Framework Amendment 8

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

Atlantic King Mackerel Commercial Trip Limits

Regulatory Impact Review | Regulatory Flexibility Analysis

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Abbreviations and Acronyms Used in the FMP

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

Framework Amendment 8 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region

Proposed action:	Modify commercial trip limits for Atlantic king mackerel.
Lead agency:	Framework Amendment – South Atlantic Fishery Management Council (South Atlantic Council) 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 8 amends the Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (CMP FMP). Framework Amendment 8 includes one action to increase the commercial trip limit for Atlantic migratory group king mackerel (Atlantic king mackerel) in the Atlantic Southern Zone from October to the end of February. This framework amendment applies to harvest of Atlantic king mackerel in the exclusive economic zone (EEZ) from the North Carolina/South Carolina line to the Miami-Dade/Monroe county line (Atlantic Southern Zone).

Who's Who?

- ***South Atlantic Fishery Management Council***– Engage in a process to determine a range of actions and alternatives and recommends action to the National Marine Fisheries Service.
- ***National Marine Fisheries Service*** and ***Council staffs*** – Develop alternatives based on guidance from the Council and analyze the environmental impacts of those alternatives. The National Marine Fisheries Service 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 king mackerel must be approved by both the Gulf Council and the South Atlantic Council. Because this framework amendment applies only to Atlantic king 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 approval and implementation. NMFS is a line office in the National Oceanic and Atmospheric Administration.

1.3 Why is the South Atlantic Council Considering Action?

The current regulations for king mackerel established in Amendment 26 to the CMP FMP (Amendment 26) became effective on May 11, 2017 (68 FR 17387; April 11, 2017), including updated commercial trip limits for the Atlantic Southern Zone. The fishing year for Atlantic king mackerel is March through February, and the commercial quota is divided between two seasons. Season 1 is March 1 through September 30 with 60 percent of the quota, and Season 2 is October 1 through the end of February with 40 percent of the quota. Areas in the Atlantic Southern Zone have specified trip limits:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):

- *March 1 – March 31 (Season 1):* 50-fish
- *April 1 – September 30 (Season 1):* 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish
- *October 1 – January 31 (Season 2):* 50-fish
- *February 1 – end of February (Season 2):* 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish.

Prior to the implementation of Amendment 26, the commercial king mackerel trip limits for the Atlantic Southern Zone were as follows:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′N):

- *April 1 – October 31:* 3,500 pounds
- *November 1 – March 31:* No trip limit

South of the Volusia/Brevard line (28°47.8′N) to the Miami-Dade/Monroe line (25º20'24"N):

- *April 1 – October 31:* 75-fish
- *November – March 31*: No trip limit

The primary function of the split season structure and trip limit system implemented through Amendment 26 was to ensure the longest commercial fishing season possible for Atlantic king mackerel and to provide continued access to commercial king mackerel fishermen. Fishermen operating along the east coast of Florida indicated the importance of providing year-round access to king mackerel for fishermen and communities that harvest the fish at various times throughout the year. However, fishermen on the Florida east coast have also expressed concern about the Amendment 26 trip limits. Framework Amendment 6 to the CMP FMP addressed concerns related to low trips limits in Season 1 (March 1 through September 30) in the EEZ from the Flagler/Volusia County line to the Volusia/Brevard County line (Volusia County). If implemented, commercial king mackerel trip limits will be modified as followed (**Figure 3**):

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′ N):

- March 1 – March 31 (Season 1): 75-fish
- April 1 – September 30 (Season 1): 3,500 pounds
- October 1 – January 31 (Season 2): 50-fish
- February 1 – end of February (Season 2): 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish.

South of the Volusia/Brevard line (28°47.8′N) to the Miami-Dade/Monroe line (25º20'24"N):

- March 1 – March 31 (Season 1): 75-fish
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish

- October 1 – January 31 (Season 2): 50-fish
- February 1 – end of February (Season 2): 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish.

At the April 2019 meeting of the Council's Mackerel Cobia Advisory Panel (AP), AP members and other stakeholders expressed their concerns about the low trip limit in Season 2, stating that the established 50-fish commercial trip limit makes it challenging for commercial fisherman targeting king mackerel south of the Flagler/Volusia County, Florida, boundary to earn enough money to pay for the cost of a trip, potentially causing undue hardship to fishermen and their communities. The AP passed a motion asking the Council to consider an emergency action to raise the king mackerel commercial trip limit to 75-fish south of the Flagler/Volusia County, Florida, boundary for the 2019/2020 fishing season. During the public comment period at the June 2019 Council meeting, commercial king mackerel fishermen asked the Council to take emergency action and raise the trip limit during Season 2.

New information presented at the June Council meeting shows that, since the implementation of Amendment 26, the commercial king mackerel Season 2 quota is not being harvested (**Table 1.3.1**). Comments from commercial king mackerel fishermen at the June Council meeting indicate the current Season 2 commercial trip limit of 50 fish in the southern zone is preventing them from fully utilizing the available resource, and this lower trip limit during Season 2 prevents them from being able to carry crew or make profitable trips.

Table 1.3.1. Commercial landings (pounds) of Atlantic migratory group king mackerel from the 2017/2018 and 2018/2019 fishing year, by season.

Fishing Year	Season One Landings	Season One Quota	Season Two Landings	Season Two Quota (with rollover)
2017-2018 [a]	1,451,763	2,724,384	710,729	1,816,256 (3,088,877)
2018-2019 [a]	1,435,552	2,401,152	929,000	1,600,768 (2,566,368)

Source: SERO ACL Monitoring, June 18, 2019

[a] Preliminary landing estimates.

In a letter dated June 21, 2019, the Council requested that the NMFS implement an emergency rule to increase the commercial trip limit for king mackerel from 50-fish to 75-fish beginning in October for the 2019/2020 fishing season in the Atlantic Southern Zone south of the Flagler/Volusia County, Florida, boundary. The higher trip limit would reduce inefficiencies, increase economic opportunities, and enhance social benefits but would not increase the overall Season 2 quota or annual catch limits (ACL) for king mackerel. Since commercial king mackerel landings have not reached the quota in recent years, the South Atlantic Council and NMFS have determined that it is unlikely that increasing the trip limit would result in an early closure. Nonetheless, the ACLs and accountability measures would continue to constrain harvest and prevent overfishing.

Unless modified via Framework Amendment 8, commercial king mackerel trip limits will revert to what is currently in place if the emergency rule is approved and once it expires at the start of the 2020/2021 season (March 1, 2020).

1.3.1 Purpose and Need Statement

The *purpose* is to modify the commercial trip limit for Atlantic king mackerel in the Atlantic Southern Zone during Season 2 (October 1 to the end of February).

The *need* is to provide a commercial trip limit sufficient to support fishing activity and revenue opportunity while constraining harvest to the annual catch limit and providing for year-round access.

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

Though king mackerel, Spanish mackerel, and cobia are included in the CMP FMP, king mackerel is the only species addressed in this framework amendment. King mackerel is managed as two migratory groups (Atlantic and Gulf) in the CMP FMP. The action in this framework amendment addresses management of Atlantic king mackerel only. In 2014, a stock assessment was completed for Gulf and Atlantic migratory group king mackerel (SEDAR 38 2014). Based on the results from the stock assessment, Amendment 26 established a year-round management boundary between the Gulf and South Atlantic Councils for king mackerel in the CMP FMP at the Dade/Monroe County, Florida, line (**Figure 1.4.1**). This boundary put the entire EEZ off the Florida Keys into the Gulf Council's jurisdiction as part of the Gulf Southern Zone.

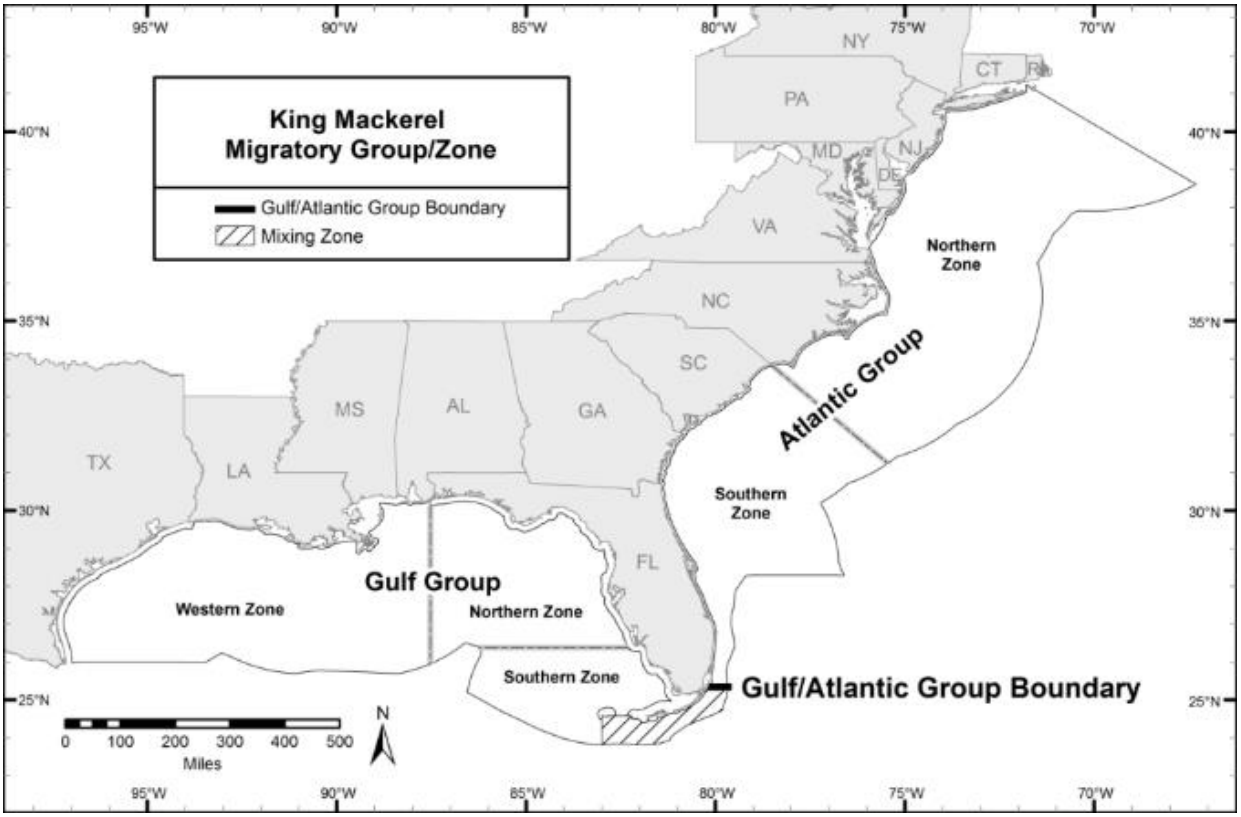

Figure 1.4.1. Boundary between Gulf and Atlantic king mackerel migratory groups.

Chapter 2. Proposed Action and Alternatives

2.1 Action. Modify the commercial trip limit for Atlantic king mackerel in the Atlantic Southern Zone [ab]:

*Note: Underlined language identifies the difference between the proposed alternative and **Alternative 1 (No Action)**.*

Alternative 1 (No Action): The commercial trip limits for Atlantic king mackerel are:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):

- March 1 – March 31 (Season 1): 50-fish*
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish*
- October 1 – January 31 (Season 2): 50-fish
- February 1 – end of February (Season 2): 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish.

Alternative 2: Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):

- March 1 – March 31 (Season 1): 50-fish*
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish*
- <u>October 1 – January 31 (Season 2): 75-fish</u>
- <u>February 1 – end of February (Season 2): 75-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 100-fish.</u>

Alternative 3: Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):

- March 1 – March 31 (Season 1): 50-fish*
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish*
- <u>October 1 – January 31 (Season 2): 100-fish</u>

- February 1 – end of February (Season 2): 100-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 150-fish.

Alternative 4: Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:

North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):
- March 1 – March 31 (Season 1): 50-fish*
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish*
- October 1 – January 31 (Season 2): 150-fish
- February 1 – end of February (Season 2): 150-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 175-fish.

[a] Upon implementation of Framework Amendment 6 to the Fishery Management Plan for Coastal Migratory Pelagics in the Gulf of Mexico and Atlantic Region the Season 1 trips limits south of the Flagler/Volusia County line will be as follows:

South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′ N):
- March 1 – March 31 (Season 1): 75-fish
- April 1 – September 30 (Season 1): 3,500 pounds

South of the Volusia/Brevard line (28°47.8′N) to the Miami-Dade/Monroe line (25º20'24"N):
- March 1 – March 31 (Season 1): 75-fish
- April 1 – September 30 (Season 1): 75-fish, unless NMFS determines that 75% or more of the Season 1 quota has been landed, then, 50-fish

[b] Upon implementation of the South Atlantic Council's request for emergency action, Season 2 trip limits south of the Flagler/Volusia County line for the 2019/2020 season will be as follows:

South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):
- October 1 – January 31 (Season 2): 75-fish
- February 1 – end of February (Season 2): 75-fish

2.1.1. 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 amendment only applies to the Atlantic king 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.

3.2.1 King Mackerel

King mackerel is a marine pelagic species that is found throughout the western Atlantic from the Gulf of Maine to Brazil, including the Gulf and Caribbean Sea, and from the shore to 200 m (656 ft) depths. The habitat of adults is the coastal waters out to the edge of the continental shelf. Within the area, the occurrence of king mackerel is governed by temperature and salinity.

They are seldom found in water temperatures less than 20°C; salinity preference varies, but they generally prefer high salinity, less than 36 parts per thousand. Adults are migratory, and the CMP FMP recognizes two migratory groups (Gulf and Atlantic). Typically, adult king mackerel are found in the southern climates (south Florida and extreme south Texas/Mexico) in the winter and farther north in the summer; however, some king mackerel overwinter in deeper waters off the mouth of the Mississippi River, and off the coast of North Carolina. Food availability and water temperature are likely causes of these migratory patterns. King mackerel have longevities of 24 to 26 years for females and 23 years for males (GMFMC and SAFMC 1985; MSAP 1996; Brooks and Ortiz 2004). Adults are known to spawn in areas of low turbidity, with salinity and temperatures of approximately 30 ppt and 27°C, respectively. There are major spawning areas off Louisiana and Texas in the Gulf (McEachran and Finucane 1979); and off the Carolinas, Cape Canaveral, and Miami in the western Atlantic (Wollam 1970; Schekter 1971; Mayo 1973). Spawning occurs generally from May through October with peak spawning in September (McEachran and Finucane 1979). Eggs are believed to be released and fertilized continuously during these months. Fifty percent of females are sexually mature between 450 to 499 mm (17.7 to 19.6 inches) in length and most are mature by the time they are 800 mm (35.4 inches) in length, or by about age 4. Fifty percent of males are sexually mature at age 3, at a length of 718 mm (28.3 inches). Females in U.S. waters, between the sizes of 446-1,489 mm (17.6 to 58.6 inches) release 69,000-12,200,000 eggs. Larvae of king mackerel have been found in waters with temperatures between 26-31° C (79-88° F). This larval developmental stage has a short duration. King mackerel can grow up to 0.54- 1.33 mm (0.02 to 0.05 inches) per day. This shortened larval stage decreases the vulnerability of the larvae and is related to the increased metabolism of this fast-swimming species. Juveniles are generally found closer to shore than adults and occasionally in estuaries.

3.2.2 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 Framework Amendment 8 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.

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 king 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

This framework amendment concerns only the commercial sector's harvest of king mackerel. Consequently, the following description of the economic environment focuses exclusively on the commercial sector.

Any commercial fishing vessel that harvests king mackerel in the Gulf, mid-Atlantic, or South Atlantic EEZ must have a valid limited-access federal king mackerel permit. Moreover, any vessel that harvests king mackerel with run-around gillnet in the Atlantic Southern Zone of the South Atlantic EEZ, which extends from the North Carolina/South Carolina border to Dade/Monroe county line, must have also have a king mackerel gillnet permit on board.

The number of permitted vessels that land king mackerel annually is substantially less than the number that is permitted to do so. From 2012 through 2016, for example, an annual average of 703 or approximately 48% of the permitted vessels landed the species (**Table 3.3.1**).

Table 3.3.1. Number and percent of permitted vessels with king mackerel landings in South Atlantic.

Year	Number of vessels		Percent of vessels
	With king mackerel permit	With king mackerel landings	
2012	1,512	752	49.7%
2013	1,493	688	46.1%
2014	1,478	707	47.8%
2015	1,460	693	47.5%
2016	1,438	676	47.0%
Average	**1,479**	**703**	**47.5%**

Source: SERO for annual number of vessels with permits, 2012-2015, NMFS SERO Online List of Current Permit Holders as of February 28, 2018, for 2016 vessels and SEFSC Online Economic Query System, April 4, 2018, for number with landings, 2012-2016.

The Atlantic migratory group of king mackerel (Atlantic king mackerel) is divided into a Northern Zone and a Southern Zone. The Atlantic Northern Zone is an area of the EEZ that extends from New York to the North Carolina/South Carolina border. The Atlantic Southern Zone encompasses an area of the EEZ south of a line extending from the North Carolina/South Carolina border, as specified in §622.2, and north of a line extending due east of the Monroe/Miami-Dade County, FL, boundary. The following description assumes all Atlantic king mackerel landings in North Carolina are fish harvested from the Atlantic Northern Zone, and all Atlantic king mackerel landings from South Carolina through Dade County, Florida, are fish harvested from the Atlantic Southern Zone.

This framework amendment concerns fishing in the Atlantic Southern Zone only, and therefore, the remainder of this discussion focuses exclusively on king mackerel harvested in that zone. Commercial landings in Florida make up approximately 99% of reported landings of and trips that land king mackerel in the Atlantic Southern Zone (**Tables 3.3.2** and **3.3.3**). From 2013 through 2017, average landings in pounds gutted weight (lbs gw) of king mackerel per trip in Florida did not vary greatly, from 198 to 208; however, in South Carolina and Georgia, they increased from 74 lbs gw per trip in 2013 to 302 lbs gw in 2017 (**Table 3.3.4**).

Table 3.3.2. Reported landings (lbs gw) of Atlantic king mackerel from Atlantic Southern Zone by state, 2013 – 2017.

Year	FL	SC and GA	Total	Percent FL
2013	1,429,880	9,678	1,439,558	99.3%
2014	1,682,006	17,265	1,699,271	99.0%
2015	1,733,211	14,460	1,747,671	99.2%
2016	2,011,483	30,477	2,041,960	98.5%
2017	2,094,728	36,232	2,130,960	98.3%
Average	**1,790,262**	**21,622**	**1,811,884**	**98.9%**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

Table 3.3.3. Number of trips that landed Atlantic king mackerel from Atlantic Southern Zone reported by permitted vessels, 2013 – 2017.

Year	FL	SC and GA	Total	Percent FL
2013	6,907	131	7,038	98.1%
2014	8,364	97	8,461	98.9%
2015	8,769	111	8,880	98.8%
2016	9,684	106	9,790	98.9%
2017	10,088	120	10,208	98.8%
Average	**8,762**	**113**	**8,875**	**98.7%**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

Table 3.3.4. Average reported landings (lbs gw) of king mackerel per trip in Atlantic Southern Zone, 2013 – 2017.

Year	FL	SC and GA	Total
2013	207	74	205
2014	201	178	201
2015	198	130	197
2016	208	288	209
2017	208	302	209
Average	**204**	**194**	**204**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

The fishing year in the Atlantic Southern Zone is divided into two seasons and each season has its own portion of the quota. Season 1 (March 1 – September 30) has 60 percent of the quota and Season 2 (October 1 through the end of February) has 40 percent of the quota. Any unused quota from Season 1 transfers during the fishing year to Season 2. There is no provision to allow the carryover of any unused quota at the end of the October through February season. When the quota for a season is reached or expected to be reached, commercial harvest of king mackerel in the zone is prohibited for the remainder of the season. Prior to that Amendment 26, the fishing year for king mackerel was from April 1 through March 31, whereas it is now from March 1 through the end of February.

The Atlantic Southern Zone is divided into three sub-zones: 1) from the NC/SC border to the Flagler County/Volusia County, FL, line; 2) between the Flagler/Volusia County, FL, and Volusia/Brevard County, FL, lines; and 3) between the Volusia/Brevard County, FL, and Dade/Monroe County, FL, lines. Each of the three sub-zones has its own trip limit, depending upon the season.

The sub-zone from the NC/SC border to the Flagler County/Volusia County, FL, line has a 3,500-lb year-round trip limit (**Table 3.3.5**).[1] The other two sub-zones have trip limits, which vary from 50 fish to 75 fish, depending on the percentage of the quota reached by specific dates. Prior to Amendment 26, which was implemented on May 11, 2017, there were no commercial trip limits for king mackerel in federal waters between the Flagler/Volusia and Dade/Monroe lines from November 1 through March 31, and different trip limits in the sub-zone areas from April 1 through October 31 (**Table 3.3.6**).

Table 3.3.5. Trip limits in Atlantic Southern Zone since May 11, 2017.

Zone	Sub-Zone	March 1 – March 30	April 1 – End September	October 1 – End February
Southern: NC/SC border to Dade/Monroe line	**NC/SC border to Flagler/Volusia County line**	3,500 lbs	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard Lines	50 fish	75 fish until 75% or more of Season 1 quota reached, then 50 fish	50 fish except in February would be 75 fish if less than 70% of Season 2 quota is reached
	Between Volusia/Brevard & Miami-Dade/Monroe Line	50 fish	75 fish until 75% or more of Season 1 quota reached, then 50	50 fish except in February would be 75 fish if less than 70% of Season 2 quota is reached

Table 3.3.6. Trip limits in Atlantic Southern Zone from January 1, 2013 through May 10, 2017.

Zone	Sub-Zone	April 1 – October 31	November 1 – March 31
Southern: NC/SC border to Dade/Monroe line	**NC/SC border to Flagler/Volusia County line**	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard Lines	3,500 lbs	No limit
	Between Volusia/Brevard & Miami-Dade/Monroe Line	75 fish	No limit

During the 5-year period from 2013 through 2017, all trips from South Carolina through Flagler County, FL, landed less than 3,500 lbs of king mackerel. However, there were trips than landed over 3,500 lbs gw of king mackerel from Volusia through Monroe Counties, and all of those trips were when there was no trip limit. All of those trips were in January and February.

[1] The Northern Zone also has a year-round trip limit of 3,500 lbs.

This action would not change the trip limit in the first sub-zone (NC/SC border to Flagler/Volusia County, FL, line). It is assumed that all king mackerel harvested from that sub-zone are landed north of the Flagler/Volusia County line. Consequently, the remainder focuses exclusively on reported landings of Atlantic king mackerel by permitted vessels in the 8 Florida counties from Volusia through Dade.

Annual commercial landings of king mackerel Volusia through Dade County, Florida ranged from approximately 1,310,000 lbs gw to 1,962,000 lbs gw and averaged 1,660,176 lbs gw from 2013 through 2017. Dockside revenues from those landings ranged from about $3,684,000 to $4,401,000 and averaged $4,023,510 (2017 dollars). The average dockside price during those five years was $2.46 per lb gw (2017 dollars) and an annual average of 406 vessels took 8,214 commercial trips landing king mackerel. Average annual gross ex-vessel revenue from king mackerel landings represented approximately 90% of total dockside revenue from trips that landed the species from 2013 through 2017 (**Table 3.3.7** and **Table 3.3.8**).

Table 3.3.7. Number of vessels, number of trips, and landings by year for vessels that landed king mackerel from Volusia through Dade County, FL, 2013-2017.

Year	Number of vessels that caught king mackerel	Number of trips that caught king mackerel	King mackerel landings (lbs gw)	Other species' landings jointly caught with king mackerel (lbs gw)	Number of SATL trips that only caught other species	Other species' landings on SATL trips without king mackerel (lbs gw)	All species landings on Gulf trips (lbs gw)
2013	404	6,342	1,310,493	260,173	5,251	1,876,508	724,163
2014	414	7,829	1,532,896	360,790	5,088	1,977,935	964,599
2015	421	8,309	1,624,213	268,102	3,812	1,376,075	1,021,464
2016	404	9,092	1,871,173	363,698	3,654	1,596,032	816,497
2017	386	9,496	1,962,107	337,976	3,048	1,371,148	789,851
Average	**406**	**8,214**	**1,660,176**	**318,149**	**4,171**	**1,639,540**	**863,315**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table 3.3.8. Number of vessels and annual gross revenue by year for vessels that landed king mackerel from Volusia through Dade County, FL, 2013-2017 (2017 dollars)*.

Year	Number of vessels that caught king mackerel	Gross ex-vessel revenue from king mackerel	Gross ex-vessel revenue from 'other species' jointly caught with king mackerel	Gross ex-vessel revenue from 'other species' caught on SATL trips without king mackerel	Gross ex-vessel revenue from all species caught on Gulf trips	Total gross ex-vessel revenue	Average total gross ex-vessel revenue per vessel
2013	404	$4,006,346	$383,841	$3,379,792	$2,060,794	$9,830,773	$24,334
2014	414	$3,764,356	$558,310	$3,316,471	$2,209,886	$9,849,023	$23,790
2015	421	$3,683,752	$405,277	$2,647,736	$2,231,711	$8,968,476	$21,303
2016	404	$4,262,114	$497,124	$2,748,171	$1,763,292	$9,270,701	$22,947
2017	386	$4,400,984	$511,697	$2,250,077	$1,725,090	$8,887,848	$23,026
Average	**406**	**$4,023,510**	**$471,250**	**$2,868,449**	**$1,998,155**	**$9,361,364**	**$23,080**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

***** Inflation adjustments in the tables were made using the annual gross domestic product implicit price deflator provided by the U.S. Bureau of Economic Analysis.

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

Estimates of the U.S. average annual business activity associated with the commercial harvest of king mackerel, and all species harvested by the vessels that harvested these king mackerel, were derived using the model[2] developed for and applied in NMFS (2017) and are provided in **Table 3.3.9**. This business activity is characterized as jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output (sales) impacts (gross business sales), and value-added impacts, which represent the contribution made to the U.S. Gross Domestic Product (GDP). These impacts should not be added together because this would result in double counting. It should be noted that the results provided should be interpreted with caution and demonstrate the limitations of these types of assessments. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models to address individual species are not available. For example, the results provided here apply to a general finfish category rather than just red snapper, and a harvester job is "generated" for approximately every $32,000 (2017 dollars) in ex-

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

vessel revenue. These results contrast with the number of harvesters (vessels) with recorded landings of red snapper presented in **Table 3.3.7**.

Table 3.3.9. Average annual business activity (2013 through 2017) associated with the commercial harvest of king mackerel for vessels that landed king mackerel from Volusia through Dade County, FL and the harvest of all species by these vessels.

Species	Average Ex-vessel Value ($ thousands)	Total Jobs	Harvester Jobs	Output (Sales) Impacts ($ thousands)	Income Impacts ($ thousands)	Value Added ($ thousands)
King mackerel	$4,024	530	121	$40,020	$14,501	$20,595
All species harvested by vessels that landed king mackerel.	$9,361	1,234	281	$93,113	$33,739	$47,919

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

A conversion factor that allows the transformation of fish to pounds in necessary for converting trip limits specified in numbers of fish to the estimated number of pounds that those fish represent. For this purpose, data on king mackerel from the Trip Interview Program (TIP) was used to estimate the average weight of king mackerel commercially harvested during Season 2 (October through February). Based on TIP data from fishing year 2015/16 through 2017/18, the average weight of commercially harvested king mackerel in Season 2 is approximately 9 pounds per fish. Using this conversion factor, a 50 fish trip limit translates to 450 lbs gw of king mackerel, a 75 fish trip limit to 675 lbs gw of king mackerel, a 100 fish trip limit to 900 lbs gw of king mackerel, and a 150 fish trip limit to 1,350 lbs gw of king mackerel.

From 2013 through 2017, an annual average of 6.3% of reported king mackerel trips landed over 500 lbs gw of the species (**Table 3.3.10**). Landings from those trips combined to produce 28% of all king mackerel landings in the 8-county area (from Volusia through Dade). Average landings for those trips with over 450 lbs were 584 lbs gw. During that same 5-year period, an annual average of 1.8% of trips landed over 675 lbs gw of king mackerel and those trips averaged 852 lbs gw (**Table 3.3.11**). Since October 1, 2017, the limit has been 50 fish (450 lbs gw) from October through January and then is either 50 or 75 fish (450 or 675 lbs gw) in February depending on the percentage of the Season 2 quota landed. However, from October through December 2017 there were 144 trips that landed over 450 lbs gw of king mackerel, and 123 of them were in December.

Table 3.3.10. Combined landings (lbs gw) and trips with over 450 lbs gw of king mackerel from Volusia through Dade County, FL, 2013-2017.

Year	Landings (lbs gw) from trips over 450 lbs gw	Number of trips over 450 lbs gw	Percent of total landings from trips over 450 lbs gw	Percent of total trips over 450 lbs gw	Average landings (lbs gw) per trip for trips over 450 lbs gw
2013	462,644	762	35.3%	12.0%	607
2014	465,590	761	30.4%	9.7%	612
2015	363,292	660	22.4%	7.9%	550
2016	570,637	980	30.5%	10.8%	582
2017	394,972	697	20.1%	7.3%	567
Average	**451,427**	**772**	**27.7%**	**9.6%**	**584**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table 3.3.11. Combined landings (lbs gw) and trips with over 675 lbs gw of king mackerel from Volusia through Dade County, FL, 2013-2017.

Year	Landings (lbs gw) from trips over 675 lbs gw	Number of trips over 675 lbs gw	Percentage of total landings from trips over 675 lbs gw	Percentage of total trips over 675 lbs gw	Average landings (lbs gw) per trip for trips over 675 lbs gw
2013	153,349	180	11.7%	2.8%	852
2014	159,107	191	10.4%	2.4%	833
2015	52,819	59	3.3%	0.7%	895
2016	140,523	167	7.5%	1.8%	841
2017	83,650	100	4.3%	1.1%	837
Average	**117,890**	**139**	**7.4%**	**1.8%**	**852**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

Monthly trips that land king mackerel from Volusia through Dade Counties tend to peak in May and bottom out in October (**Figure 3.3.1**). May and March have the highest average number of trips that land over 450 lbs gw of the species; however, December ranks third (**Table 3.3.12**). An annual average of 406 vessels make these landings, for an average of approximately 20 trips per vessel.

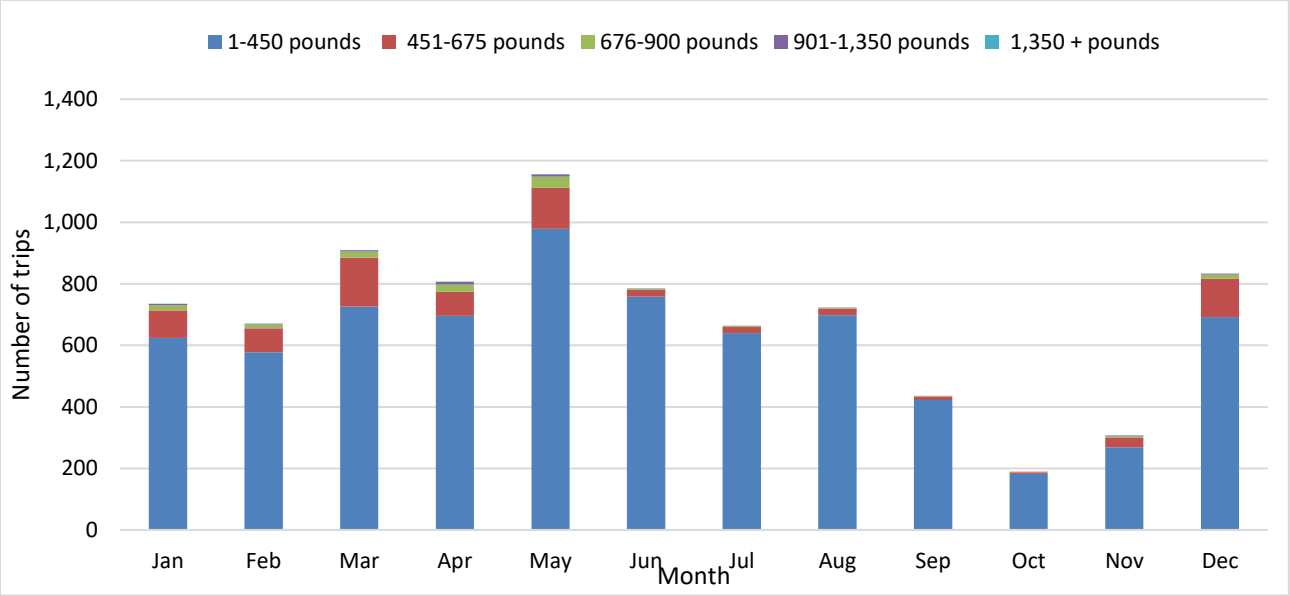

Figure 3.3.1. Average number of reported monthly trips that landed king mackerel from Volusia through Dade Counties by lbs gw of king mackerel, 2013-2017.
Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table 3.3.12. Average monthly number and percentage of reported trips by landings (lbs gw) of king mackerel from Volusia through Dade Counties, 2013-2017.

Month	1-450 lbs gw	Over 450 lbs gw	Percentage of trips 1-450 lbs gw	Percentage of trips 450-675 lbs gw	Percentage of trips over 675 lbs gw
Jan	624	111	84.9%	12.2%	2.9%
Feb	577	94	86.0%	11.6%	2.3%
Mar	726	183	79.9%	17.5%	2.6%
Apr	696	111	86.2%	9.7%	4.1%
May	979	177	84.7%	11.4%	3.9%
Jun	759	26	96.7%	2.7%	0.6%
Jul	640	23	96.6%	3.0%	0.5%
Aug	698	25	96.5%	3.0%	0.4%
Sep	422	13	97.1%	2.5%	0.4%
Oct	182	7	96.1%	2.4%	1.5%
Nov	268	38	87.5%	10.4%	2.2%
Dec	692	141	83.0%	14.9%	2.0%

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

From 2013 through 2017, an average of 2,736 trips landed king mackerel in the eight Florida counties from October through February. Ninety-three percent of the trips landed no more than 450 lbs gw (**Table 3.3.13**). Consequently, none of the alternatives would have an impact on 88% of trips during those months. During the four months, the average trip landed approximately 250

lbs gw of king mackerel; however, the average per trip varied from 100 to 2,867 lbs gw (**Table 3.3.10**).

Table 3.3.13. Average number and percentage of reported trips that landed king mackerel from October through February by lbs gw of king mackerel, 2013-2017.

	1-450 lbs gw	451-675 lbs gw	675-900 lbs gw	900-1,350 lbs gw	Over 1,350 lbs gw	Total
Average number of trips	2,343.8	328.8	49.0	12.8	1.4	2,066
Percent of total trips	85.7%	12.0%	1.8%	0.5%	0.1%	100.0%

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table 3.3.14. Average lbs gw per reported trip from October through December and January by lbs gw of king mackerel, 2013 -2017.

1-450 lbs gw	451-675 lbs gw	675-900 lbs gw	900-1,350 lbs gw	Over 1,350 lbs gw	All trips
155.4	559.8	830.0	1,067.7	1,736.6	216.5

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

3.4 Social Environment

The description of the social environment is limited to those communities along Florida's east coast (excluding the Keys), Georgia, South Carolina and North Carolina, with a focus on the communities with the highest levels of participation in the commercial king mackerel fishery. Overall, the communities of Cocoa (FL), Fort Pierce (FL), Hatteras (NC) and Wanchese (NC) are the areas most likely to be affected by changes to management of king mackerel commercial harvest.

To identify key communities associated with the king mackerel commercial fishery, a 'regional quotient' (RQ) is calculated based on the value (US$) of king mackerel commercial landings divided by the regional commercial value of king mackerel landings. These data were assembled from the accumulated landings system with dealer addresses which includes species from both state and federal waters landed from 2010-2017.

Figure 3.4.1 shows the value RQs over several years for the top 13 communities of 2017. Although not all communities are included in all years, the Florida communities of Cocoa and Fort Pierce are consistent in high RQs for king mackerel based on commercial value. The Outer Banks communities of Hatteras and Wanchese (NC) also have higher value RQs in 2017 than other communities, and the RQs for these areas has increased since 2010. No communities in South Carolina or Georgia are included in the top areas for king mackerel.

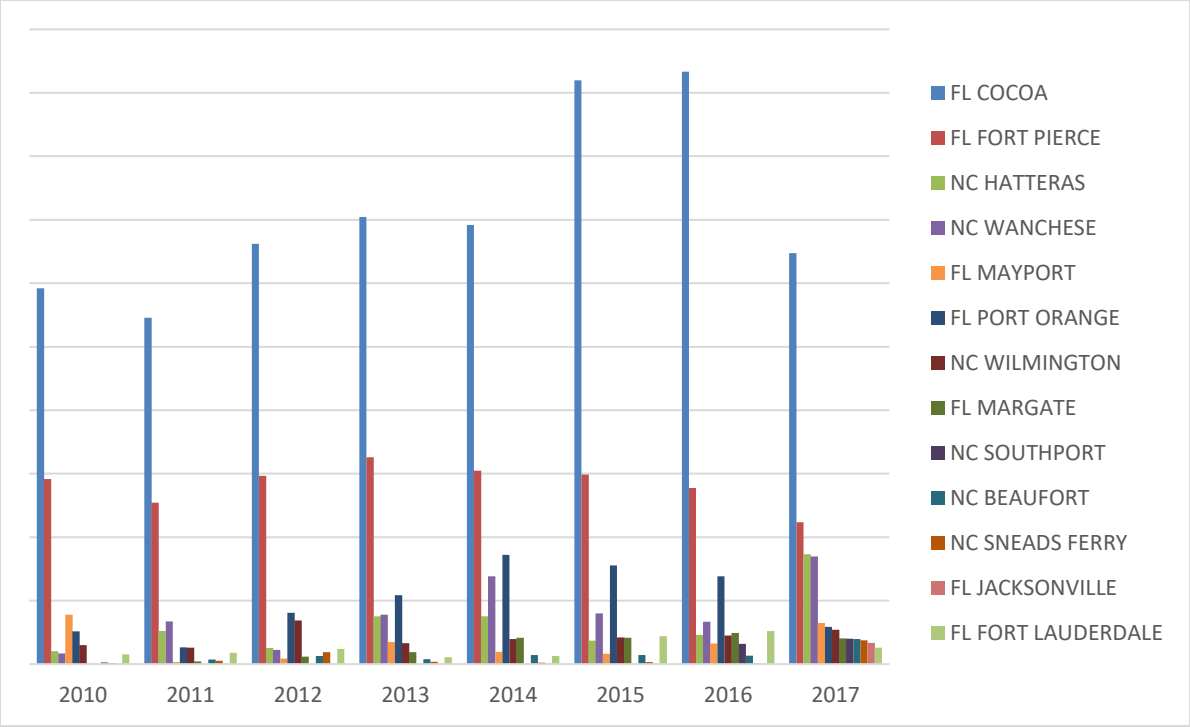

Figure 3.4.1. Sixteen South Atlantic communities ranked by 2017 value (US$) regional quotient (RQ) of king mackerel based on dealer landings.
Source: SERO Community ALS 2017.
Note: The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.

Engagement and Reliance on Commercial Fishing

Figure 3.4.2. provides levels of commercial engagement and reliance for the South Atlantic communities with the highest RQs based on commercial value of king mackerel. Communities in Florida with high levels of engagement include Fort Pierce, Jacksonville, and Fort Lauderdale. The North Carolina communities with substantial commercial engagement include Wanchese, Wilmington, and Beaufort. For commercial reliance, Hatteras (NC), Wanchese (NC) and Mayport (FL) have substantial levels, which may indicate that changes in management could affect the commercial fleet in these areas more than in other areas.

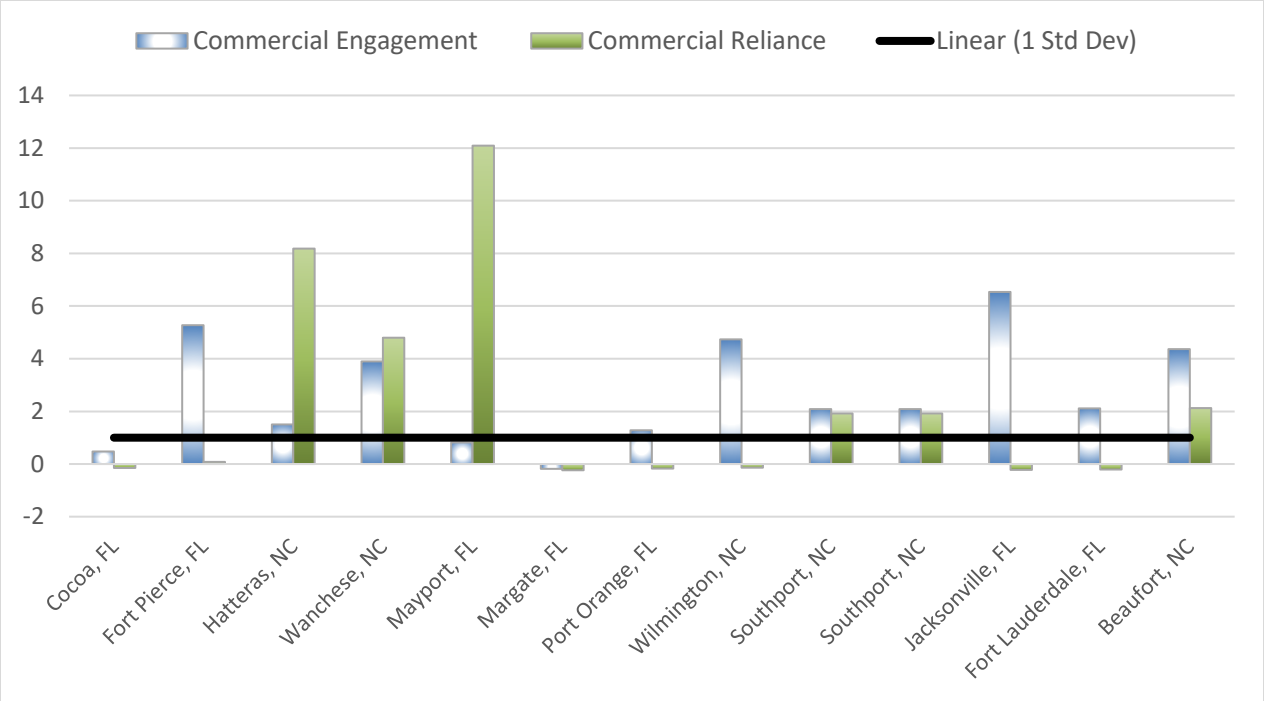

Figure 3.4.2. Commercial fishing engagement and reliance for South Atlantic communities with the top regional quotients for king mackerel.
Source: Southeast Regional Office, Social Indicator Database 2018.

King Mackerel Permits

The numbers of commercial king mackerel permits by county for Florida and Georgia are presented in **Figure 3.4.3**. Most counties show stable trends in their numbers, although Palm Beach and Broward Counties have seen a decline over the past five years; whereas Brevard County has experienced a slight increase. Most Georgia counties have few permits and are stable or seen a slight decrease in terms of number of permits.

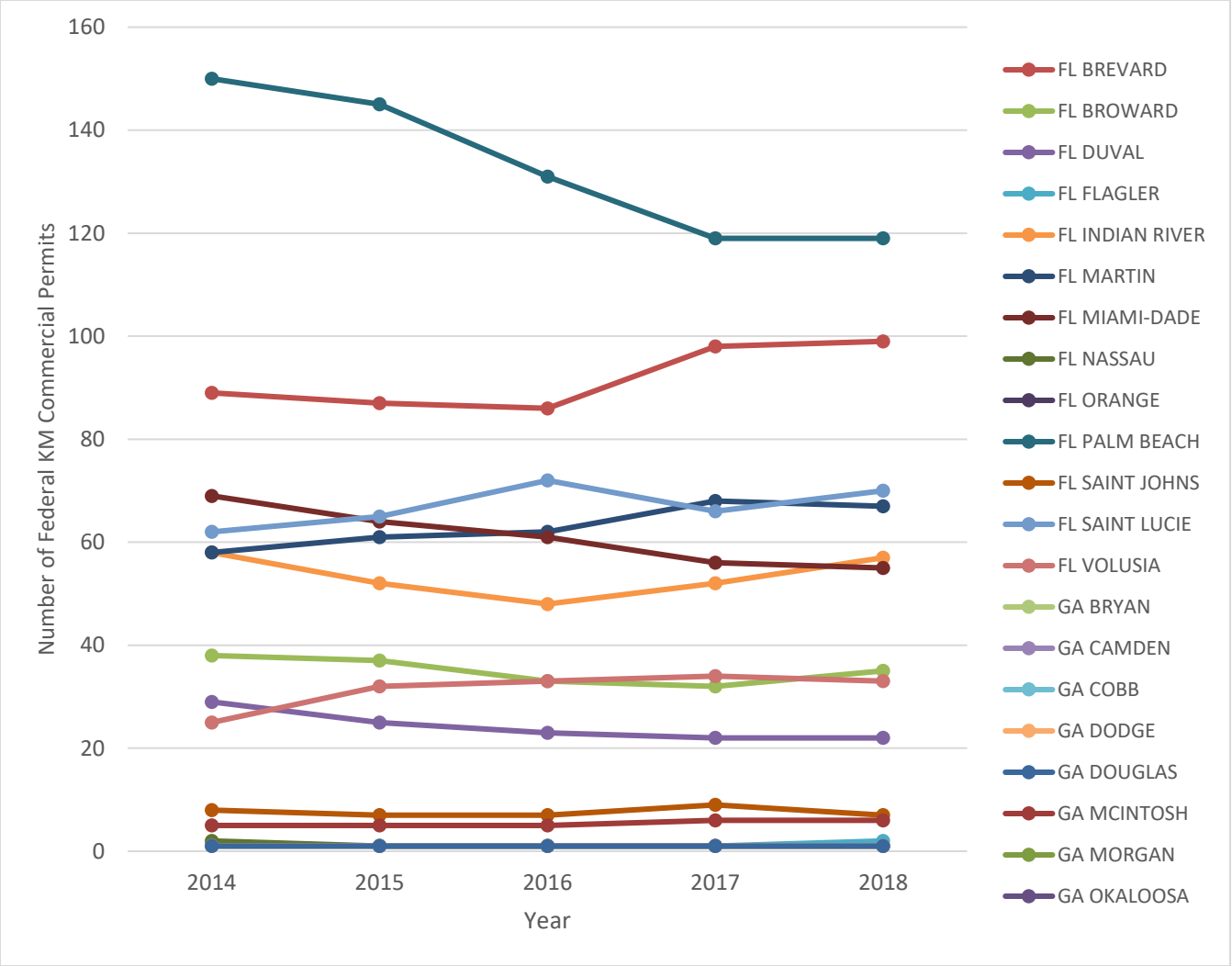

Figure 3.4.3. Commercial king mackerel permits for Florida and Georgia Counties 2014-2018.
Source: Southeast Regional Office, Permits Database 2019.

For counties in North and South Carolina, most counties have had stable numbers of king mackerel permits over the past five years. Dare County has seen a slight decline in the number of permits while Brunswick and Carteret Counties have increased since 2014. Counties in South Carolina have relatively few permits (**Figure 3.4.4**).

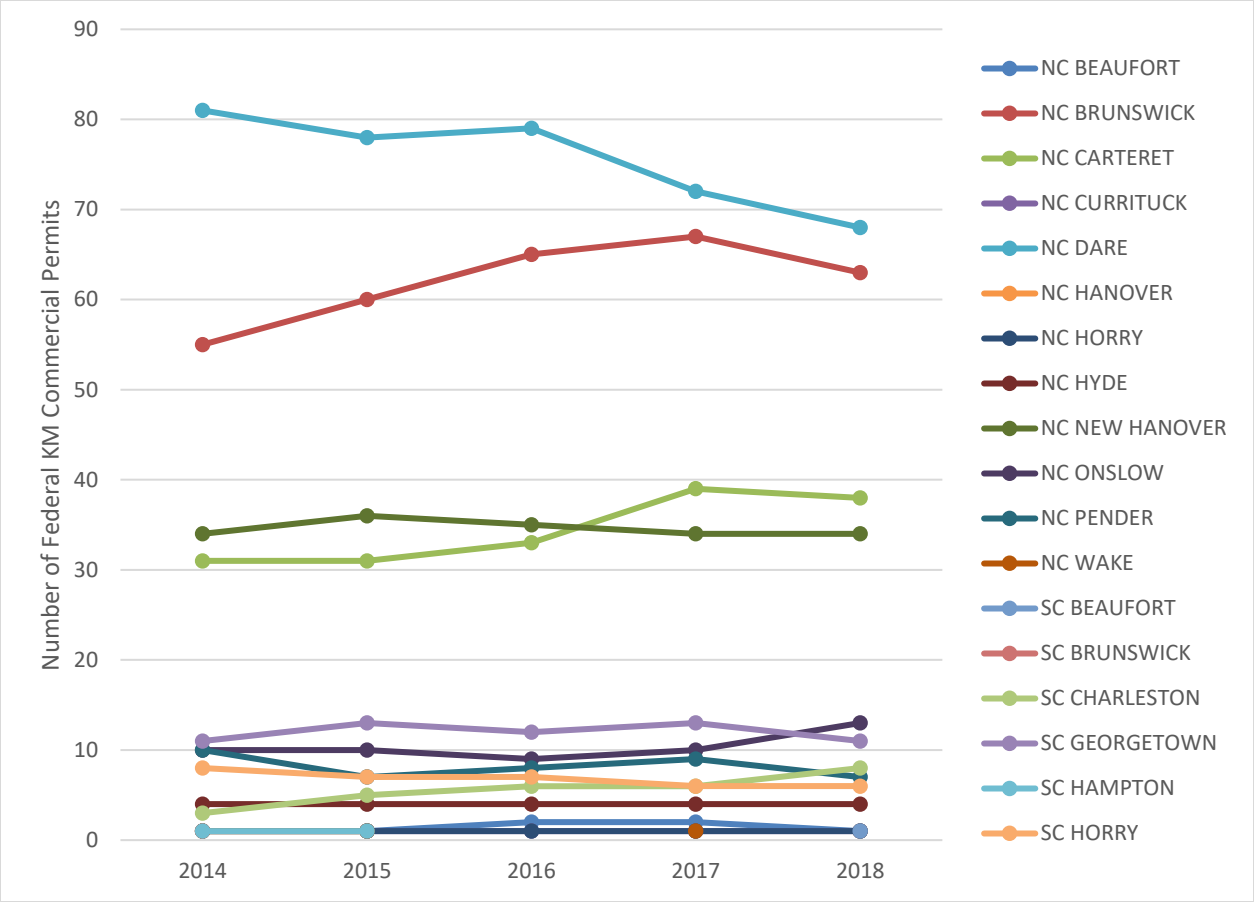

Figure 3.4.4. Commercial king mackerel permits for North Carolina and South Carolina Counties 2014-2018.
Source: Southeast Regional Office, Permits Database 2019.

Overall, most king mackerel permitted vessels have homeports in Florida or North Carolina counties, with smaller numbers of permitted vessels associated with Georgia and South Carolina. The largest proportions of king mackerel permits are associated with Volusia, Brevard, Indian River, St Lucie, Palm Beach, Broward and Miami-Dade counties in Florida, and New Hanover, Carteret and Dare counties in North Carolina (**Figure 3.4.5**).

Figure 3.4.5. Commercial king mackerel permits for South Atlantic Counties in 2018, with the top ten counties with the largest numbers of permits noted.
Source: Southeast Regional Office, Permits Database 2019.

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).

To evaluate EJ considerations for the proposed actions, analysis was completed utilizing a suite of indices created to examine the social vulnerability of coastal communities and is shown in **Figure 3.4.6**. The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability. Indicators such as increased poverty rates for different groups; more single female-headed households; more households with children under the age of 5; and disruptions like higher separation rates, higher crime rates, and unemployment all are signs of populations having vulnerabilities. The data used to create these indices are from the American Community Survey estimates at the U.S. Census Bureau. The thresholds of 1 and 0.5 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 and engagement indices discussed at the beginning of this section, 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.

Figure 3.4.6 provides information about potential vulnerability of the top communities associated with commercial king mackerel harvest. Although Mayport, Florida, is included in the top king mackerel communities, vulnerability data are not available for this community. However, Mayport is adjacent to Jacksonville and it is likely that these areas have similar community characteristics.

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 Cocoa (FL), Fort Pierce (FL), Margate (FL), Beaufort (NC), Sneads Ferry (NC), and Fort Lauderdale (FL). The Florida communities of Cocoa and Fort Pierce exceed the thresholds on all three social vulnerability indices. These communities have vulnerabilities and may be susceptible to effects from regulatory change depending upon the direction and extent of that change.

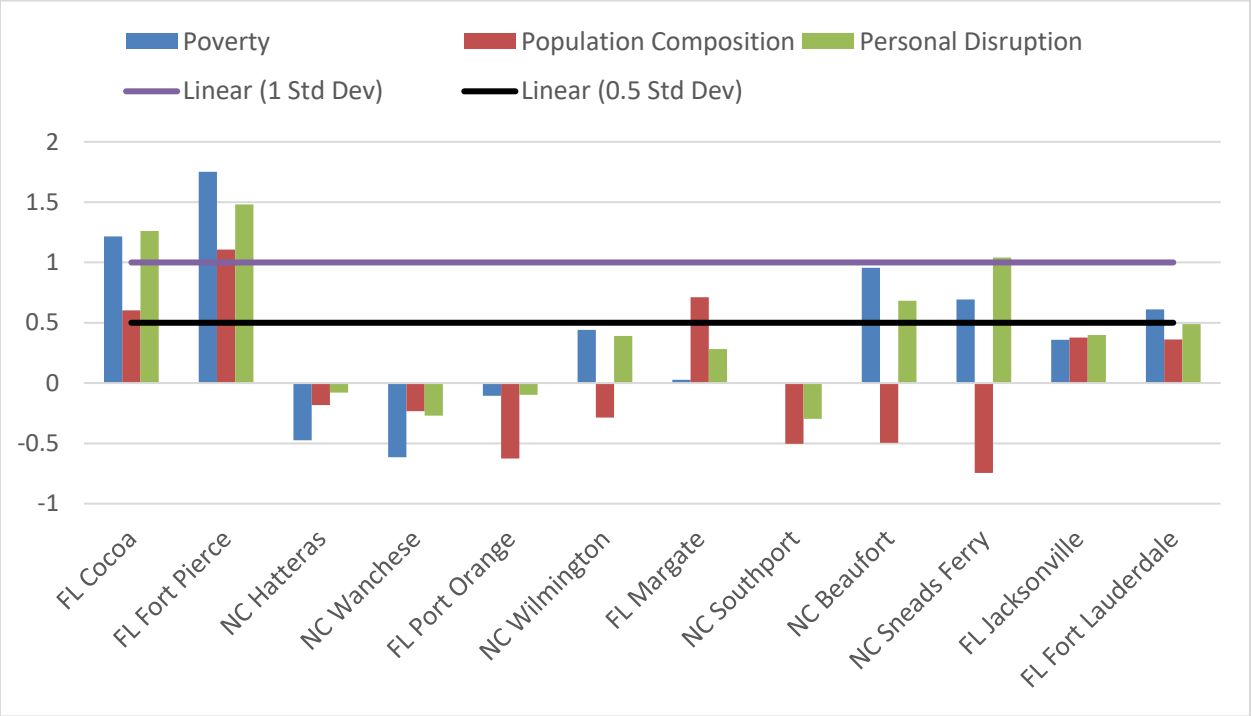

Figure 3.4.6. Social vulnerability indices for fifteen Gulf communities with the top regional quotients for king mackerel.
Source: SERO, Social Indicator Database 2016.

While some communities expected to be affected by this proposed amendment 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 actions. 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 measures 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., scoping meetings, public hearings, and open South Atlantic Council meetings) is expected to provide sufficient opportunity for involvement by potentially affected individuals to participate and have their concerns heard by the Council and NOAA. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the amendment.

3.5 Administrative Environment

3.5.1 Federal Fishery Management

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 D. 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

Action. Modify the commercial trip limit for Atlantic king mackerel in the Atlantic Southern Zone.

4.1.1 Biological Effects

The trip limits described in **Alternative 1 (No Action)** were implemented and effective on May 11, 2017, through the final rule to implement Amendment 26 to the CMP FMP (GMFMC and SAMFC 2016) (82 FR 17387; April 11, 2017). Currently, a 3,500-pound trip limit is in effect for areas north of the Flagler/Volusia county line, during all of Season 1 (March 1-September 30). South of the Flagler/Volusia line, the trip limit changes throughout the year, beginning with a 50-fish trip limit for the month of March and then a trip limit of 75-fish for the rest of Season 1. During Season 2 (October 1- end of February), a 50-fish trip limit exists until January 31. If the National Marine Fisheries Service (NMFS) determines that less than 70% of the Season 2 quota has been landed the trip limit adjusts to 75-fish. The actions in CMP Framework 8 would only modify the Season 2 trip limits South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N) (**Table 4.1.1.1**) .

Alternative 2 would establish a Season 2 trip limit of 75 fish from October-January 31. From February 1 through the end of February, the trip limit would be 75 fish unless NMFS determines that less than 70% of the quota had been reached. If less than 70% of the quota had been landed, the trip limit would increase to 100 fish for the remainder of the season. **Alternative 3** would establish a Season 2

Alternatives*

1. The commercial trip limits for Atlantic king mackerel:

   North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round.

   South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N):
   October 1 – January 31 (Season 2): 50-fish
   February 1 – end of February (Season 2): 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish.

2. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:

   South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8'N):
   October 1 – January 31 (Season 2): 75-fish
   February 1 – end of February (Season 2): 75-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 100-fish.

3. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:

   South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8'N):
   October 1 – January 31 (Season 2): 100-fish
   February 1 – end of February (Season 2): 100-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 150-fish.

4. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 1:

   South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8'N):
   October 1 – January 31 (Season 2): 150-fish
   February 1 – end of February (Season 2): 150-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 175-fish.

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

trip limit of 100 fish from October-January 31. From February 1 through the end of February, the trip limit would be 100 fish unless NMFS determines that less than 70% of the quota had been reached. If less than 70% of the quota had been landed, the trip limit would increase to 150 fish for the remainder of the season. **Alternative 4** would establish a Season 2 trip limit of 150 fish from October-January 31. From February 1 through the end of February, the trip limit would be 150 fish unless NMFS determines that less than 70% of the quota had been reached. If less than 70% of the quota had been landed, the trip limit would increase to 175 fish for the remainder of the season. Under all the proposed action alternatives, the Season 2 trip limit in the exclusive economic zone (EEZ) north of the Flagler/Volusia county line would remain at 3,500 pounds, year-round.

Table 4.1.1.1. Commercial king mackerel trip limits proposed in Alternative 1 (No Action) through Alternative 4.

	October 1 through January 31st	**February: if NMFS determines more than 70% of the Season 2 quota has been landed.**	**February: if NMFS determines less than 70% of the Season 2 quota has been landed.**
Alternative 1 (No Action)	50	50	75
Alternative 2	75	75	100
Alternative 3	100	100	150
Alternative 4	150	150	175

The current trip limit (**Alternative 1**) was implemented on May 11, 2017 by Amendment 26 to the South Atlantic Fishery Management Council's Coastal Migratory Pelagics Fishery Management Plan (Amendment 26). Prior to Amendment 26, there was no Season 2 trip limit from November 1 through March 31, between the Flagler/Volusia county line to the Dade/Monroe county line. In the area from the Volusia/Brevard county line to the Miami-Dade/Monroe county line, the trip limit was 75 fish from April 1 through October 31.

The primary function of the split season structure and trip limit system implemented through Amendment 26 was to ensure the longest commercial fishing season possible for Atlantic king mackerel and to provide continued access to commercial king mackerel fishermen. However, new information presented at the June Council meeting shows that, since the implementation of Amendment 26, the commercial king mackerel Season 2 quota is not being harvested. Comments from commercial king mackerel fishermen at the June Council meeting indicate the current Season 2 commercial trip limit of 50 fish in the southern zone is preventing them from fully utilizing the available resource, and this lower trip limit during Season 2 prevents them from being able to carry crew or make profitable trips. The Council requested the development of CMP Framework 8 to adjust the trip limits in Season 2 to allow fishermen to make profitable trips throughout Season 2.

To analyze the impacts of the proposed alternatives, predicted future landings based on landings after May 2017 were used (**Table 4.1.1.2**). These landings were based on average monthly landings in the Southern Zone for October to February of 2017/2018 and 2018/2019.

Landings per trip were converted to numbers of fish by dividing with the average weight of 7.38 pounds.

Table 4.1.1.2. Predicted Southern Zone Season 2 king mackerel commercial landings by month.

Month	October	November	December	January	February
Landings (lbs)	14,397	82,156	324,404	137,656	199,480

Landings of king mackerel for each individual commercial trip comes from the Coastal Logbook Program (logbook). Logbook data were obtained from the SEFSC on May 7, 2019.

The impact of increasing the trip limit in the Southern Zone during Season 2 was analyzed using two different methods. The first method, called the low method, assumed that those that harvested 26 to 75 king mackerel will begin to catch the full proposed trip limits of 75, 100, or 150 king mackerel per trip. The second method, called the high method, assumed that those that harvested between 1 and 75 king mackerel will now catch the full proposed trip limits of 75, 100, or 150 mackerel. It is expected that what actually happens in the fishery will be between the low and high methods. The detailed analysis can be found in **Appendix D**.

Based on this analysis, under Alternative 1 the king mackerel component of the CMP fishery would not reach the 70% of the quota by January 31 and the trip limit would increase for the month of February (**Table 4.1.1.3**). Under this alternative, the quota would continue to not be met. Using the low method to analyze Alternative 2 and Alternative 3, neither trip limit would result in reaching the 70% quota by January 31 and would not reach the overall quota for Season 2. However, using the high method of analysis, under Alternative 2 the trip limit would not increase for the month of the February due to reaching 70% of the quota before the end of January. Alternative 2 (using the high method) predicts a 75 fish trip limit throughout Season 2 with the quota being reached on February 22. Under Alternative 3 the trip limit would not increase for the month of the February due to reaching 70% of the quota in late December. Alternative 3 (high method) predicts a 100 fish trip limit throughout Season 2 with the quota being reached on January 23. Under Alternative 4, for both the low and high methods of analysis, the trip limit would not increase for the month of the February due to reaching 70% of the quota in December. Alternative 4 predicts a 150 fish trip limit throughout Season 2 with the quota being reached in early February (low method of analysis) or late December (high method of analysis).

Table 4.1.1.3. Prediction table for the king mackerel Atlantic Southern Zone Season 2 determining if 70% of the quota is reached by February 1 and if the entire quota would be reached before February 28.

Alternative	Method of Analysis	70% of Season 2 Quota Met before February 1 and Predicted Date	Predicted Date to Reach Quota
Alternative 1 (No Action)	n/a	No	No
Alternative 2 (75 fish trip limit October-January; if 70% of quota isn't met trip limit increases to 100 fish for the month of February)	Low	No	No
	High	Yes (Jan-12)	22-Feb
Alternative 3 (100 fish trip limit October-January; if 70% of quota isn't met trip limit increases to 150 fish for the month of February)	Low	No	No
	High	Yes (Dec 24)	23-Jan
Alternative 4 (150 fish trip limit October-January; if 70% of quota isn't met trip limit increases to 175 fish for the month of February)	Low	Yes (Dec 30)	7-Feb
	High	Yes (Dec 11)	23-Dec

The actions in this framework amendment only modify trip limits in the EEZ in the Southern Zone during Season 2 and these actions are not expected to have a large impact on overall landings. King mackerel is managed under an annual catch limit, divided into two quotas and trip limits help in ensuring catch does not exceed the annual catch limit. Generally, trip limits slow the rate of harvest and may reduce the number of regulatory discards associated with Atlantic group king mackerel. In the past, trip limits have been effective in managing the king mackerel stock and the Season 2 quota has not been reached. Although **Alternative 2**-**Alternative 4** would implement increased trip limits for king mackerel the biological impacts on king mackerel would remain neutral because the harvest of king mackerel would remain limited by the annual catch limit. However, regulatory discards may increase if the fishing season closes early, constituting a negative biological effect.

Because **Alternative 1 (No Action)** would not increase the trip limit, it could be expected to have the greatest biological benefit to the stock, followed by **Alternative 2**, **Alternative 3** and **Alternative 4**, which would each increase the trip limits. However, since the proposed trip limits under **Alternative 2 – Alternative 4** would still result in the full Season 2 quota to be reached, the biological effects of all alternatives would be expected to be neutral. Furthermore,

annual catch limits (ACL) are in place to prevent overharvesting, and accountability measures are in place to take action if ACLs are exceeded.

Establishing commercial trip limits would not be expected to have any impact on essential fish habitat, habitat areas of particular concern, protected species or bycatch. In a 2015 biological opinion that was subsequently updated in 2017, NMFS determined the gillnet gear used in the federal CMP fisheries of the Atlantic and Gulf of Mexico may have adversely affected sea turtles, smalltooth sawfish, and Atlantic sturgeon in the past via entanglement and, in the case of sea turtles, via forced submergence. Commercial and recreational hook-and-line gear and commercial cast net gear, regularly used to target king mackerel, are not likely adversely affected these species. The biological opinion provides an incidental take statement for species which may interact with coastal migratory pelagic fisheries.

4.1.2 Economic Effects

This action concerns fishing in the Atlantic Southern Zone only. The average weight of a commercially landed king mackerel is estimated to be 7.39 lbs ww and 7.10 lbs gw (SERO LAPPS). Consequently, a 50 fish limit translates to 355 lbs gw of king mackerel, a 75 fish limit to 533 lbs gw, and so forth. The RFA analysis for CMP 6 used an average 2016 dockside price of $2.24 per lb gw. That price is $2.29 in 2017 dollars, assuming a 2.1% rate of inflation. Logbook data from 2013 through 2017 and landings from South Carolina through Miami-Dade County, Florida, are used to generate estimates for the following 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 by price support resulting from the supply limitations and the lengthening of seasons. Given the ACL for king mackerel restricts maximum harvest to sustainable levels, the alternative with the largest trip limit would result in the smallest number of trips to land the same amount of king mackerel and would have the lowest associated trip costs.

Alternative 1 (No Action) would retain the current trip limits from October through January and in February and, consequently, have no beneficial or adverse economic effects. **Alternative 2** would increase landings by 52,784 lbs gw and increase total dockside revenue for the combined trips by $120,875 (2017 dollars). **Alternative 3** would increase landings from October through February by 68,747 lbs gw and dockside revenue by $157,430 (2017 dollars). **Alternative 4** would landings from October through February by 73,074 lbs gw and increase dockside revenue by $167,340 (2017 dollars). Those increases would generate additional economic benefits for fishing communities (**Table 4.1.2.1**).

Table 4.1.2.1. Estimates of jobs and additional economic impacts (2017 $) generated by alternatives.

Alternative	Dockside Revenue	Jobs	Income	Sales	Value-Added
1 (No Action)	$0	0	$0	$0	$0
2	$120,875	5	$134,000	$487,000	$202,000
3	$157,430	7	$174,000	$634,000	$263,000
4	$167,340	7	$185,000	$674,000	$280,000

Source: Estimate of dockside revenue from logbook landings (2013 – 2017), economic impact results calculated by NMFS SERO using the model developed for and applied in NMFS (2016).

According to Overstreet, Perruso, and Liese (2019), from 2014 through 2016, "trip net cash flow" from king mackerel trips was 57.9% of the gross revenue on those trips, while "trip net revenue" was 44.1% of the gross revenue from these trips. "Trip net cash flow" represents the additional flow of money to the vessel owner from taking a trip, while "trip net revenue" represents economic profit at the trip level and thus is the best measure of net economic benefits.

These positive economic effects may be mitigated if the ex-vessel and subsequent supply chain prices of king mackerel drop due to the increase in landings. Additionally, suppressed ex-vessel prices may have negative economic effects for commercial king mackerel participants operating in other areas such as the Atlantic Northern Zone or the Gulf of Mexico Region.

In terms of potential positive economic effects for fishery participants in the Southern Zone, **Alternative 4** would likely provide the most positive economic effects followed by **Alternative 3**, **Alternative 2**, and **Alternative 1 (No Action)**.

4.1.3 Social Effects

This action proposes to modify the commercial trip limits for Atlantic king mackerel due to problems expressed by some fishermen who are unable to make profitable trips due to the relatively low trip limits currently in place. **Alternative 1 (No Action)** would not revise the trip limit system for the Atlantic Southern Zone during Season 2 (October to the end of February), which would continue to cause low trip efficiency and result in negative direct and indirect social effects for fishermen in communities south of the Flagler/Volusia County, Florida boundary.

Alternative 2, **Alternative 3**, and **Alternative 4** propose a higher Season 2 trip limit for the EEZ south of the Flagler/Volusia County, Florida boundary, and would be expected to directly benefit fishermen operating in the EEZ by allowing for larger landings and thereby increasing trip efficiency. Fishery stakeholders, as well as the South Atlantic Fishery Management Council's Mackerel Cobia Advisory Panel (AP), have indicated that **Alternative 1 (No Action)** is preventing some fishermen from making profitable trips. Low trip limits that result in decreased earnings could have negative indirect effects on coastal communities such lower job opportunities for crew in addition to lowering the supply of king mackerel to fish houses in the area. However, some fish houses may set a "fish house limit" for vessels that the fish house regularly buys from, which could be lower than the proposed trip limits under **Alternative 2**, **Alternative 3**, and **Alternative 4**. Additionally, the higher trip limits proposed in **Alternative 2**, **Alternative 3**, and **Alternative 4**, may result in a lower market price for king mackerel and have

an overall negative effect on coastal communities. This will ultimately depend on how increased trip limits effect the amount of catch available and the capacity of the market.

In general, the potential social effects of a higher trip limit would depend on how fishermen are affected by either higher trip limits and shorter seasons, or lower trip limits and longer seasons. **Alternative 2**, **Alternative 3**, and **Alternative 4** would allow commercial fishermen in the EEZ south of the Flagler/Volusia County, Florida boundary access to higher trips limits than **Alternative 1 (No Action)**. The increased trip limits proposed are anticipated to result in direct social benefits to commercial fishing business in the form of increased trip efficiency and indirect social benefits to fishing communities in the form of increased job opportunities and fish available to the market. Since commercial king mackerel landings have not reached the quotas or annual catch limit (ACL) in recent years, it is unlikely that increasing the trip limit would result in an early closure and associated negative social benefits resulting from decreased fishing opportunity.

Additionally, **Alternative 2**, **Alternative 3**, and **Alternative 4** propose a higher potential increase in the trip limit come February 1st if less than 70% of the ACL has been caught. This step-up will help ensure that the full commercial king mackerel ACL has an opportunity to be caught and that all associated social benefits are realized.

4.1.4 Administrative Effects

Modifying the commercial trip limit for king mackerel through **Alternative 2 – Alternative 4** would not have direct impacts on the administrative environment, outside of the requisite public notices. However, in general, the higher the trip limit, the more likely the ACL is to be met and the more likely an AM would be triggered. However, given recent landings it is unlikely that increase the trip limit would result in the ACL being met, thus the administrative effects are likely going to be minimal and similar across the alternatives. All of the alternatives have step-downs in trip limits when certain percentages of the quota have been met. This step-down trip limit adds another layer of administrative burden associated with monitoring the quota and rulemaking. The administrative impacts associated with the alternatives would be associated with rulemaking, outreach, and enforcement.

Chapter 5. Council's Choice for the Preferred Alternative

5.1 Action: Modify the commercial trip limit for Atlantic king mackerel in the Atlantic Southern Zone:

5.1.1 Mackerel Cobia (MC) Advisory Panel (AP) Comments and Recommendations

To be completed.

5.1.2 Public Comments and Recommendations

To be completed.

5.1.3 South Atlantic Council's Choice for Preferred Alternative

To be completed.

Alternatives*
1. The commercial trip limits for Atlantic king mackerel: North of the Flagler/Volusia line (29º25'N): 3,500 pounds year-round. South of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N): *October 1 – January 31 (Season 2):* 50-fish *February 1 – end of February (Season 2):* 50-fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 75-fish. 2. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2: South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′N): *October 1 – January 31 (Season 2):* 75-fish *February 1 – end of February (Season 2)*: 75-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 100-fish. 3. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2: South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′N): *October 1 – January 31 (Season 2):* 100-fish *February 1 – end of February (Season 2)*: 100-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 150-fish. 4. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 1: South of the Flagler/Volusia line (29º25'N) to the Volusia/Brevard line (28°47.8′N): *October 1 – January 31 (Season 2):* 150-fish *February 1 – end of February (Season 2)*: 150-fish, unless NMFS determines less than 70% of the Season 2 quota has been landed, then, 175-fish. * Preferred indicated in bold. Refer to Chapter 2 for detailed language of alternatives.

Chapter 6. List of Interdisciplinary Plan Team (IPT) Members

Name	Agency/Division	Title
Christina Wiegand	SAFMC	IPT Lead/Fishery Social Scientist
Karla Gore	SERO/SF	IPT Lead/ Fishery Biologist
Brian Cheuvront	SAFMC	Deputy Executive Director for Management
John Hadley	SAFMC	Fishery Economist
Mike Errigo	SAFMC	Data Analyst
Denise Johnson	SERO	Fishery Economist
Jennifer Lee	SERO/PR	Fishery Biologist
Kate Siegfried	SEFSC	Fishery Biologist
Juan Agar	SEFSC	Fishery Economist
Kari Buck	SERO/SF	Fishery Social Scientist
Mike Larkin	SERO/LAPP	Biologist
Monica Smit-Brunello	NOAA GC	General Counsel
Rick DeVictor	SERO/SF	South Atlantic Branch Chief
Scott Sandorf	SERO	Technical Writer
Manny Antonaras	NOAA OLE	Law Enforcement

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 7. Agencies Consulted

Responsible Agencies

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

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

List of Agencies, Organizations, and Persons Consulted

SAFMC Mackerel Cobia Advisory Panel
SAFMC Scientific and Statistical Committee
North Carolina Coastal Zone Management Program
South Carolina Coastal Zone Management Program
Georgia Coastal Zone Management Program
Florida Coastal Zone Management Program
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources
South Carolina Department of Natural Resources
North Carolina Division of Marine Fisheries
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

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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, boat size, horsepower) used to harvest fish.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix B. 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, humpack, or North Atlantic right whales), Gulf sturgeon, or elkhorn and staghorn corals. NMFS also determined that CMP Fishery is not likely to adversely affect designated critical habitats for elkhorn and staghorn corals or loggerhead sea turtles, and will have no effect on designated critical habitat for North Atlantic right whale.

According to the 2015 Biological Opinion on 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 8 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 Amendment 6, in rulemaking, updates the Atlantic king mackerel commercial trip limits in the Atlantic Southern Zone during Season 1 (March 1st through September 30th) of the fishing year.

Appendix D. Trip Limit Analysis for Action 1

Framework Amendment 8 is currently being drafted and is considering increasing the king mackerel commercial trip limit for hook and line gear in the Atlantic Southern Zone (North Carolina/South Carolina line to the Miami-Dade/Monroe County, Florida boundary) in Season 2 (October 1st to the end of February). The current trip limit for the Atlantic Southern Zone in Season 2 is 50-fish with an increase to 75-fish on February 1st if 70% of the quota has not been met. The current trip limit was implemented on May 11, 2017 through Amendment 26 to the Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (CMP FMP).

Predicting Future Landings

The first step in evaluating the impact of a trip limit change is predicting future landings. Framework Amendment 8 is only considering changes to the trip limit in the Atlantic Southern Zone, south of Flagler/Volusia County boundary to the Miami-Dade/Monroe County boundary, Florida, so the analysis only addressed this area. Additionally, Framework Amendment 8 is only considering changes to the trip limit during Season 2 so landings will only be predicted for this time period. Updated quota monitoring king mackerel commercial landings were provided from the Southeast Fisheries Science Center (SEFSC) on August 9, 2019. Amendment 26 made changes to the trip limits on May 11, 2017 so only landings after this time were used to predict future landings. Predicted future landings came from the average monthly landings in the Atlantic Southern Zone for October 1st to the end of February for the 2017/2018 and 2018/2019 fishing years (**Figure D.1**).

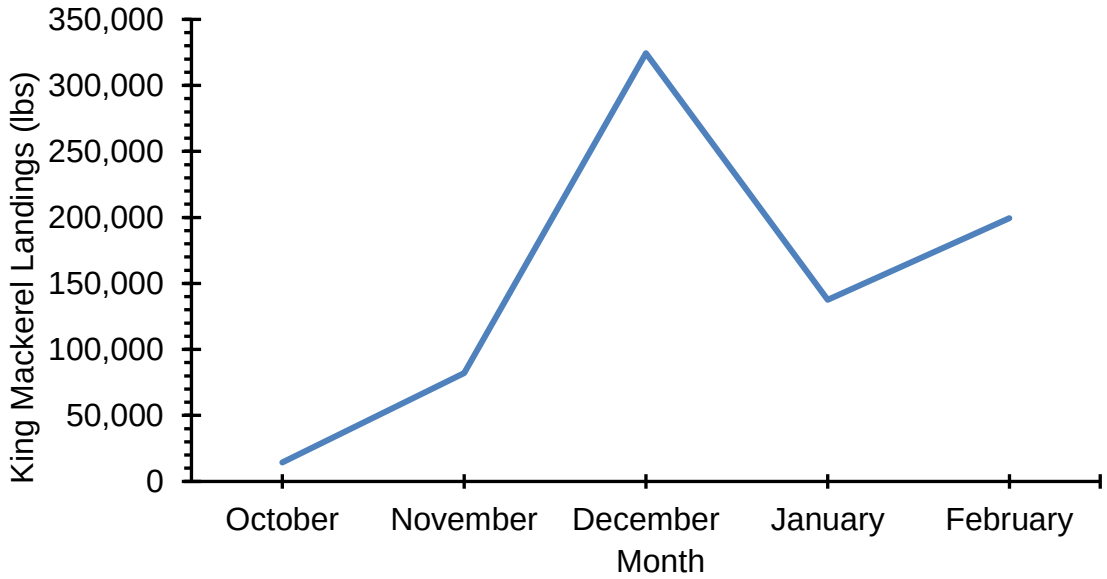

Figure D.1. Atlantic Southern Zone Season 2 king mackerel predicted commercial landings by month.

Analyzing the Change In Landings From Different Trip Limits

The current king mackerel trip limit is in numbers of fish, but the commercial quota is in pounds. King mackerel landings in pounds were converted to numbers by dividing the pounds with the average weight of king mackerel. Average weight of king mackerel was determined from the Trip Intercept Program (TIP) which is a survey of commercial fishermen that records the weight and length of all fish harvested on a commercial trip. TIP data was provided from the SEFSC on July 12, 2019. The TIP data was filtered to isolate Florida's east coast king mackerel data from Volusia County to Miami-Dade County since Framework Amendment 8 is proposing changing the trip limit only in this area. The TIP data was also filtered so only data after May of 2017 remained since the current trip limit was implemented through Amendment 26 in May 2017. The recent TIP data results in a Atlantic Southern Zone king mackerel average weight of 7.38 pounds whole weight (lbs ww), which was generated from a sample of 1,825 king mackerel.

Landings of king mackerel for each individual commercial trip come from the Coastal Logbook Program (Logbook). Logbook data were obtained from the SEFSC on May 7, 2019. Landings per trip were converted to numbers of fish by dividing with the average weight of 7.38 lbs ww. Logbook data from the Atlantic Southern Zone from October 1st to January 31st from 2017, 2018, and 2019 were used because this is the location and time period when Framework Amendment 8 is proposing to increase the trip limit from 50 to 75, 100, or 150 fish. Landings in numbers of fish for different trip limit bins were calculated for the Atlantic Southern Zone during Season 2 for king mackerel trips that harvested king mackerel with hook-and-line gear for 2017, 2018, and 2019 (**Figure D.2**).

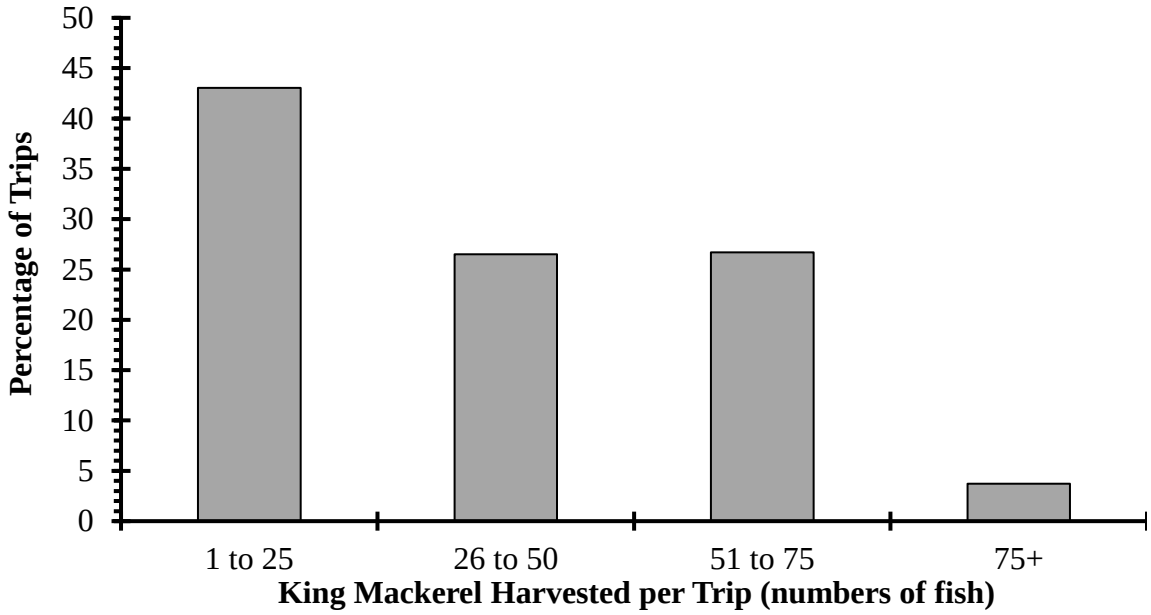

Figure D.2. Percent of Atlantic Southern Zone logbook-reported trips that commercially harvested king mackerel with hook-and-line gear for the October to January months in 2017, 2018, and 2019.

The impact of increasing the trip limit in the Atlantic Southern Zone from October 1st to January 31st from 50 to 75, 100, and 150-fish was analyzed with two different methods. The first

method, called the low method, assumes that the logbook trips that harvested 25 to 75 king mackerel will now catch the new proposed trip limits of 75, 100, or 150-fish. For example, assuming a trip limit increase to 100-fish would have all the trips that harvested 30-king mackerel increased in harvest up to 100-fish. The second method, called the high method, assumes every logbook trip that harvested between 1 and 75 king mackerel will now catch the new proposed trip limits. For example, assuming a trip limit increase to 100-fish would have all the trips that harvested 5-king mackerel increased in harvest up to 100-fish. The numbers of fish were then converted to pounds using the average weight. The increase in pounds landed generated from the two methods was done for October 1st to January 31st for the 2017/2018 and 2018/2019 fishing years. An average of the increase in pounds from the two different October 1st to January 31st fishing years (2017/2018 and 2018/2019) was calculated (**Table D.1**).

Table D.1. Atlantic Southern Zone Season 2 average increase in landings (in pounds whole weight) from the low and high methods for analyzing the proposed increase in the commercial king mackerel trip limit.

Method	Month			
	October	**November**	**December**	**January**
75 Fish Trip Limit				
Method 1 (Low)	6,695	31,985	118,420	44,322
Method 2 (High)	63,268	158,838	270,347	128,347
100 Fish Trip Limit				
Method 1 (Low)	11,215	61,690	239,083	86,941
Method 2 (High)	88,913	236,421	449,865	202,885
150 Fish Trip Limit				
Method 1 (Low)	20,255	121,099	480,409	172,180
Method 2 (High)	140,204	391,585	808,902	351,961

Note: The current trip limit is 50 fish and was assumed to have no additional increase in landings.

Will 70% Of the Season 2 Quota Be Met Before February 1st?

Framework Amendment 8 proposes increasing the trip limit from October 1st to January 31st from 50 to 75, 100, or 150-fish. If less than 70% of the Season 2 quota has been landed by February 1st then the trip limit will increase. If 70% or more of the Season 2 quota has been landed by February 1st then the trip limit will not increase. Using the predicted landings and impact of the increase in landings from the increase in the trip limit described earlier it was determined if 70% of the Season 2 quota was reached (**Table D.2**). The current Season 2 quota is 1,446,848 lbs as landed.

Table D.2. King mackerel Atlantic Southern Zone Season 2 predictions if 70% of the quota is reached by February 1.

Alternative	Trip Limit	70% of Season 2 Quota (1,012,794 lbs) Be Met Before February 1?
1	50 Fish	No
2	75 Fish Method 1 (Low)	No
	75 Fish Method 2 (High)	Yes (Jan-12)
3	100 Fish Method 1 (Low)	No
	100 Fish Method 2 (High)	Yes (Dec 24)
4	150 Fish Method 1 (Low)	Yes (Dec 30)
	150 Fish Method 2 (High)	Yes (Dec 11)

Note: Alternative 1 is the current trip limit and no increase in predicted landings are expected since there will not be a trip limit change under this alternative. Alternatives 2 through 4 used two different methods to account for the increase in trip limit. The quota is 1,446,848 lbs and 70% of it is 1,012,794 lbs.

Will the Season 2 Quota Be Met?

Framework Amendment 8 proposes increasing the trip limit from October 1st to January 31st from 50 to 75, 100, or 150-fish. Additionally, if less than 70% of the Season 2 quota has been landed by February 1st then the trip limit will increase. If 70% or more of the Season 2 quota has been landed by February 1st then the trip limit will not increase. Using the predicted landings and impact of the landings from the increase in the trip limit described earlier it was determined, first, if the trip limit was increased in February if landings are less than 70% of quota and second, if the Season 2 quota (1,446,848 lbs) is predicted to be met (**Table D.3**).

Table D.3. Prediction table for the king mackerel Atlantic Southern Zone Season 2 determining if 70% of the quota is reached by February 1, February trip limit, and if the entire quota was reached before February 28.

Alternative	Trip Limit	70% of Season 2 Quota Met before February 1?	February Trip Limit	Quota Met before February 28?
1	50 Fish	No	75	No
2	75 Fish Method 1 (Low)	No	100	No
	75 Fish Method 2 (High)	Yes (Jan-12)	75	22-Feb
3	100 Fish Method 1 (Low)	No	150	No
	100 Fish Method 2 (High)	Yes (Dec 24)	100	23-Jan
4	150 Fish Method 1 (Low)	Yes (Dec 30)	150	7-Feb
	150 Fish Method 2 (High)	Yes (Dec 11)	150	23-Dec

Note: Alternative 1 is the current trip limit. Alternatives 2 through 4 used two different methods to account for the increase in trip limit. The quota is 1,446,848 lbs and 70% of it is 1,012,794 lbs.

Under the low method assumption, only the increase to a trip limit of 150-fish will cause the quota to be met. However, under the high method, the results show all proposed alternatives would cause the quota to be met.

This analysis attempts to predict realistic changes to the landings from the various trip limit options presented in Framework Amendment 8. Uncertainty exists in these projections, as economic conditions, weather events, changes in catch-per-unit effort, fisher response to management regulations, and a variety of other factors may cause departures from this assumption. In addition to the aforementioned sources of uncertainty, the modeled reductions associated with management measures assume that past performance in the fishery is a good predictor of future dynamics. An attempt was made to constrain the range of data considered to recent years to reduce the unreliability of this assumption.

Appendix E. Atlantic King Mackerel Southern Zone Trip Limit Maps

Figure E.1. Alternative 1 (No Action): Current seasonal king mackerel commercial trip limits in the Atlantic Southern Zone.

Figure E.2. Alternative 2: Proposed seasonal king mackerel commercial trip limits in the Atlantic Southern Zone.

Figure E.3. Alternative 3: Proposed seasonal king mackerel commercial trip limits in the Atlantic Southern Zone.

Figure E.4. Alternative 4: Proposed seasonal king mackerel commercial trip limits in the Atlantic Southern Zone.

Appendix F. Regulatory Impact Review

Introduction

In compliance with E.O. 12866, NMFS requires the preparation of a Regulatory Impact Review (RIR) for all regulatory actions or for significant policy changes that are of public interest. E.O. 12866 was signed on September 30, 1993, and established guidelines for promulgating new regulations and reviewing existing regulations. The RIR is a required component of the process of preparing and reviewing FMPs or amendments and is intended to provide a review of the economic impacts associated with regulatory actions. The RIR serves as the basis for assessing whether or not any proposed regulation is a "significant regulatory action" under criteria specified by E.O. 12866.

The RIR must provide the following information: (1) A comprehensive review of the level and incidence of economic impacts associated with a proposed regulatory action or actions; (2) a review of the problems and policy objectives prompting the regulatory proposals; and (3) an evaluation of the major alternatives that could be used to meet these objectives. In addition, an RIR must ensure that the regulatory agency systematically and comprehensively consider all available alternatives such that the public welfare can be enhanced in the most efficient and cost effective manner.

Problems, Need for Action and Objectives

The purpose and need, issues, problems, and objectives of this action are presented in **Chapter 1** of this amendment and are incorporated herein by reference.

Description of the Fishery

This action concerns the coastal migratory pelagics fishery, which occurs in the South Atlantic and Gulf of Mexico. However, because this temporary action concerns only the commercial sector's harvest of South Atlantic king mackerel, the following description focuses exclusively on that.

The Atlantic migratory group of king mackerel (Atlantic king mackerel) is divided into a Northern Zone and a Southern Zone. The Northern Zone is an area that includes federal waters that extend from New York through North Carolina. The Southern Zone includes federal waters south of a line extending from the North Carolina/South Carolina border, as specified in §622.2, and north of a line extending due east of the Monroe/Miami-Dade County, FL, boundary. The following description assumes all Atlantic king mackerel landings in North Carolina are fish harvested from the Northern Zone, and all Atlantic king mackerel landings from South Carolina through Dade County, Florida, are fish harvested from the Southern Zone.

This action concerns fishing in the Southern Zone only, and therefore, the remainder of this discussion focuses exclusively on king mackerel harvested in that zone. Commercial landings in Florida make up approximately 99% of reported landings of and trips that land king mackerel in

the Southern Zone (**Table F.1** and **F.2**). From 2013 through 2017, average landings (lbs gw) of king mackerel per trip in Florida did not vary greatly, from 198 to 208; however, in South Carolina and Georgia, they increased from 74 lbs per trip in 2013 to 302 in 2017 (**Table F.3**).

Table F.1. Reported landings (lbs gw) of Atlantic king mackerel from Southern Zone by state, 2013 – 2017.

Year	FL	SC and GA	Total	Percent FL
2013	1,429,880	9,678	1,439,558	99.3%
2014	1,682,006	17,265	1,699,271	99.0%
2015	1,733,211	14,460	1,747,671	99.2%
2016	2,011,483	30,477	2,041,960	98.5%
2017	2,094,728	36,232	2,130,960	98.3%
Average	**1,790,262**	**21,622**	**1,811,884**	**98.9%**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

Table F.2. Number of trips that landed Atlantic king mackerel from Southern Zone reported by permitted vessels, 2013 – 2017.

Year	FL	SC and GA	Total	Percent FL
2013	6,907	131	7,038	98.1%
2014	8,364	97	8,461	98.9%
2015	8,769	111	8,880	98.8%
2016	9,684	106	9,790	98.9%
2017	10,088	120	10,208	98.8%
Average	**8,762**	**113**	**8,875**	**98.7%**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

Table F.3. Average reported landings (lbs gw) of king mackerel per trip in Southern Zone by state(s), 2013 – 2017.

Year	FL	SC and GA	Total
2013	207	74	205
2014	201	178	201
2015	198	130	197
2016	208	288	209
2017	208	302	209
Average	**204**	**194**	**204**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (May 2019).

The fishing year in the Southern Zone is divided into two seasons and each season has its own portion of the quota. Season 1 (March 1 – September 30) has 60 percent of the quota and Season 2 (October 1 through the end of February) has the remaining 40 percent. Any unused quota from Season 1 transfers during the fishing year to Season 2. There is no provision to allow the carryover of any unused quota at the end of the October through February season. When the quota for a season is reached or expected to be reached, commercial harvest of king mackerel in the zone is prohibited for the remainder of the season. Prior to Amendment 26, which became effective on May 11, 2017, the fishing year for king mackerel was from April 1 through March 31.

The Southern Zone is divided into three sub-zones: 1) from the NC/SC border to the Flagler County/Volusia County, FL, line; 2) between the Flagler/Volusia County, FL, and Volusia/Brevard County, FL, lines; and 3) between the Volusia/Brevard County, FL, and Dade/Monroe County, FL, lines. Each of the three sub-zones has its own trip limit.

The sub-zone from the NC/SC border to the Flagler County/Volusia County, FL, line has a 3,500-lb year-round trip limit (**Table F.4**).[3] The other two sub-zones have trip limits that vary from 50 fish to 75 fish, depending on the percentage of the quota reached by specific dates. Prior to Amendment 26, there were no commercial trip limits for king mackerel in federal waters between the Flagler/Volusia and Dade/Monroe lines from November 1 through March 31, and different trip limits in the sub-zone areas from April 1 through October31 (**Table F.5**).

Table F.4. Trip limits in Southern Zone since May 11, 2017.

Zone	Sub-Zone	March 1 – March 30	April 1 – End September	October 1 – End February
Southern: NC/SC border to Dade/Monroe line	**NC/SC border to Flagler/Volusia County line**	3,500 lbs	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard Lines	50 fish	75 fish until 75% or more of Season 1 quota reached, then 50 fish	50 fish except in February would be 75 fish if less than 70% of season 2 quota is reached
	Between Volusia/Brevard & Miami-Dade/Monroe Line	50 fish	75 fish until 75% or more of Season 1 quota reached, then 50	50 fish except in February would be 75 fish if less than 70% of season 2 quota is reached

CMP Framework 6, which is expected to be effective by October 2019, will revise some of the commercial trip limits for Season 1 (March 1 through September 30) in the southern zone (**Table F.6**). First, the trip limit in March would increase from 50 to 75 fish from Flagler/Volusia to Dade/Monroe lines. Second, the trip limit would increase to 3,500 lbs from April 1 through September in the waters off Volusia County.

[3] The Northern Zone also has a year-round trip limit of 3,500 lbs.

Table F.5. Trip limits in Southern Zone from January 1, 2013 through May 10, 2017.

Zone	Sub-Zone	April 1 – October 31	November 1 – March 31
Southern: NC/SC border to Dade/Monroe line	**NC/SC border to Flagler/Volusia County line**	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard Lines	3,500 lbs	No limit
	Between Volusia/Brevard & Miami-Dade/Monroe Line	75 fish	No limit

Table F.6. Trip limits in Southern Zone under CMP Framework 6.

Zone	Sub-Zone	March 1 – March 30	April 1 – End September	October 1 – End February
Southern: NC/SC border to Dade/Monroe line	**NC/SC border to Flagler/Volusia County line**	3,500 lbs	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard Lines	75 fish	3,500 lbs	50 fish except in February would be 75 fish if less than 70% of season 2 quota is reached
	Between Volusia/Brevard & Miami-Dade/Monroe Line	75 fish	75 fish until 75% or more of Season 1 quota reached, then 50	50 fish except in February would be 75 fish if less than 70% of season 2 quota is reached

During the 5-year period from 2013 through 2017, all trips from South Carolina through Flagler County, FL, landed less than 3,500 lbs of king mackerel. However, there were trips than landed over 3,500 lbs gw of king mackerel from Volusia through Monroe Counties, and all of those trips were in January and February when there was no trip limit.

This action would not change the trip limit in the first sub-zone (NC/SC border to Flagler/Volusia County, FL, line). It is assumed that all king mackerel harvested from that sub-zone are landed north of the Flagler/Volusia County line. Consequently, the remainder of this description focuses exclusively on reported landings of Atlantic king mackerel by permitted vessels in the 8 Florida Counties from Volusia through Dade. An annual average of 406 vessels land king mackerel in the 8-county area, for an average of approximately 20 trips annually per vessel with landings of the species.

The average weight of a commercially landed king mackerel is estimated to be 7.39 lbs ww and 7.10 lbs gw (SERO LAPPS). Consequently, a 50 fish limit translates to 355 lbs gw of king mackerel, a 75 fish limit to 533 lbs gw, and so forth.

From 2013 through 2017, an annual average of 19.5% of reported king mackerel trips landed over 355 lbs gw of the species (**Table F.7**). Landings from those trips combined to produce 47.5% of all king mackerel landings in the 8-county area (from Volusia through Dade). Average landings of king mackerel for those trips with over 355 lbs were 491 lbs gw. During that same 5-year period, an annual average of 4.7% of trips landed over 533 lbs gw of king mackerel and those trips averaged 679 lbs gw (**Table F.8**). Since October 1, 2017, the limit has been 50 fish (355 lbs gw) from October through January and then it is either 50 or 75 fish (355 or 533 lbs gw) in February depending on the percentage of the Season 2 quota landed. Despite the 50-fish limit, from October through December 2017 there were 422 trips that landed over 355 lbs gw of king mackerel, and 367 (87.0%) of them were in December.

Table F.7. Total reported king mackerel landings and trips, average king mackerel landings per trip, and landings and trips with over 355 lbs gw of king mackerel from Volusia through Dade County, FL, 2013-2017.

Year	Landings (lbs gw)	Trips	Average Landings per Trip	Landings from Trips over 355 lb gw	Trips over 355 lb gw	Percent Landings over 355 lb gw	Percent Trips over 355 lb gw	Average Landings per Trip for Trips over 355 lbs gw
2013	1,310,454	6,340	207	704,586	1,367	53.8%	21.6%	515
2014	1,532,663	7,821	196	716,059	1,392	46.7%	17.8%	514
2015	1,624,167	8,306	196	744,624	1,608	45.8%	19.4%	463
2016	1,871,104	9,090	206	932,511	1,885	49.8%	20.7%	495
2017	1,961,781	9,494	207	810,672	1,739	41.3%	18.3%	466
Average	**1,660,034**	**8,210**	**202**	**781,690**	**1,598**	**47.5%**	**19.5%**	**491**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table F.8. Combined landings (lbs gw) and trips with over 533 lbs gw of king mackerel from Volusia through Dade County, FL, 2013-2017.

Year	Landings from Trips over 533 lbs gw	Trips over 533 lbs gw	Percentage of Landings from Trips over 533 lbs gw	Percentage of Trips over 533 lbs gw	Average Landings per Trip for Trips over 533 lbs gw
2013	300,164	429	22.9%	6.8%	700
2014	317,476	458	20.7%	5.9%	693
2015	163,385	248	10.1%	3.0%	659
2016	337,613	501	18.0%	5.5%	674
2017	209,161	313	10.7%	3.3%	668
Average	**265,560**	**390**	**16.5%**	**4.7%**	**679**

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Monthly trips that land king mackerel from Volusia through Dade Counties tend to peak in May and bottom out in October during the calendar year (**Figure F.1**). March and December have the highest average number of trips that land over 355 lbs gw of the species (**Table F.9**).

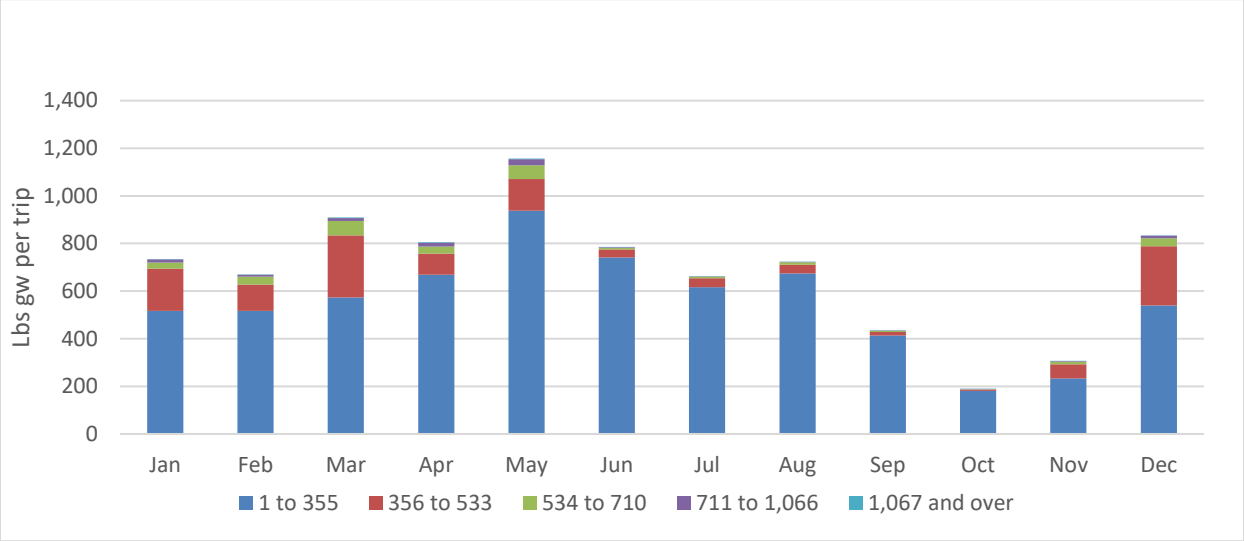

Figure F.1. Average number of reported monthly trips that landed king mackerel from Volusia through Dade Counties by lbs gw of king mackerel, 2013-2017.
Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table F.9. Average monthly number and percentage of reported trips by landings (lbs gw) of king mackerel from Volusia through Dade Counties, 2013-2017.

Month	1-355	356-533	Over 533	Total	Percentage 1 - 355	Percentage 355-533	Percentage Over 533
Jan	517	178	40	735	92.6%	5.9%	1.5%
Feb	517	111	43	671	92.1%	6.7%	1.1%
Mar	573	261	74	909	89.5%	9.4%	1.1%
Apr	669	88	49	806	92.9%	5.2%	1.9%
May	938	133	85	1,156	91.2%	6.9%	1.9%
Jun	741	34	10	785	98.2%	1.5%	0.3%
Jul	616	37	9	663	98.0%	1.8%	0.2%
Aug	674	37	12	723	98.1%	1.9%	0.0%
Sep	413	15	6	434	98.4%	1.6%	0.0%
Oct	181	6	3	189	97.9%	1.1%	1.0%
Nov	233	60	13	306	94.4%	4.9%	0.7%
Dec	540	248	45	833	92.0%	7.1%	1.0%

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

From 2013 through 2017, an average of 2,064 trips landed king mackerel in the eight Florida counties in January plus October through December. Approximately 71% of the trips landed no more than 355 lbs gw, and they averaged 161 lbs gw of king mackerel (**Table F.10** and **F.11**). None of the alternatives would have an impact on approximately 71% of trips during those months. During the four months, the average trip landed approximately 251 lbs gw of king mackerel; however, there 1.5% of the trips landed over 710 lbs gw of the species.

Table F.10. Average number and percentage of reported trips that landed king mackerel in January and from October through December by lbs gw of king mackerel, 2013 -2017.

1-355	356-533	534-710	711-1,066	Over 1,066	Total
1,471	492	69	27	4	2,064
71.3%	23.9%	3.4%	1.3%	0.2%	100.0%

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Table F.11. Average lbs gw per reported trip in January and from October through December by lbs gw of king mackerel, 2013 -2017.

1-355	356-533	534-710	711-1,066	Over 1,066	All
161	426	593	848	1,465	251

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Information about the economics of the coastal migratory pelagics fishery as a whole is found in the report, Economics of the U.S. South Atlantic and Gulf of Mexico King Mackerel and Spanish Mackerel Fisheries by Overstreet, Perruso and Liese (NMFS Technical Memo NMFS-SEFSC-736) and is incorporated by reference.

Effects of Management Measures

The trip limit is currently 50 fish (355 lbs gw) from October through January. Therefore, the average number of trips that landed over 355 lbs gw during those months in the past are now presumed to land 355 lbs gw. From that and logbook data summarized above, it is estimated that an average of 515,585 lbs gw of king mackerel are landed in the 8-county area in January and from October of a calendar year (**Table F.12**). The average trip with landings of the species currently lands lbs gw of king mackerel.

Table F.12. Baseline (Alternative 1) landings (lbs gw) and trips and average landings per trip by lbs gw of king mackerel in January and from October through December.

Alternative 1 (Baseline)	1-355	355[1]	Total
Trips	1,471	593	2,064
KM Landings (lbs gw)	237,065	210,515	447,580
Ave lbs/trip	161	355	217

1. All 593 trips that historically landed over 355 lbs gw assumed to land 355 lbs gw of king mackerel.

This temporary action would increase the trip limit to 75 fish (533 lbs gw) from October 2019 through January 2020, and increase landings for 593 trips **Table F.13**). Total landings

would increase by 52,784 lbs gw. Each of the 593 trips would benefit with an average additional 89 lbs gw of king mackerel.

Table F.13. Estimates of impacts on average landings (lbs gw) and trips and average landings per trip by lbs gw of king mackerel from October through January.

	1 - 355	356 - 533	533[1]	All
Trips	1,471	492	101	2,064
KM Landings (lbs gw)	237,065	209,466	53,833	500,364
Ave lbs/trip	161	426	533	242

1. All 101 trips that historically landed over 533 lbs gw assumed to land 533 lbs gw of king mackerel.

The RFA analysis for CMP 6 used an average 2016 dockside price of $2.24 per lb gw. That price is $2.29 in 2017 dollars, assuming a 2.1% rate of inflation. The temporary action would increase average dockside revenue of a trip for 593 trips by $203.81 and increase total dockside revenue for those trips combined by $120,875.

This action would also change the trip limit in February. The No-Action Alternative would keep the current February trip limit at 75 fish if less than 70% of the quota is reached and 50 fish if reached. This emergency action would have the February limit at 75 fish (533 lbs gw) regardless of the percentage of the quota reached. As shown in **Table F.14**, an annual average of 6.4% (43) of 671 trips in February landed more than 533 lbs gw of king mackerel from 2013 through 2017. However, those landings occurred before the 50/75 trip limit. This analysis presumes that those 43 average annual trips now land 533 lbs gw of king mackerel.

Table F.14. Baseline average landings (lbs gw) and trips and average landings per trip by lbs gw of king mackerel in February, 2013-2017.

Alternative 1 (Baseline)	1-355	356-533	Over 533	Total
Trips	517	111	43	671
KM Landings (lbs gw)	84,142	46,967	28,518	159,627
Ave lbs/trip	163	423	663	238

Source: SEFSC Socioeconomic Panel Data (Version 7) accessed by the SEFSC Online Economic Query System (July 2019).

Since implementation of the 50/75 fish trip limit in February, landings have not reached 70% of the quota, and essentially the limit has been 75 fish (533 lbs gw). Consequently, the action is expected to have no impact on February landings or dockside revenues.

Public and Private Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any federal action involves the expenditure of public and private resources, which can be expressed as costs associated with the regulations. Costs associated with this action include but are not limited to Council costs of document preparation, meeting, and other costs; NMFS administration costs of document preparation, meetings and review, and annual law enforcement costs. A preliminary estimate is up to $100,000 before annual law enforcement costs.

Determination of Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it is likely to result in: 1) an annual effect of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; 2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; 3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; or 4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this executive order. Based on the information provided above, these actions have been determined to not be economically significant for the purposes of E.O. 12866.

Appendix G. Regulatory Flexibility Analysis

To be completed.