Framework Amendment 9

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

Spanish Mackerel Trip Limits and Accountability Measures

Regulatory Impact Review | Regulatory Flexibility Analysis

November 2019 DRAFT

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Definitions, Abbreviations and Acronyms Used in the FMP

ABC	acceptable biological catch
ACL	annual catch limit
AM	accountability measure
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
CPUE	catch per unit effort
DEIS	draft environmental impact statement
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
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
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
MSFCMA	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
OFL	overfishing limit
OY	optimum yield
RIR	regulatory impact review
SAFMC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SIA	social impact assessment
SPR	spawning potential ratio
SSC	Scientific and Statistical Committee

Framework Amendment 9 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and South Atlantic Region

Proposed actions:	Modify accountability measures of Atlantic migratory group Spanish mackerel and lower the commercial trip limit for Atlantic migratory group Spanish mackerel in the northern zone.
Lead agency:	Framework Amendment – South Atlantic Fishery Management Council Environmental Assessment – National Marine Fisheries Service (NMFS), Southeast Regional Office
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Chapter 1. Introduction

1.1 What Actions are Being Proposed?

Framework Amendment 9 amends the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (CMP FMP). Framework Amendment 9 includes three actions: (1) reduce the commercial trip limit for Atlantic migratory group Spanish mackerel (Atlantic Spanish mackerel) in the Atlantic Northern Zone, (2) modify the in-season accountability measures for Atlantic Spanish mackerel and (3) modify the post-season accountability measures of Atlantic Spanish mackerel. This framework amendment applies to harvest of Atlantic Spanish mackerel in the exclusive economic zone (EEZ) from the New York/Connecticut/Rhode Island boundary to the Miami-Dade/Monroe County, Florida boundary.

Management Agencies

- ***South Atlantic Fishery Management Council***– Engages 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*** – Develops alternatives based on guidance from the Council and analyzes the environmental impacts of those alternatives. If approved by the Secretary of Commerce, NMFS implements the action through rulemaking.

1.2 Who is Proposing these Actions?

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 CMP FMP (plan amendments) and framework amendments affecting both Gulf of Mexico (Gulf) and Atlantic Spanish mackerel must be approved by both the Gulf Council and the South Atlantic Council. Because this framework amendment applies only to Atlantic Spanish mackerel, the South Atlantic Council is proposing the action and will give final approval on the action. Following approval by the South Atlantic Council, this framework amendment would be submitted to the National Marine Fisheries Service (NMFS) for implementation. NMFS is a line office in the National Oceanic and Atmospheric Administration.

1.3 Why are the South Atlantic Council and NMFS Considering Action?

The South Atlantic Council and NMFS are considering action to attempt to avoid in-season closures for the commercial sector for Atlantic Spanish mackerel. During their April 2018 and April 2019 meetings, the Mackerel Cobia Advisory Panel (AP) expressed concern about increased participation in the commercial Spanish mackerel portion of the CMP fishery and how this increase may affect Spanish mackerel in the long term. Of concern were recent closures to commercial Spanish mackerel harvest in federal waters off the Atlantic Northern Zone (New York/Connecticut/Rhode Island boundary to the North Carolina/South Carolina boundary).

During the 2017/2018 season, 100,000 pounds of quota was transferred from the Atlantic Southern Zone (North Carolina/South Carolina boundary to the Miami-Dade/Monroe County, Florida, boundary) to the Atlantic Northern Zone to prevent an early closure. However, the Atlantic Northern Zone quota was still projected to be met and federal waters were closed to commercial harvest of Spanish mackerel on November 7, 2018. The Atlantic Southern Zone did not close but harvested 95% its remaining quota. During the 2018/2019 season there was no transfer of quota between the two zones. The Atlantic Northern Zone was closed to commercial harvest on November 4, 2018, and the Atlantic Southern Zone was closed to commercial harvest on February 5, 2019.

During the current season (March 1, 2019 through February 29, 2020), the Atlantic Northern Zone was closed to commercial harvest on August 24, 2019. A transfer of quota from the Atlantic Southern Zone to the Atlantic Northern Zone was requested by the North Carolina Division of Marine Fisheries. However, the Florida Fish and Wildlife Conservation Commission denied the request due the Atlantic Southern Zone being projected to also close prior to the end of the fishing season.

During the June 2019 meeting, after reviewing the Mackerel Cobia AP's concerns, the South Atlantic Council directed staff to prepare a white paper with a thorough analysis of effort in the commercial Spanish mackerel portion of the CMP fishery, and a discussion of possible avenues to control effort, including: a limited access commercial permit, a limited access gillnet endorsement in the Southern Zone, and collaboration with state agencies. After reviewing the white paper at their September meeting, the South Atlantic Council determined that addressing accountability measures and trip limits would provide a short-term solution to recent federal water closures of commercial Spanish mackerel while the Council developed long-term solutions.

1.3.1 Purpose and Need

Purpose for Action

The *purpose* of the framework amendment is to revise accountability measures and commercial trip limits for Atlantic migratory group Spanish mackerel.

Need for Action

The *need* for the framework amendment is to prevent commercial in-season closures, reduce regulatory discards, and achieve optimum yield for Atlantic migratory group Spanish mackerel.

1.4 What species and areas would be affected by the action?

Though king mackerel, Spanish mackerel, and cobia in the Gulf are included in the CMP FMP, Spanish mackerel is the only species addressed in this framework amendment. Spanish mackerel is managed as two migratory groups (Atlantic and Gulf) in the CMP FMP. There is a year-round management boundary between the Gulf and South Atlantic Councils for Spanish mackerel in the CMP FMP at the Miami-Dade/Monroe County, Florida, boundary (**Figure**

1.4.1). This boundary places the entire EEZ off the Florida Keys into the Gulf Council's jurisdiction. A stock assessment was completed for Gulf and Atlantic migratory groups of Spanish mackerel in 2012 and revised in 2013 (SEDAR 28 2013). Based on the results from the stock assessment, it was determined that Spanish mackerel in the Gulf and Atlantic were not overfished or undergoing overfishing.

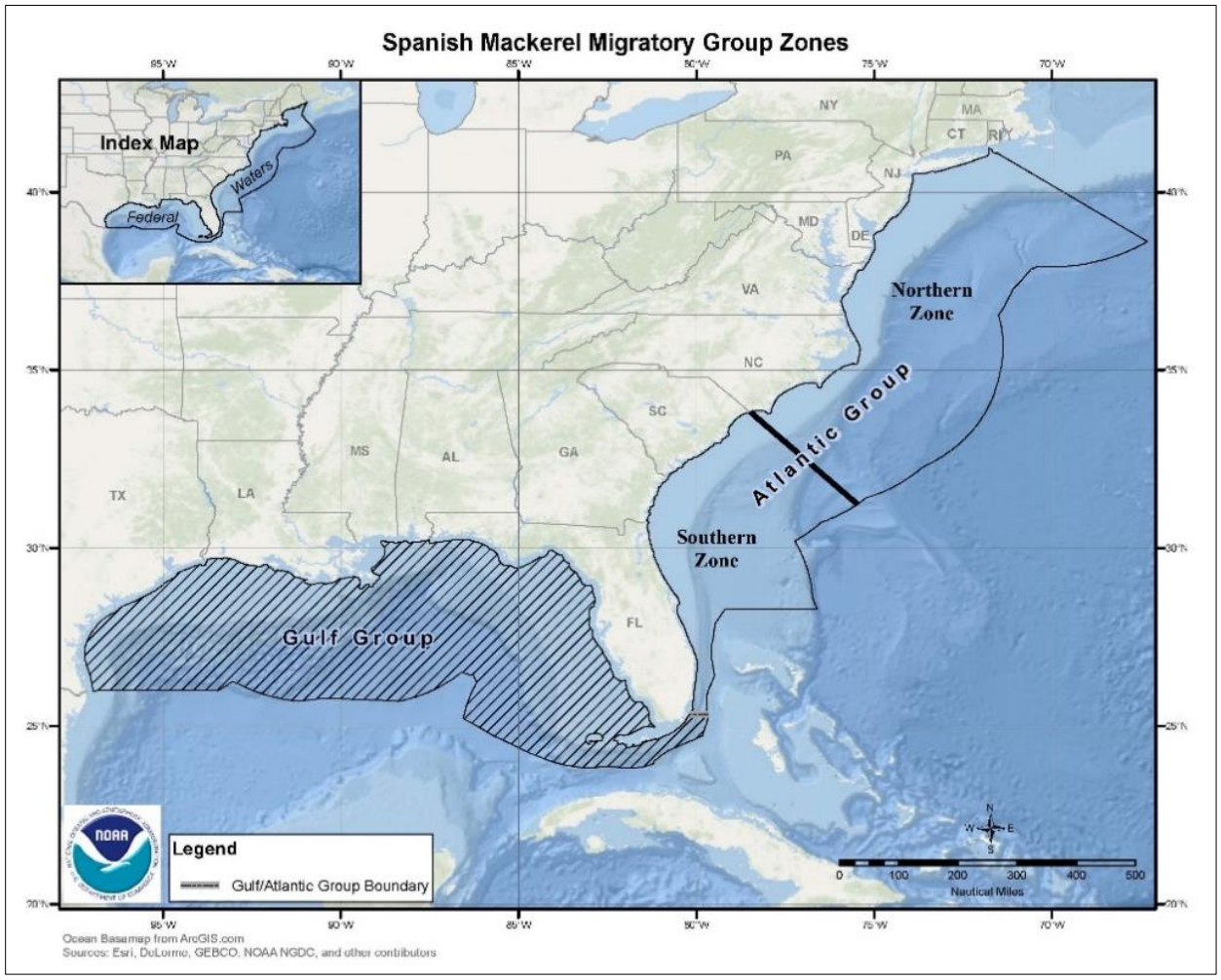

Figure 1.4.1. Boundary between Gulf and Atlantic Spanish mackerel migratory groups.

Chapter 2. Proposed Actions and Alternatives

2.1 Action 1. Revise the in-season commercial accountability measures and establish in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternative 1 (No Action). The commercial in-season accountability measure for Atlantic migratory group Spanish mackerel is to close the northern or southern zone of the Atlantic exclusive economic zone for the remainder of the fishing year if that zone's applicable quota is reached or projected to be reached. There are no in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternative 2. Remove the existing commercial in-season accountability measure for Atlantic migratory group Spanish mackerel that closes the northern or southern zone of the Atlantic exclusive economic zone for the remainder of the fishing year if that zone's applicable commercial quota is reached or projected to be reached. An in-season closure will occur for the both the commercial sector (northern and southern zones) and recreational sector for the remainder of the fishing year when the stock annual catch limit (commercial northern and southern zone quotas and recreational annual catch limit, combined) is reached or is projected to be reached.

Alternative 3. Remove the existing commercial in-season accountability measure for Atlantic migratory group Spanish mackerel that closes the northern or southern zone of the Atlantic exclusive economic zone for the remainder of the fishing year if that zone's applicable commercial quota is reached or projected to be reached. An in-season closure will occur for the recreational sector if the combined catch (commercial and recreational) reaches or is projected to reach the stock annual catch limit. An in-season closure will occur for the commercial sector (northern and southern zone) if the commercial annual catch limit has been reached and the combined catch (commercial and recreational) reaches or is projected to reach:

Sub-alternative 3a. 90% of the stock annual catch limit.
Sub-alternative 3b. 80% of the stock annual catch limit.
Sub-alternative 3c. 70% of the stock annual catch limit.

2.1.1 Comparison of Alternatives

To be completed.

2.2. Action 2. Revise the post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternative 1 (No Action). The commercial post-season accountability measure for Atlantic migratory group Spanish mackerel is to reduce the commercial quota for the northern or southern zone for the following year by the amount of any commercial sector overage in the prior fishing year for that zone if the sum of the commercial and recreational landings exceeds the stock annual catch limit, and Atlantic migratory group Spanish mackerel are overfished.

The recreational post-season accountability measure for Atlantic migratory group Spanish mackerel is to reduce the bag limit by the amount necessary to ensure recreational landings may achieve the recreational annual catch target, but do not exceed the recreational annual catch limit, in the following fishing year if the recreational landings exceed the recreational annual catch limit and the sum of the commercial and recreational landings exceeds the stock annual catch limit.

If the sum of the commercial and recreational landings exceeds the stock annual catch limit and Atlantic migratory group Spanish mackerel are overfished, reduce the recreational annual catch target for that following year by the amount of any recreational sector overage in the prior fishing year.

Alternative 2. Remove the existing post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternative 3. Remove the existing commercial post-season accountability measures.

Remove the existing recreational post-season accountability measure that reduces the recreational annual catch target for that following year by the amount of any recreational sector overage in the prior fishing year if the sum of the commercial and recreational landings exceeds the stock annual catch limit and Atlantic migratory group Spanish mackerel are overfished.

> **Sub-alternative 3a.** Reduce the stock annual catch limit for the following fishing year by the amount of the stock annual catch limit overage in the prior fishing year, if Atlantic migratory group Spanish mackerel are overfished.
>
> **Sub-alternative 3b.** Reduce the recreational annual catch limit, commercial northern zone quota, and commercial southern zone quota, and the stock annual catch limit, by the amount of their respective catch limit overages of the respective zone or sector that had an overage in the prior fishing year, if both the commercial and recreational landings exceed their sector annual catch limit and Atlantic migratory group Spanish mackerel are overfished.

2.2.1 Comparison of Alternatives

To be completed.

2.3. Action 3. Modify the commercial trip limits for Atlantic migratory group Spanish mackerel in the northern and southern zones.

Alternative 1. (No Action). Northern Zone. The commercial trip limit in the northern zone of the Atlantic exclusive economic zone for Spanish mackerel harvested from, possessed on board, or landed in a day, from a vessel for which a permit for Spanish mackerel has been issued is 3,500-pounds whole weight or gutted weight.

Southern Zone. The commercial trip limit in the southern zone of the Atlantic exclusive economic zone for Spanish mackerel harvested from, possessed on board, or landed in a day, from a vessel for which a permit for Spanish mackerel has been issued is 3,500-pounds whole weight or gutted weight. When 75% of adjusted southern zone quota[1] is met or projected to be met, the trip limit would be reduced to 1,500 pounds whole weight or gutted weight. When 100% of adjusted southern zone quota is met or projected to be met, the trip limit is reduced to 500 pounds whole weight or gutted weight until the end of the fishing year or until the southern zone commercial quota is met or projected to be met, at which time the commercial sector in the southern zone would be closed to the harvest of Spanish mackerel.

Alternative 2. Reduce the commercial trip limit for Spanish mackerel in the northern zone of the Atlantic exclusive economic zone harvested from, possessed on board, or landed in a day, from a vessel for which a permit for Spanish mackerel has been issued.

Sub-alternative 2a. 2,500-pounds whole weight or gutted weight until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds whole weight or gutted weight until the end of the fishing year or until the in-season commercial accountability measures have been triggered.

Sub-alternative 2b. 2,000-pounds whole weight or gutted weight until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds whole weight or gutted weight until the end of the fishing year or until the in-season commercial accountability measures have been triggered.

Sub-alternative 2c. 1,500-pounds whole weight or gutted weight until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds whole weight or gutted weight until the end of the fishing year or until the in-season commercial accountability measures have been triggered.

Alternative 3. The commercial trip limit in the southern zone of the Atlantic exclusive economic zone for Spanish mackerel harvested from, possessed on board, or landed in a day, from a vessel for which a permit for Spanish mackerel has been issued is 3,500-pounds whole weight or gutted weight. When 75% of the adjusted southern zone quota is met or projected to be met, the trip limit would be reduced to 1,500 pounds whole weight or gutted weight. When 100% of adjusted southern zone quota is met or projected to be met, the trip limit is reduced to 500 pounds whole weight or gutted weight until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered.

[1] The adjusted Southern Zone quota is the full Southern Zone quota less 250,000 pounds.

2.3.1 Comparison of Alternatives

To be completed.

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 Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (CMP FMP) is a joint FMP between the South Atlantic Fishery Management Council (South Atlantic Council) and the Gulf of Mexico Fishery Management Council. The action in this framework amendment only applies to the Atlantic group Spanish mackerel fishery. The South Atlantic Council has management jurisdiction of the federal waters (3-200 nm) offshore of North Carolina, South Carolina, Georgia, and East Florida. Management of CMP species extends through the Mid-Atlantic region, which is discussed below.

South Atlantic Region

The continental shelf from the Dry Tortugas, Florida, to Miami, Florida, is approximately 25 kilometers (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). North of Cape Canaveral, Florida, to Cape Hatteras, North Carolina, 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 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. From Cape Canaveral, Florida, to Cape Hatteras, North Carolina four water masses are found: Gulf Stream water; Carolina Capes water; Georgia water; and Virginia coastal 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. 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. 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). On the continental shelf, offshore projecting shoals at Cape Fear, North Carolina, Cape Lookout, North Carolina, and Cape Hatteras, North Carolina affect longshore coastal currents and 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. 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 marine fish and shellfish. 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 (Schwartz 1989). Some pelagic species are associated with particular benthic habitats, while other species are truly pelagic.

In the South Atlantic, areas of unique habitat exist such as the Oculina Bank and large expanses of deepwater coral; however, regulations are currently in place to protect these areas. Additionally, there are several notable shipwrecks along the South Atlantic coast in state and federal waters including Lofthus (eastern Florida), SS Copenhagen (southeast Florida), Half Moon (southeast Florida), Hebe (Myrtle Beach, South Carolina), Georgiana (Charleston, South Carolina), Monitor (Cape Hatteras, North Carolina), Huron (Nags Head, North Carolina), and Metropolis (Corolla, North Carolina). The South Atlantic coastline is also home to numerous marshes and wetland ecosystems; however, these sensitive ecological environments do not extend into federal waters of the South Atlantic. The proposed action is not expected to alter fishing practices in any manner that would affect any of the above listed habitats or historic resources, nor would it alter any regulations intended to protect them.

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 33ºF 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).

3.2 Biological and Ecological Environment

A description of the biological environment for CMP species is provided in Amendment 18 (GMFMC and SAFMC 2011), is incorporated herein by reference, and is summarized below.

The mackerel family, Scombridae, includes tunas, mackerels, and bonitos, and are among the most important commercial and sport fishes. The adults in the CMP management unit utilize the coastal waters of the Atlantic Ocean out to the edge of the continental shelf as their primary habitat. Within the area, the occurrence of CMP species is governed by temperature and salinity. All species are seldom found in water temperatures less than 20°C. Salinity preference varies,

but these species generally prefer high salinity, less than 36 parts per thousand (ppt). The habitat for eggs and larvae of all species in the coastal pelagic management unit is the water column. Within the spawning area, eggs and larvae are concentrated in the surface waters.

The proposed action in this framework amendment specifically affects Spanish mackerel (*Scomberomorus maculatus*).

3.2.1 Spanish Mackerel

Spanish mackerel are migratory and move into specific areas to spawn, and mature at age 1-2 years. They primarily eat other fish species (herring, sardines, and menhaden) and to a lesser extent crustaceans and squid at all life stages (larvae to adult). They are eaten primarily by larger pelagic predators like sharks, tuna, and bottlenose dolphin.

Spanish mackerel is also a pelagic species occurring in depths up to 75 meters (225 feet) but primarily found in depths of 20 meters (60 feet) or less. They occur in coastal zones of the western Atlantic from southern New England to the Florida Keys and throughout the Gulf of Mexico (Collette and Russo 1979). Adults usually are found from the low-tide line to the edge of the continental shelf, and along coastal areas. They inhabit estuarine areas (especially higher salinity areas) during seasonal migrations, but are considered rare and infrequent in many Gulf estuaries.

Spawning occurs along the inner continental shelf from April to September (Powell 1975). Eggs and larvae occur most frequently offshore over the inner continental shelf at temperatures between 20°C (68°F) and 32°C (89.6°F) and salinities between 28 and 37 ppt. They are found frequently in water depths from 9 meters (27 feet) to about 84 meters (252 feet), but are most common in < 50 meters (150 feet).

Juveniles are most often found in coastal and estuarine habitats and at temperatures greater than 25°C (77°F) and salinities greater than 10 ppt. Although they occur in waters of varying salinity, juveniles appear to prefer marine salinity levels and generally are not considered estuarine-dependent. Like king mackerel, adult Spanish mackerel are migratory, generally moving from wintering areas of south Florida and Mexico to more northern latitudes in spring and summer. Spanish mackerel generally mature at age 1 to 2 and have a maximum age of approximately 11 years (Powell 1975).

3.2.2 Description of the Fishery

Spanish mackerel are managed jointly by the South Atlantic Fishery Management Council (South Atlantic Council) and the Gulf of Mexico Fishery Management Council (Gulf Council). The management unit extends from the Gulf of Mexico through the Mid-Atlantic Fishery Management Council's jurisdiction to the New York/Connecticut/Rhode Island line (**Figure 1.4.1**). The South Atlantic Council provides two voting seats for Mid-Atlantic Council representatives on the Mackerel Cobia Committee. These individuals participate as full committee members and can make motions and vote on motions, at the committee level.

Spanish mackerel are managed as two separate stocks: The Gulf migratory stock and the Atlantic migratory stock. A commercial permit is required to harvest and sell Spanish mackerel.

The Spanish mackerel permit is open access and covers both Atlantic and Gulf migratory groups. Additionally, an open access charter/headboat permit is required for Atlantic migratory group CMP species. Currently, management for Atlantic Spanish mackerel runs from the New York/Connecticut/Rhode Island state line to the Miami-Dade/Monroe County, Florida boundary. For management purposes that area is split up into two separate zones, the Northern Zone (NY/CT/RI state line to the North Carolina/South Carolina state line) and the Southern Zone (NC/SC state line and the Miami-Dade/Monroe county, FL boundary). Each zone has its own quota and set of regulations (**Table 3.2.2.1**).

Table 3.2.2.1. Current regulations for the Atlantic king mackerel commercial fishery.

Zones	Northern Zone (NY/CT/RI state line to the NC/SC state line) Southern Zone (NC/SC state line to the Miami-Dade/Monroe County Line, Florida)

Allocations	• Total Commercial: 55%
	  ○ Northern Zone: 20%
	  ○ Southern Zone: 80%

Annual Catch Limit	• Total Commercial: 3,300,000 pounds
	  ○ Northern Zone: 662,670 pounds
	  ○ Southern Zone: 2,667,330 pounds

Season	March 1st to the end of February
Trip/Bag Limit	**Northern Zone**
	3,500 pounds year-round
	Southern Zone
	Adjusted Quota = 2,417,330 pounds • Starting March 1st until 75% of the adjusted quota is reached: 3,500 pounds • From 75% until 100% of the adjusted quota is reached: 1,500 pounds • From 100% adjusted quota until 100% of the full quota is reached: 500 pounds
Minimum Size Limit	12-inches FL

The Atlantic States Marine Fisheries Commission (Commission) began managing Spanish mackerel in November 1990. In 2011, the Commission's South Atlantic State/Federal Fisheries Management Board (South Atlantic Board) approved an Omnibus Amendment for Spot, Spotted Seatrout, and Spanish mackerel. The Amendment included a process for the South Atlantic Board to review and respond to changes in federal regulations, allowing for complementary management throughout the range of Atlantic Spanish mackerel.

Landings for Atlantic Spanish Mackerel

Commercial landings of Atlantic Spanish mackerel in pounds (as reported) from 2000 through 2017 by zone are presented in **Table 3.2.2.2**. Total landings relative to the ACL are presented graphically in **Figure 3.2.2.1**. Landings are presented by zone to ensure confidentiality. The Northern zone includes North Carolina and the Mid-Atlantic states. The Southern zone includes South Carolina, Georgia, and the east coast of Florida to the Miami-Dade/Monroe Country boundary.

Table 3.2.2.2. Atlantic Spanish mackerel total commercial landings (pounds) and ACL 2000 through 2017, by zone.

Fishing Year	Northern Zone Landings	Southern Zone Landings	Total Landings	Commercial ACL	%ACL
2000-2001	659,325	1,892,607	2,551,932	3,870,000	65.9%
2001-2002	653,490	2,162,003	2,815,493	3,870,000	72.8%
2002-2003	698,828	2,354,067	3,052,895	3,870,000	78.9%
2003-2004	539,797	3,151,738	3,691,535	3,870,000	95.4%
2004-2005	522,576	3,129,649	3,652,225	3,870,000	94.4%
2005-2006	486,676	2,667,777	3,154,453	3,870,000	81.5%
2006-2007	515,388	3,156,272	3,671,660	3,620,000	101.4%
2007-2008	537,230	2,520,826	3,058,056	3,620,000	84.5%
2008-2009	568,592	2,591,622	3,160,214	3,620,000	87.3%
2009-2010	1,101,977	3,073,997	4,175,974	3,620,000	115.4%
2010-2011	959,621	3,600,921	4,560,542	3,620,000	126.0%
2011-2012	906,885	3,095,993	4,002,878	3,880,660	103.1%
2012-2013	934,187	2,208,754	3,142,941	3,130,000	100.4%
2013-2014	628,668	2,517,549	3,146,217	3,130,000	100.5%
2014-2015	682,167	2,189,814	2,871,981	3,330,000	86.2%
2015-2016	575,920	2,043,861	2,619,781	3,330,000	78.7%
2016-2017	640,183	2,558,623	3,198,806	3,330,000	96.1%
2017-2018	845,495	2,430,385	3,275,880	3,330,000	98.4%

Source: ALS

Note: From 2000-2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st.

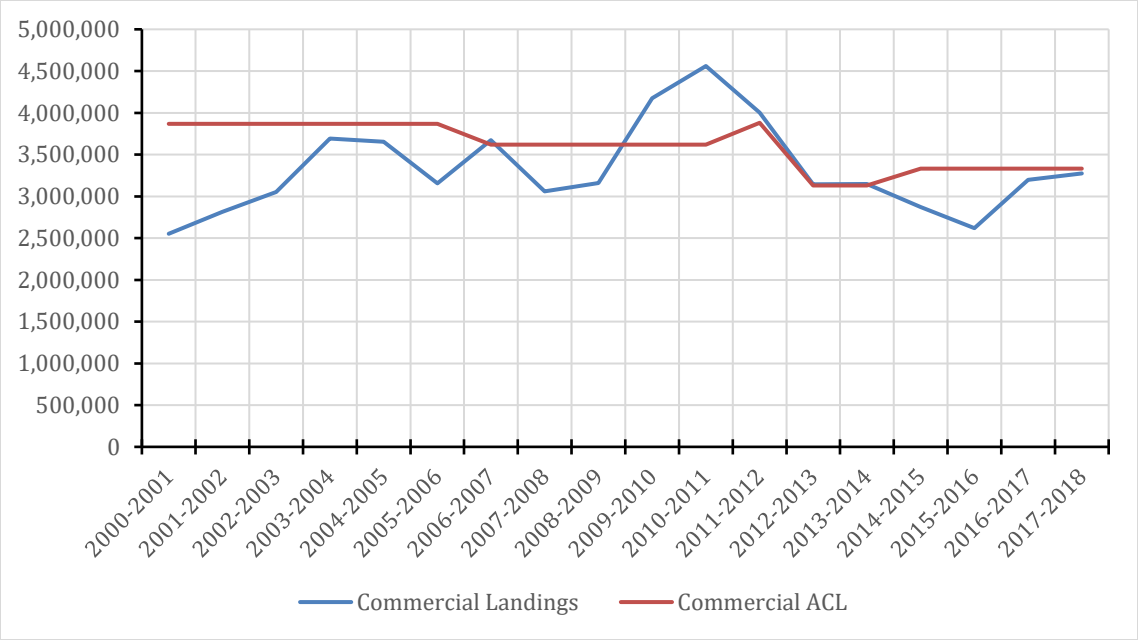

Figure 3.2.2.1. Commercial landings (pounds) of Atlantic Spanish mackerel from 2000 through 2017 (red line) and the quota/commercial ACL (blue line).
Source: ALS
Note: From 2000-2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st.

Atlantic Spanish mackerel commercial landings since 2000 have ranged from a low of 2,551,932 pounds in 2000 to a high of 4,560,542 pounds in 2010 (**Table 3.2.2.2**). Majority of Atlantic Spanish mackerel landed commercially in the Northern zone are landed in North Carolina. Southern Zone commercial landings are primarily from Florida. Over the time period examined, landings have generally fluctuated. After peaking in 2010, commercial landings of Atlantic Spanish mackerel decreased until 2015, at which point they began to increase. Generally, landings over the time period have averaged around 3.3 million pounds (current commercial ACL is 3,330,000 pounds) (**Figure 3.2.2.1)**

Recreational landings of Atlantic Spanish mackerel in pounds whole weight from 2000 through 2017 by zone are presented in **Table 3.2.2.3**. Total landings by year relative to the recreational ACL are shown in **Figure 3.2.2.2**. Recreational landings of Atlantic Spanish mackerel have ranged from a low of 758,723 pounds whole weight in 2017 to a high of 2,014,442 pounds in 2000 (**Table 3.2.2.3**). In terms of geographical distribution, like commercial landings, recreational landings of Atlantic Spanish mackerel can be attributed to mainly to North Carolina in the Northern zone and Florida in the Southern zone. During the time period examined, Atlantic Spanish mackerel recreational landings in peaked in the Northern zone in 2008 and in the Southern zone in 2000. The recreational ACL for Atlantic Spanish mackerel was specified in 2012 and revised in CMP Framework Amendment 1 based on the results from SEDAR 28 (2012). Recreational landings of Atlantic Spanish mackerel have not exceeded the recreational ACL since it was established in 2012.

Table 3.2.2.3. Atlantic migratory group Spanish mackerel total recreational landings (pounds whole weight) and recreational ACL (where applicable) from 2000 through 2017, by zone.

Fishing Year	Northern Zone Landings	Southern Zone Landings	Total Landings	Recreational ACL	%ACL
2000-2001	769,444	1,244,998	2,014,442	N/A	N/A
2001-2002	514,972	1,189,090	1,704,062	N/A	N/A
2002-2003	519,328	1,139,406	1,658,735	N/A	N/A
2003-2004	428,718	1,086,739	1,515,458	N/A	N/A
2004-2005	524,006	633,792	1,157,798	N/A	N/A
2005-2006	325,071	830,020	1,155,090	N/A	N/A
2006-2007	453,937	936,097	1,390,033	N/A	N/A
2007-2008	703,802	833,398	1,537,200	N/A	N/A
2008-2009	904,626	1,005,373	1,909,999	N/A	N/A
2009-2010	816,978	1,095,918	1,912,896	N/A	N/A
2010-2011	611,204	870,029	1,481,233	N/A	N/A
2011-2012	468,388	741,479	1,209,867	N/A	N/A
2012-2013	629,732	519,743	1,149,475	2,560,000	45%
2013-2014	674,871	920,040	1,594,911	2,560,000	62%
2014-2015	472,333	384,764	857,098	2,727,000	31%
2015-2016	456,027	365,802	821,829	2,727,000	30%
2016-2017	468,113	498,816	966,929	2,727,000	35%
2017-2018	500,645	258,078	758,723	2,727,000	28%

Source: SEFSC

Note: From 2000-2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st.

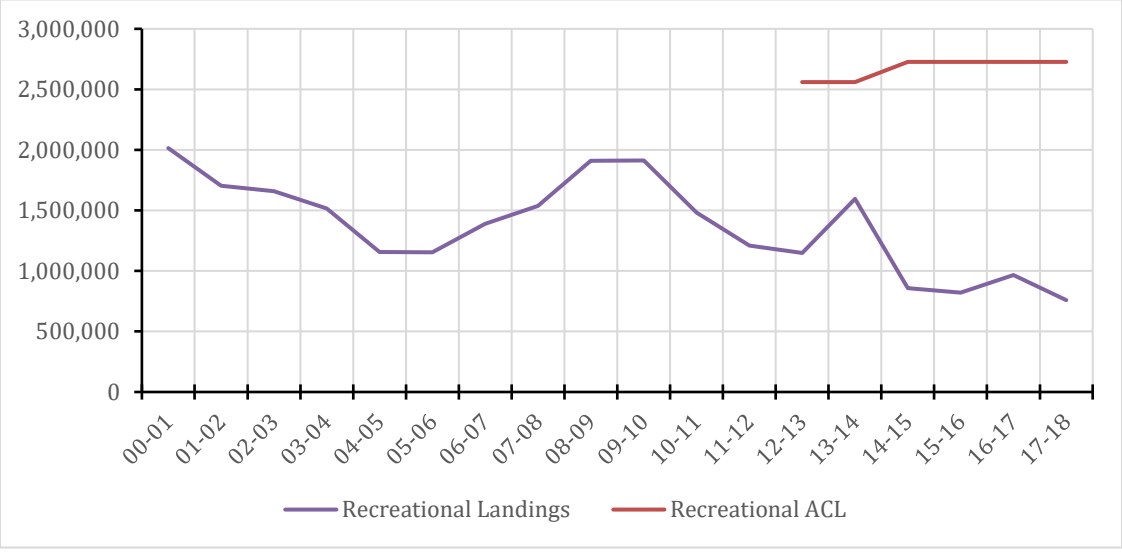

Figure 3.2.2.2. Total recreational landings (pounds whole weight) of Atlantic Spanish mackerel from 2000 through 2017 (purple line). Recreational ACL (blue line) is shown since 2012, when first implemented.

Source: SEFSC

Note: From 2000- 2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st.

Commercial Atlantic Spanish Mackerel Landings by Zone

Commercial landings of Atlantic Spanish mackerel in pounds (as reported) from 2000 through 2017 in the Northern Zone and Southern Zone relative to their respective quotas are presented in **Figure 3.2.2.3** and **Figure 3.2.2.4**, respectively. Since zone quotas were established in 2015, the Northern Zone has exceeded their quota in one year. Alternatively, the Southern Zone has not exceeded its quota. It is important to note that during the 2017/2018 season, 100,000 pounds of quota was transferred from the southern zone (NC/SC line to the Miami-Dade/Monroe County line, Florida) to the northern zone to prevent an early closure. However, the northern zone quota was still projected to be met and federal waters were closed to commercial harvest of Spanish mackerel on November 7, 2018. The southern zone did not close but harvested 95% its remaining quota.

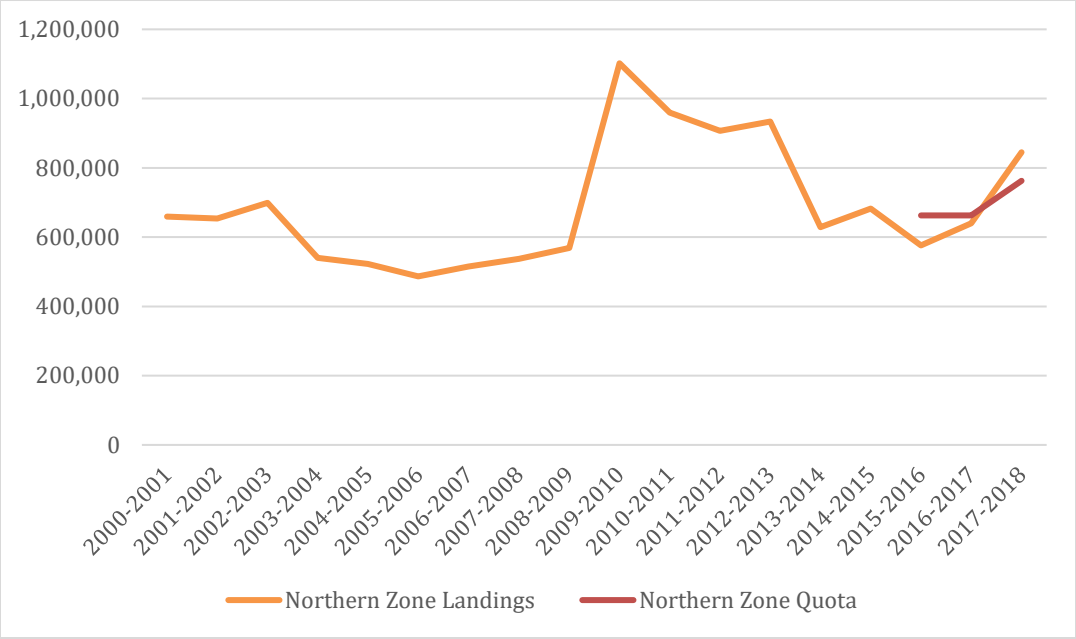

Figure 3.2.2.3. Commercial landings (pounds) of Atlantic Spanish mackerel in the Northern Zone from 2000 through the 2017.
Source: ALS
Note: From 2000-2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st. During the 2017/2018 season, 100,000 pounds of quota was transferred from the southern zone to the northern zone.

Figure 3.2.2.4. Commercial landings (pounds) of Atlantic Spanish mackerel in the Southern Zone from 2000 through the 2017.
Source: ALS
Note: From 2000-2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st. During the 2017/2018 season, 100,000 pounds of quota was transferred from the southern zone to the northern zone.

Commercial Atlantic Spanish Mackerel Landings by Gear

Currently, automatic reel, bandit gear, handline, rod and reel, cast net, run-around gillnet, and stab net are the only authorized gears for harvest of Atlantic Spanish mackerel. Commercial landings by gear for *federally permitted vessels* are show in **Table 3.2.2.4**. Over the time series commercial Spanish mackerel has been primarily harvested by gillnets and handline gear. Harvest of Spanish mackerel using cast net has increased in recent years.

Table 3.2.2.4. Commercial landings (pounds) of Atlantic Spanish mackerel from federally permitted vessels by gear from 2000 through the 2017.

Fishing Year	Cast Net	Electric Reel	Gillnet	Handline	Troll	Other
2000-2001	46,621	0	1,457,412	258,062	152,512	282,512
2001-2002	0	*	1,080,608	248,712	91,857	416,428
2002-2003	0	*	1,467,800	244,572	101,965	569,399
2003-2004	*	850	903,061	345,006	69,964	848,309
2004-2005	0	2,592	1,206,710	524,714	84,553	716,010
2005-2006	0	14,988	1,627,658	512,382	80,459	654,102
2006-2007	0	3,828	1,240,081	846,869	104,570	641,349
2007-2008	0	1,185	1,700,636	555,350	109,955	223,872
2008-2009	0	18,031	916,169	637,433	116,400	442,000
2009-2010	0	5,958	1,661,242	785,989	212,301	539,845
2010-2011	0	1,920	1,011,630	837,650	186,135	751,362
2011-2012	0	954	763,193	966,832	127,895	523,027
2012-2013	*	8,454	918,726	772,903	102,139	101,802
2013-2014	*	1,731	965,990	853,982	74,842	173,094
2014-2015	120,756	2,782	744,856	925,530	64,843	31,678
2015-2016	164,640	1,031	849,712	844,137	47,645	6,804
2016-2017	177,049	3,439	817,241	947,139	51,918	6,763
2017-2018	198,570	4,251	563,265	957,200	69,154	10,889

Source: SEFSC Economic Query System
Note: From 2000- 2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st. Landings for state waters by vessels without federal permits are not included.

Commercial harvest of Atlantic Spanish mackerel using gillnets falls under regulations established via the Atlantic Large Whale Take Reduction Plan (ALW TRP), which aims to reduce the level of serious injury and mortality of Atlantic right whales, humpback whales, and fin whales resulting from interactions with gillnet and trap/pot fisheries. The ALWTRP contains formal regulations with which Spanish mackerel gillnet fishmen must comply. There are five gillnet management zones within the management area of the CMP FMP (Mid/South Atlantic Gillnet Waters, Southeast Restricted Area North, Southeast Restricted Area South, Southeast US Monitoring Area, and the Other Southeast Gillnet Waters). Of importance to Spanish mackerel gillnet fishermen is Southeast US Restricted Area South which provides detailed requirements for Spanish mackerel gillnets to be exempt from the seasonal (December 1 – March 31) prohibition on fishing with or possessing gillnets. **Figure 3.2.2.5** illustrates current gillnet zones established by the ALW TRP and the total number of gillnet trips made by federally permitted vessels, by latitude and longitude grid, taken between 2014 and 2018.

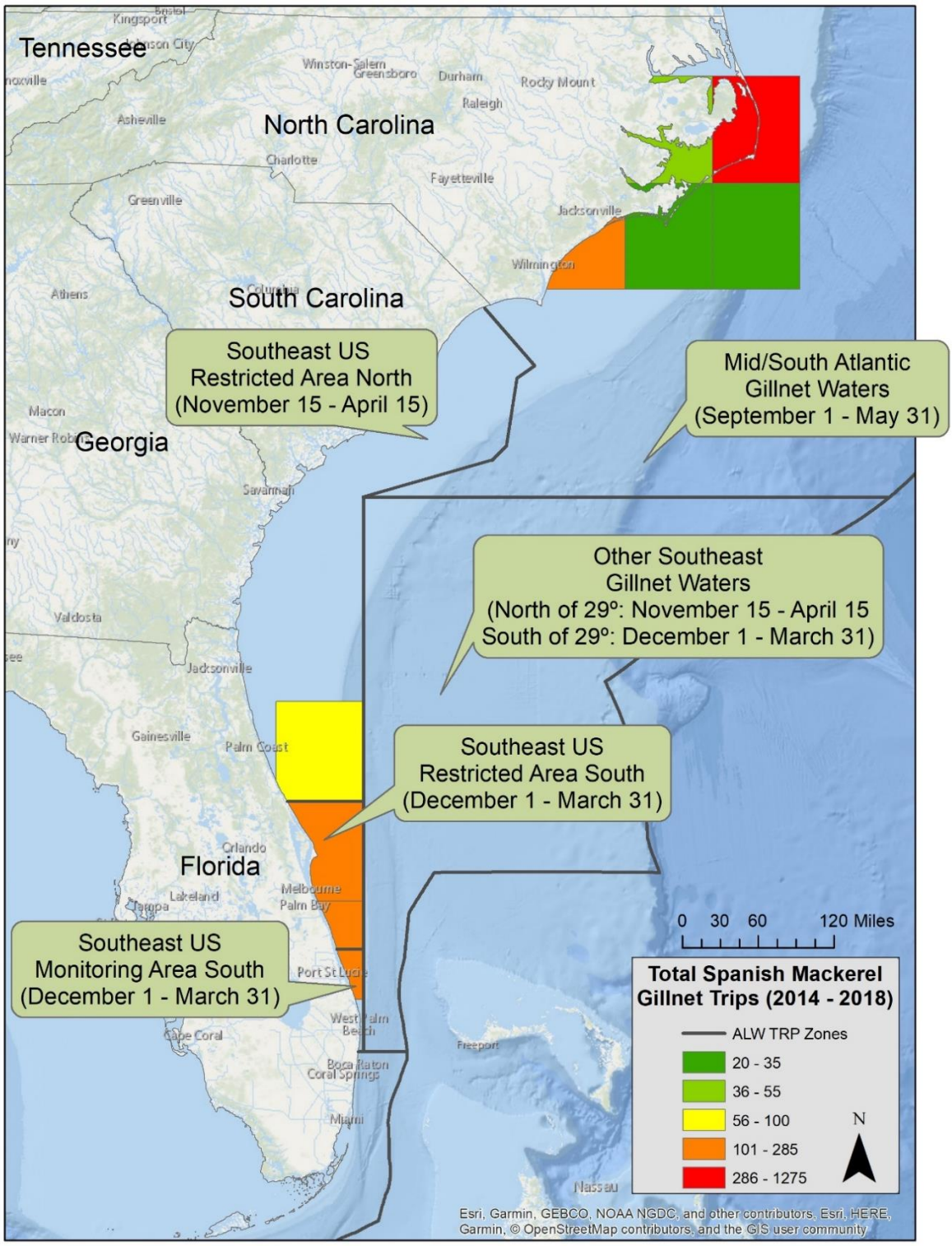

Figure 3.2.2.5. Map of the total number of commercial gillnet trips landing Spanish mackerel from 2014 to 2018 by Southeast Coastal Fisheries Trip Report Logbook top area grid and Atlantic Large Whale Take Reduction Plan gillnet management areas.

Participation in the Commercial Atlantic Spanish Mackerel Fishery

As of August 25, 2019, there are 1,922 commercial Spanish mackerel permits associated with the CMP fishery (**Table 3.2.2.5**). Permit holders with homeports in the Atlantic region account for 59% of total commercial Spanish mackerel permits. North Carolina and Florida account for 90% permits with homeports in the Atlantic region. Permit holders with homeports in the Gulf of Mexico (including the Florida Keys) account for 41% of total commercial Spanish mackerel permits. The number of federally permitted commercial trips landing Atlantic Spanish mackerel has remained steady through the time period examined (**Table 3.2.2.6**). The number of federally permitted vessels participating in the fishery has decreased over the timeframe, however the average pounds per trip has been increasing since 2013 (**Figure 3.2.2.6**).

Table 3.2.2.5. Number of commercial Spanish mackerel permits by state and region.

Home Port State	Number of Permits
Texas	10
Louisiana	47
Mississippi	7
Alabama	29
Florida West Coast	358
Florida Keys	334
Gulf Total	*785*
Florida East Coast	718
Georgia	10
South Carolina	36
North Carolina	300
Virginia	11
Maryland	9
Delaware	2
New Jersey	32
New York	8
Atlantic Total	*1126*
Other States	11
Total Permits	*1922*

Source: SERO FOIA Permit Page, August 25, 2019

Table 3.2.2.6. Total number of commercial trips taken landing Atlantic Spanish mackerel, average pounds per trip of Spanish mackerel, and number of vessels landing Atlantic Spanish mackerel for federally permitted vessels by year.

Year	Trips	Average lbs/trip	Vessels	Year	Trips	Average lbs/trip	Vessels
2000	3,089	421	492	2009	4,303	612	471
2001	3,064	447	450	2010	4,259	545	478
2002	3,297	425	459	2011	4,409	482	440
2003	2,953	557	405	2012	4,372	417	463
2004	2,941	520	389	2013	4,428	357	408
2005	3,112	575	371	2014	4,841	381	485
2006	3,819	585	421	2015	3,789	362	470
2007	4,385	568	437	2016	4,002	406	457
2008	3,553	445	421	2017	3,531	433	431

Source: SEFSC Economic Query System
Note: From 2000- 2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st. Landings for state waters by vessels without federal permits are not included.

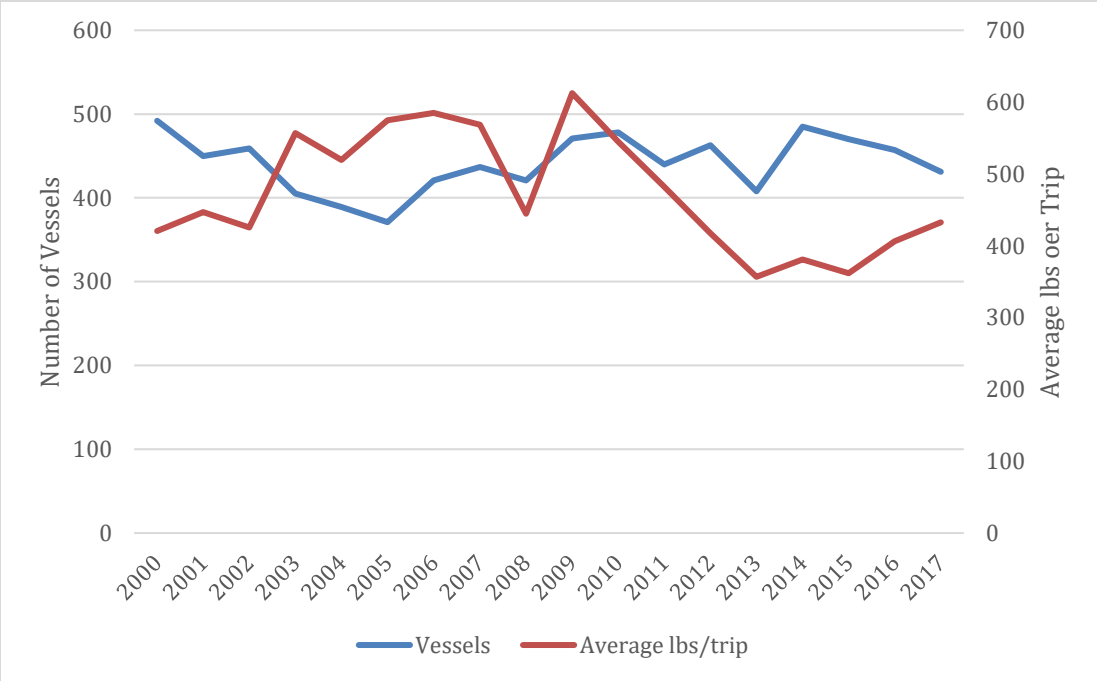

Figure 3.2.2.6. Number of federally permitted vessels participating in the commercial Atlantic Spanish mackerel fishery and average pounds per trip by year.
Source: SEFSC Economic Query System
Note: From 2000- 2004 the fishing year started on April 1st. In following years, the fishing year started on March 1st. Landings for state waters by vessels without federal permits are not included.

Seasonality of the Commercial Atlantic Spanish Mackerel Fishery

Figures 3.2.2.7 and **3.2.2.8** show the seasonality and distribution by zone of commercial landings. **Figure 3.2.2.7** displays the average monthly commercial landings of Atlantic Spanish

mackerel from 2000 through 2017. **Figure 3.2.2.8** displays the same information by zone. The commercial fishery for Atlantic Spanish mackerel occurs mainly during the winter in the Southern Zone. In the Northern Zone, the commercial fishery occurs mainly in the summer. Commercial landings of Atlantic Spanish mackerel peak annually during the month of January in the Southern Zone and during the month of September in the Northern Zone (**Figure 3.2.2.8**).

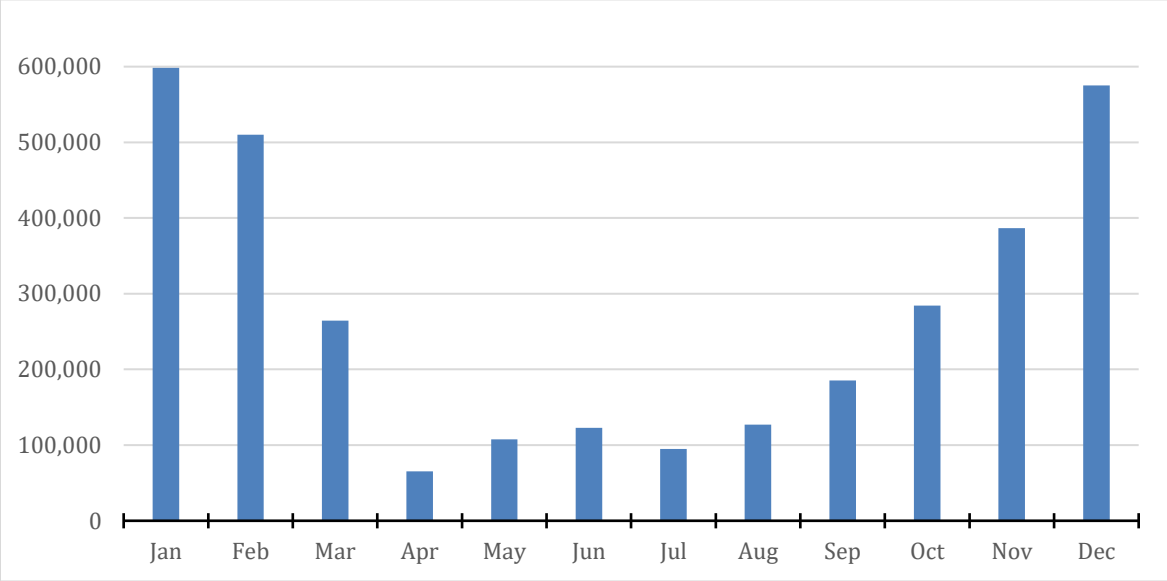

Figure 3.2.2.7. Average monthly commercial landings (pounds) of Atlantic Spanish mackerel, 2000-2017.
Source: ALS

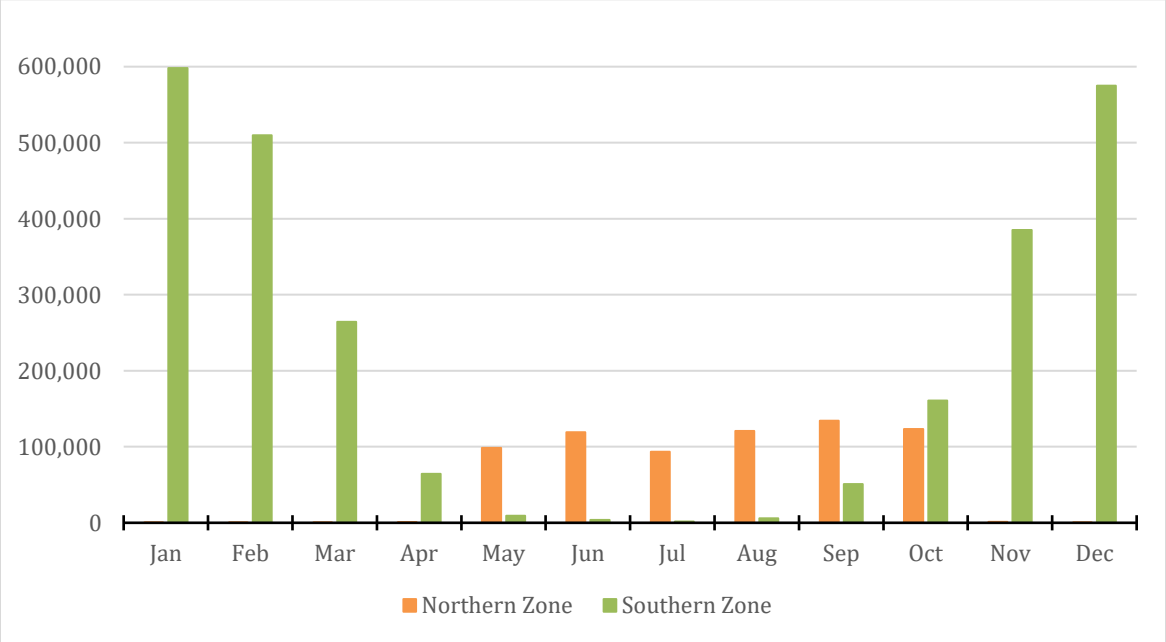

Figure 3.2.2.8. Average monthly commercial landings (pounds) of Atlantic Spanish mackerel by zone from 2000 through 2017.
Source: ALS

3.2.4 Protected Species

The National Marine Fisheries Service (NMFS) completed a biological opinion on June 18, 2015, evaluating the impacts of the CMP fishery on Endangered Species Act (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 ESA-listed whales, Gulf of Mexico sturgeon, or corals. NMFS also determined that the CMP fishery is not likely to adversely affect designated critical habitats for elkhorn and staghorn coral or the Northwest Atlantic distinct population segments (DPS) of 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 green sea turtle listing, listed eight DPS as threatened and three DPSs as endangered. On June 29, 2016, NMFS published a final rule (81 FR 42268) 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.

Since then, NMFS listed the giant manta ray (*Manta birostris*) as threatened under the ESA, effective February 21, 2018. On January 30, 2018, NMFS listed the oceanic whitetip shark (*Carcharinus longimanus*) as threatened under the ESA, effective March 1, 2018.

On June 11, 2018, NMFS requested reinitiation of ESA section 7 consultation on the continued authorization of the Atlantic CMP fisheries under the Magnuson-Stevens Act to address the listings of the giant manta ray and oceanic whitetip sharks. In the same consultation request memorandum, NMFS developed ESA section 7(a)(2) and section 7(d) analyses that considered allowing the CMP fishery to continue during the reinitiation period. As a result of those analyses, NMFS has determined that allowing the Atlantic CMP fisheries to continue during the reinitiation period is not likely to jeopardize any protected species, nor does it constitute an irreversible or irretrievable commitment of resources.

The actions contained in CMP Framework Amendment 9 are not anticipated to modify the operation of the CMP fishery in a manner that would cause effects to listed species or critical habitat that were not considered in the 2015 and 2017 biological opinions or in the June 11, 2018, analyses.

The Gulf of Mexico and South Atlantic CMP hook-and-line sector is classified in the 2019 MMPA List of Fisheries as a Category III fishery (May 16, 2019, 84 FR 22051), 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 of Mexico and South Atlantic CMP gillnet sector is classified as Category II fishery in the 2019 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 gillnet sector has no documented interaction with marine mammals; NMFS classifies this sector as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

The Gulf of Mexico and South Atlantic CMP hook-and-line sector is classified in the 2018 Marine Mammal Protection Act List of Fisheries as a Category III fishery (83 FR 5349), 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.

3.2.3 Bycatch

A bycatch practicability analysis for CMP species is provided in Amendment 26 (GMFMC and SAFMC 2017), is incorporated herein by reference, and is summarized below.

In the Atlantic (Florida through New York) regions, most Atlantic Spanish mackerel are harvested with hook-and-line gear, which tends to have a low level of bycatch. The action in this framework amendment is not expected to significantly increase or decrease the magnitude of bycatch or bycatch mortality in the CMP fishery king mackerel hook-and-line sector. This sector has a relatively low baseline levels of bycatch, and that is not expected to change as a result of implementation of this framework amendment.

3.3 Economic Environment

Will be updated with more recent data for future meetings.

3.3.1. Economic Description of the Recreational Sector

A description of the recreational sector of the Spanish mackerel component of the CMP fishery is contained in Amendment 20A (GMFMC/SAFMC 2013a) and is incorporated herein by reference. Because Framework Amendment 2 would only change management of the commercial sector, summary and update of the information on the recreational sector is not provided in this assessment.

3.3.2 Economic Description of the Commercial Sector

A description of the commercial sector of the Spanish mackerel component of the CMP fishery is contained in Amendment 20A (GMFMC/SAFMC 2013a) and is incorporated herein by reference. Because this proposed framework amendment would only change management of the

Atlantic migratory group Spanish mackerel, only the available information on this stock is summarized in this assessment.

Number of Vessels and Ex-vessel Revenue

An economic description of the commercial sectors for Spanish mackerel is contained in Vondruska (2010) and is incorporated herein by reference. Updated select summary statistics are provided in **Table 3.3.2.1**. These estimates include the average number of vessels per fishing year that recorded harvesting at least one pound of Atlantic migratory group Spanish mackerel over the 2007/2008 through 2011/2012 fishing years, the average ex-vessel revenue from Spanish mackerel, the average ex-vessel revenue from all other species harvested on all trips by these vessels (regardless of whether Spanish mackerel was harvested on the trip), and the average ex-vessel revenue per vessel.

Table 3.3.2.1. Average number of vessels, ex-vessel revenue from Atlantic migratory group Spanish mackerel, ex-vessel revenue from all species harvested by same vessels, and average ex-vessel revenue per vessel. All revenue estimates are in 2013 dollars.

Species	Number of Vessels	Ex-vessel Revenue (millions)	Ex-vessel Revenue All Species (millions)	Average Ex-vessel Revenue per Vessel
Atlantic migratory group Spanish mackerel	387	$1.94	$12.42	$32,100

Notes: Each row should be interpreted individually, as there will be substantial double counting across rows in columns 2 and 4, e.g., the same vessel might fish for different migratory groups of the same species. Five-year averages in column 3 are based on fishing years for Spanish mackerels (2007/2008, 2008/2009, 2011/2012). Five-year averages in column 4 are based on calendar years (2007-2011). Source: NMFS SEFSC Coastal Fisheries Logbook for landings and NMFS Accumulated Landings System for prices. Note that small amounts (1.95% of Spanish mackerel) are landed in the Northeast and are not counted here. Similar, landings and revenue from State waters by vessels without federal permits are not included.

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 Spanish mackerel 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 and services. 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.

Estimates of the average annual business activity associated with the commercial harvest of Atlantic migratory group Spanish mackerel, and all species harvested by the vessels that harvested these Spanish mackerel, were derived using the model developed for and applied in NMFS (2011) and are provided in **Table 3.3.2.2**. This business activity is characterized as full-

time equivalent jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

Table 3.3.2.2. Average annual business activity associated with the commercial harvest of Atlantic migratory group Spanish mackerel. All monetary estimates are in 2013 dollars.

Species	Average Ex-vessel Value (millions)	Total Jobs	Harvester Jobs	Output (Sales) Impacts (millions)	Income Impacts (millions)
Atlantic migratory group Spanish mackerel	$1.94	337	44	$25.50	$10.86
- all species harvested on all trips by same vessels	$12.42	2,163	282	$163.50	$69.68

3.4 Social Environment

Will be updated with more recent data for future meetings.

Because this framework amendment only proposes changes to the commercial regulations for Spanish mackerel, this section focuses on the communities that are the most likely to be affected by regulatory changes to the commercial fishery for Spanish mackerel. In addition, only South Atlantic communities are included in this description because the proposed action in this amendment would primarily affect commercial fishermen harvesting Spanish mackerel in the federal waters off South Carolina, Georgia, and the east coast of Florida. However, some Spanish mackerel commercial fishermen in the Gulf of Mexico and Mid-Atlantic could also be affected. Amendment 20A (GMFMC/SAFMC 2013aa) includes a detailed description of the top commercial Spanish mackerel communities in the Gulf and Mid-Atlantic regions, which are summarized below.

The descriptions in this section include information about the top communities based upon a regional quotient of commercial landings and ex-vessel value for Spanish mackerel. These communities are referred to as "Spanish mackerel communities" because these are the areas that would be most likely to experience the effects of the proposed actions that would change the Spanish mackerel commercial fishing regulations. Additionally, the descriptions in Amendment 20A (GMFMC/SAFMC 2013a) also apply fishing reliance and engagement indices to the top Spanish mackerel communities. These indices provide information about a community's overall involvement in commercial fishing, which provides information on how a community could experience effects from regulatory actions for any species. The indices were created using secondary data from permit and landings information for the commercial sector (Jacob et al. 2013; Jepson and Colburn 2013). Fishing engagement is primarily measured by the absolute number of permits, landings, and ex-vessel value. Fishing reliance uses the same variables as engagement, which are divided by population to provide an indication of the per capita influence of this activity (see Amendment 20A for more details about the reliance and engagement indices and methodology).

Commercial Spanish Mackerel Communities in the South Atlantic

Using the regional quotient to identify Spanish mackerel communities, as detailed in Amendment 20A (GMFMC/SAFMC 2013a), Fort Pierce, Florida, ranks highest, with almost 32% of the landings and over 25% of the ex-vessel value. Cocoa, Florida, is second with approximately 17% of landings and 17% of ex- vessel value. Other top Florida communities include Palm Beach Gardens, Stuart, Marathon, Miami, Mayport, and Sebastian. Although Hatteras, North Carolina, ranked third for ex-vessel value, the community had lower landings than Palm Beach Gardens, Florida. Additional top North Carolina communities include Engelhard, Wanchese, Swan Quarter, Ocracoke, Avon, and Cedar Island. No South Carolina or Georgia communities are included in the top fifteen communities for Spanish mackerel.

Reliance on and Engagement with Commercial Fishing in the South Atlantic

The reliance and engagement indices provide information on how a community is involved overall with commercial fishing and could experience effects from regulatory actions for any species (see Amendment 20A for more details, GMFMC/SAFMC 2013a). The primary communities in the Spanish mackerel fishery with substantial commercial fishing reliance and/or engagement (communities with engagement or reliance values above one standard deviation from the mean) include Fort Pierce, Florida; Marathon, Florida; Miami, Florida; Sebastian, Florida; Stuart, Florida; Ocracoke, North Carolina; and Wanchese, North Carolina.

3.4.1 Environmental Justice Considerations

Executive Order 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. This executive order is generally referred to as environmental justice (EJ).

Only South Atlantic communities and counties are included in the following description because the proposed action in this amendment would primarily affect commercial fishermen harvesting Spanish mackerel in the federal waters off the east coast of Florida. However, some Spanish mackerel commercial fishermen in the Gulf and Mid-Atlantic could be affected by regulatory changes in the Atlantic EEZ off the coast of Florida. Therefore, the reader is directed to Amendment 20A (GMFMC/SAFMC 2013s) for a detailed description of coastal migratory pelagic EJ concerns for the Gulf and Mid-Atlantic regions.

To evaluate EJ considerations for the proposed action, information on poverty and minority rates is examined at the county level. Information on the race and income status for groups at the different participation levels (vessel owners, crew, dealers, processors, employees, employees of associated support industries, etc.) is not available. Because the proposed action would be expected to affect fishermen in several communities and not just those profiled, it is possible that other counties or communities have poverty or minority rates that exceed the EJ thresholds.

In order to identify the potential for EJ concern, the rates of minority populations (non-white, including Hispanic) and the percentage of the population that was below the poverty line were examined (**Table 3.4.1**).

Table 3.4.1. Environmental justice thresholds (2010 U.S. Census data) for counties in the South Atlantic region.

State	County	Minority Rate	Minority Threshold*	Poverty Rate	Poverty Threshold*
Florida		**39.5**	**47.5**	**13.2**	**15.8**
	Broward	52.0	-4.6	11.7	4.1
	Miami-Dade	81.9	-34.5	16.9	-1.1
	Orange County	50.3	-2.9	12.7	3.1
	Osceola	54.1	-6.7	13.3	2.5
Georgia		**41.7**	**50.0**	**15.0**	**18.0**
	Liberty	53.2	-3.2	17.5	0.5
South Carolina		**34.9**	**41.9**	**15.8**	**19.0**
	Colleton	44.4	-2.5	21.4	-2.4
	Georgetown	37.6	4.3	19.3	-0.3
	Hampton	59.0	-17.1	20.2	-1.2
	Jasper	61.8	-19.9	19.9	-0.9
North Carolina		**32.6**	**39.1**	**15.1**	**18.1**
	Bertie	64.6	-25.5	22.5	-4.4
	Chowan	39.2	-0.1	18.6	-0.5
	Gates	38.8	0.3	18.3	-0.2
	Hertford	65.3	-26.2	23.5	-5.4
	Hyde	44.5	-5.4	16.2	1.9
	Martin	48.4	-9.3	23.9	-5.8
	Pasquotank	43.4	-4.3	16.3	1.8
	Perquimans	27.7	11.4	18.6	-0.5
	Tyrrell	43.3	-4.2	19.9	-1.8
	Washington	54.7	-15.6	25.8	-7.7

Only coastal counties (east coast for Florida) with minority and/or poverty rates that exceed the state threshold are listed.

*The county minority and poverty thresholds are calculated by comparing the county minority rate and poverty estimate to 1.2 times the state minority and poverty rates. A negative value for a county indicates that the threshold has been exceeded.

The threshold for comparison that was used was 1.2 times the state average for minority population rate and percentage of the population below the poverty line. If the value for the community or county was greater than or equal to 1.2 times the state average, then the community or county was considered an area of potential EJ concern (EPA 1999). Census data for the year 2010 were used. Estimates of the state minority and poverty rates, associated thresholds, and county rates are provided in **Table 3.4.1**; note that only counties that exceed the minority threshold and/or the poverty threshold are included in the table.

Another type of analysis uses a suite of indices created to examine the social vulnerability of coastal communities and is depicted in **Figure 3.4.1**. The three indices in this analysis 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. Indicators such as increased poverty rates for different groups; more single female-headed households; more households with children under the age of

five; and disruptions like higher separation rates, higher crime rates, and unemployment all are signs of populations experiencing vulnerabilities. The data used to create these indices are from the 2005-2009 American Community Survey estimates at the U.S. Census Bureau. The thresholds of one and one-half standard deviation are the same for these standardized indices. For those communities that exceed the threshold for all indices it would be expected that they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

Similar to the reliance index discussed previously, the vulnerability indices also use normalized factor scores. Comparison of vulnerability scores is relative, but the score is related to the percent of communities with similar attributes. The social vulnerability indices provide a way to gauge change over time with these communities but also provides a comparison of one community with another.

With regard to social vulnerabilities, the following South Atlantic communities exceed the threshold of 0.5 standard deviation for at least one of the social vulnerability indices (**Figure 3.4.1**): Cocoa, Fort Pierce, Miami and Stuart in Florida and Wanchese and Ocracoke, North Carolina. The Florida communities of Cocoa, Fort Pierce and Miami all exceed the thresholds on all three social vulnerability indices. These communities are expressing substantial vulnerabilities and may be susceptible to further effects from any regulatory change depending upon the direction and extent of that change.

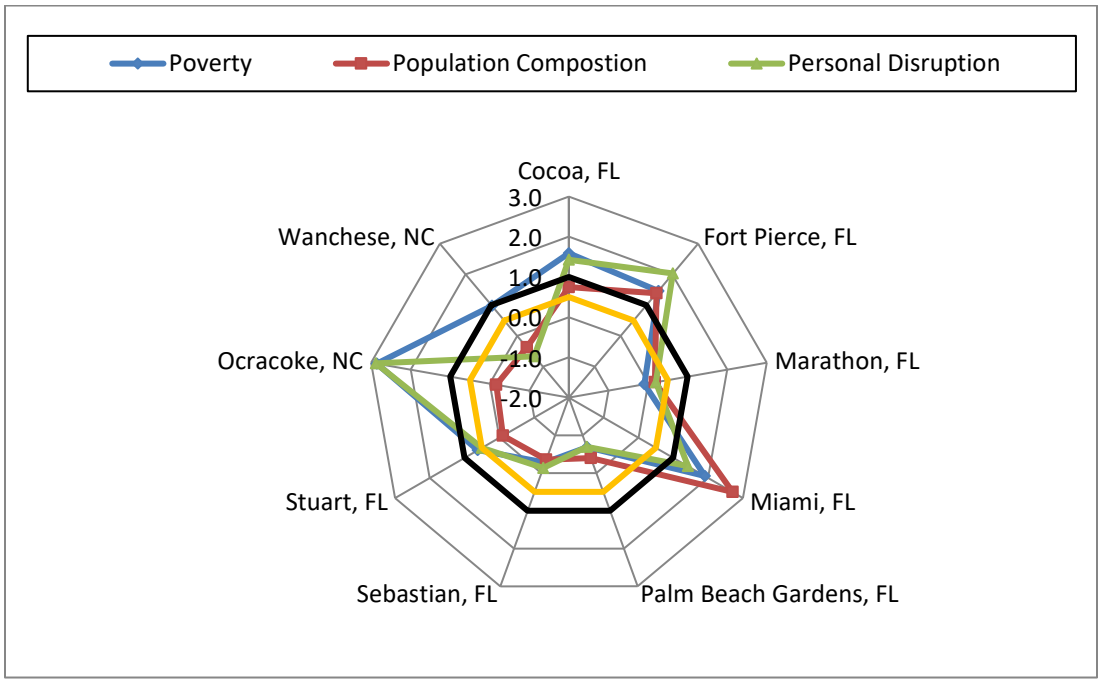

Figure 3.4.1. Social vulnerability indices for communities with the top regional quotients for Spanish mackerel in the South Atlantic.
Source: SERO Social Indicator Database 2013

Although some communities expected to be affected by this proposed action may have minority or economic profiles that exceed the EJ thresholds and, therefore, may constitute areas of concern, significant EJ issues are not expected to arise as a result of this proposed amendment.

No adverse human health or environmental effects are expected to accrue from this proposed amendment, nor are these measures expected to result in an increased risk of exposure of affected individuals to adverse health hazards. The proposed management measure would apply to all participants in the affected area, regardless of minority status or income level, and information is not available to suggest that minorities or lower income persons are, on average, more dependent on the affected species than non-minority or higher income persons.

Finally, the general participatory process used in the development of fishery management measures (e.g., public hearings, advisory panel meetings, and open South Atlantic and Gulf Council meetings) provided sufficient opportunity for meaningful involvement by potentially affected individuals to participate in the development process of this action and have their concerns factored into the decision process. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the action.

3.5 Administrative Environment

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

Responsibility for federal fishery management decision-making is divided between the 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 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 summarized in Appendix B. In most cases, the Secretary has delegated this authority to NMFS.

The Gulf Council is responsible for fishery resources in federal waters of the Gulf of Mexico. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the Florida and Texas, and the three-mile seaward boundary of the Alabama, Mississippi, and Louisiana; however, a bill signed by the U.S. President in December 2016 extended the seaward boundary of state waters for Alabama, Mississippi, and Louisiana to nine miles until October 2016. The Council consists of 17 voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NOAA Fisheries.

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 miles offshore from the seaward boundary of the states of North Carolina, South Carolina, Georgia,

and east Florida to Key West. The Council has thirteen voting members: one from NOAA Fisheries Service; one each from the state fishery agencies of North Carolina, South Carolina, Georgia, and Florida; and eight public members appointed by the Secretary. Non-voting members include representatives of the U.S. Fish and Wildlife Service, USCG, and Atlantic States Marine Fisheries Commission (ASMFC).

The Mid-Atlantic Council has two voting seats on the South Atlantic Council's Mackerel 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, but has delegated management of CMP species to the South Atlantic Council.

The Councils use Scientific and Statistical Committees to review the data and science being used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NOAA's Office for Law Enforcement, 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 few exceptions for discussing personnel matters, 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.

3.5.2 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 eight 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 states natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

The states are also involved through the Gulf of Mexico Marine Fisheries Commission (GSMFC) and the ASMFC 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 (Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act) programs. 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:
Texas Parks & Wildlife Department – http://www.tpwd.state.tx.us
Louisiana Department of Wildlife and Fisheries http://www.wlf.state.la.us/
Mississippi Department of Marine Resources http://www.dmr.state.ms.us/
Alabama Department of Conservation and Natural Resources http://www.dcnr.state.al.us/
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 Quality http://deq.nc.gov/

Chapter 4. Environmental Effects

4.1 Action 1. Revise the in-season commercial accountability measures and establish in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternatives*
1. Close the commercial northern or southern zone if that zone's applicable quota is reached or projected to be reached. There are no in-season recreational accountability measures.
2. Remove the existing commercial in-season accountability measure. An in-season closure will occur for the commercial and recreational sector when the stock annual catch is reached or is projected to be reached.
3. Remove the existing commercial in-season accountability measure. An in-season closure will occur for the recreational sector if the combined catch reaches or is projected to reach the stock annual catch limit. An in-season closure will occur for the commercial sector if the commercial annual catch limit has been reached and the combined catch reaches, or is projected to reach: **3a.** 90% of the stock annual catch limit. **3b.** 80% of the stock annual catch limit. **3c.** 70% of the stock annual catch limit.
***Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

Amendment 20B to the CMP FMP (2014) established Northern and Southern zones with separate commercial quotas for Atlantic Spanish mackerel. Also, in 2014, Framework Amendment 2 to the CMP FMP (2014) modified the quota and trip limit system for commercial harvest of Atlantic migratory group Spanish mackerel in the Southern zone. Tracking the annual catch limit (ACL) for Spanish mackerel is challenging. There is often a lag in when commercial state landings are reported and there are substantial Spanish mackerel landings occurring in state waters. Additionally, recreational landings from the Marine Recreational Information Program are provided in two-month waves and it often takes several months before the data are available. These issues increase the uncertainty when tracking ACLs and managing Spanish mackerel. NMFS must factor in the delay in reporting when implementing accountability measures (AM) such as in-season closures. If the tracking uncertainty results in exceeding sector quotas and ACLs, and the total (stock) ACL, there could be negative biological effects to the stock. However, although the commercial sector has met or exceeded its ACL in recent years, the stock ACL has not been met due to recreational landings not reaching its sector ACL. Additionally, since the commercial in-season accountability measure (AM) is to close the sector for the remainder of the fishing year if that zone's applicable quota is reached or projected to be reached, **Action 1 (No Action)** would have neutral biological effects to the stock.

4.1.1 Biological Effects

For the commercial sector, **Alternative 1 (No Action**) would maintain the current Northern and Southern zone commercial quotas, and each zone would close for the remainder of the fishing year if that zone's applicable quota is reached or projected to be reached. As described in

Chapter 3, during the 2017/2018 season, 100,000 pounds of quota was transferred from the Southern zone to the Northern zone to prevent an in-season closure. However, the Northern zone quota was still projected to be met and federal waters were closed to commercial harvest of Spanish mackerel on 11/7/2018. The Southern zone did not close but harvested 95% its remaining quota. During the 2018/2019 season there was no transfer of quota between the two zones. The Northern zone was closed to commercial harvest on 11/4/2018 and the Southern zone was closed to commercial harvest on 2/5/2019. During the 2019/2020 season, the Northern zone was closed to commercial harvest on 8/24/2019. A transfer of quota from the Southern zone to the Northern zone was requested by the North Carolina Division of Marine Fisheries. However, the Florida Fish and Wildlife Conservation Commission denied the request due to the Southern zone being projected to close early as well. Since the 2000/2001 fishing year, commercial landings have been close to meeting, have met, or exceeded the total commercial ACL, with a low range of 2,551,932 pounds in 2000/2001 (65.9 % of the ACL) to a high of 4,560,542 pounds in 2010/2011 (126.0 % of the ACL) (**Table 3.2.2.2**). Therefore, it can be expected that the commercial sector would continue to experience an in-season harvest closure when the sector ACL for the respective zone is reached or projected to be reached, assuming no transfer of ACL occurs between the zones.

For the recreational sector, **Alternative 1 (No Action)** does not impose in-season AMs; therefore, the sector remains open if the recreational ACL is met, or until the end of the fishing year. However, the recreational ACL has not been met in recent years, therefore no in-season or post season AMs have been necessary to reduce harvest. Since the 2012/2013 fishing year, recreational landings of Atlantic Spanish mackerel have ranged from a high of 1,594,911 pounds in 2013/2014 (62% of the recreational ACL), to a low of 758,723 pounds whole weight in 2017/2018 (28% of the recreational ACL) (**Table 3.2.2.3) (Figure 3.2.2.2)**. Based on previous landings data, it is assumed that the recreational sector landings would continue to be less than the recreational ACL, and there would be no in-season closures for the recreational sector from any of the proposed alternatives, thus harvest levels and rates for Spanish mackerel are not expected to change for this sector.

Overall, **Alternative 1 (No Action)** would not have any direct biological effects to the stock, since the commercial sector is closed when the ACL is met, and the recreational sector is not expected to meet or exceed its ACL.

Alternative 2 would replace the current commercial in-season closure for the Northern and Southern zones if that zone's applicable quota is reached or projected to be reached, with an in-season closure for *both* the commercial and recreational sectors for the remainder of the fishing year when the *stock* ACL is reached or is projected to be reached. Since the commercial sector has met or exceeded its ACL in recent years, it is assumed that it would be able to fully harvest beyond its ACL for the foreseeable future if provided the opportunity to do so. Therefore, under this alternative, fishermen in both the Northern and Southern zones would be able to continue fishing past their commercial quotas and the commercial ACL, and the recreational sector would be able to continue fishing past its ACL, or until the stock ACL is met. However, since a closure would not occur until the stock ACL was met, it is possible that one sector would not be able to meet its sector ACL and quota if the other sector had exceeded their ACL. Since the stock ACLs and in-season AMs would provide biological protection and help to prevent overfishing, no

direct biological effects are expected from this alternative; however, negative biological effects to the stock could be expected if the commercial sector surpasses its ACL, and commercial and/or recreational landings are received after the fishing season ends, and the stock ACL is exceeded.

Alternative 3 would remove the current commercial in-season AM that would close the Northern and Southern zones if that zone's applicable quota is reached or projected to be reached, and allow the commercial sector to surpass their respective zone quotas, and the total commercial ACL, and continue fishing until the total catch reaches or is projected to reach 90% of the stock ACL (**Sub-Alternative 3a**), 80% of the stock ACL (**Sub-Alternative 3b**), or 70% of the stock ACL (**Sub-Alternative 3b**). The recreational sector would close when the total catch reaches or is projected to reach the stock ACL. Under **Alternative 3** and its sub-alternatives, the recreational sector would be guaranteed a certain percentage of the ACL, compared to **Alternative 2**, in which the commercial sector could continue fishing until the entire stock ACL is met. However, under both **Alternative 2**, and **Alternative 3** and its **Sub-Alternatives**, the Atlantic Spanish mackerel stock would be limited to the stock ACL and harvest would close when the ACL is met, which would not have direct biological effects to the stock.

Overall, no direct biological effects are expected from any of the alternatives and sub-alternatives considered under Action 1, since the stock ACLs and in-season AMs to close harvest for Spanish mackerel when ACLs are met would provide biological protection and help to prevent overfishing. However, negative biological effects to the stock could be expected if the commercial and/or recreational landings are received late, and the commercial sector surpasses its ACL, and the stock ACL is exceeded.

4.1.2 Economic Effects

In general, AM help ensure that ACL are not exceeded, particularly on a consistent basis. Exceeding an ACL on a consistent basis can present a high likelihood of overfishing which could potentially drive an otherwise healthy stock to being overfished. Once overfishing occurs, or a stock becomes overfished, and resulting more restrictive regulations are adopted, affected fishery participants may experience negative economic effects and may redirect their effort to other species that could also experience overfishing or become overfished over time as a result. This could eventually trigger untoward repercussions on the ecological environment for a stock or other associated species which would result in negative long-term economic effects.

While analysis is not yet available, it is assumed that there would be no in-season closures for the recreational sector from any of the proposed alternatives, thus harvest levels and rates for Spanish mackerel are not expected to change for this sector. Therefore, no economic effects are anticipated for the recreational sector from Action 1 in the near future. **Alternative 2** and **Alternative 3** do have the potential to indirectly affect recreational harvest rates if additional commercial harvest leads to localized depletion of Spanish mackerel in areas used by anglers targeting the species. Should a reduction in harvest or harvest rates occur as a result for the recreational sector, it may create negative economic effects through a reduction in consumer surplus (CS). Additionally, while a harvest closure for Spanish mackerel is not anticipated at this time, should commercial landings increase by an amount that would lead to harvest of the entire total ACL before the end of the fishing year, there is the potential that an in-season harvest

closure may occur for both sectors if the AM are triggered. In this case, it can be expected that negative economic effects would occur if recreational sector participants reduce effort, switch to substitute species that exhibit a lower CS, or reduce fishing expenditures, thereby negatively affecting the revenue of for-hire and other fishing related businesses. These potential negative economic effects are less likely for the recreational sector under **Sub-alternative 3c**, **3b**, and **3a** than **Alternative 2**, as there is a commercial harvest closure provision in place once that sector has reached its ACL and 70%, 80% or 90% of the total ACL is landed respectively.

Revising AMs to allow more harvest within the constraints of an ACL can result in positive short term, direct economic effects. With an increasing trend in Spanish mackerel commercial landings, the commercial sector has met or nearly met its sector ACL in recent years, triggering an in-season harvest closure on occasion as part of the current in-season commercial AM for Spanish mackerel. As such, it is assumed that the commercial sector would be able to fully harvest beyond its sector ACL for the foreseeable future if provided the opportunity to do so. Under **Alternative 1 (No Action)**, the commercial sector would continue to experience an in-season harvest closure when the sector ACL for the respective zone is reached or projected to be reached, assuming no transfer of ACL occurs between the zones. This could result in foregone economic benefits from a larger portion of the total ACL going unharvested each year in comparison to the other alternatives. **Alternative 2** and **Alternative 3** would likely increase commercial landings of Spanish mackerel which would result in increased revenue derived from these landings. The sub-alternatives of **Alternative 3** are potentially more restrictive than **Alternative 2**, and therefore would offer potentially lower economic benefits. In terms of anticipated economic benefits, **Alternative 2** is expected to generate the most economic benefits for the commercial sector, followed by **Sub-Alternative 3a**, **Sub-alternative 3b**, **Sub-alternative 3c**, and **Alternative 1 (No Action)**.

4.1.3 Social Effects

The setting of AMs could have direct and indirect effects on the social environment if they impose some restriction on harvest. Those restrictions usually translate into reduced opportunity for harvest which in turn can change fishing behaviors through species switching if the opportunity exists. That behavior can increase pressure on other stocks or amplify conflict. If there are no opportunities to switch species, then loss of income or fishing opportunities may occur which can act like any downturn in an economy for fishing communities affected. If there is a substantial downturn then increased unemployment and other disruptions to the social fabric may occur. While these negative effects are usually short term, they may at times induce other indirect effects through the loss of fishing infrastructure that can have a lasting effect on a community. The long-term effects should be beneficial as they provide protection from further negative impacts on the stock. The social effects from AMs ultimately depends upon the restrictive nature and whether additional management uncertainty is introduced from the measures.

Alternative 1 (No Action) would not change the current regime, which closes the commercial northern or southern zone if that zone's applicable quota is reached or projected to be reached. There are no in-season AMs for the recreational sector. In order for the trip limit systems proposed in **Action 3/Alternatives 2** and **3** to function properly, Atlantic Spanish mackerel AMs must be modified.

Alternative 2 would allow both the commercial and recreational sectors to continue harvesting Atlantic Spanish mackerel until the stock (commercial and recreational) ACL has been met, which is anticipated to result in direct positive social effects for the commercial sector. During recent fishing seasons, both the northern and southern zones have met or exceeded their quotas and experienced commercial fishing closures for Spanish mackerel (**Table 3.2.2.3**). Alternatively, since ACLs were implemented through Amendment 18 to the CMP FMP the recreational sector has harvested, on average, 39% of their ACL (Table X). Allowing commercial harvest to continue at the until the stock ACL is reached would provide them additional access to the resource and help to mitigate the negative social effects associated with the recent closures, such as a loss of access to the resource during peak season and decreased revenue. However, **Alternative 2** and **Alternative 3** would also establish in-season AMs for the recreational sector. Should recreational harvest increase and/or commercial harvest result in the stock ACL being reached before the end of the fishing year, recreational participants may experience direct negative social effects associated with closures, such as a decreased fishing opportunity and revenue for charter vessel/headboat businesses. **Alternative 3** would only allow the commercial sector to continue harvesting until 90%, 80%, or 70% (**Sub-alternatives 3a**, **3b**, and **3c**, respectively) of the stock ACL is reached. As such, the potential negative social effects on the recreational sector would be reduced relative to **Alternative 2**.

Alternative 2 and **Alternative 3** are likely to result in user group conflict, especially in the case of an in-season closure for either sector. The Atlantic Spanish mackerel stock ACL was allocated to the commercial (55%) and recreational (45%) sector via a 1998 Framework Amendment (64 FR 45457; August 20, 1999). Because these allocations exist, if one sector exceeds their allocated ACL and continues fishing, the other sector may feel their fish are being harvested unfairly.

Given recent landings trends, it is assumed that **Alternative 2** and **Alternative 3** would not result in a closure to commercial or recreational sectors, however until further analysis is available, the social effects of the alternatives in **Action 1** cannot be ranked.

4.1.4 Administrative Effects

Alternative 1 (No Action) would not change the administrative environment from its current state. The recreational sector has not met its ACL in recent years, and there are no recreational in-season AMs, so there has not been any recreational sector closures. For the commercial sector, there is a quota monitoring system in place that is utilized to monitor landings against the commercial ACL. Federal regulations allow for quota transfers between Atlantic Spanish mackerel zones during each fishing year, which requires communication with the states, SEFSC, and NMFS to determine if the quota transfer request will be granted. The Southern zone also has an adjusted quota system with several trip limit step downs, which require outreach materials and notifying enforcement. In recent years, the Northern zone and Southern zones have been meeting their commercial zone quotas, and each of the zones have closed in-season, which requires two separate in-season closure notices. Therefore, if total effort for Spanish mackerel remains consistent, it can be expected that the commercial sector would continue to experience in-season harvest closures when a zone quota is reached or projected to be reached, and fishery managers would have to continue to prepare and issue in-season closure notices and outreach

materials. Additionally, enforcement personnel would have to monitor the trip limit reductions and closures.

Under **Alternative 2**, both the recreational and commercial sectors would be closed when the stock ACL is reached, so there is potential for a total of two in-season closure notices that would need to be prepared by fishery managers. Additionally, enforcement personnel would be burdened with an increase in potential harvest closures, which they would have to monitor. Outreach materials for each in-season action would take the form of fishery bulletins and updates to NMFS' Southeast Regional Office's web site. **Alternative 3** would close the commercial sector if the commercial ACL is reached, and the total catch reaches or is projected to reach 90% of the stock ACL (**Sub-Alternative 3a**), 80% of the stock ACL (**Sub-Alternative 3b**), or 70% of the stock ACL (**Sub-Alternative 3b**). The recreational sector would close when the stock ACL is met. Therefore, there is the potential for a total of two in-season closure notices that would need to be prepared by fishery managers, outreach materials prepared, and notifying enforcement.

Overall, **Alternative 1 (No Action)** could continue to require two in-season commercial closure notices for each zone, and none for the recreational sector. Other administrative burdens that may result from all of the alternatives considered would take the form of development and dissemination of outreach and education materials to inform fishery participants and enforcement of any changes to the fishing sectors. **Alternative 2** and **Alternative 3** and its sub-alternatives would also require two in-season notices to close both sectors if the stock ACL is met. However, since the commercial sector has historically higher catch, **Alternative 1 (No Action**), followed by **Alternative 3** and its sub-alternatives would be more likely to meet the criteria to close, followed by **Alternative 2.**

4.2. Action 2. Revise the post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel.

4.2.1 Biological Effects

The status of the Atlantic Spanish mackerel stock is not currently evaluated as overfished, and the stock ACL has not been exceeded in recent fishing years; therefore, the post-season AMs to reduce the commercial quota or the recreational ACT the following fishing year by its sector overage, has not been triggered. Additionally, the recreational ACL has not been met in recent years, therefore no post-season AMs have been triggered to reduce the bag limit. Under **Alternative 1 (No Action)**, the existing post-season AMs would remain in place for the commercial and recreational sectors and there would be no anticipated direct biological effects to the stock.

Alternative 2 would remove and **Alternative 3,** and its sub-alternatives, would revise the post-season AMs. **Alternative 2** would remove the existing post-season AMs altogether, thereby delegating biological effects of AMs in general to those described in Action 1. However, if **Action 1/Alternative 1 (No Action)** is selected as preferred, along with **Action 2/Alternative 2**, then there would be no recreational in-season

Alternatives*

1. The commercial post-season accountability measure is to reduce the commercial quota for the following year by the amount of any commercial overage in the prior fishing year for that each zone if the sum of the commercial and recreational landings exceeds the stock annual catch limit, and Atlantic migratory group Spanish mackerel are overfished.

The recreational post-season accountability measure is to reduce the bag limit by the amount necessary to ensure recreational landings achieve the recreational annual catch target, but do not exceed the recreational annual catch limit, if the recreational landings exceed the recreational annual catch limit and the sum of the commercial and recreational landings exceeds the stock annual catch limit.

If the sum of the commercial and recreational landings exceeds the stock annual catch limit and Atlantic migratory group Spanish mackerel are overfished, reduce the recreational annual catch target for that following year by the amount of any recreational sector overage in the prior fishing year.

2. Remove the existing post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel.

3. Remove the existing commercial post-season accountability measures. Remove the existing recreational post-season accountability measure that reduces the recreational annual catch target for the following year.

3a. Reduce the stock annual catch limit for the following fishing year by the amount of the stock annual catch limit overage in the prior fishing year, if Atlantic migratory group Spanish mackerel are overfished.

3b. Reduce the recreational annual catch limit, commercial northern zone quota, and commercial southern zone quota, and the stock ACL, by the amount of their respective catch limit overages of the respective zone or sector that had an overage in the prior fishing year, if both the commercial and recreational landings exceed their sector annual catch limit and Atlantic migratory group Spanish mackerel are overfished.

*Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

or post-season AMs in place to protect the stock from exceeding its ACL and become overfished, which could have direct negative biological effects to the stock. However, assuming the in-season AMs selected are adequate in constraining harvest to the stock ACL, there would be no need to incorporate or trigger payback provisions through an AM. However, if such an AM is triggered, incorporating payback provisions may not eliminate the occurrence of overages but these types of AMs do decrease the likelihood that overages (and overfishing) would occur over time, which would be biologically beneficial to the stock.

Alternative 3 and its **Sub-alternatives** would only be implemented if the stock was assessed as overfished. **Sub-alternative 3a** would remove the commercial post-season AM and replace it with an AM that would reduce both the commercial and recreational sector quotas the following year by their respective overages, and if the species is overfished. **Sub-alternative 3b** would reduce the stock ACL the following year by its stock overage, and if the species is overfished. As such, there may be short-term positive biological effects from the payback provisions of **Alternative 3** due to temporary lower harvest levels, as well as long-term biological benefits if the likelihood that overages (and overfishing) are decreased.

4.2.2 Economic Effects

In general, AM help ensure that ACL are not exceeded, particularly on a consistent basis. Exceeding an ACL on a consistent basis presents a higher likelihood of overfishing which could potentially drive an otherwise healthy stock to being overfished. Once overfishing occurs, or a stock becomes overfished, and more restrictive regulations are adopted, affected fishery participants may experience negative economic effects and may redirect their effort to other species that could also experience overfishing or become overfished over time as a result. This could eventually trigger untoward repercussions on the ecological environment for a stock or other associated species, which would result in negative long-term economic effects.

Under **Alternative 1 (No Action)**, the existing post-season AMs would remain in place for the commercial and recreational sectors and there would be no anticipated economic effects. **Alternative 2** would remove the existing post-season accountability measures, thereby delegating economic effects of AMs in general to those described in Action 1.

Alternative 3 would revise the payback provisions of the post-season AM. Assuming the in-season AMs are adequate in constraining harvest to the total ACL, there would be no need to incorporate or trigger payback provisions through an AM. However, if such an AM is triggered, incorporating payback provisions may not eliminate the occurrence of overages but these types of AMs do decrease the likelihood that overages (and overfishing) would occur over time. As such, there may be short-term negative economic effects from the payback provisions of **Alternative 3** due to temporary lower harvest levels, however there may be long-term economic benefits if the likelihood that overages (and overfishing) are decreased. These long-term economic benefits would presumably be the same between **Sub-alternative 3a** and **3b**. Under **Sub-alternative 3a**, the potential short-term negative economic effects would be distributed across both sectors and zones. Under **Sub-alternative 3b**, the sector(s) and zone(s) (if applicable) that caused the overage of the ACL would proportionally bear the short-term negative economic effects that may occur from a temporary decrease to their respective ACL.

Until further analysis is available, the economic effects of the alternatives in Action 2 cannot be ranked.

4.2.3 Social Effects

The setting of AMs could have direct and indirect effects on the social environment if they impose some restriction on harvest. Those effects are the same as previously described in **Section 4.1.3.** and negative social effects and benefits should be comparable. The social effects from AMs ultimately depends upon the restrictive nature and whether additional management uncertainty is introduced from the measures.

Alternative 1 (No Action) would not revise the post-season AMs for Atlantic Spanish mackerel. Under this alternative, the commercial northern and southern zones would be required to payback any landings beyond the quota harvested under the trip limit system proposed in **Action 3**/**Alternatives 2** and **3**, if the stock ACL is exceeded and Atlantic Spanish mackerel are overfished.

Alternative 2 would remove post-season AMs entirely for the commercial and recreational sectors. As a result, any positive or negative social effects experienced as a result of AMs would be exclusive to in-season AMs (**Action 1/Alternative 2** or **Alternative 3**).

For both commercial and recreational sectors, **Alternative 3** includes options that require payback for overages, but only if combined landings exceed the stock ACL (**Sub-alternatives 3a**) or both the commercial and the recreational ACLs are exceeded (**Sub-alternative 3b**), and Atlantic Spanish mackerel are overfished. For each sector, this provides more flexibility to continue fishing without overfishing the stock if the other sector has not reached the ACL. These options are expected to result in positive impacts on the Spanish mackerel portion of the CMP fishery by minimizing economic impacts of a payback and mitigating lost fishing opportunities if only one sector met its ACL, while producing long-term social benefits by keeping in place the payback to help improve the stock if both sectors meet or exceed their ACL. **Sub-alternative 3a** is likely to cause more user group conflict than **Sub-alterative 3b**, because regardless of the sector or zone responsible for the overage of the stock ACL payback is distributed equally among the groups. Alternatively, under **Sub-alternative 3b**, payback is the responsibility of the sector/zone with an overage.

Until further analysis is available, the social effects of the alternatives in **Action 2** cannot be ranked.

4.2.4 Administrative Effects

Alternative 1 (No Action) would not change the administrative environment from its current state. Since the Atlantic Spanish mackerel stock has not been evaluated as having an overfished status, no post-season AMs have been implemented for the commercial or recreational sectors to reduce the commercial zone quota or the recreational ACT for overages, respectively. Additionally, the recreational sector has not met its ACL in recent years, and there are no recreational in-season AMs, so there has not been any recreational sector closures or reduction in the bag limit. Therefore, if total effort for Spanish mackerel remains consistent, it can be expected that the commercial sector would continue to experience in-season harvest closures

when a zone quota is reached or projected to be reached, though post-season AMs would most likely not be necessary. Similarly under **Alternative 2,** there would be no post-season AMs, so no notices would need to be prepared. Post-season AMs proposed under **Alternative 3** and its **Sub-alternatives** would only be implemented if the stock was assessed as overfished. However, the status of the Atlantic Spanish mackerel stock is not currently evaluated as overfished, and the recreational ACL or the stock ACL has not been exceeded in recent fishing years. Therefore, **Sub-alternative 3a**, which would reduce the recreational ACL and the commercial zone quotas by their respective overage would most likely not be triggered for the recreational sector, and only be triggered for the commercial sector. **Sub-Alternative 3b** would also likely not be triggered. Therefore, all of the alternatives proposed under Action 2 would most likely not be triggered, and no post-season AM notices would need to be prepared. However, that could change if the Atlantic Spanish mackerel stock is assessed as overfished in the future.

4.3 Action 3. Modify the commercial trip limits for Atlantic migratory group Spanish mackerel in the northern and southern zones.

4.3.1 Biological Effects

Alternative 1 (No Action) would maintain the existing commercial trip limit of 3,500 pounds (lb) whole weight (ww) or gutted weight (gw) in the Northern zone. In the Southern zone, the trip limit is also 3,500 lbs ww or gw, with an adjusted quota system in place that reduces the trip limit to 500 lbs ww or gw once the Southern zone adjusted quota has been met, which would reduce the rate of harvest during the fishing year. If the current in-season and post-season AMs were also to remain in place, there would be no anticipated direct biological effects on the stock under **Alternative 1 (No Action)**, since overall harvest would be limited to the zone quotas and the commercial ACL, and AMs would be triggered if the quotas or ACL were reached.

Alternative 2 and its sub-alternatives would reduce the trip limit for the Northern zone to 2,500 lbs ww or gw (**Sub-alternative 2a**), 2,000 lbs ww or gw, (**Sub-alternative 2b**), or 1,500 lbs ww or gw, (**Sub-alternative 2c**), and then to 500 pounds, which would reduce the rate of harvest during the fishing year. However, if the in-season AMs were modified, as proposed under Action 1, then the trip limit would remain at 500 lbs gw or ww until a percentage of the ACL is met (Action 1, Sub-alternatives 3a, 3b and 3c), or until the stock ACL has been met and the fishery closes (Action 1, Alternative 2). **Alternative 3** is very similar to **Alternative 1 (No Action)**, in that it would maintain the 3,500 lbs ww or gw trip limit, and the adjusted quota system for the Southern zone, and then reduce the trip limit to 500 ww or gw.

Alternatives*

1. Northern Zone: 3,500-pounds. Southern Zone: 3,500-pounds. When 75% of adjusted southern zone quota is met or projected to be met, 1,500 pounds. When 100% of adjusted southern zone quota is met or projected to be met, to 500 pounds. Closes when the southern zone commercial quota is met or projected to be met.

2. Reduce the commercial trip limit for Spanish mackerel in the northern zone

- **2a.** 2,500-pounds until the Northern zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered.
- **2b**. 2,000-pounds until the Northern Zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered.
- **2c.** 1,500-pounds until the Northern Zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered

3. When 100% of adjusted Southern Zone quota is met or projected to be met, the trip limit is reduced to 500 pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered.

***Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

However, the trip limit would stay at 500 ww or gw until the end of the fishing year or when commercial AMs are triggered, rather than until the southern zone commercial quota is met and subsequently closed. However, if the in-season AMs were modified, as proposed under Action 1, then the trip limit would remain at 500 lbs ww or gw until a percentage of the ACL is met (Action 1, Sub-alternatives 3a, 3b and 3c), or until the stock ACL has been met and the fishery closes (Action 1, Alternative 2). Therefore, **Alternative 2** and its sub-alternatives and **Alternative 3** would not differ from **Alternative 1 (No Action)** in terms of the risk of overfishing as overall harvest would be limited to the stock ACL, and AMs would be triggered if the stock ACL were reached; hence, direct biological effects of these alternatives would not differ from **Alternative 1 (No Action)** in terms of the risk of overfishing.

4.3.2 Economic Effects

Generally, trip limits are not considered to be economically efficient because they require an increase in the number of trips and associated trip costs to land the same amount of fish. However, the negative economic effects of this inefficiency can be offset or mitigated by price support resulting from the supply limitations and the lengthening of harvest seasons. Given the ACL for Spanish mackerel that restricts maximum harvest to sustainable levels, the alternative with the fewest number of trips that have to stop retaining Spanish mackerel because the trip limit has been reached would likely result in the least amount of direct negative economic effects, assuming the season does not close.

Alternative 1 (No Action) would maintain the existing trip limits in the Northern Zone and Southern Zone as well as continue to allow a 500 lbs ww or gw trip limit once the adjusted Southern Zone quota has been met. As such, there would be no anticipated economic effects.

Alternative 2 and its sub-alternatives would reduce the trip limit in the Northern Zone. Assuming the proposed trip limits do not affect overall harvest and the Northern Zone quota continues to be harvested, overall gross revenue generated by Spanish mackerel landings may not noticeably change. The lower trip limits may decrease revenue on some trips and decrease overall net revenue received for Spanish mackerel landings by requiring more trips to land the same amount of Spanish mackerel, thereby increasing total trip costs. These negative economic effects may be mitigated through a prolonged harvest season or if ex-vessel prices increase due to restrictions on harvest. The extent to which these mitigating circumstances may affect the net economic outcome of **Alternative 2** cannot be quantified with current information.

Alternative 3 would allow the 500 lb ww or gw to remain in place in the Southern Zone until the end of the fishing year or the commercial sector closes as a result of in-season commercial accountability measures being triggered instead of closing when the Southern Zone commercial quota is met or projected to be met. As such **Alternative 3** may allow commercial harvest of Spanish mackerel to take place when it otherwise would have not under **Alternative 1 (No Action)**. Thus, there would be potential direct economic benefits to **Alternative 3** through increased revenue derived from the additional commercial landings of Spanish mackerel.

Until further analysis is available, the economic effects of the alternatives in Action 3 cannot be ranked.

4.3.3 Social Effects

In general, commercial trip limits may help slow the rate of harvest and lengthen a season, but trip limits that are too low may make fishing trips inefficient and costly if fishing grounds are too far away. A longer open season would have direct social benefits to the commercial fleet and indirect social effects to end users of Spanish mackerel (restaurant owners, fish houses, and consumers) by improving consistency of availability, so long as it doesn't result in a decrease in harvest and/or revenue.

Alternative 1 (No Action) would not revise the current trip limit system in place and is not anticipated to have any positive or negative social effects. However, under **Action 1** an in-season closure for the commercial sector would not be triggered until the stock ACL (**Action 1/Alternative 2**) or a portion of the stock ACL (**Action 1/Alternative 3**) is reached. The higher trip limit in **Alternative 1 (No Action)** may increase the likelihood of a commercial closure when compared to **Alternative 2** and **Alternative 3.**

The step-downs in **Alternative 2** and **Alternative 3,** could provide flexibility by helping to slow the rate of harvest later in the season while still allowing Spanish mackerel fishing. However, there is a trade-off between flexibility and the complexity of the system. **Alternative 2** and **Alternative 3** are more complex than **Alternative 1 (No Action)** and reducing complexity would be expected to be beneficial for compliance and enforcement.

Alternative 2 and its sub-alternatives would reduce the commercial trip limit for Atlantic Spanish mackerel in the northern zone which many prevent closures and result in a longer fishing season. Generally, longer fishing seasons provide positive direct and indirect social effects through continued access for commercial fishermen and consistency for end users, so long as trip limits are sufficient to support commercial fishing activity and allow for harvest during periods when it is profitable to land Spanish mackerel.

Alternative 3 would retain the current adjusted quota trip limit system seen under **Alternative 1 (No Action**), but would allow fishermen to continue to operate with a trip limit of 500-pounds until the end of the fishing year or until the in-season AMs are triggered (**Action 1**). This would extend the fishing season in the southern zone and have similar social effects as **Alternative 2**.

Until further analysis is available, the social effects of the alternatives in **Action 3** cannot be ranked.

4.3.4 Administrative Effects

Alternative 1 (No Action) would not change the administrative environment from its current condition. Currently, there is a commercial quota monitoring system in place for Atlantic Spanish mackerel that is utilized to monitor landings. Federal regulations allow for quota transfers between Atlantic Spanish mackerel zones during each fishing year, which requires communication with the states, SEFSC, and NMFS to determine if the quota transfer request will be granted. The Southern zone also has an adjusted quota system with several trip limit step downs, which require in-season notices, outreach materials and notifying enforcement. In recent years, the Northern zone and Southern zones have been meeting their commercial zone quotas,

and each of the zones have closed in-season, which requires two separate in-season closure notices.

Alternative 1 (No Action) would maintain the existing commercial trip limit of 3,500 lbs ww or gw in the Northern zone. In the Southern zone, the trip limit is also 3,500 lbs ww or gw, with an adjusted quota system in place that reduces the trip limit to 1,500 lbs ww or gw once 75% of the adjusted quota is met, and then to 500 lbs ww or gw once 100% of the adjusted quota has been met. Since the 2000/2001 fishing year, total commercial landings have been close to meeting, have met, or exceeded the total commercial ACL. Since the 2017-2018 fishing year, the Northern zone has resulted in an in-season closure each year, requiring one in-season closure notice. For the Southern zone, there were trip limit reductions and a closure during the 2018-2019 fishing year, which required three in-season notices. If total effort for Atlantic Spanish mackerel remains consistent, it is likely that trip limit reductions would be needed during each fishing season, and closures would occur prior to the end of the fishing season. Therefore, fishery managers would have to continue to prepare and issue trip limit reductions for the Southern zone, and closure notices for each zone. Additionally, enforcement personnel would have to monitor the trip limit reduction and closures.

Alternative 2 would reduce the commercial trip limit for the Northern zone to either 2,500 lbs ww or gw (**Sub-alternative 2a**), 2,000 lbs ww or gw (**Sub-alternative 2b**), or to 1,500 lbs ww or gw (**Sub-alternative 2c**), and then to 500 pounds until the end of the fishing year or until in-season AMs are triggered. A lower trip limit may slow the rate of harvest and lengthen the season, and potentially reduce the need for fishery managers to prepare an in-season closure notice that is required under **Alternative 1 (No Action)**; therefore **Sub-alternatives 2a** could cause the most administrative burden since harvest rates would not be reduced as much as **Sub-alternatives 2b** and **2c**, and the fishery could close sooner. However, this alternative would add a trip limit reduction requirement to the zone, which would increase the number of notices required from one to two notices, unless a closure notice is not necessary if an in-season AM is not triggered. **Alternative 3** would maintain the commercial adjusted quota system in place for the Southern zone, but the 500 lbs ww or gw trip limit would remain in place until the end of the fishing year or until in-season AMs are triggered and the commercial sector is closed. Therefore, a maximum of two trip limit reduction notices and one closure notice may be required, although a closure notice may not be necessary until or if an in-season AM is triggered.

Since the current commercial ACL is divided into two zone quotas and if the quota for each season is projected to be met and harvest is closed, there is potential for a total of four in-season notices (i.e., two trip limit reduction notices for the Southern zone and two closure notices for each zone) that would need to be prepared by fishery managers. Therefore, of the alternatives considered, **Alternative 1 (No Action)** would impose the most administrative burden since there is a possibility that four notices would need to be prepared, followed by **Sub-alternatives 2a**, **2b**, **2c,** and **Alternative 3**, which could all require 2 notices each. However, selecting both **Alternatives 2** and **3** as preferred could possibly create the need that five notices would need to be prepared, in which case, this alternative imposes a greater administrative burden than **Alternative 1 (No Action)**. Outreach materials would take the form of fishery bulletins and updates to NMFS Southeast Regional Office's web site.

Chapter 5. DRAFT South Atlantic Council's Choice for the Preferred Alternative

5.1 Action 1. Revise the in-season commercial accountability measures and establish in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Alternatives*
1. Close the commercial northern or southern zone if that zone's applicable quota is reached or projected to be reached. There are no in-season recreational accountability measures.
2. Remove the existing commercial in-season accountability measure. An in-season closure will occur for the commercial and recreational sector when the stock annual catch is reached or is projected to be reached.
3. Remove the existing commercial in-season accountability measure. An in-season closure will occur for the recreational sector if the combined catch reaches or is projected to reach the stock annual catch limit. An in-season closure will occur for the commercial sector if the commercial annual catch limit has been reached and the combined catch reaches, or is projected to reach: **3a.** 90% of the stock annual catch limit. **3b.** 80% of the stock annual catch limit. **3c.** 70% of the stock annual catch limit.
***Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

5.1.1 Mackerel Cobia Advisory Panel Comments and Recommendations

The Mackerel Cobia Advisory Panel (AP) discussed Framework Amendment 9 to the Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources of the Gulf of Mexico and Atlantic Region (CMP FMP) and provided the following comments in support:

- The original allocation for Spanish mackerel (76% commercial, 24% recreational) was the correct allocation because the recreational sector has not caught the amount of poundage that was given to them when Spanish mackerel was reallocated (55% commercial, 45% recreational).
- North Carolina needs approximately 900,000 pounds of fish, the poundage they are currently allocated (662,670 pounds) is insufficient.
    - the Northern Zone receives 20% and the Southern Zone receives 80% of the commercial annual catch limit (ACL).
- The current ACL ensures that the fish stock remains abundant and scientists already include buffers to account for uncertainty.
- Given that there is an unutilized portion of Spanish mackerel ACL, a system should be set up that would allow a common pool allocation or there should be an adjustment to allocations.
- Recently, Spanish mackerel have been available in the later part of year. Commercial fishermen are catching them and want to be able to make money and reduce discards.

- A few communities in North Carolina (Swan Quarter, Hatteras, Ocracoke, and Engelhard) base half of their year's work on Spanish mackerel. Fishermen do not want to waste the Spanish mackerel they catch, so the closure has made it challenging for the gillnet fleet to work at all.
- It is important that the season in the Northern Zone is extended until there is another stock assessment and, hopefully, an increase in the ACL.
- Framework Amendment 9 seems to be the only solution until long-term solutions like limited entry can be examined.

The AP also provided comments in opposition of Framework Amendment 9:

- While the recreational ACL is not being harvested, that poundage is being utilized. For the recreational sector abundance is most important. High abundance ensures that encounter rates remain high and fish are available for a longer period of time, which is especially important during peak fishing season.
- The Spanish mackerel that are not harvested from the recreational ACL provide a buffer in case there were any errors in the stock assessment.
- It is important to compare the economic impact of the recreational and commercial sectors in North Carolina. Though the recreational sector may catch fewer fish it is possible that they are more important to the economy.
- It might be ideal to wait until after the stock assessment before moving forward with any changes to Spanish mackerel.
- Allowing commercial fishermen to continue to harvest Spanish mackerel after their quota has been met is a slippery slope. The gillnet fishery in North Carolina is large and can be hard to manage.
- More people are getting into the Spanish mackerel fishery, especially with the available southern flounder catch being reduced. Some AP members felt they could not support Framework Amendment 9 without a limited access system for the commercial sector.

MOTION #2: RECOMMEND THE COUNCIL MOVE FORWARD WITH REVISING SPANISH MACKEREL ACCOUNTABILITY MEASURES AS PROPOSED IN MOTION 5 FROM THE SEPTEMBER 2019 COUNCIL MEETING
MOTION #5: REVISE SPANISH MACKEREL ACCOUNTABILTY MEASURES SO WHEN THE NORTHERN ZONE COMMERCIAL SECTOR QUOTA IS MET A STEPDOWN TO 500-LBS WILL OCCUR. THE SPANISH MACKEREL FISHERY WILL CLOSE WHEN THE TOTAL ACL (COMMERCIAL AND RECREATIONAL COMBINED) IS MET OR PROJECTED TO BE MET.
MOTION APPROVED (8 IN FAVOR, 5 OPPOSED)

5.1.2 Public Comments and Recommendations

5.1.3 South Atlantic Council's Choice for Preferred Alternative

5.2. Action 2. Revise the post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel.

5.2.1 Mackerel Cobia Advisory Panel Comments and Recommendations

See AP comments on accountability measures summarized in **Section 5.1.1.**

5.2.2 Public Comments and Recommendations

5.2.3 South Atlantic Council's Choice for Preferred Alternatives

Alternatives*
1. The commercial post-season accountability measure is to reduce the commercial quota for the following year by the amount of any commercial overage in the prior fishing year for that each zone if the sum of the commercial and recreational landings exceeds the stock annual catch limit, and Atlantic migratory group Spanish mackerel are overfished. The recreational post-season accountability measure is to reduce the bag limit by the amount necessary to ensure recreational landings achieve the recreational annual catch target, but do not exceed the recreational annual catch limit, if the recreational landings exceed the recreational annual catch limit and the sum of the commercial and recreational landings exceeds the stock annual catch limit. If the sum of the commercial and recreational landings exceeds the stock annual catch limit and Atlantic migratory group Spanish mackerel are overfished, reduce the recreational annual catch target for that following year by the amount of any recreational sector overage in the prior fishing year. **2.** Remove the existing post-season commercial and recreational accountability measures for Atlantic migratory group Spanish mackerel. **3.** Remove the existing commercial post-season accountability measures. Remove the existing recreational post-season accountability measure that reduces the recreational annual catch target for the following year. **3a.** Reduce the stock annual catch limit for the following fishing year by the amount of the stock annual catch limit overage in the prior fishing year, if Atlantic migratory group Spanish mackerel are overfished. **3b.** Reduce the recreational annual catch limit, commercial northern zone quota, and commercial southern zone quota, and the stock ACL, by the amount of their respective catch limit overages of the respective zone or sector that had an overage in the prior fishing year, if both the commercial and recreational landings exceed their sector annual catch limit and Atlantic migratory group Spanish mackerel are overfished. *****Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

5.3. Action 3. Modify the commercial trip limits for Atlantic migratory group Spanish mackerel in the northern and southern zones.

5.3.1 Mackerel Cobia Advisory Panel Comments and Recommendations

- North Carolina fishermen have indicated that they would like to consider a step-down system similar to the system currently in place in the Southern Zone:
    - For example, a step down to 1,500-pounds once 75% of the Northern Zone quota has been reached and then an additional step down to 500-pounds.
    - If the starting trip limit was lower, it may help prolong the season and ensure it was still open during the spot and croaker gillnet season preventing waste.
    - The state of North Carolina can implement changes in trip limits quickly via proclamation.

Alternatives*
1. Northern Zone: 3,500-pounds. Southern Zone: 3,500-pounds. When 75% of adjusted southern zone quota is met or projected to be met, 1,500 pounds. When 100% of adjusted southern zone quota is met or projected to be met, to 500 pounds. Closes when the southern zone commercial quota is met or projected to be met. **2.** Reduce the commercial trip limit for Spanish mackerel in the northern zone **2a.** 2,500-pounds until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered. **2b**. 2,000-pounds until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered. **2c.** 1,500-pounds until the northern zone commercial quota has been reached or is projected to be reached, then 500-pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered **3.** When 100% of adjusted southern zone quota is met or projected to be met, the trip limit is reduced to 500 pounds until the end of the fishing year or until the commercial sector closes as a result of in-season commercial accountability measures being triggered. *****Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

MOTION : CONSIDER A TRIP LIMT IN THE NORTHERN ZONE STARTING AT 3,000 POUNDS WITH A STEP DOWN TO 1,500 POUNDS ONCE 75% OF THE NORTHERN ZONE QUOTA IS REACHED.
MOTION APPROVED (5 IN FAVOR, 3 OPPOSED, 3 ABSENTIONS)

5.3.2 Public Comments and Recommendations

5.3.3 South Atlantic Council's Choice for Preferred Alternatives

Chapter 6. Cumulative Effects

6.1 Affected Area

The immediate impact area would be the federal 200-mile limit of the Atlantic off the coasts of New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and east Florida to the Miami-Dade/Monroe County boundary, Florida, which is also the South Atlantic Fishery Management Council's (South Atlantic Council) area of jurisdiction for the Atlantic Spanish mackerel fishery. The range of the affected species is described in **Section 3.2**. For this action, the cumulative effects analysis (CEA) includes an analysis of actions and events dating back to 2010 and through what is expected to take place approximately before or within 2019-2020.

6.2 Past, Present, and Reasonably Foreseeable Actions Impacting the Affected Area

Past Actions

The reader is referred to **Appendix C** for a list of all past regulatory activity for species in the CMP FMP. Recently implemented actions are listed below.

Framework Amendment 2, implemented in August 2015, modified the quota and trip limit system for commercial harvest of Atlantic migratory group Spanish mackerel in the Southern Zone (3,500 pounds for the Southern Zone. When 75% of adjusted Southern Zone quota is met or projected to be met, the trip limit would be reduced to 1,500 pounds. When 100% of adjusted Southern Zone quota is met or projected to be met, the trip limit is reduced to 500 pounds until the end of the fishing year or until the Southern Zone commercial quota is met or projected to be met, at which time the commercial sector in the Southern Zone would be closed to harvest of Spanish mackerel).

Amendment 31, implement in March 2019, removed Atlantic cobia from the fishery management plan. Atlantic cobia is now managed under the purview of the Atlantic States Marine Fisheries Commission because the majority of Atlantic cobia landings are in state waters.

Framework Amendment 6, implemented September 2019, updated the Atlantic king mackerel commercial trip limits in the Atlantic Southern Zone during Season 1 (March 1st through September 30th) of the fishing year.

Present Actions

Currently, there are no CMP FMP/regulatory amendments in progress affecting Atlantic Spanish mackerel except this framework action.

Reasonably Foreseeable Future Actions

This action (Framework Amendment 9) is intended to be a short-term action to address closures while the South Atlantic Council considers re-allocating allowable catch between the commercial and recreational sector for Atlantic group Spanish mackerel, or establishing a limited access commercial Spanish mackerel permit. Additionally, the stock assessment for Spanish mackerel is schedule to begin in 2021 and will likely result in revised annual catch limits based and other management measures for Gulf and Atlantic Spanish mackerel.

Expected Impacts from Past, Present, and Future Actions

Framework Amendment 9 alone would not result in significant cumulative impacts on the human environment. When combined with the impacts of past, present, and future actions affecting the CMP fishery, specifically the Atlantic migratory group Spanish mackerel portion of the CMP fishery, cumulative impacts are likely to accrue, such as a longer fishing season, increased management control for designated fishing zones, and social and economic benefits associated with improved management strategies. All of the proposed or recently implemented management actions affecting South Atlantic Spanish mackerel and the CMP fishery are intended to improve management of the CMP resource, while minimizing, to the maximum extent practicable adverse social and economic impacts.

6.3 Consideration of Climate Change and Other Non-Fishery Related Issues

Climate Change

The Environmental Protection Agency's climate change webpage (http://www.epa.gov/climatechange/) provides basic background information on measured or anticipated effects from global climate change. A compilation of scientific information on climate change can be found in the United Nations Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007). Those findings are incorporated here by reference and are summarized. Global climate change can affect marine ecosystems through ocean warming by increased thermal stratification, reduced upwelling, sea level rise, and through increases in wave height and frequency, loss of sea ice, and increased risk of diseases in marine biota. Decreases in surface ocean pH due to absorption of anthropogenic carbon dioxide emissions may affect a wide range of organisms and ecosystems. These influences could negatively affect biological factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators.

In the Southeast, general impacts of climate change have been predicted through modeling, with few studies on specific effects to species. Warming sea temperature trends in the southeast have been documented, and animals must migrate to cooler waters, if possible, if water temperatures exceed survivable ranges (Needham et al. 2012). Mackerels and cobia are migratory species, and may shift their distribution over time to account for the changing temperature regime. However, no studies have shown such a change yet. Higher water temperatures may also allow invasive species to establish communities in areas they may not have been able to survive previously. An area of low oxygen, known as the dead zone, forms in the northern Gulf each summer, which has been increasing in recent years. Climate change may contribute to this increase by increasing rainfall that in turn increases nutrient input from rivers. This increased nutrient load causes algal blooms that, when decomposing, reduce oxygen in the

water (Kennedy et al. 2002; Needham et al. 2012). Other potential impacts of climate change to the southeast include increases in hurricanes, decreases in salinity, altered circulation patterns, and sea level rise. The combination of warmer water and expansion of salt marshes inland with sea-level rise may increase productivity of estuarine-dependent species in the short term. However, in the long term, this increased productivity may be temporary because of loss of fishery habitats due to wetland loss (Kennedy et al. 2002). Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

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 oil rig, 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.

Indirect and inter-related effects on the biological and ecological environment of the CMP fishery in concert with the Deepwater Horizon MC252 oil spill are not well understood at this time. 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. Direct and indirect impacts on the food web from phytoplankton, to zooplankton, to mollusks, to top predators in the South Atlantic have not been significant and are not likely to be significant in the future.

6.4 Overall Impacts Expected from Past, Present, and Future Actions

The proposed management actions are summarized in **Chapter 2** of this document. Detailed discussions of the magnitude and significance of the impacts of the preferred alternatives on the human environment appear in **Chapter 4** of this document. None of the impacts of the action in this framework, in combination with past, present, and future actions have been determined to be significant.

The proposed action would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places as these are not in the South Atlantic Exclusive Economic Zone (EEZ). 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 South Atlantic region. The U.S. Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries are within the boundaries of the South Atlantic EEZ. The proposed actions are not likely to cause loss or destruction of these national marine sanctuaries because the actions are not expected to result in appreciable changes to current fishing practices.

6.5 Monitoring and Mitigation

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

None of the beneficial or adverse impacts from the proposed management action (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 CMP Framework Amendment 2 would not have significant biological, social, or economic effects because even though the action could extend fishing opportunities, accountability measures are also considered, and are in place to ensure overfishing does not occur. Therefore, the cumulative effects of the action proposed in CMP Framework Amendment 2 are not expected to affect bycatch, diversity and ecosystem structure of fish communities, or safety at sea of fishermen targeting CMP species, and other species managed by South Atlantic Council. Based on the cumulative effects analysis presented herein, the proposed action will not have any significant adverse cumulative impacts compared to, or combined with, other past, present, and foreseeable future actions

Chapter 7. List of Preparers

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NMFS = National Marine Fisheries Service, 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 and Persons Consulted

Responsible Agencies

South Atlantic Fishery Management Council (Administrative Lead)
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843-571-4366/ 866-SAFMC-10 (TEL)
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NMFS, Southeast Region
263 13th Avenue South
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List of Agencies, Organizations, and Persons Consulted

SAFMC Mackerel Cobia Advisory Panel
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
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

Chapter 9. References

SEDAR. 2012. SEDAR 28 – South Atlantic Spanish mackerel Stock Assessment Report. SEDAR, North Charleston SC. 444 pp. available online at: http://sedarweb.org/docs/sar/S28_SAR_SASpMack_FinalWithPStar_5.16.2013.pdf

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.

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, 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 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 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): 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 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. 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 Procedure 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 framework 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.

NMFS 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, humpback, 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 the CMP fishery, green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles, Atlantic sturgeon, and the smalltooth sawfish are all likely to be adversely affected, but not likely to be jeopardized, 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. 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. 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.

Since then, NMFS listed the giant manta ray (*Manta birostris*) as threatened under the ESA, effective February 21, 2018, and on January 30, 2018, NMFS listed the oceanic whitetip shark (*Carcharinus longimanus*) as threatened under the ESA, effective March 1, 2018.

On June 11, 2018, NMFS requested reinitiation of ESA section 7 consultation on the continued authorization of the Atlantic CMP fisheries under the Magnuson-Stevens Act to address the listings of the giant manta ray and oceanic whitetip sharks. In the same consultation request memorandum, NMFS developed ESA section 7(a)(2) and section 7(d) analyses that considered allowing the CMP fishery to continue during the reinitiation period. As a result of those analyses, NMFS has determined that allowing the Atlantic CMP fisheries to continue during the reinitiation period is not likely to jeopardize any protected species, nor does it constitute an irreversible or irretrievable commitment of resources.

The actions contained in Framework Amendment 9 are not anticipated to modify the operation of the CMP fishery in a manner that would cause effects to listed species or critical habitat that were not considered in the 2015 and 2017 biological opinions or in the June 11, 2018, analyses.

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 2018 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 2018 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 framework 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 C. History of Management

The Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and South Atlantic Region (CMP FMP; GMFMC/SAFMC 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 king and Spanish mackerel as unit stocks in the Atlantic and Gulf (Gulf) of Mexico. The CMP FMP established allocations for the recreational and commercial sectors harvesting these stocks, and the commercial allocations were divided between net and hook-and-line fishermen.

CMP FMP Amendments

Amendment 1, with EIS, implemented in September 1985, provided a framework procedure for pre-season adjustment of total allowable catch (TAC), revised the estimate of king mackerel MSY downward, recognized separate Atlantic and Gulf migratory groups of king mackerel, and established fishing permits and bag limits for king mackerel. Commercial allocations among gear users, except purse seines, which were allowed 6% of the commercial allocation of TAC, were eliminated. The Gulf commercial allocation for king mackerel was divided into Eastern and Western Zones for the purpose of regional allocation, with 69% of the remaining allocation provided to the Eastern Zone and 31% to the Western Zone. Amendment 1 also established minimum size limits for Spanish mackerel at 12 inches fork length (FL) or 14 inches total length (TL), and for cobia at 33 inches FL or 37 inches TL.

Amendment 2, with an environmental assessment (EA), implemented in July 1987, revised MSY for Spanish mackerel downward, recognized two migratory groups, established allocations of TAC for the commercial and recreational sectors, and set commercial quotas and bag limits. Charter boat permits were established, and it was clarified that TAC must be set below the upper range of the acceptable biological catch. The use of purse seines on overfished stocks was prohibited, and their allocation of TAC was redistributed under the 69%:31% split.

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 4, with EA, implemented in October 1989, reallocated Atlantic migratory group Spanish mackerel equally between recreational and commercial fishermen.

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

- Extended the management area for Atlantic migratory groups of mackerels through the Mid-Atlantic Council's area of jurisdiction;
- Revised problems in the fishery and plan objectives;
- Revised the fishing year for Gulf Spanish mackerel from July-June to April-March;
- Revised the definition of "overfishing";
- Added cobia to the annual stock assessment procedure;

- Provided that the South Atlantic Council will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the Gulf Council will be responsible for Gulf migratory groups;
- Continued to manage the two recognized Gulf migratory groups of king mackerel as one until management measures appropriate to the eastern and western migratory groups can be determined;
- Re-defined recreational bag limits as daily limits;
- Deleted a provision specifying that bag limit catch of mackerel may be sold;
- Provided guidelines for corporate commercial vessel permits;
- Specified that Gulf migratory group king mackerel may be taken only by hook-and-line and run-around gillnets;
- Imposed a bag and possession limit of two cobia per person per day;
- Established a minimum size of 12 inches FL or 14 inches TL for king mackerel and included a definition of "conflict" to provide guidance to the Secretary.

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;
- Provided for more seasonal adjustment actions;
- Allowed for Gulf migratory group king mackerel stock identification and allocation when appropriate;
- Provided for commercial Atlantic migratory group Spanish mackerel possession limits;
- Changed commercial permit requirements to allow qualification in one of three preceding years;
- Discontinued the reversion of the bag limit to zero when the recreational quota is filled;
- Modified the recreational fishing year to the calendar year; and
- Changed the minimum size limit for king mackerel to 20 inches FL, and changed all size limit measures to FL only.

Amendment 7, with EA, implemented in November 1994, equally divided the Gulf commercial allocation in the Eastern Zone at the Dade-Monroe County line in Florida. The sub-allocation for the area from Monroe County through Western Florida is equally divided between commercial hook-and-line and net gear users.

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

- Clarified ambiguity about allowable gear specifications for the Gulf migratory group king mackerel fishery by allowing only hook-and-line and run-around gillnets. However, catch by permitted, multi-species vessels and bycatch allowances for purse seines were maintained;
- 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;
- Established the Gulf and South Atlantic Councils' intent to evaluate the impacts of permanent jurisdictional boundaries between the Gulf and South Atlantic Councils and

development of separate fishery management plans for coastal pelagic species in these areas;

- Established a moratorium on commercial king mackerel permits until no later than October 15, 2000, with a qualification date for initial participation of October 16, 1995;
- Increased the income requirement for a king or Spanish mackerel permit to 25% of earned income or $10,000 from commercial sale of catch or charter or head boat fishing in one of the three previous calendar years, but allowed for a one-year grace period to qualify under permits that are transferred;
- Legalized retention of up to five cut-off (damaged) king mackerel on vessels with commercial trip limits;
- Set an optimum yield target at 30% static spawning potential ratio (SPR) for the Gulf and 40% static SPR for the Atlantic;
- Provided the South Atlantic Council with authority to set vessel trip limits, closed seasons or areas, and gear restrictions for Gulf migratory group king mackerel in the North Area of the Eastern Zone (Dade/Monroe to Volusia/Flagler County lines);
- Established various data consideration and reporting requirements under the framework procedure;
- Modified the seasonal framework adjustment measures and specifications (see Appendix A);
- Expanded the management area for cobia through the Mid-Atlantic Council's area of jurisdiction (to New York).

Amendment 9, with EA, implemented in April 2000, made the following changes to the management regime:

- Reallocated the percentage of the commercial allocation of TAC for the North Area (Florida east coast) and South/West Area (Florida west coast) of the Eastern Zone to 46.15% North and 53.85% South/West and retained the recreational and commercial allocations of TAC at 68% recreational and 32% commercial;
- Subdivided the commercial hook-and-line king mackerel allocation for the Gulf migratory group, Eastern Zone, South/West Area (Florida west coast) by establishing two subzones with a dividing line between the two subzones at the Collier/Lee County line;
- Established regional allocations for the west coast of Florida based on the two subzones with 7.5% of the Eastern Zone allocation of TAC being allowed from Subzone 2 and the remaining 92.5% being allocated as follows:
- 50% - Florida east coast
- 50% - Florida west coast that is further subdivided:
    - 50% - Net Fishery
    - 50% - Hook-and-Line Fishery
- Established a trip limit of 3,000 pounds per vessel per trip for the Western Zone;
- Established a moratorium on the issuance of commercial king mackerel gillnet endorsements and allow re-issuance of gillnet endorsements to only those vessels that: 1) had a commercial mackerel permit with a gillnet endorsement on or before the moratorium control date of October 16, 1995 (Amendment 8), and 2) had landings of king mackerel using a gillnet in one of the two fishing years, 1995-1996 or 1996-1997, as verified by the NMFS or trip tickets from Florida; allowed transfer of gillnet endorsements to immediate family members (son, daughter, father, mother, or spouse)

only; and prohibited the use of gillnets or any other net gear for the harvest of Gulf migratory group king mackerel north of an east/west line at the Collier/Lee County line;
- Increased the minimum size limit for Gulf migratory group king mackerel from 20 in to 24 inches FL;
- Allowed the retention and sale of cut-off (damaged), legal-sized king and Spanish mackerel within established trip limits.

Amendment 10, with Supplemental Environmental Impact Statement (SEIS), approved June 1999, incorporated essential fish habitat provisions for the South Atlantic.

Amendment 11, with SEIS, partially approved in December 1999, included proposals for mackerel in the South Atlantic Council's Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and other Provisions in FMPs of the South Atlantic Region.

Amendment 12, with EA, implemented October 2000, extended the commercial king mackerel permit moratorium from its current expiration date of October 15, 2000, to October 15, 2005, or until replaced with a license limitation, limited access, and/or individual fishing quota or individual transferable quota system, whichever occurs earlier.

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 14, with EA, implemented July 2002, established a three-year moratorium on the issuance of charter vessel and head boat Gulf migratory group king mackerel permits in the Gulf unless sooner replaced by a comprehensive effort limitation system. The control date for eligibility was established as March 29, 2001. Also includes provisions for eligibility, application, appeals, and transferability.

Amendment 15, with EA, implemented August 2005, established an indefinite limited access program for the commercial king mackerel fishery in the EEZ under the jurisdiction of the Gulf, South Atlantic Council, and Mid-Atlantic Council. It also changed the fishing season to March 1 through February 28/29 for the Atlantic migratory groups of king and Spanish mackerel.

Amendment 16 was not developed.

Amendment 17, with SEIS, implemented June 2006, established a limited access system on for-hire reef fish and coastal migratory pelagic permits. Permits are renewable and transferable in the same manner as currently prescribed for such permits. There will be a periodic review at least every 10 years on the effectiveness of the limited access system.

Amendment 18, with EA, implemented in January 2012 established ACLs, ACTs, and AMs for king mackerel, Spanish mackerel, and cobia. The amendment also established both Atlantic and Gulf migratory groups for cobia; modified the framework procedures; and removed the following species from the FMU: cero, little tunny, dolphin and bluefish. The South Atlantic and

Gulf Councils approved the amendment for formal review in August 2011. The amendment was approved by the Secretary of Commerce in December 2011.

Amendment 20A, with EA, implemented July 2014 prohibits the sale of king and Spanish mackerel caught under the bag limit in each region except under limited circumstances. For the Gulf of Mexico, the amendment prohibits the sale of king and Spanish mackerel caught under the bag limit unless those fish are either caught on a for-hire trip and the vessel has both a for-hire and commercial vessel permit, or the fish are caught as part of a state-permitted tournament and the proceeds from the sale are donated to charity. For the Atlantic region, the amendment prohibits the sale of king and Spanish mackerel caught under the bag limit unless the fish are caught as part of a state-permitted tournament and the proceeds from the sale are donated to charity. In addition, the amendment removes the income qualification requirement for king and Spanish mackerel commercial permits.

Amendment 20B, with EA, implemented in March 2015 created a transit provision for areas closed to king mackerel and established Northern and Southern zones with separate commercial quotas for Atlantic king and Spanish mackerel.

Amendment 21, with EA, implemented in January 2012 addressed recreational fishing measures in South Carolina Special Management Zones (SMZs).

Amendment 22, with EA, implemented in January 2014 required weekly electronic reporting for headboats in the South Atlantic.

Amendment 23, with EA, implemented in August 2014 required Atlantic king mackerel and Spanish mackerel permit holders to sell to a federal dealer and required weekly electronic reporting for federal dealers.

Amendment 26, with EA, implemented in May 2017 updated the Gulf and Atlantic king mackerel ACLs based on SEDAR 30; modified the stock boundary between the Gulf and Atlantic migratory groups of king mackerel to be at the Dade/Monroe County Line in southeastern Florida, with the Gulf Council managing king mackerel to that line year-round; allowed bag limit sales on Atlantic king mackerel in the small coastal shark gillnet fishery; increased the recreational bag limit from 2-fish per person per day to 3-fish per person per day, other than off Florida and revised the commercial trip limits for Atlantic king mackerel.

Framework Adjustments relevant to the proposed action:

September 1996, with EA, modified the trip limits for Florida set up in Amendment 6. From April 1-October 31, the trip limit would be 1,500 lbs. Starting November 1, trips would be unlimited on Monday, Wednesday, and Friday, and there would be a trip limit of 1,500 lbs all other days. When 75% of the adjusted quota was met, the trip limit would be 1,500 lbs every day. When 100% of the adjusted quota was met, the trip limit would be 500 lbs.

January 2000, with EA, modified the trip limits for Florida. From April 1- November 30, the trip limit would be 1,500 lbs. Starting December 1, trips would be unlimited on weekdays and

there would be a trip limit of 1,500 lbs on weekends. When 75% of the adjusted quota was met, the trip limit would be 1,500 lbs every day. When 100% of the adjusted quota was met, the trip limit would be 500 lbs.

August 2007, with EA, changed the first time period in the trip limit system for Florida to be March 1-November 30. This framework adjustment was necessary because the fishing year had been changed in Amendment 15 to start on March 1, but the trip limit system for Florida was set up to start on April 1.

Framework Amendment 1, with EA, implemented in December 2014. Updated the ACLs for Gulf and Atlantic Spanish mackerel.

Framework Amendment 2, with EA, implemented in August 2015. Modified the quota and trip limit system for commercial harvest of Atlantic migratory group Spanish mackerel in the Southern Zone (3,500 pounds for the Southern Zone. When 75% of adjusted Southern Zone quota is met or projected to be met, the trip limit would be reduced to 1,500 pounds. When 100% of adjusted Southern Zone quota is met or projected to be met, the trip limit is reduced to 500 pounds until the end of the fishing year or until the Southern Zone commercial quota is met or projected to be met, at which time the commercial sector in the Southern Zone would be closed to harvest of Spanish mackerel).

Framework Amendment 5, with EA, implemented in August 2017. Removed the restriction on fishing for or retaining the recreational bag and possession limits of king and Spanish mackerel on a vessel with a Federal commercial permit for king or Spanish mackerel when commercial harvest of king or Spanish mackerel in a zone or region is closed.

Appendix D. Analysis of Accountability Measure and Trip Limit Scenarios

Analysis of Changes to Atlantic Spanish Mackerel Accountability Measures and Commercial Trip Limits

Introduction and Background

In March 2015, Amendment 20B to the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources (CMP) in the Gulf of Mexico and South Atlantic Region established Northern and Southern Zones for commercial Atlantic Spanish mackerel. The Northern Zone includes waters from the New York/Connecticut/Rhode Island state line to the North Carolina/South Carolina state line. The Southern Zone includes waters from the North Carolina/South Carolina state line to the Miami-Dade/Monroe County boundary, Florida. Amendment 20B to the CMP FMP also set the Northern Zone commercial quota at 662,670 pounds (lbs) and the Southern Zone commercial quota at 2,667,330 lbs.

In 1992, Amendment 6 to the CMP FMP implemented a 3,500-pound trip limit in the Northern Zone, which at the time included waters north of the Florida/Georgia line. Amendment 6 to the CMP FMP also established an adjusted quota trip limit system in the Southern Zone (Florida). In August 2015, Framework Amendment 2 to the CMP FMP modified Atlantic Spanish mackerel trip limits in the Southern Zone (now SC, GA, FL). The Southern Zone trip limit is 3,500-pounds until 75% of the adjusted Southern Zone quota is met or projected to be met, then 1,500 lbs. When 100% of adjusted Southern Zone quota is met or projected to be met, the trip limit is reduced to 500 lbs until the end of the fishing year or until the Southern Zone commercial quota is met or projected to be met.

The South Atlantic Fishery Management Council (South Atlantic Council) is currently drafting Framework Amendment 9 to the CMP FMP to modify Atlantic Spanish mackerel in-season and post-season accountability measures. Framework Amendment 9 also considers changes to the commercial trip limits for Atlantic Spanish mackerel.

Predicting Future Landings

Commercial Landings: Northern Zone (New York through North Carolina)

The first step in evaluating the impact of a trip limit change is predicting future landings. Framework Amendment 9 is considering a trip limit change in the Northern Zone. Updated Atlantic Spanish mackerel commercial landings were provided by the Southeast Fisheries Science Center (SEFSC) on August 9, 2019. Since the Atlantic Spanish mackerel season is from March 1 to February 28 the predicted landings were also organized in this order.

The most recent years of landings were used as a proxy for future landings. However, in recent years there were trip limit reductions and closures in some months, and both of these

actions can significantly alter the landings. Therefore, if monthly landings in recent years had trip limit reductions or closures then monthly landings further back in time were used instead. Average three-year landings from 2016, 2017, and 2018 from March to October were used as a proxy for future March to October landings since there were no trip limit changes or closures during this time period. There were closures in November and December in the Northern Zone in 2017 and 2018. Average three-year commercial landings from November to December 2014, 2015, and 2016 were used as a proxy for predicted November to December landings since there were no trip limit changes or closures during this time. Three-year average landings from January 2015, 2016, and 2017 were used a proxy for predicted January landings since the Northern Zone Spanish mackerel commercial sector was open without a trip limit reduction or closure at this time period. February predicted landings came from average three-year landings from 2014, 2015, and 2016 since there were no trip limit reductions or closures at this time. Details of the predicted Northern Zone commercial landings are provided in **Table D.1** and are shown in **Figure D.1**.

Table D.1. Details of the predicted Northern Zone annual commercial landings for each month.

	March through October	November through December	January	February
3 Year Average Landings	2016, 2017, and 2018	2014, 2015, and 2016	2015, 2016, and 2017	2014, 2015, and 2016

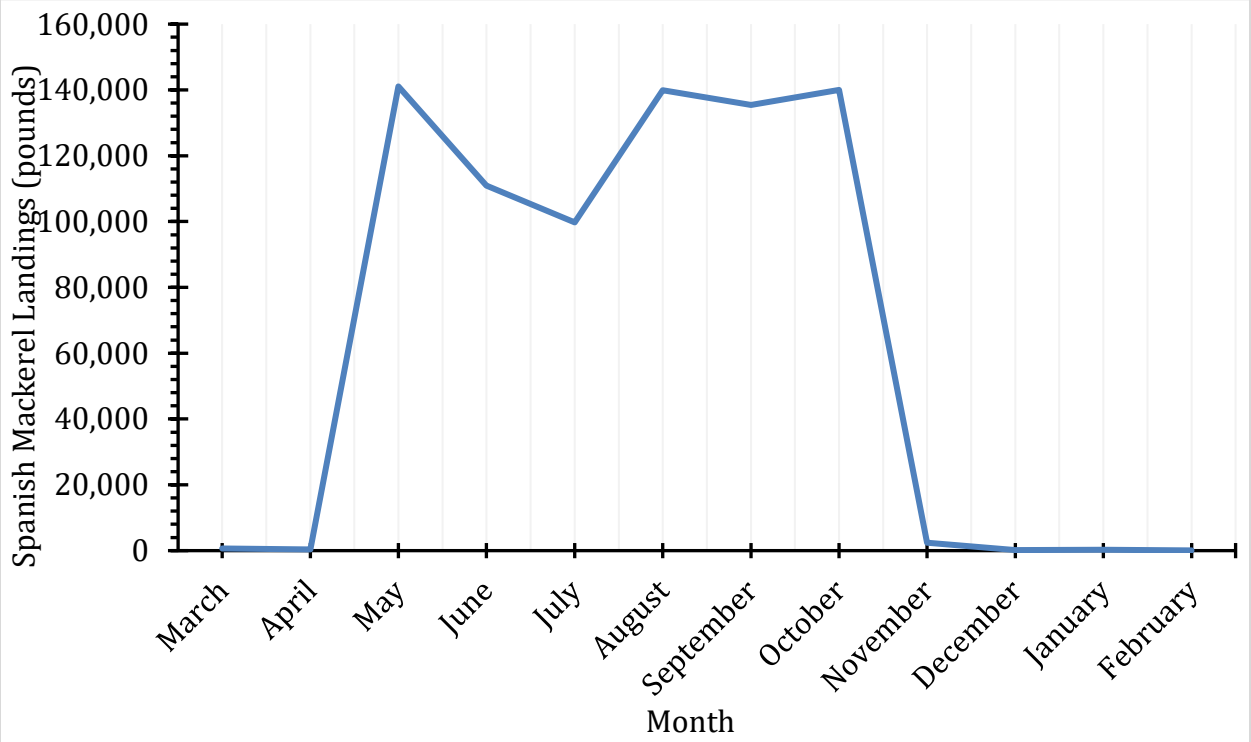

Figure D.1. Predicted Northern Zone Spanish mackerel commercial landings by month.

Commercial Landings: Southern Zone (South Carolina through East Florida)

Framework Amendment 9 is also considering changes to the trip limit in the Southern Zone. Updated Atlantic Spanish mackerel commercial landings were provided from SEFSC on August 9, 2019. Since the Spanish mackerel season is from March 1 to February 28 the predicted landings were also organized in this order.

The most recent years of landings were used as a proxy for predicted landings. However, in recent years there were trip limit reductions and closures in some months, and both of these actions can significantly alter the landings. Therefore, if monthly landings in recent years had trip limit reductions or closures then monthly landings further back in time were used instead. Average three-year landings from 2016, 2017, and 2018 from March to November were used as a proxy for predicted March to November landings since there were no trip limit changes or closures during this time period. There were trip limit reductions in the Southern Zone in 2018 in December and January. Average three-year commercial landings from December and January 2015, 2016, and 2017 were used as a proxy for predicted December and January landings since there were no trip limit changes during this time. The month of February had trip limit changes in 2015, 2017, and 2018. Since 2016 was the only recent year that did not have a trip limit change in February, the February 2016 landings were used as a proxy for predicted February landings. Details of the predicted Southern Zone commercial landings are provided in **Table D.2** and shown in **Figure D.2**.

Table D.2. Details of the predicted Southern Zone annual commercial landings for each month.

	March through November	**December through January**	**February**
3 Year Average Landings	2016, 2017, and 2018	2015, 2016, and 2017	2016

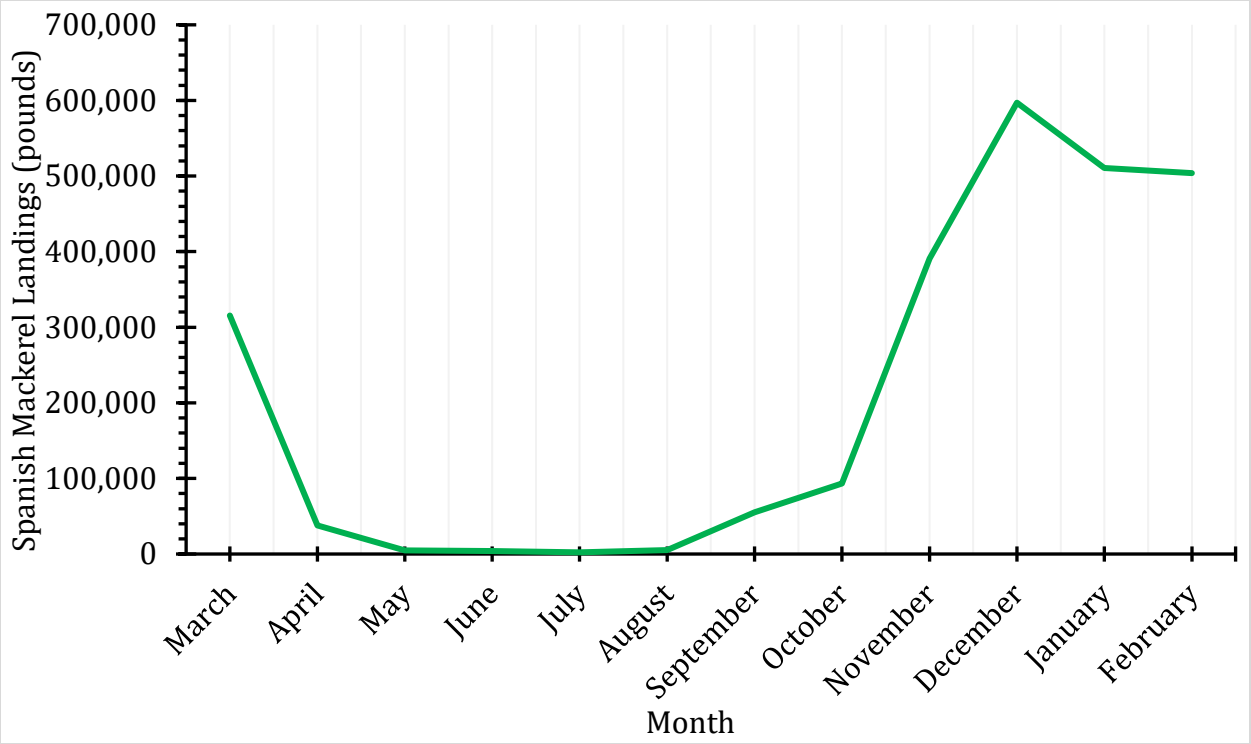

Figure D.2. Predicted Southern Zone Spanish mackerel commercial landings by month.

Recreational Landings: Atlantic region (New York through East Florida)

Framework Amendment 9 is considering changes to the accountability measures are triggered by combined commercial and recreational landings. Therefore, a prediction of recreational landings is needed to see if the landings will exceed quotas and Annual Catch Limits (ACL). Updated Atlantic Spanish mackerel recreational landings were provided from SEFSC on July 25, 2019. Since the Atlantic Spanish mackerel season is from March 1 to February 28 the predicted landings were also organized in this order.

The most recent years of landings were used as a proxy for predicted landings. There have not been any bag or size limit changes, or closures in recent years. Average three-year landings from March to December 2016, 2017, and 2018 were used as a proxy for predicted March to December recreational landings. Average three-year landings from January and February 2017, 2018, and 2019 were used as a proxy for predicted January and February recreational landings. Predicted Atlantic Spanish mackerel recreational landings are shown in **Figure D.3**.

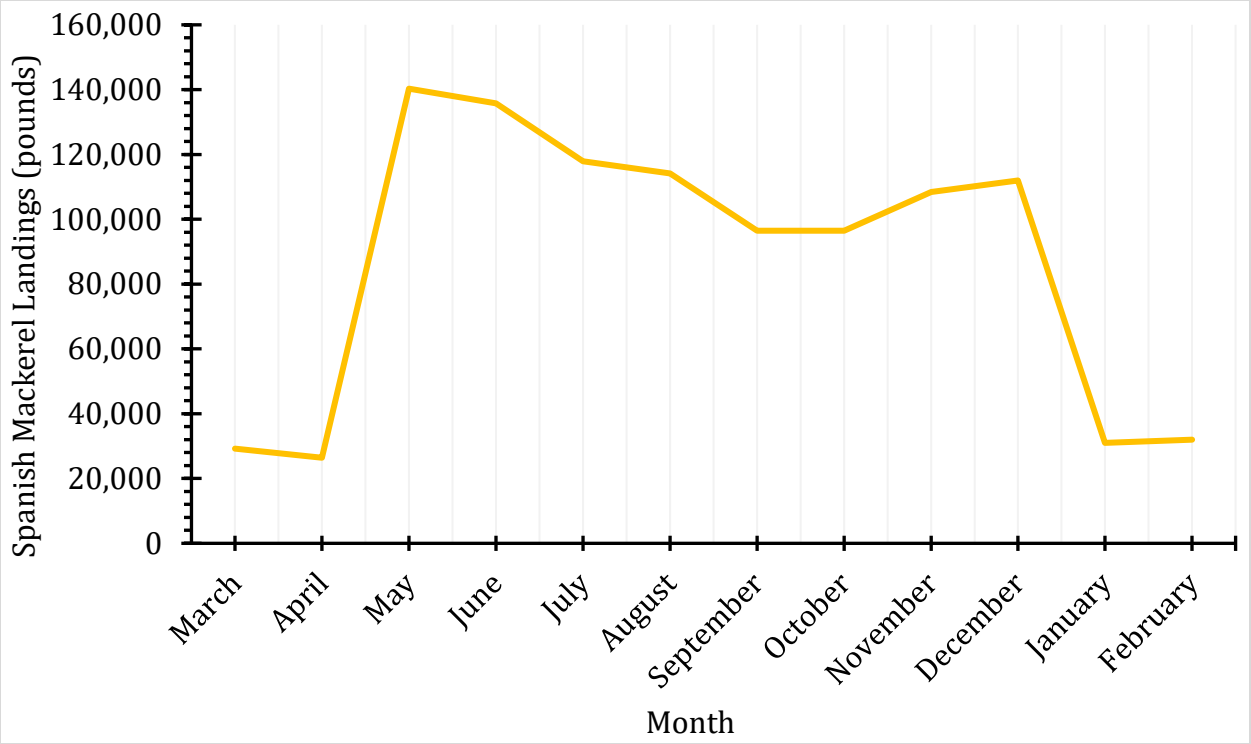

Figure D.3. Predicted Atlantic recreational landings by month.

Analysis of the Framework Amendment 9 Actions

Action 1: Revise the in-season commercial accountability measures and establish in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Action 1 of Framework Amendment 9 considers changes to the in-season accountability measures for both the commercial and recreational sector. Predicted closure dates from changes to the in-season accountability measures were determined using the predicted commercial and recreational landings described earlier. **Table D.3** provides the results of the predicted closures dates and assumes no step down or changes to the trip limits. **Table D.3** results assume the trip limit is fixed at 3,500 lbs for both the Northern and Southern Zone. Majority of the results did not have any predicted closure dates. This is driven by the fact that the predicted Atlantic recreational landings are 1.6 million pounds below the ACL, therefore, when the commercial landings are combined with the low recreational landings the low recreational landings keep the total combined ACL from being met.

Table D.3. Predicted closures dates for Action 1 of Framework Amendment 9.

	Quota/ACL	Closure Date
Action 1 Alternative 1		
Northern Zone	662,670	8-Oct
Southern Zone	2,667,330	No Closure
Atlantic Recreational	2,727,000	No Closure
Action 1 Alternative 2		
Northern Zone, Southern Zone, and Atlantic Recreational	6,057,000	None
Action 1 Alternative 3a: 90% of Stock ACL		
Commercial: Northern and Southern Zone	3,330,000	No Closure
Northern Zone, Southern Zone, and Atlantic Recreational	5,451,300	No Closure
Action 1 Alternative 3b: 80% of Stock ACL		
Commercial: Northern and Southern Zone	3,330,000	No Closure
Northern Zone, Southern Zone, and Atlantic Recreational	4,845,600	No Closure
Action 1 Alternative 3c: 70% of Stock ACL		
Commercial: Northern and Southern Zone	3,330,000	No Closure
Northern Zone, Southern Zone, and Atlantic Recreational	4,239,900	2/24/2013**

**The predicted closure date of February 24 for Action 1 Alternative 3c does not take into account the fact that the Northern and Southern Zone did not reach the combined ACL. The February 24 predicted closure date was done as an exploratory analysis. However, following Alternative 3 there must also be a closure from the combination of the Northern and Southern zone landings from their combined ACL before there is a stock closure.

Action 2: Revise the in-season commercial accountability measures and establish in-season recreational accountability measures for Atlantic migratory group Spanish mackerel.

Action 2 of Framework Amendment 9 considers changes to the post-season accountability measures for both the commercial and recreational sectors. **Alternative 1** (**No Action**) has a post-season accountability measure to reduce the commercial quota the following year if the stock is determined to be overfished and the sum of the commercial and recreational landings exceed the stock ACL. Currently, the Atlantic Spanish mackerel stock is not considered to be overfished (FSSI 2019). Also, the combination of the predicted commercial and recreational landings does not exceed the stock ACL. **Alternative 2** proposes to remove the existing post-season accountability measure and does not provide a new accountability measure so no analysis was conducted for this alternative. **Alternative 3** also considers if the stock is overfished (the

stock is not currently overfished according to FSSI 2019) and considers reducing annual catch limits if both the commercial (Northern and Southern Zones) and recreational landings exceed their ACLs. The predicted landings described earlier do not have either the commercial (both Northern and Southern Zone) or the recreational sectors exceeding their ACLs, therefore, post-season accountability measures to reduce the ACL are not expected with the current analysis.

Action 3: Modify the commercial trip limits for Atlantic migratory group Spanish mackerel in the northern and southern zones.

Action 3 of Framework Amendment 9 considers changes to commercial trip limits in the Northern and Sothern Zones. Changes to the trip limits were analyzed with Spanish mackerel trip level commercial data provided from Atlantic Coastal Cooperative Statistics Program on November 25, 2019. Since both the Northern and Southern Zones had experienced trip limit reductions and closures in recent years the data time periods used for the predicted landings described above (**Table D.1** and **Figure D.1** for Northern Zone and **Table D.2** and **Figure D.2** for Southern Zone) were the same time periods used for the commercial trip limit analysis. The commercial trip limit analysis was done for each individual month. The **Alternatives 2** and **3** propose decreasing the trip limit. For example, **Alternative 2** explores reducing the Northern Zone current trip limit of 3,500 lbs down to 2,500, 2,000, or 1,500 lbs. The impact on landings from a reduction in the trip limit was analyzed by looking at recent trip level data and isolating the pounds from the trips that exceeded the trip limit being considered. Then comparing these isolated pounds to the total pounds harvested to generate a percent reduction in landings. For example, when analyzing the 2,500 lbs trip limit any trips that harvested between 2,500 lbs and the current trip limit (3,500 lbs) were isolated. These isolated landings were summed for each trip and compared to the total landings to calculate the percent reduction in landings from the reduced trip limit.

Action 3/Alternative 2 only proposes decreasing the trip limit in the Northern Zone. Using data from the same time period used for the Northern Zone predicted landings (**Table D.1**) a trip frequency figure was created (Figure 4). Majority of the trips harvested 500 lbs or less per trip (87.0%) and 98.5% of the trips harvested 1,500 pounds or less per trip. **Table D.4** presents the results of the monthly percent reduction in landings analysis. The calculated percent reduction in landings for each month is low with an estimated trip limit reduction of less than 10% for majority of the trip limits (Table 4).

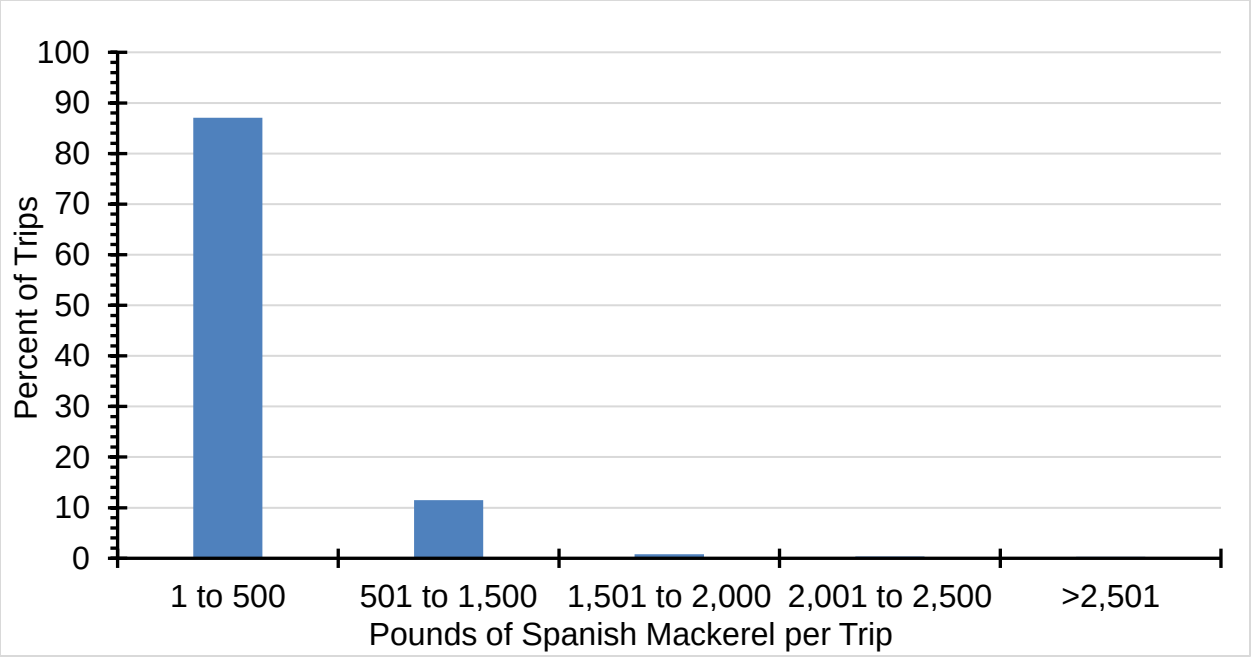

Figure D.4. Percent of Northern Zone trips that commercially harvested Spanish mackerel. The data used for this figure are from the same time period used for the predicted Northern Zone landings, and this time period is defined in Table 1. The figure was generated from 11,568 trips.

Table D.4. Percent reduction calculation results for the Northern Zone. The data used for this analysis are from the same time period used for the predicted Northern Zone landings and are defined in Table 1.

Trip Limit	3,500	2,500	2,000	1,500
March	0	0	0	0
April	0	0	0	0
May	0	0.2	0.8	2.6
June	0	0.3	0.7	1.6
July	0	0	0.1	0.8
August	0	0.1	0.6	2.0
September	0	0.9	2.6	5.7
October	0	2.4	5.4	11.9
November	0	0	0	0.3
December	0	0	3.5	10.4
January	0	0	0	0
February	0	0	0	0

Action 3/Alternative 1 (No Action) and **Alternative 3** proposes decreasing the trip limit in the Southern Zone. Using the data from the same time period used for the Southern Zone predicted landings (**Table 2**) a trip frequency figure was created (**Figure 5**). Majority of the trips harvested 500 lbs or less per trip (70.2%) and 95.0% of the trips harvested 1,500 lbs or less per trip. **Table 5** presents the results from the monthly percent reduction in landings analysis. The

calculated percent reduction in landings were relatively low (< 15%) except for the 500 lbs trip limit which had some reductions as high as 50% in some months (**Table 5**).

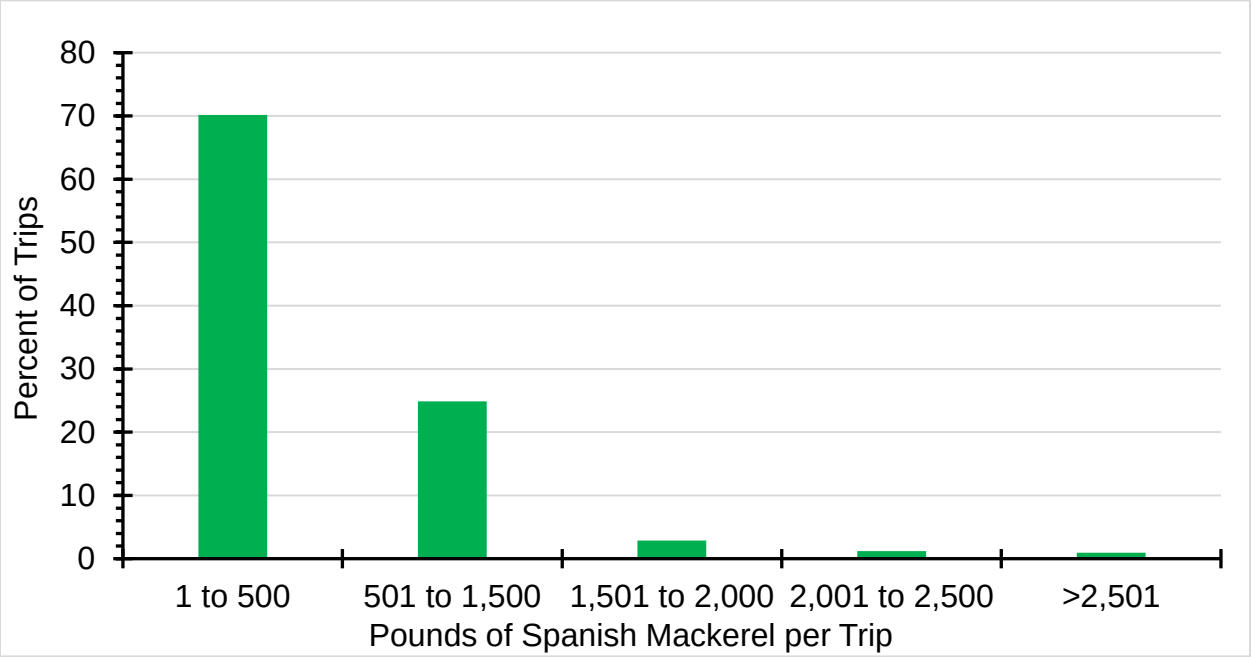

Figure D.5. Percent of Southern Zone trips that commercially harvested Spanish mackerel. The data used for this figure are the same time period used for the predicted Southern Zone landings, and this time period is defined in Table 2. The figure was generated from 16,088 trips.

Table D.5. Percent reduction calculation results for the Southern Zone. The data used for this analysis are from the same time period used for the predicted Southern Zone landings and are defined in Table 2.

Trip Limit	3,500	2,500	2,000	1,500	500
March	0	0.4	1.1	3	35.8
April	0	0.2	1.2	3.5	26.5
May	0	0	0	0	4.6
June	0	0	0	0	6.9
July	0	0	0	0	0
August	0	0	0	0.6	9.8
September	0	2.9	5.5	9	41.6
October	0	1.8	5.3	13.1	54.1
November	0	2.7	6	12.4	50.6
December	0	1.5	3.8	8.8	44.6
January	0	0.5	1.4	4.5	40.3
February	0	0.4	1	2.7	41.1

Combining all three Actions to predict closure dates

Following the analysis completed above there was only one example where there was a closure. **Action 1**/**Alternative 1** (**No Action**) had a predicted closure date of October 8th for the

Northern Zone (**Table 3**). The October 8th closure date was calculated with a trip limit of 3,500 lbs. **Action 3**/**Alternative 2** provides three more trip limit options for the Northern Zone. The predicted Northern Zone landings (**Figure 1**) were modified with the results from the percent reduction analysis from the **Action 3**/**Alternative 2** trip limits (**Table 4**) to generate new predicted closure dates. **Table 6** has the results of the predicted closure dates for the Northern Zone ACL of 662,670 lbs with the **Action 3**/**Alternative 3** trip limits.

Table D.6. Predicted closures dates for Northern Zone Spanish mackerel following the trip limits proposed in Action 3. The closure dates were determined from the date when the ACL of 662,670 lbs was met.

	Action 3			
	Alternative 1	**Alternative 2**		
	3,500 lbs Trip Limit	2,500 lbs Trip Limit	2,000 lbs Trip Limit	1,500 lbs Trip Limit
Closure Date	8-Oct	9-Oct	10-Oct	13-Oct

References

FSSI 2019. Fish Stock Sustainability Index. https://www.fisheries.noaa.gov/national/population-assessments/fishery-stock-status-updates

Appendix E. Regulatory Impact Review

To be completed.

Appendix F. Regulatory Flexibility Analysis

To be completed.