Table D-1**). Both the king mackerel and Spanish mackerel commercial sectors have very low discards.

Recreational Sector

For the recreational sector, during 2010 – 2014, estimates of the number of recreational discards were available from Marine Recreational Information Program (MRIP) and the National Marine Fisheries Service (NMFS) headboat survey. The MRIP system classifies recreational catch into three categories:

- Type A - Fishes that were caught, landed whole, and available for identification and enumeration by the interviewers.
- Type B - Fishes that were caught but were either not kept or not available for identification:
    - Type B1 - Fishes that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.
    - Type B2 - Fishes that were caught and released alive.

During 2010 – 2014, the private recreational landings and discards for all three CMP species were higher than for either the headboat or charter boat category (**Table D-1**). Spanish and king mackerel had the highest landings and cobia had the highest discards (58%) relative to the landings. For the headboat sector, cobia had 37% discards relative to total catch of 3,795. King and Spanish mackerel had considerably higher landings but lower discards compared to those of cobia.

During 2010 – 2014, information for charter trips came from two sources. Charter vessels for the CMP fishery were selected to report by the Science and Research Director (SRD) to

maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, and on forms provided by the SRD. Harvest and bycatch information was monitored by MRIP. Since 2000, a 10% sample of charter vessel captains were called weekly to obtain trip level information, such as date, fishing location, target species, etc. In addition, the standard dockside intercept data were collected from charter vessels and charter vessel clients were sampled through the standard random digital dialing of coastal households. Precision of charter vessel effort estimates has improved by more than 50% due to these changes (Van Voorhees et al. 2000).

Harvest from headboats were monitored by NMFS at the Southeast Fisheries Science Center's (SEFSC) Beaufort Laboratory. Collection of discard data began in 2004. Daily catch records (trip records) were filled out by the headboat operators, or in some cases by NMFS-approved headboat samplers based on personal communication with the captain or crew. Headboat trips were subsampled for data on species lengths and weights. Biological samples (scales, otoliths, spines, reproductive tissues, and stomachs) were obtained as time allowed. Lengths of discarded fish were occasionally obtained but these data were not part of the headboat database.

Recent improvements have been made to the recreational survey of MRIP, formerly called Marine Recreational Fisheries Statistics Survey. Beginning in 2013, samples were drawn from a known universe of fishermen rather than randomly dialing coastal households. Other improvements have been and will be made that should result in better estimating recreational catches and the variances around those catch estimates.

Table D-1. Annual mean Headboat, MRIP, and commercial estimates of landings and discards in the Gulf of Mexico and U.S. Atlantic Ocean (Florida to New York) during 2010 – 2014. Headboat, MRIP (charter and private) landings are in numbers of fish (N); commercial landings are in pounds (lbs). Discards represent numbers of fish that were caught and released alive (B2).

	HEADBOAT				MRIP CHARTER				MRIP PRIVATE				COMMERCIAL		
	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Landings (lbs ww)	Discards (N)	Percent Discards
Cobia	3,795	2,404	1,391	37%	17,666	10,150	7,516	43%	157,814	66,291	91,523	58%	226,411	0	0%
King Mackerel	27,141	25,498	1,643	6%	150,869	131,008	19,861	13%	348,595	239,425	109,170	31%	5,445,986	7,945	<1
Spanish Mackerel	12,611	11,500	1,111	9%	384,353	282,737	101,616	26%	2,069,184	1,095,230	973,954	47%	5,013,350	1,162	<1%
Total	**43,548**	**39,402**	**4,146**		**552,888**	**423,895**	**128,993**		**2,575,593**	**1,400,946**	**1,174,647**		**10,685,747**	**9,107**	

Sources: MRIP data from SEFSC Recreational ACL Dataset (March 2016); Headboat data from SEFSC Headboat Logbook CRNF files (expanded; March 2016);
Commercial landings data from SEFSC Commercial ACL Dataset (December 2015) with discard estimates from expanded SEFSC Commercial Discard Logbook (April 2016);
Notes: Commercial discard estimates are for vertical line gear only. Commercial king mackerel includes "king and cero mackerel" category;
Estimates of commercial discards are highly uncertain; No reported discards for Commercial and Headboat Cobia;
King mackerel, cobia, and Spanish mackerel data include both Atlantic coast and Gulf of Mexico. Note that discard estimates for commercial and headboat include only the Gulf of Mexico and SAFMC jurisdiction; discards from the Mid-Atlantic would likely be relatively low, but are not reported here

Bycatch Mortality

For cobia, SEDAR 28 (2013a and 2013b) used a discard mortality rate of 5% for the hook-and-line gear (both commercial and recreational sectors), and 51% for gillnets. SEDAR 38 provided estimates of release mortality for king mackerel of 20% for the private and charter sectors, 22% release mortality for the headboat sector, 25% release mortality for commercial hooked gear fisheries, and 100% for trawl by-catch for both the Gulf and Atlantic. For Spanish mackerel, SEDAR 17 (2008) used the following discard mortality rates: gillnets 100%, shrimp trawls 100%, trolling 98%, hook-and-line 80%, and trolling/hook-and-line combined 88%. SEDAR 28 (2013c, 2013d) recommended identical discard mortality for Spanish mackerel as 100% for gillnets and shrimp trawls, but recommended a 10% discard mortality rate for commercial handlines, and 20% for recreational handlines. Most king mackerel and cobia are harvested using hook-and-line gear, and gillnets are the primary gear for Spanish mackerel. As shown in **Table D-1**, discards in the commercial sector are relatively low for all three CMP species, and while discards of cobia in the private recreational sector are high, the discard mortality rate is very low for this species using hook-and-line gear (SEDAR 28, 2013a and 2013b).

Practicability of Management Measures in Directed Fisheries Relative to their Impact on Bycatch and Bycatch Mortality

According to the bycatch information for mackerel gillnets, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species (SAFMC 2004). There were no interactions of sea turtles or marine mammals reported (Poffenberger 2004). The Southeast Region Current Bycatch Priorities and Implementation Plan FY04 and FY05 reported that 26 species of fish are caught as bycatch in the Gulf king mackerel gillnet sector. Of these, 34% are reported to be released dead, 59% released alive, and 6% undetermined. Bycatch was not reported for the Gulf Spanish mackerel sector. The Atlantic Spanish mackerel portion of the CMP fishery has 51 species reported as bycatch with approximately 81% reported as released alive. For the South Atlantic king mackerel portion of the CMP fishery 92.7% are reported as released alive with 6% undetermined. Bycatch was not reported separately for gillnets and hook-and-line gear. Additionally, the supplementary discard program to the logbook reporting requirement shows no interactions of gillnet gear with marine mammals or birds.

Table D-2 lists the species most often caught with cobia in the Gulf and South Atlantic from SEFSC commercial logbook data. Cobia is not included in the top three caught species on trips with at least one pound of cobia. The harvest of cobia is incidental to harvest of red grouper, red snapper and king mackerel.

Table D-2. Top three species caught on trips where at least one pound of cobia was caught with all gear types in the Gulf of Mexico and South Atlantic from 2010-2014. Cobia were not listed in the top three species by harvest on these trips. Cobia contributed only 7% of harvest on these trips.

Species	% of Harvest (All Gear Types)
Red Grouper	35.4%
Red Snapper	15.9%
King mackerel & Cero	9.0%

Source: Southeast Fisheries Science Center Commercial Logbook (April 2016)

Ecological Effects Due to Changes in the Bycatch

The ecological effects of bycatch mortality are the same as fishing mortality from directed fishing efforts. If not properly managed and accounted for, either form of mortality could potentially reduce stock biomass to an unsustainable level. The Gulf Council, South Atlantic Council, and NMFS are in the process of developing actions that would improve bycatch monitoring in all fisheries including the CMP fishery. For example, the Joint South Atlantic/Gulf of Mexico Generic Charter/Headboat Reporting in the South Atlantic Amendment, which became effective on January 7, 2014, requires weekly electronic reporting of landings and bycatch data for headboats in the South Atlantic. A similar framework action to require electronic reporting of landings and bycatch by headboats in the Gulf became effective on March 5, 2014. A generic amendment that requires weekly electronic reporting of commercial landings by dealers in the Gulf and South Atlantic became effective on August 7, 2014. The Gulf and South Atlantic Councils are developing amendments that would require electronic reporting of charter vessels, which would include landed and discarded fish. Better bycatch and discard data would provide a better understanding of the composition and magnitude of catch and bycatch, enhance the quality of data provided for stock assessments, increase the quality of assessment output, provide better estimates of interactions with protected species, and lead to better decisions regarding additional measures to reduce bycatch. Management measures that affect gear and effort for a target species can influence fishing mortality in other species. Therefore, enhanced catch and bycatch monitoring would provide better data that could be used in multi-species assessments.

Ecosystem interactions among CMP species in the marine environment are poorly known. The three species are migratory, interacting in various combinations of species groups at different levels on a seasonal basis. With the current state of knowledge, it is difficult to evaluate the potential ecosystem-wide impacts of these species interactions, or the ecosystem impacts from the limited mortality estimated to occur from mackerel fishing effort. However, there is very little bycatch in the commercial cobia portion of the CMP fishery. There is high bycatch in the private recreational (58%), charter (43%) and headboat (37%) but these are caught using hook and line gear and the release mortality is low. Framework Amendment 4 would not modify the gear types or fishing techniques in the CMP fishery. Therefore, ecological effects due to changes in bycatch in the CMP fishery are likely to remain very low if implemented. For more details on ecological effects, see Chapters 3 and 4 of the amendment.

Effects on Marine Mammals and Birds

The Gulf and South Atlantic CMP hook-and-line fishery is classified in the 2017 Marine Mammal Protection Act List of Fisheries as a Category III fishery (81 FR 54019, August 25, 2016), meaning the annual mortality and serious injury of a marine mammal resulting from the fishery is less than or equal to 1% of the maximum number of animals, not including natural moralities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

The Gulf and South Atlantic CMP gillnet sector is classified as a Category II fishery. This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50% annually of the potential biological removal). The fishery has no documented interaction with marine mammals; NMFS classifies this fishery as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

The Bermuda petrel and roseate tern occur within the action area. Bermuda petrels are occasionally seen in the waters of the Gulf Stream off the coasts of North Carolina and South Carolina during the summer. Sightings are considered rare and only occurring in low numbers (Alsop 2001). Roseate terns occur widely along the Atlantic coast during the summer but in the southeast region, they are found mainly off the Florida Keys (unpublished USFWS data). Interaction with fisheries has not been reported as a concern for either of these species.

Fishing effort reductions have the potential to reduce the amount of interactions between the fishery and marine mammals and birds. Although, the Bermuda petrel and roseate tern occur within the action area, these species are not commonly found and neither has been described as associating with vessels or having had interactions with the CMP fishery. Thus, it is believed that the CMP fishery is not likely to negatively affect the Bermuda petrel and the roseate tern.

Changes in Research, Administration, and Enforcement Costs and Management Effectiveness

Research and monitoring is ongoing to understand the effectiveness of proposed management measures and their effect on bycatch. In 1990, the SEFSC initiated a logbook program for commercial snapper – grouper vessels in the Gulf and South Atlantic. In 1999, logbook reporting was initiated for vessels catching king and Spanish mackerel. The Dolphin and Wahoo FMP required logbook reporting by fishermen with Commercial Atlantic Dolphin/Wahoo Permits. Approximately 20% of commercial fishermen from snapper grouper, dolphin wahoo, and CMP fisheries are asked to fill out discard information in logbooks. Recreational discards are obtained from the MRIP and logbooks from the NMFS headboat program.

Stranding networks have been established in the Southeast Region. The NMFS SEFSC is the base for the Southeast United States Marine Mammal Stranding Program (http://sero.nmfs.noaa.gov/pr/strandings.htm). NMFS authorizes organizations and volunteers under the MMPA to respond to marine mammal stranding events throughout the United States. These organizations form the stranding network whose participants are trained to respond to, and collect samples from live and dead marine mammals that strand along southeastern United State beaches. The SEFSC is responsible for: coordinating stranding events; monitoring stranding

rates; monitoring human caused mortalities; maintaining a stranding database for the southeast region; and conducting investigations to determine the cause of unusual stranding events including mass stranding events and mass mortalities (http://www.sefsc.noaa.gov/species/mammals/strandings.htm).

The Southeast Regional Office (SERO) and the SEFSC participate in a wide range of training and outreach activities to communicate bycatch related issues. The NMFS SERO issues public announcements, Southeast Fishery Bulletins, or News Releases on different topics, including use of turtle exclusion devices, bycatch reduction devices, use of methods and devices to minimize harm to turtles and sawfish, information intended to reduce harm and interactions with marine mammals, and other methods to reduce bycatch for the convenience of constituents in the southern United States. These are mailed out to various organizations, government entities, commercial interests and recreational groups. This information is also included in newsletters and publications that are produced by NMFS and the various regional fishery management councils. Announcements and news releases are also available on the internet and broadcasted over NOAA weather radio.

Appendix E. Regulatory Impact Review

Appendix F. Regulatory Flexibility Analysis

Appendix G. Other Applicable Law

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the Exclusive Economic Zone. However, fishery management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making are summarized below.

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider, and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

The proposed rule associated with this amendment will include a request for public comment, and if approved, upon publication of the final rule, there will be a 30-day wait period before the regulations are effective in compliance with the APA.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that directly affect any land or water use or natural resource of a state's coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary of Commerce, NMFS will determine if this framework amendment is consistent with the Coastal Zone Management programs of the states of Florida, Georgia, South Carolina, to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

Information Quality Act

The Information Quality Act (IQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical,

cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the IQA directs the Office of Management and Budget (OMB) to issue government wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: 1) ensure information quality and develop a pre-dissemination review process; 2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and 3) report periodically to OMB on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the IQA, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act (ESA)

The ESA of 1973 (16 U.S.C. Section 1531 et seq.) requires that federal agencies must ensure actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or the habitat designated as critical to their survival and recovery. The ESA requires NMFS to consult with the appropriate administrative agency (itself for most marine species, and the U.S. Fish and Wildlife Service for all remaining species) when proposing an action that may affect threatened or endangered species or adversely modify critical habitat. Consultations are necessary to determine the potential impacts of the proposed action. They conclude informally when proposed actions may affect but are "not likely to adversely affect" threatened or endangered species or designated critical habitat. Formal consultations, resulting in a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" threatened or endangered species or adversely modify designated critical habitat.

National Marine Fisheries Service completed a biological opinion on June 18, 2015, evaluating the impacts of the CMP fishery on ESA-listed species. In the biological opinion, NMFS determined that the proposed continued authorization of the CMP Fishery, is not likely to adversely affect any listed whales (i.e., blue, sei, sperm, fin, humpack, or North Atlantic right whales), Gulf sturgeon, or elkhorn and staghorn corals. NMFS also determined that CMP Fishery is not likely to adversely affect designated critical habitats for elkhorn and staghorn corals or loggerhead sea turtles, and will have no effect on designated critical habitat for North Atlantic right whale.

According to the 2015 Biological Opinion on CMP fisheries, green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles, Atlantic sturgeon, and the smalltooth sawfish are all likely to be adversely affected by the CMP fishery. Green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles area all highly migratory, travel widely throughout the GOM and South Atlantic, and are known to occur in area of the fishery. The distribution of Atlantic sturgeon and smalltooth sawfish within the action area is more limited, but all of these species do overlap in certain regions of the action area and these species have the potential to be been incidentally captured in CMP fisheries.

An incidental take statement for sea turtles, smalltooth sawfish, and Atlantic sturgeon was issued for incidental take coverage in the federal CMP fisheries throughout the action area. Reasonable and prudent measures to minimize the impact of these incidental takes were specified, along with terms and conditions to implement them.

On March 23, 2015, NMFS published a proposed rule (80 FR 15271) listing 11 distinct population segments (DPSs) for green sea turtles; the proposed North Atlantic DPS for green sea turtles is listed as threatened, and is the only DPS whose individuals can be expected to be encountered in the action area. The listing of the DPSs of green turtles triggers reinitiation of consultation under Section 7 of the ESA because the previous opinion did not consider what effects the CMP fishery is likely to have on this species, therefore NMFS Protected Resources must analyze the impacts of these potential interactions.

On June 29, 2016, NMFS published a Final Rule in the Federal Register listing Nassau grouper as a threatened species under the ESA, effective July 29, 2016. Reinitiation of Section 7 consultation on the FMP for SA/Gulf of Mexico Coastal Migratory Pelagics is needed to address newly listed species/DPSs. SERO is currently prioritizing completion of the consultation along with other consultations required after recent listings.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas. It also prohibits the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea otters, polar bears, manatees, and dugongs.

Part of the responsibility that NMFS has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as "depleted." A conservation plan is then developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction; development and implementation of take-reduction plans for stocks that may be reduced or are being maintained

below their optimum sustainable population levels due to interactions with commercial fisheries; and studies of pinniped-fishery interactions. The MMPA requires a commercial fishery to be placed in one of three categories, based on the relative frequency of incidental serious injuries and mortalities of marine mammals. Category I designates fisheries with frequent serious injuries and mortalities incidental to commercial fishing; Category II designates fisheries with occasional serious injuries and mortalities; and Category III designates fisheries with a remote likelihood or no known serious injuries or mortalities.

Under the MMPA, to legally fish in a Category I and/or II fishery, a fisherman must take certain steps. For example, owners of vessels or gear engaging in a Category I or II fishery, are required to obtain a marine mammal authorization by registering with the Marine Mammal Authorization Program (50 CFR 229.4). They are also required to accommodate an observer if requested (50 CFR 229.7(c)) and they must comply with any applicable take reduction plans.

The Gulf and South Atlantic CMP hook-and-line fishery is classified in the 2017 Marine Mammal Protection Act List of Fisheries as a Category III fishery (81 FR 54019), meaning the annual mortality and serious injury of a marine mammal resulting from the fishery is less than or equal to 1% of the maximum number of animals, not including natural moralities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

The Gulf and South Atlantic CMP gillnet fishery is classified as Category II fishery in the 2017 Marine Mammal Protection Act List of Fisheries. This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50% annually of the potential biological removal). The fishery has no documented interaction with marine mammals; NMFS classifies this fishery as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

Because of the nature of this fishery, the actions in this framework amendment are not expected to negatively impact marine mammals.

Essential Fish Habitat

The amended Magnuson-Stevens Act included a new habitat conservation provision known as Essential Fish Habitat (EFH) that requires each existing and any new FMPs to describe and identify EFH for each federally managed species, minimize to the extent practicable impacts from fishing activities on EFH that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that EFH. To address these requirements, the South Atlantic Fishery Management Council has, under separate action, approved an environmental impact statement (SAFMC 1998) to address the new EFH requirements contained within the Magnuson-Stevens Act. Section 305(b)(2) requires federal agencies to obtain a consultation for any action that may adversely affect EFH.

Executive Orders

E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The NOAA Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

E.O. 12866: Regulatory Planning and Review

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations would have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act.

On July 1, 2016, the Small Business Administration final rule revising the small business size standards for several industries became effective (79 FR 33647). The rule increased the size standard for Finfish Fishing from $19.0 to $20.5 million, Shellfish Fishing from $5.0 to $5.5 million, and Other Marine Fishing from $7.0 to $7.5 million.

In light of these standards, NMFS has preliminarily determined that the proposed actions would not have a significant economic impact on a substantial number of small entities.

E.O. 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

This Executive Order mandates 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 in the United States and its territories and possessions. Federal agency responsibilities under this Executive Order include conducting their programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons from participation in, denying persons the benefit of, or subjecting persons to discrimination under, such, programs policies, and activities, because of their race, color, or national origin. Furthermore, each federal agency responsibility set forth under this Executive

Order shall apply equally to Native American programs. Environmental justice considerations are discussed in detail in **Section 3.4**.

The actions in this framework amendment are not expected to negatively impact minority or low-income populations.

E.O. 12962: Recreational Fisheries

This Executive Order requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (Council) responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The Council also is responsible for developing, in cooperation with federal agencies, states and tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

The actions in this framework are intended to improve recreational fishing opportunities in the CMP Fishery and are consistent with the provisions of E.O. 12962.

E.O. 13132: Federalism

The Executive Order on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

No federalism issues have been identified relative to the actions proposed in this amendment.

References

National Marine Fisheries Service (NMFS). 2015. Biological Opinion, ESA Section 7 Consultation for the Continued Authorization of Fishing under the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources in the Atlantic and Gulf of Mexico (CMPR FMP). NMFS Southeast Regional Office Protected Resources Division: St. Petersburg, FL.

South Atlantic Fishery Management Council (SAFMC). 1998. Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans in the South Atlantic Region, including environmental assessment, regulatory impact review, and fishery impact statement. South Atlantic Fishery Management Council, Charleston, South Carolina. Available at: http://ocean.floridamarine.org/efh_coral/pdfs/Comp_Amend/EFHAmendCovTOC.pdf.

Appendix H. Fishery Impact Statement